



Initiative for Responsible
Mining Assurance

IRMA Standard

for

Responsible Exploration, Extraction,
and Processing of Minerals

→ **2nd DRAFT** ←

for public consultation

V2.0

July 2025

English Version

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Disclaimer and Context on this Draft

The 2nd DRAFT Version of the IRMA Standard for Responsible Exploration, Extraction, and Processing of Minerals V2.0 (hereafter referred to as the “2nd DRAFT”) is being released for public consultation, inviting the world to join once again in a conversation around expectations that drive value for greater environmental and social responsibility in mining and mineral processing.

The 2nd DRAFT does not represent content that has yet been formally endorsed by IRMA’s equally-governed multi-stakeholder Board of Directors. IRMA’s Board leaders seek the wisdom and guidance of all readers to inform this through an inclusive revision process one more time, to improve the Standard.

This draft document builds on the 1st DRAFT Version published in October 2023, and invites a global conversation to improve and update the 2018 IRMA Standard for Responsible Mining V1.0. This 2nd DRAFT is intended to provide as final of a look-and-feel as possible, although input from this consultation will result in final edits, and consolidation to reduce overall number of requirements (more on this on page 6), for a version that will be presented to IRMA’s equally-governed multi-stakeholder Board of Directors for adoption and implementation.

This 2nd DRAFT has been prepared and updated by the IRMA Secretariat based on:

- learnings from the implementation of the current IRMA Standard (V1.0)
- experience from the [first mines independently audited](#) (as of July 2025, 24 sites have completed audits or are in the process of being audited)
- evolving expectations for best practices in mining to reduce harm
- comments and recommendations received from stakeholders and Indigenous rights-holders
- the input of subject-specific Expert Working Groups convened by IRMA between 2022 and 2024
- all comments and contributions received during the public-comment period of the 1st DRAFT version (October 2023-March 2024)

Please note that Expert Working Groups were created to catalyze suggestions for solutions on issues we knew most needed attention in this update process. They were not tasked to come to consensus nor make formal recommendations. Their expertise has made this consultation document wiser and more focused, but work still lies ahead to resolve challenging issues. We encourage all readers to share perspectives to improve how the IRMA system can serve as a tool to promote greater environmental and social responsibility, and create value for improved practices, where exploration, extraction, and processing of minerals happens.

IRMA is dedicated to a participatory process including public consultation with a wide range of affected people globally and seeks feedback, comments, questions, and recommendations for improvement of this Standard. IRMA believes that diverse participation and input is a crucial and determining factor in the effectiveness of a Standard that is used to improve environmental and social performance in a sector. To this end, every submission received will be reviewed and considered.

This current 2nd DRAFT is based on content already in practice in the IRMA Standard for Responsible Mining V1.0 (2018) for mines in production, and its accompanying normative Guidance document and Supplementary Guidance, combined with the content drafted in the IRMA Standard for Responsible Mineral Development and Exploration (‘IRMA-Ready’ Standard – Draft v1.0 December 2021) and in the IRMA Standard for Responsible Minerals Processing (Draft v1.0 June 2021), and offers an updated version of the 1st DRAFT Version of the IRMA Standard V2.0 that received over 2,500 unique points of comments between 2023 and 2024.

Please note: The IRMA Standard V2.0 is new in its approach in that it now covers more phases of the mining and mineral supply chain, from exploration and development, through mining, closure, and mineral processing. IRMA also, separately, oversees a [Chain of Custody Standard](#) for tracking materials through the supply chain from mine-to-market end use products.

Disclaimer on Language and Corrections

For this public consultation, only an English version is available. A Glossary of Terms used in this Standard is provided at the end of the document. IRMA reserves the right to publish corrigenda on its web page, and readers of this document should consult the corresponding web page for corrections or clarifications.

Objectives of this 2nd public consultation

Following the release of a 1st DRAFT of the IRMA Standard V2.0 in October 2023 for a 90-day public consultation, the IRMA Secretariat received more than 2,500 points of comments from 82 organizations, then organized additional engagement with stakeholders and Indigenous rights-holders, and solicited complementary guidance from multiple topic-specific Expert Working Groups.

We **anticipated** release of this 2nd DRAFT for a second round of public consultation as early as Q3 2024, then subsequently **announced** that more time was needed to support engagement of diverse stakeholders; the revised release date was July 2025. We provided more detailed explanation for the extended process [here](#) and [here](#).

IRMA Mining Standard: a journey



The release of this 2nd DRAFT marks a significant milestone on the road to the revision of the IRMA Standard: this public consultation will be the last of this revision cycle on V2.0.

Informed by the outcomes of this public consultation, along with guidance from Expert Advisors and IRMA Working Groups (see more below), and additional engagement with Indigenous rights-holders and stakeholders as requested, the IRMA Secretariat will prepare a final version. This final version will be discussed by the IRMA Board and refined to reach consensus for adoption by all six governing houses of IRMA: Affected Communities including Indigenous Rightsholders; Environmental and Social NGOs; Organized Labor; Finance and Investment Professionals; Mining Companies; Purchasers of Mined Materials.

In IRMA's strategic decision-making, Board members work to achieve consensus. IRMA believes a majority vote is not a model of equal governance. Instead, any motion that results in both of the two representatives from the same governing house voting "no" must go back to the full group for further discussion. In other words, a proposed course of action cannot proceed if both representatives from one of our six governing houses are opposed. Board members will keep talking until a resolution that works for all groups is found. It is a model that has worked for IRMA for nearly two decades and is fundamental to IRMA's credibility, accountability and service to all six houses of governance.

What is IRMA seeking guidance on?

Comments, feedback, and suggestions are welcome on any aspect of this 2nd DRAFT version (including intent and text of the requirements, endnotes, annexes, format and structure, design, readability, etc.).

IRMA is particularly interested in hearing the views of rights-holders and stakeholders on **the provisions in the Standard that are substantially new compared to the IRMA Standard for Responsible Mining V1.0**. These provisions (requirements or at a sub-requirement level) are highlighted in yellow throughout this Draft, to ensure they are easily identifiable.

We ask readers to assist us in weighing these potential new provisions, and also hold awareness that, prior to adoption of the final version, many of these will be consolidated and reduced in overall number.

Although these new requirements have each been drafted in response to lessons learned, the current state of best practices, emerging expectations, and/or in response to requests and suggestions made during the previous public consultation, collectively they represent substantive increased expectations for both implementing entities and audit firms. The IRMA Board of Directors seeks to ensure that the IRMA Standard, while recognized the world's most rigorous and comprehensive mining standard, continue to welcome and support uptake of newcomer companies engaging from the mineral supply chain around the world.

Thus, in this consultation, we seek guidance from all on **the new provisions that seem most urgent** to be integrated in the final version of the Standard V2.0, so that the revised Standard's expectations are paced at a realistic level to support engagement of mineral operations of a range of sizes, materials and global contexts.

It is important to note that all new requirements and sub-requirements, including those not retained in the final V2.0, will serve as the basis for the ongoing review process once the V2.0 is approved and released by our Board, and will provide fodder for future revisions, when it is decided that a V2.1 or V3.0 is needed.

IRMA Expert Advisors and Expert Working Group

IRMA EXPERT ADVISORS FOR 2025

Certain challenging issues and concerns that were raised during the development of this 2nd DRAFT have not yet been resolved. IRMA welcomes the contribution of individual **Expert Advisors** to share their perspective and suggestions on the following topics:

- **Conflict-Affected and High-Risk Area Due Diligence**
- **Upstream and Downstream Sustainability Due Diligence**
- **Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)**
- **Climate Action**
- **Applicability of the Standard to Mineral Exploration and Development**
- **Applicability of the Standard to Mineral Processing Projects and Operations**

The Terms of Reference applicable to these Expert Advisors, including instructions on how to apply, are available at (click on this link): [ToR for Expert Advisors 2025](#).

If you are interested in participating in joining the 2025 pools of **IRMA Expert Advisors** on one or more of these topics, please contact IRMA's Standards Director, as explained in the Terms of Reference.

EXPERT WORKING GROUP ON TAILINGS AND MINE WASTE STORAGE MANAGEMENT

Additionally, and acknowledging that several issues and challenges related to the management of tailings storage and other mine waste facilities could not be resolved during the development of this 2nd DRAFT, IRMA proposes to discuss and explore potential approaches within an **IRMA Expert Working Group** dedicated to **Tailings Storage and Mine Waste Facility Management**.

The Terms of Reference applicable to this Expert Working Group, including instructions on how to apply, are available at (click on this link): [ToR for Expert Working Group 2025](#).

If you are interested in participating in the **IRMA Expert Working Group on Tailings and Mine Waste Storage Management**, please contact IRMA's Standards Director, as explained in the Terms of Reference.

Preamble

Industrialized societies rely on mined materials to function. From household electronics to vehicles, from batteries to renewable energy systems, or from defense equipment to health facilities, products that are used daily come from material mined from the Earth. Mining provides investment and financial opportunities for producing countries, and important employment and income for local communities. However, the exploration, extraction, and processing associated with mined materials also can negatively impact human rights and the environment on which people depend.

The Initiative for Responsible Mining Assurance (IRMA) envisions a world where the mining industry respects the human rights and aspirations of affected communities; provides safe, healthy, and supportive workplaces; minimizes harm to the environment; and leaves positive legacies.

The 2nd DRAFT provides an internationally recognized shared definition of what constitutes best practices in social and environmental responsibility for mineral exploration, extraction, and processing. The Standard serves as the basis for a comprehensive system that is intended to create transparency into mining's impacts, and value to improve practices across supply chains through independent verification and demonstrated progress.

The IRMA Standard V2.0 has a broader scope than the IRMA Standard for Responsible Mining V1.0 (2018) which only covered operating mines. The IRMA Standard V2.0 encompasses the following:

- **Exploration** of minerals: mineral exploration and development, prior to the operational phase of a mine.
- **Extraction** of minerals: mining and related activities, such as construction of infrastructure or beneficiation that occur on the mine site, and includes requirements that pertain to different phases of the mining life cycle through post-closure activities.
- **Processing** of minerals: mineral processing operations either 'co-located' at the mine site or at 'stand-alone' facilities beyond the mine gate; such as smelters, refineries and other operations involved in the processing, separation and purification of minerals and metals derived from ores and concentrates.

Detailed definitions for these phases (and their sub-phases) are given in the section 'Application for all Phases of Mineral Development' below (pp11-13).

The IRMA Standard seeks to define best practices. In the context of the 2nd DRAFT, this has been interpreted to mean that the Standard should consist of a set of auditable and assessable requirements that reflects agreement of the multi-stakeholder IRMA process on the most effective way to achieve the agreed social and environmental objectives of each Chapter of the IRMA Standard, given the current state of knowledge.

The IRMA Standard is intended to specify levels of performance such that a mineral exploration or mine development project, a mine, or a mineral processing project or operation, that is operating according to best practice could reasonably be expected to conform with the specified requirements of every Chapter, and sites that are still developing best practices can be measured according to their current status and monitor progress over time.

We're aware that mine sites in the IRMA system already have demonstrated the ability to achieve scores of 90% and higher in nearly every chapter, so we're aware that the Standard V1.0 has set an achievable performance level. However, to date, few mines score high on all chapters as laws have not required this level of performance, and markets haven't yet differentiated value for those who perform at this level. This is a key part of IRMA's theory of change – we are creating opportunity, support and value for the mineral supply chain to reduce harm and improve to the best practice level.

IRMA and the role of Governments

No voluntary standard is substitute for robust legal frameworks – laws and government implementation – needed for responsible mineral supply chains. IRMA strives to support and complement the essential role of governments as they establish, improve, and enforce legal frameworks that all operators must follow. In respect for the importance of the role of law and government, the first Chapter in the IRMA Standard requires compliance with domestic legal frameworks and builds on this with requirements that then go beyond domestic legal frameworks. If meeting an IRMA requirement would cause a breach of an applicable law or regulation, then the Entity would not be expected to break the law to meet IRMA. Rather, it would need to show how it tried to meet the intent of the IRMA requirement to the extent feasible without violating the law.

The IRMA Standard is based on deep engagement across Indigenous rights-holders and stakeholders, across jurisdictions. IRMA has made proactive efforts to maximize opportunities and remove barriers to input from low- and middle-income countries, and for small-to-medium sized companies, including those operating in challenging economic and political contexts. IRMA regularly engages with governments and welcomes their feedback and suggestions on this DRAFT, as well as their requests for support in the form of topic-specific trainings by subject matter experts in the IRMA Secretariat.

More information on [How IRMA Benefits Governments and Policymakers can be found on our website.](#)

How the IRMA Standard may be used

Stakeholders may use the IRMA Standard in the following ways:

- **Mineral Exploration, Mining, and Mineral Processing companies** can demonstrate through third-party assessments that they are improving practices over time, and differentiate their efforts to protect social and environmental values. This offers these companies improved relationships with the communities in which they are based and Indigenous rights-holders with historic relationship to the lands, improved wellbeing of workers, opportunity for preferred customer relationships, improved access to finance and insurance, improved relationships with governments and more.
- **Downstream Purchasers (those who buy mined materials for use into products down the supply chain all the way to the end consumer)** can get insight into the practices of their mineral suppliers and ask their mid-tier suppliers to give preference to minerals that come from operations that have been independently assessed and are performing at higher levels of responsible practices. This provides purchasers with confidence they are using their due diligence to understand and reduce harm in their supply chain, leverage their responsible sourcing to value improved practices, and meet their own company commitments to environmental and social responsibility.
- **Indigenous rights-holders, communities, labor unions, civil society organizations, and NGOs** can hold companies at all points in the mineral supply chain accountable and ask for third-party assurance and transparent reporting to build increased trust between the mining/processing operation and the communities in which they operate, and serve as a basis for setting shared priorities and informing constructive dialogue for improved practices. Indigenous Peoples may ask for IRMA audits as one tool in negotiating conditions under which they could give their free, prior, and informed consent, and in monitoring ongoing commitments and agreements.
- **Financial institutions and Investors** can use the IRMA Standard to assess practices at the asset level, improve lending policies, or signal an intent or interest to invest in more responsible mining companies. This triggers a positive feedback loop to encourage more responsible practices from the start of an operation and throughout all phases of development through responsible closure and reclamation.
- **Governments** can use conformance with IRMA Standards as a key metric in national mining indicator, and can draw upon the IRMA Standard and its requirements to improve their expectations for the mining sector and use it as a blueprint for improved regulation. As governments seek to realize benefits of mining and mineral processing – through jobs, infrastructure and revenue streams – while protecting fundamental rights and the environment, they can become known for being hubs of responsible mining and mineral processing.
- **Insurance companies** can leverage the IRMA Standard to assess environmental and social risks associated with exploration, mining, and mineral processing projects and operations, and integrate them into their underwriting processes, to enhance risk management. This triggers a positive feedback loop to encourage more responsible practices from the start of an operation and throughout all phases of development through responsible closure and reclamation.

What is most exciting is how this range of diverse perspectives, interests and rights-holders can work together to drive positive change. We are at a dynamic moment, with an opportunity for end brands who sell products many sectors and people use every day to ask for the same thing of their raw material suppliers that is being asked by local communities who live closest to mineral extraction and processing. The same potential for positive leverage and collaboration is there for the finance sector, governments, insurance companies and others with influence in the mining and mineral processing sector. Reducing harm, reducing conflict, reducing the need for litigation, protests and strikes is good for all – and we have opportunity to increase value for this to be a reality, in a future that embodies best practices.

Principles and Objectives



Principle 1 — Business Integrity

INTENT: Entities conduct business in a transparent manner that complies with applicable country of operation's laws and international laws, respects human rights and builds trust and credibility with workers, communities and stakeholders.

- **Chapter 1.1 — Legal Compliance and Contractor Oversight:** To monitor and maintain compliance with the laws and regulations applicable to the site and its associated facilities, and to hold contractors to the same legal and performance standards.
- **Chapter 1.2 — Community and Stakeholder Engagement:** To support collaborative and inclusive decision-making processes by enabling community members, individual and collective rights-holders, and other stakeholders to participate in decisions that affect their health, wellbeing, safety, livelihoods, futures, and the environment.
- **Chapter 1.3 — Human Rights Due Diligence:** To respect human rights, and identify, prevent, mitigate and remedy infringements of human rights.
- **Chapter 1.4 — Upstream and Downstream Sustainability Due Diligence:** To ensure all indirect and direct business partners respect human rights and prevent environmental and social risks and impacts along the ENTITY's chain of activities.
- **Chapter 1.5 — Conflict-Affected and High-Risk Area Due Diligence:** To ensure that a heightened human rights due diligence is implemented in order to avoid contributing to conflict when operating in, transporting materials through, or sourcing minerals or metals from, conflict-affected or high-risk areas.
- **Chapter 1.6 — Grievance Mechanism, Whistleblowers, and Access to Remedy:** To provide credible, effective, and accessible means for affected communities, individuals, and other stakeholders to raise and resolve grievances or concerns arising, while not limiting their ability to seek remedy through other mechanisms.
- **Chapter 1.7 — Anti-Corruption and Financial Transparency:** To combat corruption, to increase financial transparency, and to provide communities and the general public with the information they need to understand and assess the fairness and ethical nature of an entity's financial activities and arrangements.



Principle 2 — Planning and Managing for Positive Legacies

INTENT: Entities engage with stakeholders from the early planning stages and throughout the mineral development life cycle to ensure that projects are planned and operations are managed to deliver positive economic, social and environmental legacies for communities, workers, and businesses, as well as ecosystems and the environment.

- **Chapter 2.1 — Socio-Environmental Baseline and Ongoing Impact Assessment:** To proactively anticipate and assess potential adverse social and environmental impacts and manage them in accordance with the mitigation hierarchy; identify strategies for maximizing positive impacts; and continue to assess, monitor and adapt environmental and social management strategies in a manner that protects and benefits affected communities, workers and the environment throughout the entire mineral development life cycle.
- **Chapter 2.2 — Indigenous Peoples and Free, Prior, and Informed Consent (FPIC):** To demonstrate respect for the dignity, aspirations, cultures, livelihoods, and rights (including the right to free, prior and informed consent) of Indigenous Peoples.

- **Chapter 2.3 — Gender Equity, and Sexual and Gender-Based Violence:** To strive for gender equity, through gender mainstreaming, and to combat sexual- and gender-based violence in the workplace and communities where mining and mineral processing takes place.
- **Chapter 2.4 — Obtaining Community Support and Delivering Benefits:** To understand, measure, and take actions to increase support from affected communities; and produce tangible and equitable benefits to communities that are in alignment with their needs and aspirations and sustainable over the long term.
- **Chapter 2.5 — Land Acquisition, Displacement, and Resettlement:** To understand past and potential land acquisition and displacement, avoid displacement and resettlement if that is the most protective option for people, and, when avoidance is not the best option, equitably compensate affected people and ensure that the livelihoods and standards of living of displaced people are improved and sustainable over the long term.
- **Chapter 2.6 — Emergency Preparedness and Response:** To work with workers, communities and other stakeholders to plan for and be prepared to respond effectively to industrial emergency situations that may affect off-site resources or communities, and to minimize the likelihood of accidents, loss of life, injuries, and damage to property, environment, health and social well-being.
- **Chapter 2.7 — Concurrent Reclamation, Closure, and Post-Closure:** To protect long-term environmental and social values, throughout the life of operations, and ensure that the costs of site reclamation and closure are not borne by affected communities or the wider public.



Principle 3 — Social Responsibility

INTENT: Entities engage with workers, stakeholders and rights-holders to maintain or enhance the health, safety, cultural values, quality of life and livelihoods of workers and communities.

- **Chapter 3.1 — Fair Labor and Terms of Work:** To maintain or enhance the social and economic wellbeing of workers and respect internationally recognized workers' rights.
- **Chapter 3.2 — Occupational Safety, Health and Wellbeing:** To identify and avoid or mitigate occupational safety and health hazards, maintain working environments that protect workers' health and working capacity, and promote workplace safety, health and wellbeing.
- **Chapter 3.3 — Community Health and Safety:** To protect and improve the health and safety of individuals, families, and communities affected throughout the mineral development life cycle.
- **Chapter 3.4 — Security Forces:** To manage private and public security forces in a manner that protects workers, communities, operations, assets, and products without infringing on human rights.
- **Chapter 3.5 — Artisanal and Small-Scale Mining (ASM):** To avoid conflict and, where possible within the scope of country of operation law, foster positive relationships between entities managing large-scale mining and mineral processing operations and artisanal and small-scale mining (ASM) entities, and support the development of ASM that provides positive livelihood opportunities and is protective of human rights, health, safety, and the environment.
- **Chapter 3.6 — Cultural Heritage:** To protect and respect the cultural heritage of communities and Indigenous Peoples.
- **Chapter 3.7 — Noise and Vibration:** To preserve the health and wellbeing of nearby noise receptors and the amenity of properties and community values, and to protect offsite structures and cultural sites from vibration impacts.



Principle 4 — Environmental Responsibility

INTENT: Entities engage with stakeholders to ensure that mineral development is planned and carried out in a manner that maintains or enhances environmental values, and avoids or minimizes impacts to the environment and communities.

- **Chapter 4.1 — Waste and Materials Management:** To transport, handle, store, treat and dispose of materials and wastes in a manner that protects worker and community health and safety, and the environment.
- **Chapter 4.2 — Tailings and Mine Waste Storage Management:** To manage the storage of tailings and waste from mining and mineral processing operations, including tailings storage facilities (TSFs) in a manner that minimizes their short- and long-term physical risks, and prevents harm to workers as well as to the human rights, health and safety of communities, and future land and water uses.
- **Chapter 4.3 — Water Management:** To manage water resources in a manner that strives to protect current and future uses of water.
- **Chapter 4.4 — Biodiversity, Ecosystem Services, and Protected and Conserved Areas:** To protect biodiversity, maintain viable and safe ecosystems services, and respect the values being safeguarded in protected and conserved areas.
- **Chapter 4.5 — Air Quality and Dust Management:** To protect human health and the environment from airborne contaminants and dust.
- **Chapter 4.6 — Climate Action:** To minimize contribution to climate change impacts through increased energy efficiency, reduced energy consumption, and reduced emissions of greenhouse gases from direct and indirect sources, in a manner that aligns with the Paris Agreement.

Applicability to all Phases of Mineral Development and Mineral Processing

One substantial change from the 2018 IRMA Standard V1.0 to the IRMA Standard V2.0 is that the requirements are meant to apply at any phase of the mineral development life cycle (i.e., exploration, project development, permitting, mining operations, reclamation, closure, and post-closure) as well as of mineral processing (i.e., mineral processing project's development and permitting, processing operations, reclamation, closure, and post-closure). The IRMA Standard V2.0 recognizes that different aspects of some requirements will be assessed at different phases of these life cycles (for example, while requirements related to the planning of mine closure may be assessed even during the construction phase, effective implementation of those requirements cannot be assessed until closure is under way or completed).

Across the chapters, and for each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting (<i>both for mining and processing projects</i>)
M	Operating Mine
P	Operating Mineral Processor

The IRMA Standard V2.0 uses the following definitions for these different phases:

Exploration

A process or range of activities undertaken to find commercially viable concentrations of minerals to mine and to define the available mineral reserve and resource. May occur concurrent with, and on or adjacent to, the same site as existing mining operations.

Exploration Stage 1: Office compilation, photo-geologic study, pre-contact and exploration investigations (e.g., review of existing information, previous studies, research, and screening evaluations). The strict assumption in all cases is that there are no on-the-ground or in-the-air activities or activities that presume future exploration, such as contact with affected communities or applying for permits during the desktop stage of exploration.

Exploration Stage 2: Preparatory activities, consultations with affected communities, exploration project specific free, prior and informed consent (FPIC) determination, initial non-invasive site visits. The assumption in all cases is that these activities are conducted prior to other Stage 2 activities including any aerial examinations, geologic examinations, mapping and investigations, geochemical sampling, geophysics-airborne/ground, non-mechanized surface trenching.

Exploration Stage 3: Continued consultations with affected communities, exploration project specific FPIC determination, road construction, mechanized surface trenching, rotary drilling, core drilling, underground work, other surface work (e.g., surface facilities to support underground work), bulk sampling, on-site pilot processing plant. If additional exploration or in-fill drilling is performed during mine development or the operations stages, then the requirements of Stage #3 are applicable to those activities.

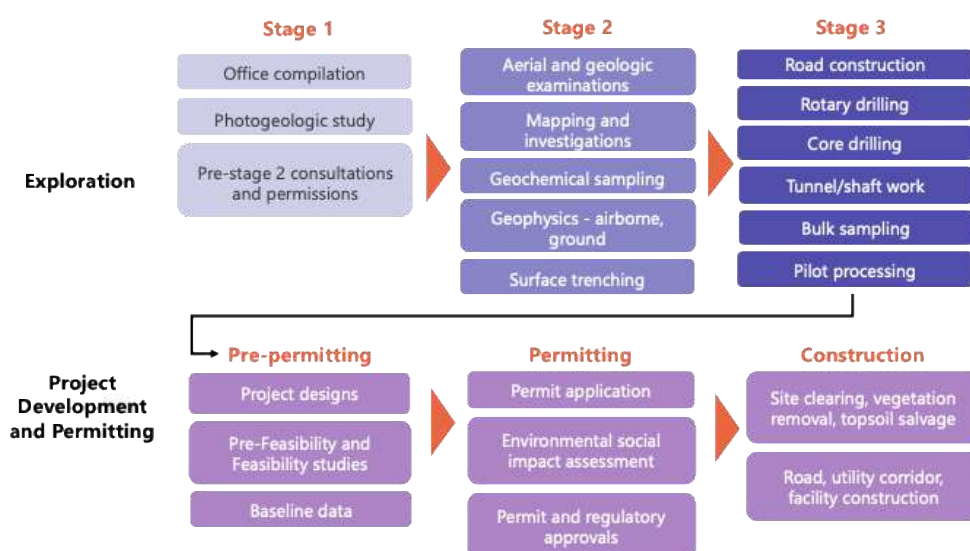
Project Development

Baseline environmental data collection, stakeholder engagement related to proposals for mining or mineral processing projects, proposed operations level FPIC determination, project designs, pre-feasibility, and feasibility study.

Project Permitting

Permit application and environmental social impact assessment, permit finalization; both for mining and mineral processing projects.

Exploration and Development Phases



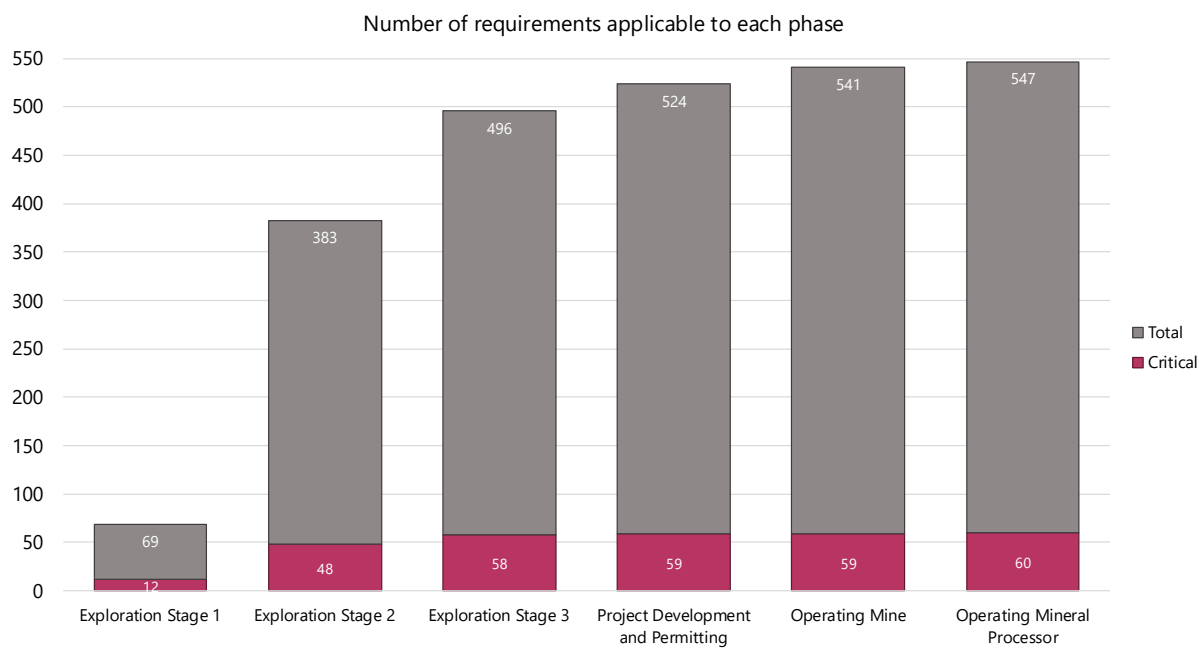
Operating Mine

A site where mining activities take place, i.e. activities being undertaken for the purpose of extracting mineral resources, including the running and management of facilities and infrastructure required to support the activities, and the ongoing legal, environmental, social and governance activities necessary to maintain the business endeavor. Includes extraction of minerals in solid (e.g., rock or ore) and liquid (e.g., brine or solution) forms.

Operating Mineral Processor

A site where mineral processing activities take place, i.e. activities being undertaken for the purpose of processing mineral resources, through separating valuable and non-valuable minerals and converting the former into an intermediate or final form required by downstream users. In the context of this Standard, this includes all forms of physical, chemical, biological, and other processes used in the separation and purification of the minerals.

In this 2nd DRAFT, the proposed distribution of requirements per phase is shown in the bar chart below:



Addressing Unique Needs of Small and Medium-Sized Operators, and Economic Challenges

IRMA is paying particular attention to issues related to small-to-medium-sized enterprises (SMEs) that operate industrial mines or processing sites. IRMA leaders understand that smaller companies may have less experience or resources to support planning, monitoring, reporting and other formal processes than larger companies. IRMA wants to ensure its Standard is accessible to all companies wanting to demonstrate their commitment to greater social and environmental performance, and as a result, IRMA is evaluating potential barriers to smaller operators and is evaluating opportunities to reduce barriers while still maintaining a Standard that is protective of social and environmental values. Strategies being considered include longer timelines allowed to accomplish some tasks, adjusted fees for participation in IRMA, and technical and financial resources to support capacity building and training opportunities for smaller companies, especially those producing low-value commodities. Companies with concerns about perceived barriers, and those with suggestions to reduce barriers to engagement, are encouraged to contact the IRMA Secretariat as we continue to explore ways to support all companies to find value to engage and demonstrate improved practices.

Continuous Improvement and IRMA Achievement Levels

The IRMA Standard aims to define, recognize and incentivize best practices for environmental and social responsibility in mining and mineral processing. IRMA recognizes that this is a high standard that has not been fully described in regulatory frameworks in many countries. IRMA also recognizes that many mining and mineral processing companies may not have seen enough market value or market differentiation for going beyond a base level of performance often defined by 'legal compliance'. Consequently, IRMA has developed an approach that allows for a richer sense of performance than simply "pass/fail", and furthermore allows for in-depth understanding of performance in each chapter of the IRMA Standard, while providing a meaningful compass for continuous improvement.

Continuous improvement is indeed the foundation of the IRMA system. The journey to achieve operational excellence, prevent all forms of harm, and improve environmental and social responsibility, may take time, especially for sites that have been operating for decades or more. Projects and operations **at any point in this journey** may engage, use an IRMA assessment as an independent way to evaluate current performance, offer context on areas of challenge, make commitments to improve practices, and measure those improvements over time.

IRMA has also set a series of Achievement Levels that can be reached when sites undergo independent, third-party assessment by an accredited audit firm.

In describing these Achievement Levels, please note that in this DRAFT V2.0, **IRMA no longer uses the word 'certification'**. Impacts of mining and mineral processing can be significant and persistent for decades or even centuries. Society's mineral demands will continue to rely on many existing mines constructed decades ago without current expectations for best practice designs. In some cases, it will be a better social and environmental option to improve practices at existing mines rather than just incentivize new mines to be built in places not yet impacted by industrial scale extraction. It is counter-productive to either place a bar for "certified responsible" practices down to status-quo-harm, or up to a level that most operators cannot achieve in the near term. Rather, IRMA Standard continues to describe currently-achievable best practices across a broad range of 27 chapters and offers an opportunity to score a site's current performance, and **demonstrate improvement over time**.

Details are important for understanding performance and differentiating good practices from harm. Each of the Chapters in the IRMA Standard is scored individually. Each of the requirements in the chapters is also scored. Even at the individual requirement level, recognition is given for current effort and there is encouragement for improvement as scores are based on whether each requirement is fully met, substantially met, partially met or not met. Publicly released audit reports include this level of detail, at the requirement and chapter level, and support all stakeholder opportunities to engage in creating dynamics that drive improvement.

The graphic below shows the ladder of **currently** recognized achievement levels in IRMA, for operational mines. These levels are calculated by taking the scores a site achieves in each of the Chapters in the IRMA Standard and then averaging the chapters in each of the four Principles described above. When all the four average Principle-level scores meet or exceed 50, and a set of critical requirements are met (more on this below), an Entity may describe their performance as IRMA 50. This means that a score of 100 in social chapters but a 0 in environmental chapters is not IRMA 50, as the scores in all four principles must be at least 50. The same logic is followed for IRMA 75.

By offering detailed assessment results in publicly shared audit reports that describe performance against all IRMA requirements people with differing perspectives can use the transparency there to seek different types of improvements and create value for leading practices. For example, a customer of a mining operation with their own corporate commitments to protect human rights and biodiversity can look at scores in those specific chapters and seek improvements on a focused set of issues. Similarly, an affected community, workers, or Indigenous rights-holders can find the issues of greatest concern to them – e.g., protection of safety, cultural heritage or emergency response – and engage in a more informed, trusted and transparent dialogue with the company (and the country of operation's authorities if relevant) on changes they seek.

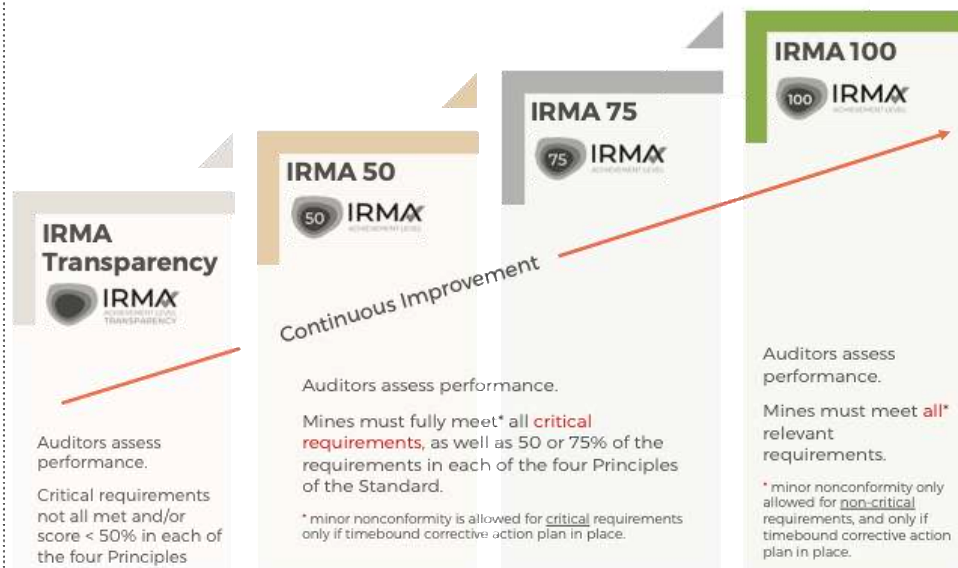
Not an
Achievement
Level

Self- Assessment

Mines rate
themselves.
Required for
mines seeking
independent 3rd-
party
assessment.

Option to share
publicly.

IRMA Achievement Levels



Mines must undergo independent, 3rd-party audit and share results publicly to be able to make public claims about reaching an achievement level

This approach balances pragmatism and honest accounting for impacts of mining today with incentive for continuing improvement that does not shy away from expectation for best practices. Best practices in responsible mining do not need decades of research to achieve, leading companies are already practicing many of these – but the market and legal structures have not yet sufficiently valued that expectation to drive the majority to respond, and/or not on all topics. This is IRMA’s core work – to provide a tool and market support for companies, communities, governments, investors, Indigenous rights-holders, purchasers, civil society and others to make clear the expectations that mining will not cause unnecessary harm. These higher expectations for best practices will continue to drive innovation in the field overall.

This approach to transparency and detailed understanding of impacts in the supply chain is foundational to meeting increasing global expectations for due diligence in responsible sourcing and investing. An end brand or investor does not relinquish their responsibility, nor do they give IRMA any proxy for their understanding, but rather is an active participant using the tools provided by IRMA and information shared by mining and mineral processing partners, and they join in a conversation that seeks to equally engage the people most affected by mineral supply chains.

We anticipate that a similar approach to scoring performance and ‘Achievement Levels’ will also be provided for:

- mineral exploration projects;
- mining and/or mineral processing projects in the development and permitting phases; and
- stand-alone operational mineral processing sites.

See previous section on ‘Application for all Phases of Mineral Development’ above. As IRMA tests application of this updated Standard V2.0 at the first mineral exploration/development and mineral processing sites, we will evaluate if there are adaptations needed in scoring and achievement levels to fit the unique contexts at these phases of mineral development.

IRMA Critical Requirements

The 2018 IRMA Standard for Responsible Mining V1.0 includes a set of requirements identified as being critical requirements. Currently, sites being audited in the IRMA system must at least substantially meet these critical requirements in order to be recognized as achieving the achievement level of IRMA 50 and higher, and any critical requirements not fully met would need to have a corrective action plan in place describing how the requirement will be fully met within specified time frames. The 2nd DRAFT Standard V2.0 contains a similar set of Critical Requirements.

59 critical requirements have been identified because **failure to meet them would likely result in immediate harm** to people, ecosystems, or the environment. Throughout the Standard, **critical requirements** are identified using a red frame. 15 of those are context-specific (they may not apply at all sites), and are identified below using orange text.

Overview of the Critical Requirements:

	Chapter	Chapter Name	Requirement	Who is primarily at risk?	Summary (Abridged version)	Context-specific	Similar to 2018?
1. Business Integrity							
1	1.1	Legal Compliance and Contractor Oversight	1.1.2.1	Business, people, ecosystems, environment	Having a system in place to respond to legal and regulatory non-compliance in order to correct them.	NO	YES
2	1.2	Community and Stakeholder Engagement	1.2.4.1	People	Having a system in place to foster two-way dialogue and meaningful stakeholder engagement, in a manner that is free from manipulation, interference, coercion, or intimidation.	NO	YES
3	1.3	Human Rights Due Diligence	1.3.3.1	People	Assessing human rights risk and impacts, including differential risks and impacts for people of different genders, ages, and ethnicities, for Rights Defenders, and for any potentially underserved and/or marginalized people; and identifying recommended prevention and mitigation measures.	NO	YES
4	1.3	Human Rights Due Diligence	1.3.4.1	People	Developing a plan to prevent and mitigate the human rights risks and impacts identified.	NO	NEW
5	1.3	Human Rights Due Diligence	1.3.4.3	People	Mitigating and remedying actual human rights impacts, when they occur.	NO	YES
6	1.4	Upstream and Downstream Sustainability Due Diligence	1.4.3.1	Business, people, ecosystems, environment	Mapping direct and indirect business partners, both upstream and downstream; and identifying general areas where human rights, social, and environmental adverse impacts are most likely to occur across the chain of activities.	NO	PARTIALLY

7	1.4	Upstream and Downstream Sustainability Due Diligence	1.4.4.8	Business, people	<i>For mineral processing sites, and if presence of conflict-affected and/or high-risk areas in the ENTITY' mineral supply chain: Not causing or contributing to human rights violations; and developing and implementing a mineral supply chain risk management plan.</i>	YES Processors only (only if CAHRAs)	NEW
8	1.5	Conflict-Affected and High-Risk Area Due Diligence	1.5.2.1	People	<i>If the entity's activities may be the cause of, or contributing to, or taking place in, a conflict-affected or high-risk area: Developing a heightened human rights prevention, mitigation, and remediation plan to prevent, mitigate, and remediate all identified conflict-related risks and impacts on human rights or on the conflict</i>	YES If CAHRAs	PARTIALLY
9	1.6	Grievance Mechanism, Whistleblowers, and Access to Remedy	1.6.1.1	People	Having an operational-level grievance mechanism in place that allows for anonymous and/confidential complaints, that can handle human rights-related grievances, allows for other remedy/grievance processes, and lists options for other recourse avenues	NO	YES
10	1.7	Anti-Corruption and Financial Transparency	1.7.3.1	Business, people, ecosystems, environment	Having internal controls in place to prevent, detect and address all forms of corruption, money laundering, and unethical or anti-competitive behavior.	NO	YES
2. Planning for Positive Legacies							
11	2.1	Socio-Environmental Baseline and Ongoing Impact Assessment	2.1.2.1	People, ecosystems, environment	<i>For exploration sites: Undertaking a preliminary screening to identify all potential adverse environmental and social impacts and risks likely to be associated with the proposed exploration project, which ones are significant, and sharing a rationale as to why an initial ESIA is or is not necessary.</i>	YES Exploration only	NEW
12	2.1	Socio-Environmental Baseline and Ongoing Impact Assessment	2.1.3.1	People, ecosystems, environment	Conducting an initial ESIA prior to starting any of the proposed site-disturbing activities, and again should the plans for a proposed project or proposed major modification be significantly revised that will result in significant new, or changes to existing, risks or adverse impacts.	NO	YES
13	2.1	Socio-Environmental Baseline and Ongoing Impact Assessment	2.1.4.1	People, ecosystems, environment	Carrying out a scoping process to define the scope of the impact assessment in terms of the environmental and social risks and impacts to be considered, and the appropriate temporal and spatial boundaries (for Projects and Modifications Proposed after June 2018).	NO	YES
14	2.1	Socio-Environmental Baseline and Ongoing Impact Assessment	2.1.6.3	People, ecosystems, environment	Preparing a draft report of the socio-environmental risk and impact assessment; that includes a description of the proposed project/modification; a spatial delineation of its area of influence, considering all significant risks and impacts; a description of baseline conditions and results of any additional evaluations and studies; alternatives considered; recommended prevention and mitigation measures.	NO	NEW
15	2.2	Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)	2.2.2.1	Business, People	<i>If presence of Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact: Do not initiate contact with them</i>	YES If Indigenous Peoples uncontacted	YES
16	2.2	Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)	2.2.2.2	Business, People	<i>If presence of Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact: halting all impacting activities, removing infrastructures, determining remedy actions with representative bodies and experts, and redesign/cease proposed activities.</i>	YES If Indigenous Peoples uncontacted	NEW

17	2.2	Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)	2.2.4.1	Business, People	<i>If Indigenous Peoples are potentially-affected or affected: Collaborating with them to adopt appropriate engagement protocols; and ensuring that general stakeholder-engagement or public-consultation processes are never considered as an acceptable process for engagement with affected Indigenous Peoples unless they expressly and explicitly agree to.</i>	YES If Indigenous Peoples	NEW
18	2.2	Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)	2.2.6.3	Business, People	<i>If Indigenous Peoples are potentially-affected or affected: Only proceed with FPIC of Indigenous Peoples for activities proposed/planned to become operational after June 2018.</i>	YES If Indigenous Peoples	YES
19	2.3	Gender Equity, and Sexual and Gender-Based Violence	2.3.1.1	People	Commitment in place to have zero-tolerance for all forms of sexual- and gender-based violence (SGBV), with clear expectations for personnel, contractors, business partners and other relevant parties linked to the project/operation, and financial and staffing resources allocated to implement this policy at the level of the project/operation.	NO	NEW
20	2.4	Obtaining Community Support and Delivering Benefits	2.4.2.1	Business	Having a methodology in place to gauge the level, and diversity, of support for, and opposition to, the project/operation amongst affected communities; developed collaboratively; and including gender-disaggregated indicators, and other categories of disaggregated indicators where appropriate.	NO	NEW
21	2.5	Land Acquisition, Displacement, and Resettlement	2.5A.7.1	People	<i>If proposed displacement/resettlement: No forced evictions or illegal expropriation; land acquisition only takes place after compensation has been provided; and prioritization of the avoidance of temporary transitional resettlement.</i>	YES If displacement /resettlement	NEW
22	2.5	Land Acquisition, Displacement, and Resettlement	2.5A.7.2	People	<i>If proposed displacement/resettlement of Indigenous Peoples: Indigenous Peoples are not displaced without their FPIC.</i>	YES If displacement /resettlement of Indigenous Peoples	NEW
23	2.5	Land Acquisition, Displacement, and Resettlement	2.5A.10.1	People	<i>If proposed displacement/resettlement: Reviewing annually, with affected people, monitoring and evaluation results, displacement-related grievances, and effectiveness in improving, or at least restoring, livelihoods and standards of living of displaced people.</i>	YES If displacement /resettlement	YES
24	2.6	Emergency Preparedness, Response, and Recovery	2.6.3.1	Business, people, ecosystems, environment	Developing an emergency preparedness and response plan, in collaboration with key stakeholders.	NO	YES
25	2.6	Emergency Preparedness, Response, and Recovery	2.6.4.1	Business, people, ecosystems, environment	Training on, and testing of, emergency preparedness and response plans, in collaboration with key stakeholders.	NO	YES

26	2.7	Concurrent Reclamation, Closure, and Post-Closure	2.7.1.1	Business, people, ecosystems, environment	A concurrent reclamation, closure, and post-closure plan (or equivalent), appropriate to the level of project development, is developed at the earliest stage possible.	NO	YES
27	2.7	Concurrent Reclamation, Closure, and Post-Closure	2.7.1.12	Business, people, ecosystems, environment	Developing an interim fluid and site management plan to address situations where operations at a mine/mineral processing site are suspended or unexpectedly ceased.	NO	NEW
28	2.7	Concurrent Reclamation, Closure, and Post-Closure	2.7.3.1	Business, people, ecosystems, environment	If there is a State-overseen financial surety mechanism: Adopting it to ensure financial surety is in place for reclamation, closure, and post-closure, sufficient to cover the costs, independently guaranteed and reliable, and readily liquid and accessible.	NO	YES
					OR		
			2.7.3.1*		If there is no State-overseen financial surety: Having financial surety instrument/s in place for reclamation, closure, and post-closure, sufficient to cover the costs, independently guaranteed and reliable; and if self-bonding or corporate guarantees are used, information on the likelihood that funds would be available to the competent authority is shared publicly.		
3. Social Responsibility							
29	3.1	Fair Labor and Terms of Work	3.1.1.2	People	Proactive communication with ~~employees~~ and ~~contractors~~ of the right to freedom of association, and provision of access to facilities for ~~workers~~ ' representatives	NO	YES
30	3.1	Fair Labor and Terms of Work	3.1.2.2	People	Proactive communication with ~~employees~~ and ~~contractors~~ of the right to collective bargaining, good faith negotiation, and ~~contractors~~ ' adherence	NO	YES
31	3.1	Fair Labor and Terms of Work	3.1.4.2	People	Proactive communication with ~~employees~~ and ~~contractors~~ of the anti-harassment policy; training for all ~~workers~~ as appropriate to their role; and controls, oversight, and/or contractual clauses in place to ensure conformance of contracting firms with the policy.	NO	YES
32	3.1	Fair Labor and Terms of Work	3.1.6.2	People	Child labor policy is communicated to ~~workers~~ , contracting firms and ~~suppliers~~ , ages of all ~~workers~~ are documented, and risk assessment for child labor among ~~contractors~~ and ~~suppliers~~ .	NO	YES
33	3.1	Fair Labor and Terms of Work	3.1.7.2	People	Forced labor policy is communicated to ~~workers~~ , contracting firms and ~~suppliers~~ ; recruitment staff is trained on the policy, and risk assessment for forced labor among ~~contractors~~ and ~~suppliers~~ .	NO	YES
34	3.1	Fair Labor and Terms of Work	3.1.9.2	People	The operational-level worker ~~grievance~~ mechanism allows for anonymous and/confidential complaints, allows for other remedy/ ~~grievance~~ processes, ensures protection from retaliation; no prejudice to applicable employment and social rights as well as to any applicable collective agreements; clear procedure to identify and address potential conflicts of interest in ~~grievance~~ management; and ~~workers~~ ' representatives can be present at any proceedings or discussions relating to a ~~grievance~~ , if requested by the aggrieved worker; and lists options for other recourse avenues.	NO	YES
35	3.2	Occupational Safety, Health and Wellbeing	3.2.7.1	People	Developing emergency preparedness and response plans to address key on-site emergency scenarios, in collaboration with ~~workers~~ representatives; plans include alert mechanisms, response measures, clear identification of roles, responsibilities and relationships, and are accessible to all ~~workers~~ in appropriate languages and formats.	NO	YES

36	3.2	Occupational Safety, Health and Wellbeing	3.2.7.2	People	Training on, and testing of, on-site emergency preparedness and response plans, in collaboration with ~~workers~~ and key stakeholders.	NO	YES
37	3.2	Occupational Safety, Health and Wellbeing	3.2.9.3	People	PPE, working clothes, and shoes are provided for free to all ~~workers~~ , are fit for purpose, gender-appropriate, and maintained in clean and good working condition (and replaced as necessary) for free.	NO	YES
38	3.2	Occupational Safety, Health and Wellbeing	3.2.13.4	People	Workers are trained: on health and safety hazards associated with their jobs/tasks, how to perform tasks in a manner that avoids placing them or others at risk, and control measures to prevent and respond to high-hazards relevant to their jobs/tasks; on procedures that are specific to their work area/job/tasks, the use and fitting of PPE, and how to identify hazards and exercise their stop work authority; and on emergency preparedness and response plans (for off-site emergencies), the reporting and investigation procedure, and how to access first aid and medical assistance.	NO	YES
39	3.3	Community Health and Safety	3.3.1.1	People	Identifying all sources of risks and impacts to community health and safety from the project/operation and ~~associated facilities~~ , in collaboration with affected people and relevant stakeholders.	NO	YES
40	3.4	Security Forces	3.4.3.3	People	Having procedures in place regarding the use of force and firearms by private security personnel.	NO	YES
41	3.4	Security Forces	3.4.7.1	People	Having systems in place to investigate and manage security incidents; in order to prevent, and where prevention is not possible or not immediately possible, mitigate and provide remediation for human rights impacts, injuries, or fatalities; and to prevent and deter abusive or unlawful acts by security personnel and acts that contravene the security arrangements and procedures on the use of force and firearms, as well as human rights policies and other relevant policies.	NO	NEW
42	3.5	Artisanal and Small-Scale Mining (ASM)	3.5.2.1	Business, people	<i>If presence of/interface with ASM: Making a good faith effort to: Engage with ASM entities and communities as part of ongoing stakeholder engagement efforts; Consult with them during relevant risk and impact assessments and closure planning; Engage with communities that are or may be affected by ASM activities or by interactions between the Entity and ASM activities; and inform them about the grievance mechanism.</i>	YES If ASM	NEW
42	3.6	Cultural Heritage	3.6.5.1	People	<i>For cultural heritage of Indigenous Peoples: Respecting right to FPIC prior to any disturbance of cultural heritage of Indigenous Peoples, while co-developing and agreeing on procedures to allow for the public sharing of information related to Indigenous Peoples' cultural heritage</i>	YES For cultural heritage of Indigenous Peoples	NEW
43	3.6	Cultural Heritage	3.6.5.2	People	<i>When there is intention to make commercial use of cultural heritage of Indigenous Peoples: only after Indigenous Peoples have been informed of their rights and the nature of the commercial use; and only with their FPIC (including on the fair and equitable sharing of benefits).</i>	YES For cultural heritage of Indigenous Peoples	NEW

4. Environmental Responsibility							
44	4.1	Waste and Materials Management	4.1.1.1	People, ecosystems, environment	Identifying all potentially hazardous materials and hazardous wastes associated with mining and mineral processing operations.	NO	YES
45	4.1	Waste and Materials Management	4.1.4.1	People, ecosystems, environment	No disposal or storage of mining/processing wastes into rivers, lakes or marine environments.	NO	YES
46	4.1	Waste and Materials Management	4.1.7.1	Business, people, ecosystems, environment	If cyanide is used and/or transported and/or stored: The site is certified against the Cyanide Code, summary audit reports are shared with stakeholders, and cyanide producers and transporters are also all certified against the Cyanide Code.	YES If cyanide	YES
					OR		
			4.1.7.1*		If cyanide is used and/or transported and/or stored, but the site is not eligible to ICMI certification: The site is regularly audited against the Cyanide Code and show conformance, and cyanide producers and transporters are all certified against the Cyanide Code.		
47	4.1	Waste and Materials Management	4.1.8.1	Business, people, ecosystems, environment	If mercury is present in ore, concentrates or waste materials: Annual mercury mass balance, mercury recovered/produced is only sold for end-use authorized by the Minamata Convention, and is not sold or given away to ASM entities or individuals; and any mercury wastes are sent to regulated repository, if any on-site storage/disposal occurs it is only if a risk-based evaluation shows low long-term pollution, only in lined facilities, and sampling for mercury is part of the water monitoring program.	YES If mercury	YES
48	4.1	Waste and Materials Management	4.1.10.2	Business, people, ecosystems, environment	Adaptive management in place to respond and remedy situations where waste or materials management procedures or engineering controls are not being effective and/or an incident happens.	NO	YES
49	4.2	Tailings Storage Facilities and Physical Stability Management	4.2.11.1	Business, people, ecosystems, environment	Conformance with GISTM Requirements 5.1 to 5.7 regarding robust design development is achieved for all proposed and existing TSF.	NO	YES
50	4.3	Water Management	4.3.3.1	People, ecosystems, environment	Conducting a risk and impact assessment, in collaboration with affected stakeholders, for water quality and water quantity/availability.	NO	NEW
51	4.3	Water Management	4.3.9.3	Business, people, ecosystems, environment	Over the last 12 months, water quality parameters/contaminants have been in compliance with permit requirements and baseline/background levels (or IRMA Water Quality Criteria, or legal levels if more protective than IRMA criteria), and accessible public report on any exceedance and corrective measures.	NO	NEW
52	4.4	Biodiversity, Ecosystem Services, and Protected and Conserved Areas	4.4.1.1	Business, people, ecosystems, environment	Identifying all protected and conserved areas that are located in the area of influence of the project/operation	NO	YES

53	4.4	Biodiversity, Ecosystem Services, and Protected and Conserved Areas	4.4.1.3	People, ecosystems, environment	Identifying boundaries of Key Biodiversity Areas (KBA) and Ecologically or Biologically Significant Marine Areas (EBSAs), and other areas of High Biodiversity Value or High Conservation Value; the ecological processes and habitats supporting those values; and areas of modified habitat, natural habitat, and critical habitat within the area of influence of the project/operation; ecosystems or processes within the area of influence, their beneficiaries, and the priority ecosystem services.	NO	YES
54	4.4	Biodiversity, Ecosystem Services, and Protected and Conserved Areas	4.4.3.2	People, ecosystems, environment	Management plans are in place to prevent, mitigate, and remediate all risks to, and impacts on, biodiversity and ecosystem services; and they have been developed to deliver a net gain for critical habitats; to deliver no net loss when possible, and preferably a net gain, in natural habitats and other important biodiversity values, and priority ecosystem services; and on an appropriate geographic scale, and to be self-sustaining after closure.	NO	YES
55	4.4	Biodiversity, Ecosystem Services, and Protected and Conserved Areas	4.4.4.1	Business, people, ecosystems, environment	Activities do not take place in, or adversely affect: WHS, areas classified as IUCN protected area management categories I to III, and core areas of UNESCO biosphere reserves.	NO	YES
56	4.4	Biodiversity, Ecosystem Services, and Protected and Conserved Areas	4.4.4.2	Business, people, ecosystems, environment	Activities do not occur in legally protected areas; unless specific conditions are all met.	NO	YES
57	4.4	Biodiversity, Ecosystem Services, and Protected and Conserved Areas	4.4.4.4	Business, people, ecosystems, environment	Activities do not take place in, or adversely affect: 1) IUCN protected areas designated as protected area management category IV; 2) Ramsar sites that are not in areas classified as IUCN protected area management categories I-III; 3) Buffer zones of UNESCO biosphere reserves; 4) Key Biodiversity Areas (KBAs); 5) Ecologically or Biologically Significant Marine Areas (EBSAs); 6) Sites of other effective area-based conservation measures (OECMs); 7) Proposed new protected areas and OECMs as reflected in formally approved Protected or Conserved Areas Expansion Strategies and/or Plans (or equivalent); unless specific conditions are all met.	NO	PARTIALLY
58	4.5	Air Quality and Dust Management	4.5.9.1	Business, people, ecosystems, environment	Over the last 12 months, air quality and dust deposition parameters/contaminants have been in compliance with permit requirements and baseline/background levels (or IRMA Criteria, or legal levels if more protective than IRMA criteria), and accessible public report on any exceedance and corrective measures.	NO	NEW
59	4.6	Climate Action	4.6.6.1	Business, people, ecosystems, environment	Having in place, and externally verified, site-based short-term, medium-term, and long-term, targets for absolute Scope 1 and Scope 2 greenhouse gas emissions, in line with the Paris Agreement, or are part of corporate-level targets that are in line with the Paris Agreement; unless the site meets all the criteria for Green Enabling Projects and can demonstrate the environmental benefits of its production's end-use.	NO	PARTIALLY

Optional Requirements (IRMA+)

In this 2nd DRAFT, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them. A company may choose to be measured against some IRMA+ requirements as a way to demonstrate their forward-looking work and receive worthy recognition for the effort.

Throughout the Standard, **optional IRMA+ requirements** are identified using a dotted blue frame.

In total, there are 58 IRMA+ requirements in this DRAFT, distributed across the following Chapters:

- Chapter 1.1: Legal Compliance and Contractor Oversight
- Chapter 1.4: Upstream and Downstream Sustainability Due Diligence
- Chapter 1.5: Conflict-Affected and High-Risk Area Due Diligence
- Chapter 1.7: Anti-Corruption and Financial Transparency
- Chapter 2.2: Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)
- Chapter 2.4: Obtaining Community Support and Delivering Benefits
- Chapter 2.5: Land Acquisition, Displacement, and Resettlement
- Chapter 2.6: Emergency Preparedness, Response, and Recovery
- Chapter 2.7: Concurrent Reclamation, Closure, and Post-Closure
- Chapter 3.1: Fair Labor and Terms of Work
- Chapter 3.2: Occupational Safety, Health and Wellbeing
- Chapter 3.3: Community Health and Safety
- Chapter 3.4: Security Forces
- Chapter 3.5: Artisanal and Small-Scale Mining (ASM)
- Chapter 4.1: Waste and Materials Management
- Chapter 4.2: Tailings and Mine Waste Storage Management
- Chapter 4.3: Water Management
- Chapter 4.4: Biodiversity, Ecosystem Services, and Protected and Conserved Areas
- Chapter 4.6: Climate Action

Issues Under Close Watch (Eye Icon)

In the 2018 version of the IRMA Standard for Responsible Mining V1.0, IRMA used a tool called “pink flags” to identify areas where there was a difference in opinion between perspectives which posed particular challenge to define best practices to the satisfaction of diverse interests, and we actively sought ongoing input to resolve issues even as the Standard was being applied at mine sites around the world. In this 2nd DRAFT, we have removed all flags, but acknowledge that certain issues still require higher attention. Their corresponding requirements have now been signaled in this document with an ‘eye icon’ to ensure that readers and IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not ‘optional’ (unlike IRMA+ above).

Overview of the Issues Under Close Watch (full rationale is available at the beginning of the relevant Chapters):

Chapter	Issues	Rationale	Requirements
1.2 – Community and Stakeholder Engagement	Monitoring, Evaluation, and Continuous Improvement	While there is no evidence that requirements related to Monitoring and Evaluation, and the review of performance to feed in continuous improvement, would not be best practice and/or would go above and beyond current best practice, these two dimensions were not covered with regard to Community and Stakeholder Engagement in the Standard V1.0.	1.2.6.1, 1.2.6.2, and 1.2.7.1
1.4 – Upstream and Downstream Sustainability Due Diligence	Mineral Supply Chain Controls and Transparency	The supply of input mineral for mineral processing operations is often a complex and challenging topic, especially when entities wish to ensure that their feedstock minerals are extracted, transported, and handled in a responsible way and do not cause, or contribute to, conflicts. Learning from previous drafts, the experience of other standard-setting organizations and schemes that have aligned their expectations with the OECD Guidance, IRMA proposes to include similar requirements, also aimed at being fully aligned with the OECD Guidance. Given the difficulties faced by standards and audit systems specialized in this topic, it is with great humility that we propose to apply this set of IRMA requirements to mineral processing sites that will adopt the IRMA V2.0 Standard. In parallel, IRMA remains committed to collaborating with those established specialized audit systems, such as the RMI’s mineral-relevant Responsible Minerals Assurance Process Responsible Sourcing Due Diligence Standard for Mineral Supply Chains (RMAP) and the CCCMC’s Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains (CCCMC Guidelines) to explore potential cross-recognition, joint audits, and other synergies.	1.4.4.1 to 1.4.4.10
1.5 – Conflict-Affected and High-	Entire Chapter 1.5	This Chapter was included in the 2018 IRMA Standard for Responsible Mining V1.0 but has never been audited and assessed. IRMA has acknowledged that the approach taken in the V1.0 was only based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, which is limited to the issue of input mineral supply for mineral processing operations, and thus	All requirements in Chapter 1.5

Risk Area Due Diligence		not adequate (the OECD Guidance was only designed to apply “to all companies in the mineral supply chain that supply or use minerals sourced from conflict-affected or high-risk areas”). Although this reworked Chapter draws on international best practice and guidance, including the Guide published in 2022 by UNDP and the UN Working Group on Business and Human Rights “Heightened Human Rights Due Diligence for Business in Conflict-Affected Contexts”, it can represent a substantial scope expansion for implementing sites. This Chapter will also present specific challenge for auditors, which IRMA is willing to acknowledge and monitor closely.	
2.1 – Socio-Environmental Baseline and Ongoing Impact Assessment	Strengthened approach to ongoing socio-environmental impact assessment and continuous improvement.	Various existing mining operations have undertaken ESIA in alignment with the IFC Performance Standards (or equivalent), at a later stage, to update their identification and assessment of impacts and risks, to supplement previous “weak” EIAs that were undertaken to obtain in-country legal approval. There is therefore definitely a precedent for how historical gaps in ESIA can be addressed, as best practice. In this second draft, IRMA proposed to strengthen and clarify the requirements for all sites, including such existing operations where the initial impact assessment process was not in conformance with this Chapter, to revise or update their understanding of socio-environmental risks and impacts, and their mitigation strategies, on an ongoing basis, as necessary based on monitoring results or other information. This expands substantially the former requirement 2.1.7.3 in the 2018 IRMA Standard V1.0; and is now covered in a dedicated Section (2.1.11).	2.1.11.1 to 2.1.11.5
2.1 – Socio-Environmental Baseline and Ongoing Impact Assessment	Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into ESIA processes	The lack of explicit reference to TEK in the was one of the very few areas for improvement identified in a recent benchmark of standards against the 2023 Risk Readiness Assessment Criteria Guide V3.0 (conducted by a consultancy firm on behalf of an industry association). IRMA added two requirements, assessing how entities integrate TK and TEK of local affected communities, and Indigenous rights-holders if applicable, into initial and ongoing ESIA processes.	2.1.9.1 and 2.1.9.2
2.2 – Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)	Remedy for Impacts from Activities Implemented without FPIC	This was an expectation of the 2018 IRMA Standard for Responsible Mining V1.0, but only mentioned in the ‘Scope of application’ section and not actually transposed in auditable requirements. This has resulted in a lack of audit and assessment of the actions and agreements related to the Remedy for pas and/or ongoing impacts from activities implemented without FPIC.	2.2.5.1 to 2.2.5.4
2.2 – Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)	Potential breach or violation of FPIC agreement/s and emergence of new information likely to change the outcome of FPIC process/es	Requirement 2.2.6.7 and 2.2.6.8 reflect the ongoing nature of FPIC and frame how best can companies prepare and respond to the situations when, under very specific conditions, affected Indigenous Peoples would withdraw their consent. This is aligned with latest guidance from SIRGE, the 2016 UN FAO Guide on FPIC, and the 2024 IFC’s Approach to Responsible Exit. This requirement was not included in the 2018 IRMA Standard for Responsible Mining V1.0.	2.2.6.7

2.3 – Gender Equity, and Sexual and Gender-Based Violence	Entire Chapter 2.3 – Gender Equity, and Sexual and Gender-Based Violence	This Chapter was not included in the 2018 IRMA Standard for Responsible Mining V1.0. Although this Chapter draws on international best practice for the promotion and mainstreaming of gender equity, and the prevention of sexual and gender-based violence, it can represent a substantial scope expansion for implementing sites.	All requirements in Chapter 2.3
2.5 – Land Acquisition, Displacement, and Resettlement	Entire Sub-Chapter 2.5B for Remediating Historical Land Acquisition, Displacement, and Resettlement	This was only a suggestion in the 2018 IRMA Standard for Responsible Mining V1.0, and only mentioned in the ‘Scope of application’ section and not actually transposed in any auditable requirements. This is an important issue that should not be left unattended, and the IRMA Standard attempts to reflect international best practices for exploration, mining, and processing companies to do so.	All requirements in Sub-Chapter 2.5B
2.6 – Emergency Preparedness, Response, and Recovery	Public Liability Accident Insurance	The requirement for having financial assurance, which could be in the form of an ~~accident~~ insurance policy/public liability ~~accident~~ insurance, able to cover the costs related to a major catastrophe (which include, but are not limited to: flood damage, landslides, subsidence, waste facility failures, major spills of process solutions, leaking tanks, etc.) included in the 2018 IRMA Standard V1.0 has been poorly understood and audited to date. It had been suggested to IRMA that there might be other financial instruments that could be put in place others that would enable a company to cover the costs related to a major catastrophe. Unfortunately, the standard revision process held between 2022 and 2024, including a 90-day period of public-comment and proactive engagement with subject matter experts, did not generate practical suggestions on other existing financial instruments. Alternatives suggested would take further research, and beyond-IRMA cross-stakeholder conversation and action to develop new ones and implement them (this could include an industry-led fund). It has also been suggested that the IRMA Standard should allow for any other financial instrument (existing or future) that is independently verified/verifiable, and as long as the instrument is dedicated to, or prioritizes, compensation/remediation over other aspects of loss (such as business loss).	2.6.8.1

2.7 – Concurrent Reclamation, Closure, and Post-Closure	Financial Assurance in jurisdictions that do not offer State-hosted and overseen financial assurance instrument/s for reclamation and closure	There are few mining jurisdictions where the country of operation does not offer any instrument for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent), that is hosted and overseen by the State. These situations have so far been handled through exceptions to the 2018 IRMA Standard for Responsible Mining V1.0 following a decision made by the IRMA Board Assurance Subcommittee and approved by IRMA's equally-governed multi-stakeholder Board. Building on years of experience, growing evidence and guidance for best practice, these 'exceptional' circumstances are not fully addressed in the form of an auditable and assessable requirement, adapted and responsive to this challenging reality. IRMA continues to encourage all governments to establish strong and functioning financial assurance instruments for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent), that are hosted and overseen by the State.	2.7.3.1*
4.2 – Tailings and Mine Waste Storage Management	References to GISTM Standard and associated Conformance Protocols (developed by ICMM)	In this Chapter, the IRMA Standard introduces a different approach to audit and assessment, that relies on external third-party conformance audits against another system, namely the Global Industry Standard on Tailings Management (GISTM), which was created jointly by representatives of the mining industry (ICMM), the finance and banking sector (UN PRI), and the United Nations Environment Programme (UNEP), who all engaged in the Global Tailings Review process. This new approach is articulated through a series of requirements in this Chapter that follow the sequence of the GISTM Standard, whose scoring levels will rely on the level of conformity determined by GTMI-accredited third-party audit against the GISTM, management, and emergency preparedness. For those, no direct reference of GISTM is provided, although additional comparative guidance will be developed.	4.2.2.2, 4.2.3.1, 4.2.4.1, 4.2.8.1, 4.2.9.1, 4.2.10.1, 4.2.10.4, 4.2.11.1, 4.2.12.1, 4.2.13.1, 4.2.14.1, 4.2.15.3, 4.2.15.7, 4.2.16.1, and 4.2.17.1.
4.4 – Biodiversity, Ecosystem Services, and Protected and Conserved Areas	Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into the management of biodiversity, ecosystem services, and protected and conserved areas	See rationale above on the Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into ESIA processes (Chapter 2.1). IRMA added one requirement (4.4.6.1), assessing how entities integrate TK and TEK of local affected communities, and Indigenous rights-holders if applicable, into the management of biodiversity, ecosystem services, and protected and conserved areas.	4.4.6.1

4.6 – Climate Action	Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into climate action processes	See rationale above on the Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into ESIA processes (Chapter 2.1). IRMA added one requirement (4.6.8.1), assessing how entities integrate TK and TEK of local affected communities, and Indigenous rights-holders if applicable, into their climate action processes.	4.6.8.1
4.6 – Climate Action	Setting Greenhouse Gas Emission Targets that are in line with the Paris Agreement	IRMA noted in the 2018 Standard V1.0 that, while there was agreement among IRMA sectors that setting greenhouse gas reduction targets was something that every responsible company should be doing, there was not yet cross-sectoral agreement within IRMA regarding how to set those targets. Many frameworks have been published since, and global expectations have gradually mounted regarding the need for all industrial sites, including mines and mineral processing operations, to set targets that are in line with the Paris Agreement, and to develop action plans to meet them. IRMA acknowledges that some mineral processes still rely almost entirely on fossil fuels, and that several companies have developed company-wide targets that are in line with the Paris Agreement, but that do not necessarily translate into each and every asset's targets being aligned. IRMA also acknowledges that some companies may own only one asset (mining or mineral processing operation) that produces mineral/s that demonstrably contribute to global energy transition towards lower-carbon energy sources or mobility solutions. IRMA has proposed different pathways to reflect these realities.	4.6.6.1



Principle 1 **Business Integrity**



Chapter 1.1

Legal Compliance and Contractor Oversight

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Added “Contractor Oversight” to the Chapter title, to clarify the importance of this element (and where to find most of this aspect in the Standard).
- Removed all occurrences of ‘host country’ which is a terminology implying that private and foreign companies would be ‘hosted’ by the country of operation to conduct mining operations (therefore excluding SOEs or national companies, and can be perceived as degrading language). Used ‘country of operation’ instead.
- Increased clarity and auditability thanks to:
 - Refocussing the chapter on legal and regulatory compliance, as conformity with IRMA requirements cannot be assessed within one or two ad-hoc and broad requirements (but through the 400+ requirements throughout the Standard).
 - Streamlining the chapter sequence: 1. Mapping of applicable laws, rules, and regulations; 2. Monitoring and maintaining legal and regulatory compliance; 3. Response to non-compliance; 4. Contractor vetting; 5. Contractor legal and regulatory compliance; 6. Oversight of contractor conformity with IRMA Standard requirements; 7. Public reporting.
 - Clearly defining the nature and scope of contractors (including contracting firms and individual contractors). See Figure 1 for more details and greater clarity on the terminology adopted.
 - Adding more details and specific metrics to the Contractor Compliance Section; while separating contractors’ legal and regulatory compliance from contractors’ conformity with relevant IRMA Standard requirements. See Figure 1 for greater clarity on the terminology adopted.
 - Adding more details and specific metrics to the vetting and oversight of contractors.
 - Clarifying expectations regarding public reporting, and fully aligning them with GRI 2-21.
- Clarified that the contractors verification is expected ‘before hiring them’ (i.e. vetting, see 1.1.3.1.b and c.)
- Clarified that this Chapter is also applicable to all (if any) relevant subsidiaries and joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities. Special audit’s contractual arrangements and scoping may be necessary to address a project/operation with a complex corporate structure.
- Clarified and strengthened public reporting requirement to foster accountability and transparency (fully aligned with GRI, with added details re. treatment of confidential information).



RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
1.1-01	Background: We have received suggestions from stakeholders that IRMA include requirements that help incentivize the use and/or strengthening of local or in-country technical capacity. The hiring of people with local, regional and/or traditional knowledge not only benefits host countries, but can also help entities build trust with stakeholders. We are aware, however, that in some regions there may not always be a sufficient cadre of local consultants or ~~contractors~~ with the expertise and experience needed to carry out the often complex and highly technical work involved in large scale mining and/or mineral processing operations. In thinking about balancing these realities, we were considering a requirement such as: “Efforts are made to hire appropriately qualified ~~contractors~~ and consultants that are based in the host country. If there are no in-country professionals with the necessary competency or experience, the ENTITY investigates opportunities to support capacity building for local professionals.” Capacity building could involve mentoring programs, such as hiring local professionals who don’t have the necessary years of experience as part of a crew, where they could gain experience that could eventually put them in a position to take on contracts in the future, etc. Question: Would you support this type of requirement? Are there other elements IRMA should consider related to this topic? Do you have suggestions of other ways (or better ways) that entities might support the building of local or in-country technical capacity?	Feedback received: Though this suggestion (adding a requirement to incentivize and build in-country ~~contractors~~’ capability) received general support, without any clear divide between stakeholder categories, some commentors recommended to move this topic under Principle 2–Planning for Positive Legacies. IRMA agrees that it is indeed more appropriate and logical to do so, rather than under Principle 1. Business Integrity. Moreover, some commentors pointed out the vague and broad nature of the proposed wording, and asked for greater auditability. Proposed Decision: A provision has been integrated in an existing requirement. See integration in requirement 2.4.3.4.a under Principle 2.



BACKGROUND

Compliance with applicable laws, rules and regulations is one of the most basic principles of conducting business, in a given jurisdiction. Exploration projects, mines and mineral processing facilities are no exception.

This chapter balances the importance of compliance with the laws of the country of operation with the recognition that laws can greatly vary between countries and regions.

As an international best practice standard that seeks to raise the bar of responsible practices globally, IRMA Standard requirements may contain provisions that are more stringent or demanding than the minimum legal requirements specified at the national level in a particular country. Therefore, in many jurisdictions, fully meeting the IRMA requirements will require additional measures and efforts than those legally required. It is important to note that if meeting an IRMA requirement would cause a breach of an applicable law or regulation, then the Entity would not be expected to break the law to meet IRMA. Rather, they would need to show they tried to meet the intent of the IRMA requirement to the extent feasible without violating the law.

This Chapter highlights the need for the ENTITY to put in place strong systems and controls to identify and ensure compliance with all laws, rules and regulations, across all relevant jurisdictions (especially the country of operation and the country where the ENTITY may be registered or listed), that are applicable to the project/operation, including associated facilities. This is applicable to all (if any) relevant subsidiaries and joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- G20/OECD Principles of Corporate Governance, 2023
- OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, 2023

OBJECTIVES OF THIS CHAPTER

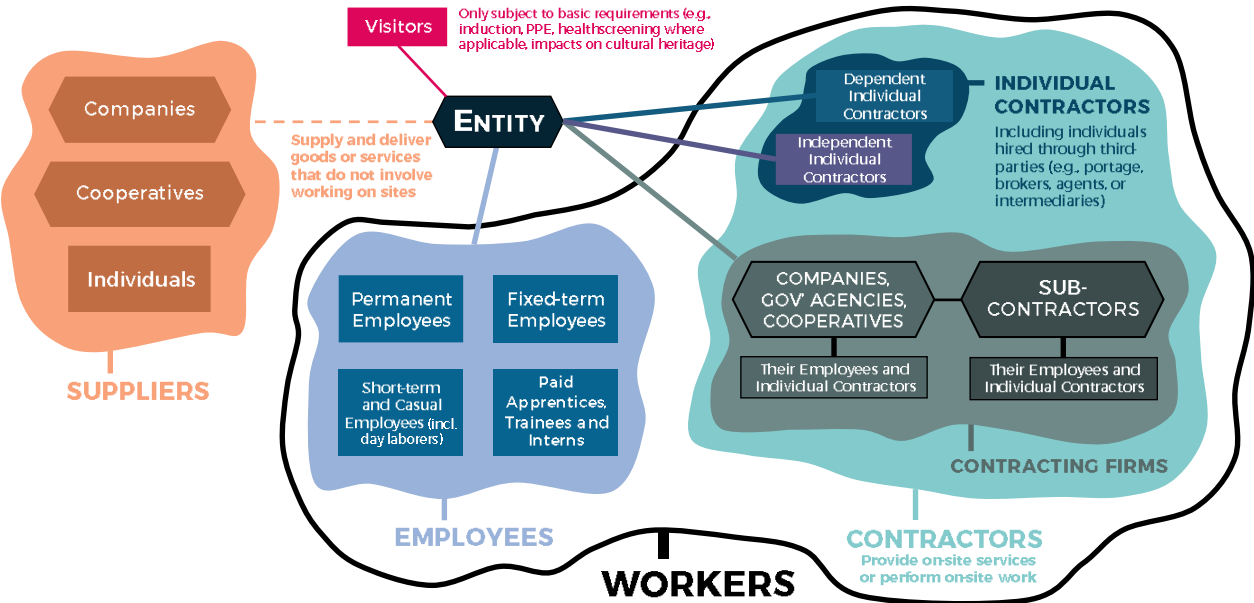
To monitor and maintain compliance with the laws and regulations applicable to the site and its associated facilities, and to hold contractors to the same legal and performance standards.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations.

This chapter focuses on legal compliance for both the ENTITY and its contractors (who provide on-site services or perform on-site work). With regard to suppliers (who supply and deliver services or goods, including input mineral for mineral processing operations), they are not included in this Chapter, as Chapter 1.4 fully addresses how the ENTITY should be conducting due diligence on them. Figure 1 clarifies the terminology used to differentiate the ENTITY and its employees from Contractors, Suppliers, and Visitors.

FIGURE 1.1. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors



Adapted from ILO ICSE-18A: Status in Employment according to type of authority (2018, Resolution concerning statistics on work relationships)

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are two (2) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

1.1.1 Mapping and Monitoring

1.1.1.1 The ENTITY **has identified and mapped** the legal and regulatory requirements applicable to the site and its **associated facilities** as follows:

- Competent professionals have identified and documented** all the laws, rules and regulations¹, across all relevant jurisdictions², that are applicable to the site and its **associated facilities**³;
- Competent professionals have identified and documented all regulatory and legal actions, their statuses and implications, across all relevant jurisdictions, related to the site and its **associated facilities**; and
- Competent professionals have defined the criteria used to identify levels of significance of legal and regulatory non-compliances**⁴ and corresponding response plans.

1.1.1.2 The ENTITY has a system in place to maintain the site and its **associated facilities** in legal and regulatory compliance through:

- Maintaining the project/operation, including **associated facilities**, in legal and regulatory compliance, across all relevant jurisdictions⁵;
- Monitoring** and documenting, on an ongoing basis, the status of compliance with all applicable laws, rules, and regulations, and with other enforceable legal obligations or requirements; and
- Assigning accountability for this monitoring and compliance to a member of top management of the ENTITY.**

1.1.1.3 IRMA+

The criteria used to identify levels of significance of legal and regulatory non-compliances that may negatively impact affected rights-holders or stakeholders are defined in collaboration with them (see Chapter 1.2 – Community and Stakeholder Engagement).

1.1.2 Response to Non-Compliance⁶

1.1.2.1 Critical Requirement

The ENTITY has a system in place to respond to non-compliances that ensures that:

- If non-compliance with an applicable law, rule, regulation, or legal action occurs, its level of significance is identified;**
- For serious or continuing non-compliances (or equivalent), root-cause analysis for the non-compliance is undertaken;**
- Timely and effective action is taken to address and correct all legal and regulatory non-compliances; and**
- Measures are implemented to prevent recurrence of similar non-compliances**⁷.

1.1.3 Contractor Oversight and Compliance⁸

1.1.3.1 The ENTITY has a system in place to verify the competency, skills, capacity, and potential conflicts of interest of its contractors⁹, through:

- a. Maintaining basic documentation on all contractors associated with the project/operation and associated facilities¹⁰;
- b. Verifying the competency, skills, and capacity of all contracting firms before hiring them¹¹;
- c. Verifying the competency, skills, and capacity of all dependent and independent individual contractors before hiring them¹²; and
- d. Requiring from contractors working on safety, health, human rights, social, or environmental issues¹³ to attest in writing that they follow best practices to avoid conflicts of interest related to: 1) Direct financial interest¹⁴; 2) Personal or family connections to the ENTITY, the site and associated facilities; and 3) Connection to the ENTITY that could incur any kind of financial or professional benefits.

1.1.3.2 The ENTITY has a system in place to hold all contractors to the same legal and regulatory compliance standards as the ENTITY, through:

- a. Informing all contractors that compliance with all applicable laws, rules, and regulations is required;
- b. As necessary, providing them with the information and training material necessary to ensure such compliance;
- c. Defining in contractual arrangements the consequences of non-compliance¹⁵;
- d. Performing oversight activities to know if the contractors are ensuring compliance with all applicable laws, rules, and regulations;
- e. Documenting all contractors' non-compliances with applicable laws, rules, and regulations, and identifying their levels of significance (accordingly to the ENTITY's criteria, see 1.1.1.1.c); and
- f. Addressing all non-compliances by working with contractors to ensure that timely and effective action is taken to address and correct all legal and regulatory non-compliances, and measures are implemented to prevent recurrence of similar non-compliances¹⁶.

1.1.3.3 The ENTITY has a system in place to hold all contractors to the same socio-environmental performance standards as the ENTITY, through:

- a. Informing all contractors that conformity with relevant IRMA Standard requirements¹⁷ is expected;
- b. As necessary, providing them with the information and training material necessary to ensure such conformity;
- c. Performing oversight activities to know if the contractors are ensuring conformity with relevant IRMA Standard requirements;
- d. Defining the criteria used to identify levels of significance of non-conformities with relevant IRMA Standard requirements (e.g. serious, continuing, or otherwise) and corresponding response plans;
- e. Documenting all contractors' non-conformities with relevant IRMA Standard requirements, and identifying their levels of significance; and
- f. Addressing all contractors' non-conformities with relevant IRMA Standard requirements by working with contractors to ensure that timely and effective action is taken to address and correct them, and measures are implemented to prevent recurrence of similar non-conformities.

1.1.4 Information-Sharing and Public Reporting¹⁸

1.1.4.1 Annually, the ENTITY makes publicly accessible an updated report of, and maintains publicly accessible all previous versions of reports of¹⁹:

- The total number of non-compliances with applicable laws, rules, and regulations during its latest reporting period;
- A breakdown of this total by: 1) instances for which fines were incurred; 2) instances for which non-monetary sanctions were incurred; and 3) instances for which no fines or sanctions were incurred²⁰;
- The total number and the monetary value of fines for instances of non-compliance applicable with applicable laws, rules, and regulations that were paid;
- A breakdown of this total by: 1) fines for instances of non-compliance with applicable laws, rules, and regulations that occurred in its latest reporting period; and 2) fines for instances of non-compliance with laws and regulations that occurred in its previous reporting periods; and
- A description of all serious and all continuous (or equivalent) non-compliance events, ongoing and final remedies, together with a description of how it has determined the levels of significance of non-compliances.

1.1.4.2 Where the ENTITY claims that records or documentation contain confidential business information:

- It publicly reports a general description of the confidential material and an explanation of the reasons for classifying the information as confidential;
- If a part of a document is confidential, only the confidential part is redacted, allowing for the public reporting of non-confidential information; and
- Where records or documents associated with the project/operation are related to a pending legal action, the existence of the legal action and the alleged regulatory non-compliance issues are disclosed, but detailed information may be treated as confidential business information

1.1.4.3 IRMA+

Annually, the ENTITY publicly reports the same level of information and disaggregation required under 1.1.4.1. for all its contractors' legal and regulatory non-compliances, as well as their non-conformities with relevant IRMA Standard requirements.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

- ¹ These include all legal and regulatory reporting obligations, as well as relevant payment obligations (e.g., taxes, fees).
- ² Depending on the context, relevant jurisdictions may include federal/national, state, provincial, county or town/municipal levels, or their equivalents all relevant jurisdictions/territories/countries (especially the country of operation and the country where the ENTITY may be registered or listed). The primacy of laws, such as federal versus provincial, is determined by applicable rules and legal precedents.
- ³ And applicable to all (if any) relevant subsidiaries and joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities.
- ⁴ E.g. serious, continuing, or otherwise.
- ⁵ Including by having controls in place to deliver consistent compliance whether they be engineered controls, administrative procedures, or otherwise.
- ⁶ This requirement and sub-requirements are informed by and aligned with the system demonstrated in 1.1.1.1.
- ⁷ This requirement is informed by performance achieved on 1.1.1.1 and 1.1.1.2. Evidence that timely and effective action is taken to address and correct non-compliances is required on all laws, rules, regulations, and legal actions that are applicable to the project/operations and its associated facilities, across all relevant jurisdictions (especially the country of operation and the country where the ENTITY may be registered or listed). As per 1.1.1.1, non-compliance correction is also required from all (if any) relevant subsidiaries and joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities. Special audit's contractual arrangements and scoping may be necessary to address a project/operation with a complex corporate structure.
- ⁸ This Section only applies to contractors, and not to suppliers (of goods and/or services). Note that Chapter 1.4 is dedicated to supplier due diligence, and Chapter 3.1 addresses risk of child, forced and slave labor among suppliers.
- ⁹ The definition of contractors includes relevant subcontractors (i.e., those involved in providing services to contractors as part of their services to the ENTITY/operation) and contracted workers hired through contractors.
- ¹⁰ This includes, at least: a) for dependent and independent individual contractors: contractor name, contact information, credentials, references, copy of contract; b) for contracting firms: company name, contact information, references, copy of contract, number of employees, relationship with relevant subcontractors (if applicable).
- ¹¹ Including: Experience and past performance (on relevant technical, social, and environmental matters); Financial stability; Health and safety record; Skills and expertise to complete the work to the highest standard (including technical knowledge and qualifications, as well as relevant socio-environmental and project management capability); Resource availability (workforce, equipment, technology); Quality assurance processes; Insurance and guarantees; and Legal and compliance records.
- ¹² Including: Validation of necessary level of education; Validation of relevant professional training and certifications; Review of previous relevant work, including references from previous clients; and Determination of skills and experience in the context of the work to be undertaken (including technical knowledge and qualifications, as well as relevant socio-environmental and project management capability).
- ¹³ For sites with tailings facilities (identified as per 4.2.1.1), ITRB members, senior independent technical reviewers, and DSR contractors are all included in the scope of "contractors working on safety, health, human rights, social, or environmental issues".
- ¹⁴ E.g. through employment, contracts, stock, etc.
- ¹⁵ For example: fines, required actions to remediate, cancellation of contracts, non-qualification for future work.
- ¹⁶ Measures and actions are taken according to the contractual consequences (1.1.3.2.c), and can include the termination of contracts, where it is deemed necessary/most appropriate.
- ¹⁷ The potentially relevant chapters are:
 - Chapter 1.2–Community and Stakeholder Engagement
 - Chapter 1.3–Human Rights Due Diligence
 - Chapter 1.6–Grievance Mechanism, Whistleblowers, and Access to Remedy
 - Chapter 1.7–Anti-Corruption and Financial Transparency
 - Chapter 2.2–Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)
 - Chapter 2.3–Gender Equity, and Sexual and Gender-Based Violence
 - Chapter 2.5–Land Acquisition, Displacement, and Resettlement
 - Chapter 2.6–Emergency Preparedness, Response, and Recovery
 - Chapter 2.7–Concurrent Reclamation, Closure, and Post-Closure
 - Chapter 3.1–Fair Labor and Terms of Work
 - Chapter 3.2–Occupational Safety, Health and Wellbeing



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- Chapter 3.3–Community Health and Safety
 - Chapter 3.4–Security Forces
 - Chapter 3.5–Artisanal and Small-Scale Mining
 - Chapter 3.6–Cultural Heritage
 - Chapter 3.7–Noise and Vibration
 - Chapter 4.1–Waste and Materials Management
 - Chapter 4.2–Tailings Storage Facilities and Physical Stability Management
 - Chapter 4.3–Water Management
 - Chapter 4.4–Biodiversity, Ecosystem Services, and Protected and Conserved Areas
 - Chapter 4.5–Air Quality and Dust Management.

At least, the Entity will be expected to ensure that critical requirements that are applicable to its project/operation are also fully met by contractors. More detailed guidance will be developed to specify the requirements that must be overseen (also based on the operational context).

¹⁸ This is fully aligned with GRI 2-27 (2021), but disaggregated at the ENTITY level. As per the rest of the chapter, public reporting on non-compliance is also required for all (if any) relevant subsidiaries and joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities.

¹⁹ Public reporting is not required for pending legal action or lawsuits for which there is no formal determination of non-compliance.

²⁰ These include non-compliances identified in internal inspections and reviews that may have not been addressed by competent regulating or legal authorities. If those are protected from public disclosure by law, see sub-requirements e.



Chapter 1.2

Community and Stakeholder Engagement

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Removed proposed requirement for an information-sharing policy, and included similar clauses in Section 1.2.3, as well as related monitoring requirements (1.2.6.2).
- Tweaks to language to incorporate requests for more explicit attention to underserved and/or marginalized people, both direct and indirect stakeholders, inclusion of community representatives.
- Added additional language to clarify and strengthen requirements relating to decision-making structures and the role of communities in determining engagement agendas.
- Ensure identification of (potentially) affected Indigenous Peoples take place upfront within this Chapter (including to help determine whether Chapter 2.2 will be applicable or not) (see 1.2.1.1.d. and e.).
- Added a new sub-requirement to ensure identification of artisanal and small-scale miners and/or mining operations take place upfront within this Chapter (including to help determine whether Chapter 3.5 will be applicable or not) (1.2.1.1.f).
- Strengthened visibility and explicit expectations regarding inclusion of, and accessibility for, affected rights-holders and stakeholders with sensory disability and/or impairment.
- Added language to specify the point at which entities are expected to have begun engagement.
- Major structural changes to increase consistency with other chapters, including inclusion of new requirements related to Monitoring and Evaluation, and Continuous Improvement. Since these two dimensions were not covered in the Standard V1.0, we suggest adding an 'eye icon' to these two Sections (1.2.6 and 1.2.7).
- Other minor changes to language to ensure consistency or clarity.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

No consultation question for this chapter



BACKGROUND

Industrial mining developments, and mineral processing operations, have the potential to last for decades over their life cycle. Often mines and mineral processing facilities are built in locations where existing communities live, work, and/or depend on the land and other natural resources; in other cases, new communities emerge because of mining or processing activities. Mining and mineral processing projects and operations have the potential to significantly impact the lives of people in those communities. Some changes may be beneficial, for example, through the provision of jobs, or through corporate investment in community development projects. But these projects and operations also have the potential to create adverse impacts and even be a source of social conflict within communities.

Increasingly, mining and mineral processing companies, governments, and financial institutions are recognizing that building strong, lasting relationships with those affected by mining activities can improve the identification and management of risks, as well as the long-term viability of operations.²¹

In line with the Open Data Charter, and consistent with the spirit of the 2018 ECLAC Escazú Agreement and the 1998 UNECE Aarhus Convention, companies can adapt their processes to identify the most appropriate and effective ways to communicate and share information with stakeholders. Timeliness, comprehensiveness, usability, comparability, accessibility, and cultural appropriateness criteria for the sharing of information and data are best defined when identified, and reviewed on a regular basis, in collaboration with stakeholders.

To be meaningful, stakeholder engagement must be proactive, accessible, inclusive, accountable, and transparent. As such, it increases the potential for optimal outcomes for both communities and stakeholders, and mining and mineral processing companies.²²

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UN Guiding Principles on Business and Human Rights, 2011
- UN ECLAC Escazú Agreement, 2018
- UNECE Aarhus Convention, 1998
- International Open Data Charter, 2015



OBJECTIVES OF THIS CHAPTER

To support collaborative and inclusive decision-making processes by enabling community members, individual and collective rights-holders, and other stakeholders to participate in decisions that affect their health, wellbeing, safety, livelihoods, futures, and the environment.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is no (0) optional IRMA+ requirement in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Monitoring, Evaluation, and Continuous Improvement:

While there is no evidence that requirements related to Monitoring and Evaluation, and the review of performance to feed in continuous improvement, would not be best practice and/or would go above and beyond current best practice, these two dimensions were not covered with regard to Community and Stakeholder Engagement in the IRMA Standard V1.0. Their corresponding requirements (1.2.6.1, 1.2.6.2, and 1.2.7.1) have therefore been signaled with an ‘eye icon’ to ensure that IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not ‘optional’ (unlike IRMA+).



IRMA Requirements

1.2.1 Stakeholder Mapping and Analysis



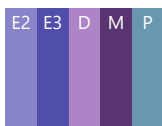
- 1.2.1.1** A process has been conducted and documented by competent professionals to identify and map²³ all affected and potentially-affected relevant rights-holders and stakeholders (referred to as **"affected rights-holders and stakeholders"** throughout the Standard), including:
- The range of groups and individuals, including community members, rights-holders, representative organizations and institutions, and others, who are or may be directly affected by the site and its associated facilities, including those who may be opposed to the Entity's activities;
 - Those who are or may be indirectly affected too;
 - Potentially underserved and/or marginalized people for whom special outreach may be necessary²⁴;
 - Whether **Indigenous Peoples** may be affected or potentially-affected, directly or indirectly, by the site and its associated facilities, directly and/or indirectly;
 - Whether there is more than one **distinct group of Indigenous Peoples**²⁵;
 - Whether **Artisanal and/or Small-scale Mining** (ASM) activities are occurring in the project/operation's area of influence²⁶, and of which form/s²⁷; and
 - Whether any group or individual identified present sensory disabilities and/or sensory impairment that require specific accessibility measures to ensure meaningful access to communication and information-sharing²⁸.
 - Whether there are **other relevant stakeholders** who are not directly or indirectly affected by the project/operation but are interested in being engaged and having access to information.



- 1.2.1.2** A process has been conducted and documented by competent professionals to analyze community and stakeholder dynamics, and their implications for the ENTITY's engagement strategy. This process:
- Has analyzed the relative interests and influence of each category/group of affected rights-holders and stakeholders with regard to the site and its associated facilities;
 - Has analyzed **gendered roles** and power dynamics within households and communities;
 - Has analyzed the implications of these relative interests, influence, **gendered roles**, and power dynamics for inclusive engagement; and
 - Included evaluation of pre-existing community dynamics²⁹, to understand if other natural resource-related projects/operations have created oppositions, tensions, and/or divisions, and if the ENTITY's activities may create, or has created, intra-community, inter-community or interpersonal tensions, divisions or conflicts that warrant special engagement strategies.



1.2.2 Engagement Plan



1.2.2.1 The ENTITY has a stakeholder engagement plan (or equivalent) in place, developed by competent professionals, to frame the ENTITY's engagement with affected rights-holders and stakeholders.³⁰ The plan:

- a. Is informed by initial engagement with representatives of affected rights-holders and stakeholders, and other key local representatives;³¹
- b. Identifies a timetable of engagement activities, and the purposes or goals for each engagement;
- c. Identifies how engagements will capture input from a diversity of affected rights-holders and stakeholders;
- d. It includes specific measures to facilitate inclusion of people of different genders, ages, ethnicities, and sensory issues; and
- e. It includes specific measures to facilitate inclusion of any potentially underserved and/or marginalized people³².



1.2.2.2 The stakeholder engagement plan:

- a. Identifies how engagement processes will avoid or minimize conflicts within and between affected rights-holders and stakeholders that are being engaged.
- b. Identifies how monitoring and evaluation of effectiveness of engagement with affected rights-holders and stakeholders will occur, and the qualitative and quantitative indicators to be used;
- c. It includes documentation of a budget and staff responsibilities for effectively implementing the various engagement activities

1.2.3 Processes for Sharing Information

1.2.3.1 Building on 1.2.1, the stakeholder engagement plan that is in place (required in 1.2.2) identifies, in collaboration with affected rights-holders and stakeholders:

- a. How, when and in what formats relevant information³³ will be shared with them to ensure that communications and information-sharing with affected rights-holders and stakeholders occurs in a manner that is deemed meaningful and usable by them, including to people who present sensory disabilities and/or sensory impairment³⁴;
- b. Also in a manner that is deemed culturally appropriate and easily accessible by affected rights-holders and stakeholders³⁵; and
- c. Also in a manner that is deemed timely by affected rights-holders and stakeholders³⁶. When information cannot be shared in a timely manner, the ENTITY systematically provides affected rights-holders and stakeholders with a documented justification or explanation for the delay.

1.2.3.2 The stakeholder engagement plan that is in place (required in 1.2.2) ensures that:

- a. Any request from affected rights-holders and stakeholders to obtain information that relates to the site's performance against the IRMA Standard will be met in a timely and effective manner³⁷;
- b. If requests are challenging to fulfill because of the large volume of information requested, the ENTITY will at least³⁸ provide affected rights-holders and stakeholders with summaries of requested information and a documented justification or explanation for why information is not being provided in full or according to the preferred timeline of the stakeholder³⁹; and
- c. If a request entails the sharing of document(s) that contain some confidential business information, or information that would violate applicable data privacy or data security laws, the ENTITY will redact only the confidential information, allowing for the release of all the non-confidential information.

1.2.4 Implementation of Stakeholder Engagement Processes

1.2.4.1 Critical Requirement

The ENTITY has a system in place to foster two-way dialogue and meaningful engagement with affected rights-holders and stakeholders. This system includes a process (or processes) to:

- a. Provide affected rights-holders and stakeholders with opportunities to contribute to engagement agendas and add topics of concern into engagement planning⁴⁰;
- b. Provide relevant information to affected rights-holders and stakeholders, including advance notice of proposed activities, in accordance with 1.2.3; and
- c. Engage affected rights-holders and stakeholders in a manner that is free from manipulation, interference, coercion, or intimidation⁴¹.



1.2.4.2 This system also includes a process (or processes) to:

- a. Clearly define decision-making structures and authorities amongst both ENTITY and affected rights-holders and stakeholders on key topics;
- b. Ensure participation of representatives of affected rights-holders and stakeholders if consultations with them indicate that this as an expectation;
- c. Engage and collaborate with a broad spectrum of affected rights-holders and stakeholders representing a diversity in genders, ages, ethnicities, and any potentially underserved and/or marginalized people⁴²;
- d. Regularly solicit feedback from affected rights-holders and stakeholders on issues relevant to them;
- e. Include participation by site management and subject-matter experts when addressing concerns of significance to affected rights-holders and stakeholders; and
- f. Engage affected rights-holders and stakeholders on an ongoing basis, from the earliest possible stage⁴³, and throughout the project/operation life cycle.

1.2.4.3 At least one permanent stakeholder engagement mechanism⁴⁴ is in place, as follows:

- a. Is designed to facilitate the participation of affected rights-holders and stakeholders in regular and ongoing review of, input on, and collaborative decision-making on the environmental and social performance of the site and its associated facilities, as well as on other issues relevant to those affected rights-holders and stakeholders⁴⁵;
- b. Is designed in collaboration with affected rights-holders and stakeholders;
- c. Is designed in collaboration with a diversity of members and representatives from affected communities⁴⁶;
- d. Includes specific mechanisms to facilitate the meaningful participation of potentially underserved and/or marginalized people; and
- e. Ensures that relevant information is preemptively shared with affected rights-holders and stakeholders, in accordance with 1.2.3, for them to make input and contribute to collaborative decision-making in an informed manner.

1.2.4.4 When stakeholder engagement processes depend substantially on community representatives speaking for the community:

- a. Efforts are made by the ENTITY to confirm whether or not such people represent the views and interests of diverse affected community members including underserved and/or marginalized people, and can be relied upon to reliably communicate relevant information between the community and the ENTITY⁴⁷;
- b. If either the representatives are not considered to represent the views of the community including underserved and/or marginalized people, or information from the engagement processes are not flowing back to the community, then the ENTITY implements additional engagement processes to enable more meaningful input from and information sharing with the broader community; and
- c. These additional engagement processes identify how their effectiveness will be monitored and evaluated.



1.2.4.5 Engagement processes are documented, including, at minimum:

- a. Names of participants, unless anonymity requested, and their affiliations⁴⁸ if relevant;
- b. Input received from rights-holders and stakeholders, dates of all interactions, and feedback provided by the ENTITY to them; and
- c. The documentation process includes safeguards to protect the security and privacy of collected personal data or characteristics of affected rights-holders and stakeholders.

1.2.5 Strengthening Capacity to Engage



1.2.5.1 The ENTITY has a system in place to ensure that competent professionals conduct and document consultations with affected rights-holders and stakeholders, at least annually and more frequently if requested by them, to:

- a. Assess their capacity to effectively engage with the ENTITY⁴⁹;
- b. Identify and understand potential barriers to participation in engagement processes that exist for different genders, ages, ethnicities, cultures, and linguistic groups; and
- c. Identify and understand potential barriers to participation in engagement processes that exist for any potentially underserved and/or marginalized people⁵⁰.



1.2.5.2 This system ensures that, where barriers to participation or capacity gaps⁵¹ are identified:

- a. The ENTITY offers appropriate assistance to facilitate more effective engagement⁵²;
- b. The ENTITY and the relevant people or groups mutually agree on strategies to facilitate more effective engagement⁵³; and
- c. They also jointly agree on the implementation schedule/s, how implementation and effectiveness will be monitored and evaluated, and a financing plan to ensure that funding is available for effective implementation of these strategies.



1.2.6 Monitoring and Evaluation

1.2.6.1 To monitor and evaluate the implementation and effectiveness of the stakeholder engagement plan, the ENTITY collaborates with affected rights-holders and stakeholders to, at least annually or more frequently if requested by them:

- Track and document the implementation progress and effectiveness of stakeholder engagement, over successive time periods, against the timetable, goals and indicators defined as per 1.2.2.1 and 1.2.2.2;
- Track and document the effectiveness of the strategies implemented to remove barriers and build capacity as per 1.2.5; and
- The monitoring and evaluation process includes safeguards to protect the security and privacy of collected personal data or characteristics of stakeholders.

1.2.6.2 The monitoring and evaluation process:

- Encourages and facilitates joint tracking or joint fact-finding with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, and any potentially underserved and/or marginalized people;
- Includes continuous stakeholder feedback on the design of engagement processes with regard to the scope of relevant issues covered; and
- Includes continuous stakeholder feedback on the timeliness, accessibility, inclusiveness, and cultural appropriateness of information-sharing (see 1.2.3.1).



1.2.7 Continuous Improvement

1.2.7.1 At least annually, or more frequently if requested by affected rights-holders and stakeholders, the ENTITY collaborates with them to:

- Review the monitoring and evaluation results, informed by internal and external feedback, as per Section 1.2.6;
- Review any engagement-related grievances and the functioning of its relevant grievance mechanism/s required in Section 1.4.3;
- Review the ENTITY's effectiveness in engaging and collaborating with a broad spectrum of affected rights-holders and stakeholders representing a diversity in genders, ages, ethnicities, and members of any potentially underserved and/or marginalized people, as per 1.2.4.2;
- Develop and implement time-bound corrective measures to update, if necessary⁵⁴, the stakeholder mapping and analysis in accordance with Section 1.2.2,
- Develop and implement time-bound corrective measures to update, if necessary⁵⁵, the processes and criteria for sharing information in accordance with Section 1.2.3;
- Develop and implement time-bound corrective measures to update, if necessary⁵⁶, how, the ENTITY engage with stakeholders in accordance with Sections 1.2.2 and 1.2.4; and
- Develop and implement time-bound corrective measures to update, if necessary⁵⁷, the monitoring and evaluation processes, in accordance with Section 1.2.6.



1.2.8 Information-Sharing

1.2.8.1 The ENTITY proactively shares with affected rights-holders and stakeholders, in accordance with Section 1.2.3, and with due regard for the safety and data privacy of affected rights-holders and stakeholders:

- Details about input received during stakeholder engagement processes;
- Details about how stakeholder input and concerns were taken into account and addressed by the ENTITY; and
- Details about how time-bound corrective measures required in 1.2.7.1 are effectively implemented.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

²¹ Herbertson, K., Ballestaeros, A., Goodland, R. and Munilla, I. 2009. Breaking Ground: Engaging Communities In Extractive And Infrastructure Projects. (World Resources Institute). <https://www.wri.org/research/breaking-ground>

²² For example, Principle 10 of the Rio Declaration of 1992 states that, "Environmental issues are best handled with the participation of all concerned citizens." (Source: United Nations. 1992. Report of the United Nations Conference on Environment and Development. Annex I. "Rio Declaration on Environment and Development." <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>)

²³ For Exploration projects at Stage 1, this should be done to the greatest extent possible (given the absence of on-site engagement and site visits). Note that in some jurisdictions, community engagement is expected well before the ENTITY can start on-site exploration activities (see also definition of Exploration – Stage 2).

²⁴ What may constitute 'underserved and/or marginalized people' requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those who are not able or willing to participate without particular considerations/accommodations; this often includes persons with disabilities, socially or geographically marginalized groups, those in a state of poverty, the illiterate, groups for whom local cultural practices deter participation, etc. Additional guidance will be provided in the IRMA Guidance Document.

²⁵ E.g. nation, population, etc.

²⁶ Area of Influence (AoI) is required to be determined in Chapter 2.1 – Environmental and Social Impact Assessment and Management (see requirement 2.1.4.1). If not done as required by Chapter 2.1, Entities would be expected to establish the AoI in order to fully meet this requirement.

²⁷ There are usually five different forms: "traditional, seasonal, permanent co-habitation, shock and influx ASM. Each of these can be legal or illegal or exist in the informal sector. In identifying how to engage with ASM miners, and which approaches and tools to apply, companies should first identify the general form of ASM activity they are engaging with." Source: ASM, CommDev, ICMM, IFC, World Bank (2010) *Working together: How large-scale mining can engage with artisanal and small-scale miners*.

²⁸ This includes, but is not limited to: DeafBlind, Blind, Deaf and Hard of hearing, chronic pain, mental differences, developmental, intellectual and mobility challenges. To ensure meaningful access to communication and information-sharing, Entities must focus on sensory challenges that require, for example, accessible websites and documents (see document accessibility in the Glossary), sign-language interpreting, real-time captioning.

²⁹ 'Pre-existing community dynamics' can include, if relevant, analysis of past responses to natural resource development projects, to the extent that they may be informing stakeholder responses to proposed projects and/or have created divisions or tensions in the communities which may be repeated if the Entity does not conduct engagement appropriately, with these tensions in mind.

³⁰ If Indigenous Peoples are affected by a project/operation, they may be included in an integrated engagement plan that includes all stakeholders and rights-holders and specifically addresses separate engagement with Indigenous Peoples, especially with regard to their specific individual and collective rights, or a standalone engagement plan may be developed for Indigenous Peoples. Either way, engagement with Indigenous Peoples is addressed and verified separately in Chapter 2.2.

³¹ The Entity should conduct preliminary engagement with key stakeholder representatives and relevant authorities as appropriate to the context to develop the preliminary plan. Stakeholder engagement is a dynamic process which is required to be adjusted over time. See Sections 1.2.6 (Monitoring and Evaluation) and 1.2.7 (Continuous Improvement).

³² What may constitute ‘underserved and/or marginalized people’ requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those who are not able or willing to participate without particular considerations/accommodations; this often includes persons with disabilities, socially or geographically marginalized groups, those in a state of poverty, the illiterate, groups for whom local cultural practices deter participation, etc. See also Sections 1.2.4 and 1.2.5 on the specific measures to identify and put in place to increase accessibility and ensure participation of all stakeholders and rights-holders including remote populations (could include translation, transportation, etc.).

³³ This includes information related to: Legal compliance (1.1.4); Stakeholder engagement processes (1.2.4, 1.2.6, 1.2.7, 1.2.8); Human rights due diligence (1.3.3, 1.3.4, 1.3.5, 1.3.6, 1.3.7); Conflict-affected and high-risk area due diligence (1.5.4, 1.5.8); Community grievances and whistleblowers (1.6.1, 1.6.2, 1.6.3, 1.6.4, 1.6.5, 1.6.6); Socio-environmental impact assessment process (2.1.3, 2.1.4, 2.1.6, 2.1.8, 2.1.9, 2.1.10, 2.1.11, 2.1.12); Gender equity, and sexual and gender-based violence (2.3.3, 2.3.4, 2.3.5, 2.3.6, 2.3.8); Community support and benefits (2.4.2, 2.4.3, 2.4.5, 2.4.6); Land acquisition and resettlement (2.5A.2, 2.5A.3, 2.5A.5, 2.5A.6, 2.5A.7, 2.5A.8, 2.5A.9, 2.5A.10, 2.5A.11, 2.5B.2, 2.5B.3, 2.5B.5, 2.5B.6, 2.5B.7, 2.5B.8, 2.5B.9); Emergency preparedness and response (2.6.1, 2.6.2, 2.6.3, 2.6.4, 2.6.7, 2.6.8); Reclamation and closure (2.7.1, 2.7.4, 2.7.5, 2.7.7); Community health and safety (3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6); Security forces (3.4.2, 3.4.3, 3.4.7, 3.4.8, 3.4.9, 3.4.11); Engagement with ASM (3.5.2, 3.5.3); Cultural heritage (3.6.1, 3.6.2, 3.6.3, 3.6.4, 3.6.6, 3.6.7, 3.6.8); Noise and vibration (3.7.3, 3.7.4); Waste and materials management (4.1.1, 4.1.5, 4.1.9, 4.1.10, 4.1.11); Tailings storage and mine waste storage management (4.2.7, 4.2.15, 4.2.16, 4.2.17); Water management (4.3.2, 4.3.3, 4.3.4, 4.3.6, 4.3.7, 4.3.8, 4.3.9); Biodiversity, ecosystem services and protected and conserved areas (4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.4.6, 4.4.7, 4.4.8, 4.4.9); Air quality and dust management (4.5.1, 4.5.3, 4.5.7, 4.5.8, 4.5.9); Climate action (4.6.2, 4.6.8, 4.6.11). Note that engagement and information-sharing with Indigenous Peoples are addressed specifically in Chapter 2.2 (see Section 2.2.4).

³⁴ These dimensions must be regularly reviewed and updated as per 1.2.6.2.

³⁵ As these will depend largely on a specific context, stakeholders will help define what is considered culturally appropriate and easily accessible. These dimensions must be collaboratively defined as per 1.2.3.1, and regularly reviewed and updated as per 1.2.7.1.

³⁶ “in a timely manner” will likely vary based on the ENTITY’s resources and procedures (e.g., some companies may have due diligence procedures in place for releasing data publicly) and also the size/nature of the request. Generally, however, requests should be fulfilled within 1 to 3 months, although for particularly large requests or requests made to companies with limited capacity to fulfill information requests, some flexibility may be needed. Also, some companies have stringent quality assurance procedures that must be followed in order to share data publicly, and so may require more time to prepare materials for release. (See also 1.2.3.2 for requests that are not responded to in what seems like a “timely manner”). This dimension must be collaboratively defined as per 1.2.3.1, and regularly reviewed and updated as per 1.2.7.1.

³⁷ See requirement 1.2.3.1 for identification and mutual agreement on what timeliness and effectiveness mean for relevant stakeholders and rights-holders. Such timeliness and effectiveness will be regularly evaluated, reviewed, and improved, as per Sections 1.2.6 and 1.2.7.

³⁸ The Entity should first work with the party requesting information to identify/advise on how to refine the request to facilitate sharing of the relevant information in full.

³⁹ As these will depend largely on a specific context, stakeholders will help define what is considered culturally appropriate and easily accessible. These dimensions must be collaboratively defined as per 1.2.3.1, and regularly reviewed and updated as per 1.2.7.1.

⁴⁰ The Entity can agree upon appropriate timelines for modification to engagement agendas with stakeholders as part of its broader consultations with these stakeholders about how engagement should be carried out (see 1.2.3.1).

⁴¹ Engaging in a manner ‘free from manipulation, interference, coercion, or intimidation’ means not only that the Entity does not put this pressure on stakeholders, but also that stakeholders are given mechanisms through which to participate freely and comfortably (including separate groups for women, youth, or other groups that may not feel free to speak out in a group setting, options to submit anonymous grievances, options to have a woman present to receive grievances / conduct engagement if required, etc.). See also related requirements within this chapter, including requirements in Sections 1.2.2, 1.2.3, 1.2.4, and 1.2.5.

⁴² What may constitute ‘underserved and/or marginalized people’ requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those who are not able or willing to participate without particular considerations/accommodations; this often includes persons with disabilities, socially or geographically marginalized groups, those in a state of poverty, the illiterate, groups for whom local cultural practices deter participation, etc. Additional guidance will be provided in the IRMA Guidance Document.

⁴³ Where mines were unable to begin engagement planning and implementation prior to mine planning, they need to provide a rationale as to why it was not possible to do so (more details may be provided in Guidance).

⁴⁴ Common stakeholder engagement mechanisms include, but are not limited to, dialogue platforms, roundtables, citizen participation committees, advisory councils, participatory workshops, thematic working groups. There could be several engagement mechanisms, if required, based on interests and needs as identified in conjunction with the communities, rights-holders, and other stakeholders as required in several requirements of this chapter.

⁴⁵ This also includes grievances and how they are handled and resolved.



⁴⁶ Across different genders, ages, ethnicities, cultures, and linguistic groups, and including potentially underserved and/or marginalized people.

⁴⁷ The Entity must work with traditional structures to identify potential gaps in representation vis-a-vis IRMA requirements/criteria – if traditional leaders agree to adjust or allow for other engagement forms to meet these requirements/criteria, there would be no need to implement additional, separate, processes. In any case, the Entity needs to demonstrate that they made a good faith effort.

⁴⁸ E.g. group or organization.

⁴⁹ E.g., to engage in dialogue, consultations, studies, impact assessments, the development of mitigation plans, monitoring programs, community development strategies, etc.

⁵⁰ What may constitute ‘underserved and/or marginalized people’ requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those who are not able or willing to participate without particular considerations/accommodations; this often includes persons with disabilities, socially or geographically marginalized groups, those in a state of poverty, the illiterate, groups for whom local cultural practices deter participation, etc. Specific measures to increase accessibility and ensure participation of all stakeholders and rights-holders can include translation, transportation, material in formats adapted to persons with disabilities or sensory issues, etc (see 1.2.2.1 and Section 1.2.4).

⁵¹ Capacity gaps or needs may be legal, technical, process-oriented (e.g., negotiation skills), logistical, or other. Different assessment and consultation processes may need to take place over time, as the stakeholders involved in the development of mitigation strategies may not be the same ones engaged in monitoring, for example.

⁵² Depending on the circumstances, appropriate assistance may include, but is not limited to providing: access to training, financial and/or technical support to select and hire independent experts, capacity-building.

⁵³ This can include, but is not limited to: accepting the offer to receive access to training, financial and/or technical support to select and hire independent experts, capacity-building, or other facilitation strategies.

⁵⁴ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁵⁵ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁵⁶ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁵⁷ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.



Chapter 1.3

Human Rights Due Diligence

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Added a new policy requirement related to the protection of human rights, land, environmental, and labor Defenders.
- Added a Section on Scoping, to ensure consistency throughout the Standard.
- Moved the identification of affected Indigenous rights-holders to this Chapter, to ensure all entities systematically adopt this lens when identifying affected rights and rights-holders. This also ensures better robustness of Chapter 2.2 dedicated to Indigenous Peoples (and robustness of the process for indicating it “not relevant” to a given site).
- Similarly, the identification of whether any of the ENTITY’s activities may be the cause of, or may take place in a conflict-affected or high-risk area has been moved to this Chapter, for clarity and robustness.
- One endnote expanded to clarify responsibility of subsidiaries and joint-venture partners (where relevant).
- Included the need to “assign responsibility to top management level to oversee plan implementation, monitoring, and recordkeeping” to align with the EU Battery Regulation.
- Included specific requirements and points of verification related to environmental harms, strengthening the linkages between human rights and environmental due diligence, informed by the recommendations of the 2024 UNDP guidance ‘Human Rights due Diligence and the Environment: a Practical Tool for Business’ and 2023 OECD Handbook on Environmental Due Diligence in Mineral Supply Chains.
- Increased clarity and auditability by:
 - Streamlining the chapter sequence and harmonizing the names of the Sections with the rest of the Standard.
 - Harmonizing language and requirements to ensure full and comprehensive alignment with the UN Guiding Principles on Business and Human Rights.
 - Reorganized all requirements related to regular updates and continuous improvement under the new Section “Continuous Improvement”.
 - Clarifying expectations regarding public reporting, also in alignment with the UN Guiding Principles.



RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
1.3-01	The original requirement 1.3.2.1 was a critical requirement. See the Note on Critical Requirements, above, for context on critical requirements. Because it contained expectations to identify, assess and update human rights assessments, it is not clear which of the 54 following requirements should be the replacement critical requirement. There are three options under consideration as a replacement critical requirement: 1) The integrity/robustness of the assessment process (1.3.2.1; now 1.3.3.3 and 1.3.3.4), 2) the content of the assessment (1.3.2.2; now 1.3.3.1 and 1.3.3.2), or 3) the updating of the assessment (1.3.2.4; now 1.3.6.1.d). Question: Do you have an opinion on which of those three requirements should be the critical requirement? Any rationale to support your choice would be appreciated.	Feedback received: 16 responses received (6 from mining/processing companies, 4 from consultancy, 3 from NGOs, 2 from finance/investors, 1 from government agency). A majority (9, mix of stakeholder groups) recommended the integrity/robustness to be the critical part. 3 respondents (finance, mining company, consultancy) recommended to mark critical both the integrity and the content, while 3 others (2 mining, 1 consultancy) recommended to mark critical only the content of the assessment. Proposed Decision: IRMA proposes to designate critical the requirement that address the integrity/robustness of the Human Rights Risk and Impact assessment process, i.e. now 1.3.3.1.

BACKGROUND

In 1948, the United Nations (UN) General Assembly adopted the Universal Declaration of Human Rights, which, for the first time in history, enumerated the fundamental civil, political, economic, social, and cultural rights that all human beings should enjoy. Since that time, a series of core international human rights conventions and treaties, along with other instruments, have established the international legal framework for individual and collective human rights.⁵⁸ For example, UN instruments have elaborated on the rights of Indigenous Peoples, women, national or ethnic, religious, and linguistic minorities, children, persons with disabilities, and migrant workers and their families.⁵⁹

In 2011, the UN Guiding Principles on Business and Human Rights (UNGPs), which were unanimously endorsed by the UN Human Rights Council, clarified the corporate responsibility to respect human rights, stating that all corporations “should avoid infringing on the human rights of others.”⁶⁰ The Guiding Principles make clear that an enterprise should not focus exclusively on the most salient human rights issues and ignore others that might arise. But where it is necessary to prioritize actions to address actual and potential adverse human rights impacts, the ENTITY should “first seek to prevent and mitigate those that are most severe or where delayed response would make them irremediable”. Other frameworks have similarly emerged that outline specific due diligence under particular circumstances. For example, the OECD Due Diligence Guidance for Mineral Supply Chains in Conflict-Affected and High-Risk Areas⁶¹ provides specific guidance for entities on what due diligence is required in such areas to address risks to human rights and other risks when operating in those areas (see IRMA Chapter 3.4).

In July 2022, in a landmark vote, the UN General Assembly unanimously recognized that a clean, healthy, and sustainable environment is a human right. This recognition followed the UN Human Rights Council resolution 48/13 which acknowledged the right in October 2021. Although the UNGPs do not explicitly mention the environment, they acknowledge that human rights due diligence should cover actual and potential adverse impacts on all human rights, which should now include those resulting from environmental harms and/or affecting the right to a clean, healthy, and sustainable environment.

This Chapter is fully aligned with the framework for corporate responsibility established in the UNGPs, and includes best practice requirements to increase transparency regarding human rights impacts, and to increase the ability of rights-holders to participate, in a meaningful way, in decisions that affect their lives. It also incorporates recommendations from the 2024 UNDP guidance ‘Human Rights due Diligence and the Environment: a Practical Tool for Business’ and 2023 OECD Handbook on Environmental Due Diligence in Mineral Supply Chains. This Chapter is also aligned with the 6-step approach of the OECD Due Diligence Guidance for Responsible Business Conduct.

This chapter does not specifically address cases where companies knowingly contribute to serious human rights abuses. IRMA has a Policy on Association that describes when particularly serious actions by any ENTITY engaged in IRMA create a context where IRMA could refuse to associate or could set conditions for association with those entities. In addition, IRMA is also exploring ways that an ENTITY engaged in the IRMA system and the people concerned with impacts (local community members, Indigenous rights-holders, purchasing customers, investors, government and others) might use IRMA’s system to support discussion on remedy of past harm.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- The International Bill of Human Rights (including the 1966 International Covenant on Civil and Political Rights (ICESCR) and International Covenant on Economic, Social and Cultural Rights (ICCPR))
- United Nations Guiding Principles for Business and Human Rights
- International Labour Organization's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy
- OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, 2023 Edition
- OECD Due Diligence Guidance for Responsible Business Conduct, 2018 Edition
- OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, Third Edition
- OECD Handbook on Environmental Due Diligence in Mineral Supply Chains, 2023
- UNDP Human Rights Due Diligence and the Environment: a Practical Tool for Business, 2024

OBJECTIVES OF THIS CHAPTER

To respect human rights, and identify, prevent, mitigate and remedy potential violations of human rights.

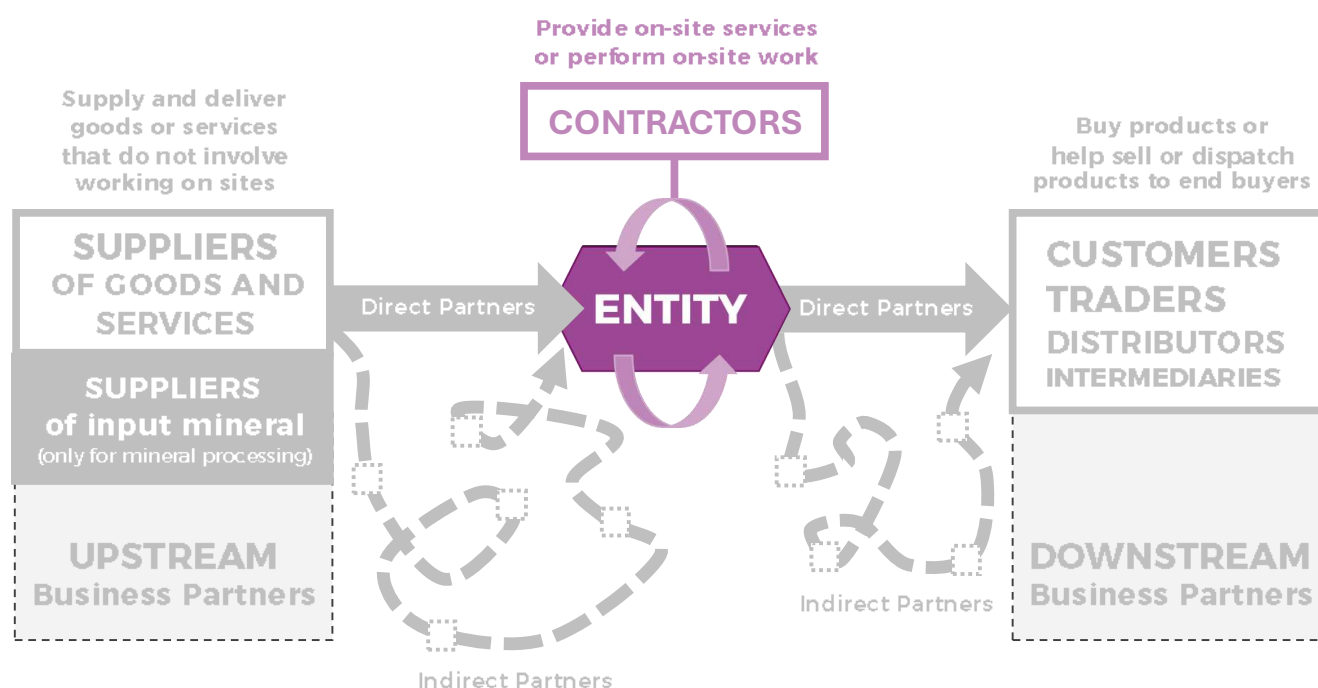
SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

This Chapter is focused on the operations and activities of the ENTITY itself and of its contractors (who provide on-site services or perform on-site work), as well as of other relevant parties who are linked to the project/operation (such as joint-venture partners' staff or contractors responsible for operation/management, organizations or public agencies visiting the site). The responsibility of the ENTITY in conducting due diligence on both its upstream (i.e. suppliers) and downstream (i.e. customers, traders, distributors, intermediaries), direct and indirect, business partners is fully addressed in Chapter 1.4, also aligned with the UN Guiding Principles, that do not limit human rights due diligence to on-site activities and business relationship. Figure 1.3 clarifies the terminology used to differentiate the ENTITY and its on-site Contractors from upstream and downstream business partners. An ENTITY may develop and implement one unified due diligence system that encompasses the requirements set in both Chapters 1.3 and 1.4. In any case, companies and auditors should not view these chapters as silos, but as two complementary and interconnected aspects.

FIGURE 1.3. Scope and Terminology related to on-site Contractors, Upstream and Downstream Business Partners (direct and indirect), highlighting the focus of Chapter 1.3.





Note that the requirements outlined below are only applicable to the activities and business relationships that relate to the specific project/operation that is being audited, not all of an ENTITY's activities and business relationships (i.e. related to other sites, countries and/or business segments). The categories of risks and adverse impacts that need to be considered are listed in [Annex 1.3](#) (see Chapter Annexes).

As with many Chapters of the IRMA Standard, the requirements in this Chapter can be met by taking an integrated/overarching approach. An integrated approach to human rights would mean identifying, prioritizing, preventing, addressing, consulting on, monitoring and evaluating, and continuously improving performance on, human rights through broader processes already in place for the responsible management of environmental, social, and labor issues.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are three (3) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is no (0) optional IRMA+ requirement in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



IRMA Requirements

1.3.1 Formalized Policy

E1 E2 E3 D M P

1.3.1.1 The ENTITY has a formal policy in place that:

- Commits to respect all internationally recognized human rights⁶², in accordance with the UN Guiding Principles on Business and Human Rights;
- Sets clear expectations that are in line with the UN Guiding Principles on Business and Human Rights regarding personnel, contractors, and other relevant parties⁶³ linked to the project/operation;
- Is approved at the top management level of the ENTITY;
- Is proactively communicated to personnel, contractors, and other relevant parties⁶⁴ linked to the site and its associated facilities;
- Is publicly accessible; and
- The ENTITY has allocated financial and staffing resources to implement this policy at the level of the site.

E1 E2 E3 D M P

1.3.1.2 With regard to Rights Defenders, the ENTITY has a formal policy in place⁶⁵ that:

- Commits to respect the rights and protections⁶⁶ accorded to human rights, land, environmental, and labor rights Defenders (hereafter referred to as "rights Defenders") in its area of influence⁶⁷;
- Publicly recognizes the positive role that rights Defenders play, and commits to zero tolerance towards threats, attacks and reprisals against them;
- Sets clear expectations for how personnel, contractors, and other relevant parties⁶⁸ linked to the site and its associated facilities shall respect the rights and protections accorded to rights Defenders;
- Is approved at the top management level of the ENTITY;
- Is proactively communicated to personnel, contractors, and other relevant parties⁶⁹ linked to the site and its associated facilities; and
- Is publicly accessible.

1.3.2 Scoping⁷⁰

E2 E3 D M P

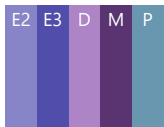
1.3.2.1 A scoping process (or equivalent) is undertaken by competent professionals, at the level of the site, to analyze the human rights context applicable to the ENTITY. This process includes:

- An analysis of the current human rights context in the country and the site's area of influence, including human rights impacts that have already occurred in relation to past and current mining-related activities;
- An overview of relevant human rights laws, regulations, and norms; and
- An environmental dimension through the mapping of key spatial data layers related to pollution, climate change, and biodiversity loss⁷¹.



1.3.2.2 A scoping process (or equivalent) is undertaken by competent professionals, at the level of the site, to identify and map the rights of all potentially affected rights-holders and stakeholders⁷². This process:

- Builds on the stakeholder scoping process required in Section 1.2.1, to identify and map all their duly reasoned claims regarding the use or ownership of land, territories, and resources in and around the site's area of influence⁷³;
- Add to the map groups of rights-holders dependent on land, water, air, climate, and biodiversity (as well as entitled to lands, territories, and resources) who, therefore, can potentially be adversely affected by the site and its associated facilities⁷⁴; and
- Is informed by consultations with potentially affected rights-holders, including different genders, ages, ethnicities, abilities, and any potentially underserved and/or marginalized people⁷⁵.



1.3.2.3 Building on Chapter 1.2, a scoping process (or equivalent) is undertaken by competent professionals, at the level of the site, to specifically identify and map the rights of all **Indigenous** rights-holders potentially affected by the site and its associated facilities. This process:

- Builds on the stakeholder scoping process required in Section 1.2.1, to identify and map all distinct groups of Indigenous Peoples whose traditionally owned, occupied, or otherwise used or acquired lands, territories, and resources have been or may be affected directly or indirectly by the site and its associated facilities⁷⁶;
- Includes consultations with relevant Indigenous Peoples' organizations or bodies, if they exist, and external experts and credible independent sources of information to determine if there are any potentially affected Indigenous Peoples who have not been identified by the ENTITY⁷⁷; and
- Includes consultations with relevant Indigenous Peoples' organizations or bodies, if they exist, and external experts and credible published sources to determine if there are any **Uncontacted Indigenous Peoples and/or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact**⁷⁸ who may be present in the area of influence and/or affected by the site and its associated facilities.

1.3.3 Risk and Impact Assessment



1.3.3.1 Critical Requirement

Building on 1.3.2, a risk and impact assessment is carried out by competent professionals, at the level of the site, to identify and assess potential human rights impacts (hereafter referred to as human rights "risks") and actual human rights impacts related to the site and its associated facilities. The assessment includes:

- A comprehensive list of the direct, indirect and cumulative risks and impacts on human rights related to the project/operation and associated facilities, informed by the review of all the issues listed in [Annex 1.3](#) and determination of their applicability;
- An evaluation of the severity of each identified impacts, and of the likelihood for and potential severity of each identified risk;
- An analysis of the potential differential risks to and impacts on the different categories or groups of rights-holders and a disaggregation of the results by such categories or groups, including: 1) People of different genders, ages, and ethnicities; 2) Rights Defenders; and 3) Any potentially underserved and/or marginalized people; and
- Recommended measures that can be taken by the ENTITY to prevent all identified risks and impacts and, where prevention is not possible or not immediately possible, to mitigate and to remediate them⁷⁹.



1.3.3.2 This risk and impact assessment:

- Is informed by relevant internal and/or external human rights expertise;
- Incorporates analysis of credible independent reports and sources of information; and
- Includes an explanation of the assessment methodology.



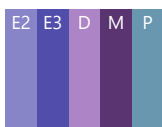
1.3.3.3 This risk and impact assessment clearly identifies whether any of the ENTITY's activities⁸⁰ may be the cause of, or contributing to, or may take place in an area with confirmed or suspected presence of:

- Armed conflict⁸¹, widespread violence, widespread human rights abuses or other risks of harm to people;
- Political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, or widespread violations of national or international law; and
- The ENTITY has a system in place to ensure that, if and whenever the human rights risk and impact assessment identifies any of the ENTITY's activities to be the cause of, or contribute to, or take place in an area with confirmed or suspected presence of, any form of such conflicts or high risks (as per sub-requirements a. and b), heightened due diligence is carried out by competent professionals in accordance with Chapter 1.5.



1.3.3.4 This risk and impact assessment process is informed by consultations with affected rights-holders and stakeholders, as follows:

- Consultations occur in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people;
- The rights-holders and stakeholders who participate have opportunities to review and provide feedback, for a period of at least 60 days, on draft key issues, findings, and recommendations that are relevant to them;
- They have opportunities to validate these key issues, findings and recommendations, before the ENTITY can consider the process finalized or completed⁸²; and
- Draft and final versions of relevant documents and information are shared with affected rights-holders and stakeholders, in a meaningful, accessible, and culturally appropriate way (as per Section 1.2.3), clearly showing how their feedback and input was taken into account.



1.3.3.5 Building on 1.3.3.1, when past or ongoing human rights impacts in relation to the project/operation have been identified, the Entity ensures that the following studies are carried out by competent professionals to inform the risk and impact assessment process:

- Analysis of the root causes of those human rights impacts;
- Evaluation of how those human rights impacts may be aggravated by the ENTITY's current and future mining-related activities; and
- Identification of whether measures have been taken to remedy those human rights impacts, and if so, whether remedies provided were satisfactory to affected rights-holders.

1.3.4 Prevention, Mitigation, and Remediation Plan**1.3.4.1 Critical Requirement**

Building on 1.3.3 and other relevant sources of information⁸³, a plan⁸⁴ is developed and documented by competent professionals to prevent and mitigate all the human rights risks and impacts identified. The plan:

- Outlines the agreed specific measures to prevent and, where prevention is not possible or not immediately possible, to mitigate all potential human rights risks and actual human rights impacts;
- Where it is necessary to prioritize measures to address actual and potential adverse human rights impacts, it first seeks to prevent and mitigate those that are most severe or where delayed response would make them irremediable⁸⁵;
- Includes qualitative and quantitative⁸⁶ performance indicators (including gender-disaggregated indicators and other categories of disaggregated indicators where appropriate),⁸⁷ linked to adequate baseline data, to enable monitoring and evaluation of the effectiveness of measures over time;
- Assigns implementation of measures to responsible staff with adequate skills and expertise;
- Assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁸⁸;
- Has clearly-defined timelines and an implementation schedule in place that specifies the expected outcomes for affected rights-holders and stakeholders;
- Maintains estimates of human resources and budget required; and
- Includes a financing plan in place, to ensure that funding is available for the effective implementation of the plan.

1.3.4.2 To prevent human rights impacts, this plan ensures that:

- Where the ENTITY may cause an adverse human rights impact⁸⁹, it takes the necessary measures to prevent the impact from occurring, including through halting or ceasing relevant activities if necessary;
- Where the ENTITY may contribute to an adverse human rights impact, it takes the necessary measures to cease or prevent its contribution to the identified risk, and use its leverage to mitigate any remaining risk to the greatest extent possible. Leverage is considered to exist where the enterprise has the ability to effect change in the practices of an ENTITY that may cause a harm; and
- Where the ENTITY identifies external human rights risks that are directly linked to its operations, products or services by its business relationship with another ENTITY, the ENTITY develops measures aimed at preventing the impact from occurring, based on its leverage over the business relationship concerned, how crucial the relationship is to the ENTITY, the severity and probability of occurrence of the risk, and whether terminating the relationship itself would have adverse human rights consequences.



1.3.4.3 Critical Requirement

To mitigate adverse human rights impacts, this plan ensures that, whenever an actual human rights impact is identified:

- Where the ENTITY causes the adverse human rights impact, measures to cease the impact, prevent any further impact, and mitigate and remediate harm in a timely manner, are developed in collaboration with affected rights-holders. If mutually acceptable remedies cannot be found through dialogue, the ENTITY attempts to reach agreement through an independent, third-party mediator or mechanism, mutually acceptable to affected rights-holders;
- Where the ENTITY does not bear the sole responsibility of the adverse human rights impact⁹⁰, it mitigates and remediates harm to the extent of its contribution, and uses its leverage to the greatest extent possible to influence other contributing parties to mitigate and remediate the remaining impacts. Leverage is considered to exist where the enterprise has the ability to effect change in the wrongful practices of an ENTITY that causes a harm⁹¹; and
- Where they exist, the ENTITY cooperates with other legitimate processes such as judicial or state-based investigations or proceedings related to the human rights impact that the ENTITY caused, contributed to, or was linked to through its business relationships.



1.3.4.4 The development of this plan is informed by consultations with potentially affected rights-holders, as follows:

- Consultations occur in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people;
- The rights-holders who participate have opportunities to review and provide feedback, for a period of at least 60 days, on draft prevention and mitigation measures, priority setting, and on draft qualitative and quantitative performance indicators that are relevant to them;
- They have opportunities to validate these measures, priority setting, and qualitative and quantitative performance indicators, before the ENTITY can consider the process finalized or completed⁹²; and
- Draft and final versions of relevant documents and information are proactively shared with rights-holders, in a meaningful, accessible, and culturally appropriate way (as per Section 1.2.3), clearly showing how their feedback and input was taken into account.



1.3.4.5 Affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to human rights, as follows:

- A grievance mechanism through which affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, can raise, and seek resolution or remedy for, complaints and grievances specifically related to human rights, is in place⁹³;
- This grievance mechanism is rights-compatible⁹⁴;
- Affected rights-holders and stakeholders have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms⁹⁵;
- If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to human rights, the Entity fully meets all requirements in Chapter 1.6; and
- If a separate mechanism is created to handle only complaints and grievances related to human rights, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.

1.3.5 Monitoring and Evaluation

1.3.5.1 To monitor and evaluate the effectiveness of the plan, at least twice a year, the ENTITY:

- Tracks and documents its performance, over successive time periods, against the indicators defined in 1.3.4.1 and validated as per 1.3.4.4;
- Tracks and documents how the measures developed and implemented as per 1.3.4.2 and 1.3.4.3 are effectively preventing actual human rights impacts, and where prevention is not possible or not immediately possible, providing timely and adequate remediation to affected rights-holders; and
- Disaggregates the data according to gender-disaggregated indicators and other categories of disaggregated indicators where appropriate.

1.3.5.2 The monitoring and evaluation process:

- Encourages and facilitates joint tracking or joint fact-finding with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, and ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2⁹⁶;
- Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected rights-holders and stakeholders; and
- Includes safeguards to protect the security and privacy of collected personal data or characteristics of affected rights-holders and stakeholders.⁹⁷

1.3.6 Continuous Improvement

1.3.6.1 At least twice a year, but without undue delay after a significant change, the ENTITY:

- Reviews human rights monitoring and evaluation results, informed by internal and external feedback, as per Section 1.3.5;
- Reviews any human-rights-related grievances and the functioning of the relevant grievance mechanism/s required in 1.3.4.5 (see also Section 1.6.4);
- Reviews its effectiveness in preventing, mitigating, and remediating human rights impacts, and informed by the monitoring and evaluation required in 1.3.5.1 and 1.3.5.2;
- Develops and implements time-bound corrective measures to update, if necessary⁹⁸, its risk and impact assessment in accordance with Section 1.3.3;
- Develops and implements time-bound corrective measures to update, if necessary⁹⁹, its plan to prevent, mitigate, and remediate human rights impacts in accordance with Section 1.3.4; and
- Develops and implements time-bound corrective measures to update, if necessary¹⁰⁰, its human rights monitoring and evaluation processes in accordance with Section 1.3.5.

1.3.6.2 If the monitoring and evaluation process required in 1.3.5, and/or the review process required in 1.3.6.1, and/or credible independent sources of information demonstrate that the ENTITY fails to effectively prevent, mitigate and/or remediate actual human rights impacts¹⁰¹:

- The ENTITY resorts to external monitoring of its human rights due diligence;
- The ENTITY covers all costs associated with this external monitoring; and
- The form of such monitoring, including selection of external monitors, is determined in collaboration with affected rights-holders and stakeholders.



1.3.7 Information-Sharing and Public Reporting

- 1.3.7.1** In addition to information-sharing required in 1.3.3.4 and 1.3.4.4, the ENTITY proactively shares with affected rights-holders, in accordance with Section 1.2.3:
- Its formalized human rights policies (see Section 1.3.1);
 - The details and findings of its human rights scoping process (see Section 1.3.2); and
 - The details and findings of its human rights monitoring and evaluation process (see Section 1.3.6).
- 1.3.7.2** At least annually, **and with due regard for people's safety, data privacy, and for security concerns**, the ENTITY makes publicly accessible updated versions of, and maintains¹⁰² publicly accessible all previous versions of:
- Its human rights risk and impact assessment, including an explanation of the assessment methodology and a list of the risks and impacts identified (see Section 1.3.3);
 - Its plan to prevent and mitigate human rights risks and impacts, including prioritization criteria and the measures taken to prevent, mitigate, and remediate risks and impacts (see Section 1.3.4);
 - The qualitative and quantitative performance indicators used to monitor and evaluate the effectiveness and appropriateness of its plan** (defined in 1.3.4.1. and validated as per 1.3.4.4);
 - Key findings of the monitoring and evaluation process required in Section 1.3.5, and of the review process required in 1.3.6.1;
 - A summary of the measures developed and implemented as per 1.3.4.2 and 1.3.4.3 and the extent to which they effectively prevented actual human rights impacts, and where prevention was not possible or immediately possible, provided timely and adequate remediation to affected rights-holders; and
 - A list of the time-bound corrective measures identified as per 1.3.6.1 (see d. to f.).
- 1.3.7.3** If external monitoring is required per 1.3.6:
- The ENTITY proactively shares with affected rights-holders and stakeholders, in accordance with Section 1.2.3, the details and findings of this external monitoring;
 - It also shares with them the time-bound corrective measures resulting from this external monitoring's findings and recommendations;
 - At least annually, **and with due regard for people's safety, data privacy, and for security concerns**, the ENTITY makes publicly accessible an updated version of, and maintains publicly accessible all previous versions of, a report on this external monitoring's findings and recommendations to improve the ENTITY's human rights due diligence¹⁰³; and
 - This public annual report includes a list of time-bound corrective measures to improve the ENTITY's ability to effectively prevent, mitigate, and remediate human rights risks and impacts.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁵⁸ For more information, see the United Nations website: “What are human rights.” <https://www.ohchr.org/en/what-are-human-rights>

⁵⁹ The Office of the High Commissioner for Human Rights (OHCHR) lists a number of United Nations human rights instruments that enumerate the rights of people belonging to particular groups or populations. See: OHCHR. 2012. The Corporate Responsibility to Respect – An Interpretive Guide. p. 38. www.ohchr.org/Documents/Issues/Business/RtRInterpretativeGuide.pdf
Regarding the rights of Indigenous Peoples, UNDRIP and ILO Convention 169 - refer to Chapter 2.2. See also the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas.

⁶⁰ See: Ruggie, J. 2011. Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework. March 21, 2011. A/HRC/17/31. www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

⁶¹ OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. (3rd Ed.) <https://mneguidelines.oecd.org/mining.htm>

⁶² Understood, at a minimum, as those expressed in the International Bill of Human Rights, the principles concerning fundamental rights set out in the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work, the International Labour Organization’s core/fundamental conventions, the fundamental right to a clean, healthy, and sustainable environment as recognized by the UN Human Rights Council in 2021 and the UN General Assembly in 2022, and all United Nations human rights instruments elaborating the rights of persons belonging to particular groups or populations (the International Convention on the Elimination of All Forms of Racial Discrimination, the Convention on the Elimination of All Forms of Discrimination against Women, the Convention on the Rights of the Child, the United Nations Declaration on the Rights of Indigenous Peoples, the United Nations Declaration on the Rights of Peasants, the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, the Convention on the Rights of Persons with Disabilities, and the Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities. In most instances, the rights in these instruments relate to the individuals in the groups they address. The United Nations Declaration on the Rights of Indigenous Peoples addresses both the human rights of Indigenous individuals and the collective rights of Indigenous Peoples.).

⁶³ Such as joint-venture partners’ staff or contractors responsible for operation/management, organizations or public agencies visiting the site.

⁶⁴ Such as joint-venture partners’ staff or contractors responsible for operation/management, organizations or public agencies visiting the site.

⁶⁵ This policy (or equivalent) could be either a stand-alone one or integrated into an overarching human rights policy (or equivalent, see 1.3.1.1.).

⁶⁶ Including at least those enshrined in the United Nations Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms, often abbreviated to “The Declaration on human rights defenders”.

⁶⁷ Area of Influence (Aoi) is required to be determined in Chapter 2.1 – Environmental and Social Impact Assessment and Management (see requirement 2.1.4.1). If not done as required by Chapter 2.1, Entities would be expected to establish the Aoi in order to fully meet this requirement.

⁶⁸ Such as joint-venture partners’ staff or contractors responsible for operation/management, organizations or public agencies visiting the site.

⁶⁹ This may include, as relevant, trade unions, employer organizations, joint venture partners’ staff and contractors responsible for operation/management, organizations or public agencies visiting the site.

⁷⁰ The requirements in this Chapter can be met by taking an integrated approach to human rights i.e. by identifying, prioritizing, preventing, addressing, consulting on, monitoring and evaluating, and continuous improving performance on, human rights through processes already in place for the responsible management of environmental, social, and labor issues.

⁷¹ As recommended by UNDP in “Human Rights Due Diligence And The Environment (HRDD+E): A Guide For Business, 2024. See also Chapter 2.1 on Socio-Environmental Baseline and Ongoing impact Assessment.

⁷² The identification of potential rights-holders must be based on their recognition under internationally-recognized human rights, regardless of whether or not such rights are recognized at a domestic level.

⁷³ Potential rights-holders are identified based on their recognition under internationally-recognized human rights, and regardless of whether or not such rights are recognized at a domestic level. Note that the quality and adequacy of the process for mapping and analysis of Stakeholders and Rights-holders required under 1.2.1.1 will factor into the score achieved in Section 1.3.2.

⁷⁴ As recommended by UNDP in “Human Rights Due Diligence And The Environment (HRDD+E): A Guide For Business, 2024.

⁷⁵ What may constitute ‘underserved and/or marginalized people’ requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those who may be most vulnerable to the human rights risks identified throughout this chapter and the IRMA standard;

for example, women, children, Rights Defenders, minorities, those living in a state of poverty, and those with higher levels of exposure to certain identified risk factors. See Guidance Document for additional guidance.

⁷⁶ It is important to note that the identification of potentially affected Indigenous Peoples is not restricted to those whose lands, territories or resources are owned/possessed pursuant to title/rights issued under domestic law, nor is it restricted to Indigenous Peoples who are actually and presently possessing/occupying the lands, territories, and resources. "Resources" may include, but are not limited to, cultural resources (tangible and intangible, see Chapter 3.6) and natural resources (aquatic, terrestrial or marine plants or animals grown or occurring naturally, as well as minerals, landforms, and soils) used for medicinal, subsistence, livelihoods, economic, spiritual, health or other purposes by Indigenous Peoples.

⁷⁷ Typically, the most credible source of information will be Indigenous Peoples in the area; however, contact must not be made with ~~Uncontacted Indigenous Peoples~~ or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact (see critical requirement 2.2.2.1). In such cases, entities should consult with Indigenous organizations and Indigenous rights organizations with expertise in ~~Uncontacted Indigenous Peoples~~ or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact. Other additional experts could include competent professionals who are academics or practitioners (may be governmental or non-governmental) with cultural, anthropological, and/or human rights expertise in the regions where projects/operations are located.

Regarding Indigenous Peoples who are NOT living in voluntary isolation or in initial contact, diverse sources should be consulted in case there are different communities of Indigenous Peoples that may be affected (i.e., consulting a single community may not result in identification of all potential Indigenous Peoples who might be affected). As per the requirement, other relevant sources include Indigenous Peoples' organizations or bodies (e.g., Indigenous Peoples' representative bodies, Indigenous rights organizations, Indigenous Peoples' communities in the region, etc.), as well as experts (i.e., competent professionals such as academics or practitioners with expertise in anthropology or cultural history, and/or human rights expertise in the regions where projects/operations are located), and published sources, which could include studies conducted by competent professionals in government agencies, non-governmental organizations or academic institutions.

⁷⁸ Typically, the most credible source of information will be Indigenous Peoples in the area; however, contact must not be made with ~~Uncontacted Indigenous Peoples~~ or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact (see critical requirement 2.2.2.1). In such cases, entities should consult with Indigenous organizations and Indigenous rights organizations with expertise in ~~Uncontacted Indigenous Peoples~~ or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact. Other additional experts could include competent professionals who are academics or practitioners (may be governmental or non-governmental) with cultural, anthropological, and/or human rights expertise in the regions where projects/operations are located. Note that there is no consensus on a single term that should be used to denote these peoples. Terms in the international sphere include Uncontacted Peoples, Indigenous Peoples in voluntary isolation, peoples in isolation, as well as free, hidden or invisible peoples. Other terms used for Indigenous Peoples in initial contact include recently-contacted peoples. (Source: UN Human Rights Council. 2009. Draft Guidelines On The Protection Of Indigenous Peoples In Voluntary Isolation And In Initial Contact Of The Amazon Basin And El Chaco. A/HRC/EMRIP/2009/6.

https://www2.ohchr.org/english/issues/indigenous/ExpertMechanism/2nd/docs/A_HRC_EMRIP_2009_6.pdf

⁷⁹ Where it is necessary to prioritize actions to address actual and potential adverse human rights impacts, the ENTITY should first seek to prevent and mitigate those that are most severe or where delayed response would make them irremediable. (UN Guiding Principles)

⁸⁰ Including its management and use of security personnel, and private and public security forces, see Chapter 3.4.

⁸¹ Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars, etc. There are also "new" forms of widespread violence distinct from those associated with traditional armed conflict that have emerged in recent years. This 'non-conventional armed violence' is the result of the activities of groups summarized as tribal networks, thugs (organized crime) and terrorists such as organized criminal groups ('gangs') and violent extremist organizations, illicit economy-related actors and other actors who may not be driven by clear political or ideological agendas, or be organized by the state. See full definition of "conflict-affected and high-risk areas" in the Glossary.

⁸² If evidence demonstrates that some or all stakeholders and rights-holders did/do not provide feedback and/or validation despite being provided with adequate and meaningful time, and with information-sharing taking place in accordance with Section 1.2.3, the ENTITY may "fully meet" this requirement.

⁸³ Other sources of information may include data from monitoring and evaluation, discussions with or ~~grievances~~ filed by stakeholders or ~~workers~~, internal reviews of particular issues that relate to human rights, etc.

⁸⁴ As with other chapters, the IRMA Standard does not require actions to address human rights risks and impacts to be developed as a 'stand-alone' separate management plan. All sub-requirements could be found/provided as part of a broader social and environmental management plan, or set of plans, for example.

⁸⁵ Once the most severe and most likely adverse impacts are addressed within a reasonable time, the ENTITY will address less severe and less likely adverse impacts.

⁸⁶ Quantitative criteria may include ones that evaluate the "appropriateness" of the measures implemented, such as "percentage of impacted rights-holders that were satisfied with the outcomes", "percentage of mitigation measures that had affected rights holder participation in development", etc.

⁸⁷ Other disaggregation may be by age, ethnicity, disability, vulnerability status, proximity to the operation, etc.

⁸⁸ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.



⁸⁹ This requirement applies to human rights “risks” identified in Section 1.3.3. When an actual impact has already occurred, see requirement 1.3.4.3.

⁹⁰ I.e., it only contributed to or was linked to the impact.

⁹¹ Where the ENTITY **contributes to an adverse human rights impact**, measures to prevent further impact and/or further contribution are developed in a timely manner, and the ENTITY uses its leverage to mitigate any remaining impact to the greatest extent possible.

Where the ENTITY has not contributed to an adverse human rights impact, but that **impact is nevertheless directly linked to its operations**, products or services by its business relationship with another ENTITY, the ENTITY develops measures aimed at preventing the impact from continuing or recurring, based on its leverage over the business relationship concerned, how crucial the relationship is to the ENTITY, the severity of the abuse, and whether terminating the relationship itself would have adverse human rights consequences

⁹² If evidence demonstrates that some or all stakeholders and rights-holders did/do not provide feedback and/or validation despite being provided with adequate and meaningful time, and with information-sharing taking place in accordance with Section 1.2.3, the ENTITY may “fully meet” this requirement.

⁹³ The operational-level grievance mechanism developed as per IRMA Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) may be used as the mechanism to receive all types of complaints, including those related to human rights, or a separate mechanism may be created to handle only those complaints and grievances. If a separate mechanism is developed, it shall be done in a manner that is consistent with Chapter 1.6 (see subrequirements d. and e.). Also, there may be other mechanisms that are not operated by the company through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file human rights -related grievances with the company.

⁹⁴ ‘Rights-compatible’ means ensuring that outcomes and remedies accord with internationally-recognized human rights.

⁹⁵ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file grievances with the company.

⁹⁶ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business’ own tracking of the effectiveness of its response to it.

⁹⁷ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

⁹⁸ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁹⁹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁰⁰ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁰¹ The decision to initiate external third-party monitoring may be made by an ENTITY that recognizes (e.g., through its human rights due diligence processes, complaints filed through its operational-level grievance mechanism, observations made by a third party, or some other means) that it has repeatedly failed to prevent, mitigate or remediate human rights impacts, or that discovers its due diligence has failed to prevent it from causing, contributing to, or being linked to serious human rights abuses. External monitoring may also be suggested as a corrective action if an IRMA auditor discovers during an audit that the ENTITY’s due diligence has failed to prevent any of the situations listed above.

¹⁰² All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

¹⁰³ This public reporting may exclude information that is security sensitive, is confidential business information, or that may compromise safety or place any individual at risk of further victimization.

CHAPTER ANNEXES

ANNEX 1.3: Categories of issues to be considered as part of the human rights due diligence

Potential risks and impacts to be considered

- Fundamental human rights, including:
 - Freedom from discrimination
 - Freedom from hunger
 - Freedom from slavery
 - Freedom from torture, cruel, inhuman or degrading treatment
 - Freedom of association
 - Freedom of children from social and economic exploitation
 - Freedom of expression
 - Freedom of movement
 - Freedom of non-citizens from arbitrary expulsion
 - Freedom of religion and belief
 - Freedom to choose and accept work
 - Freedom to undertake scientific research and creative activity
 - Right of mothers to special protection before and after birth
 - Right of peaceful assembly
 - Right to an adequate standard of living
 - Right to be treated with humanity in detention
 - Right to education
 - Right to equality before the law
 - Right to equality between men and women
 - Right to fair trial
 - Right to food
 - Right to form trade unions
 - Right to freedom of thought, conscience and religion
 - Right to health, safety, and property
 - Right to just and favorable conditions at work
 - Right to liberty and security of person
 - Right to life
 - Right to marry and found a family
 - Right to participate in public affairs
 - Right to personal honor and reputation
 - Right to privacy
 - Right to recognition before the law
 - Right to respect for private and family life, home and correspondence
 - Right to sanitation
 - Right to social security
 - Right to take part in cultural life
 - Right to work
 - Rights of the Child
 - Rights of Indigenous Peoples
 - Rights of Peasants
 - Rights of All Migrant Workers and Members of their Families
 - Rights of Persons with Disabilities
 - Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities
- Labor rights and industrial relations
 - Right to strike
 - Right to organize and collective bargaining

- Freedom of association
 - Occupational health and safety
 - Access to adequate housing, adequate food, clothing, and water and sanitation in the workplace
 - Child labor
 - Forced labor
 - Discrimination
 - Equal Remuneration
 - Trade union freedoms
- Harm to the environment, climate and human health, considering direct, induced, indirect and cumulative effects, including:
 - Air, including air pollution such as greenhouse gas emissions
 - Water, including seabed and marine environment, and including water pollution, water use, water quantities (flooding or droughts) and access to water
 - Soil, including soil pollution, soil erosion, access to land, land use and land degradation
 - Biodiversity, including damage to habitats, wildlife, flora and ecosystems, including ecosystem services
 - Hazardous substances
 - Noise and vibration
 - Plant and facility safety
 - Energy use
 - Waste and residues (including tailings and other waste from mineral processing)
 - Other impact on natural resources, such as deforestation
 - Community life, including:
 - Rights, health, safety, wellbeing, and cultural heritage of Indigenous Peoples
 - Right to self-determination, right to culture, religion and language
 - Right of individuals, groupings and communities to lands and resources
 - Governance, business integrity, and corruption



Chapter 1.4

Upstream and Downstream Sustainability Due Diligence

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Not applicable: this Chapter is new.
- Note that the requirements in this Chapter that are NOT optional (i.e. not IRMA+) draw extensively from existing content found in the previous draft Chapters 1.3 (Human Rights Due Diligence) and 3.4 (Conflict-Affected and High-Risk Area Due Diligence).

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Not applicable: this Chapter is new.

BACKGROUND

The mineral sector is a cornerstone of almost all industries and sectors globally, from infrastructure and energy to transport and agriculture, and to technology and defense. However, its activities —spanning exploration, extraction, mineral processing, trading and distribution— pose significant environmental, social, and economic challenges. Addressing these challenges requires comprehensive sustainability due diligence, encompassing both upstream and downstream phases of the mineral supply chain. Key international frameworks to frame such due diligence include the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and their accompanying OECD Due Diligence Guidance for Responsible Business Conduct; while a growing number of national and regional laws and regulations have been (or are being) passed.

Upstream sustainability due diligence involves assessing and mitigating risks and impacts associated with the supply of services and goods. Though not limited to it, this includes the often-challenging issue of the supply of input minerals to mineral processing operations, including sourcing from artisanal and small-scale mining operations. The OECD Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (the “OECD Guidance”) has been providing internationally-recognized guidance to address some of its most difficult challenges (see also Chapter 1.5).

Downstream sustainability due diligence pertains to the assessment and mitigation of risks and impacts associated with the sale, processing, distribution, and use of a site’s mineral production/products. Although still seen as an emerging best practice, downstream due diligence is covered by the principles and expectations set out in the UN Guiding Principles on Business and Human Rights and in the OECD Due Diligence Guidance For Responsible Business Conduct, as recently reminded by the Office of the UN High Commissioner for Human Rightsⁱ.

The integration of upstream and downstream due diligence is essential for achieving a holistic approach to sustainability and responsibility in the mineral sector. This integrated approach offers several benefits:

ⁱ <https://www.ohchr.org/sites/default/files/documents/issues/business/2022-09-13/mandating-downstream-hrdd.pdf>



CHAPTER 1.4 – Upstream and Downstream Sustainability Due Diligence

- **Comprehensive Risk Management:** Addressing risks across both upstream and downstream entities and stages provides a complete view of potential challenges and impacts, enabling more effective mitigation strategies.
- **Enhanced Transparency and Accountability:** Coordinated due diligence efforts improve transparency and accountability throughout the supply chain, building trust with stakeholders including consumers, investors, and regulatory authorities.
- **Improved Sustainability Performance:** A unified approach to sustainability due diligence enhances overall performance, supporting the achievement of broader environmental, social, and economic goals.

Upstream and downstream sustainability due diligence are essential for promoting responsible practices within the mineral sector. By addressing environmental and social risks and impacts across the entire supply chain, these practices help mitigate adverse effects and ensure a more sustainable and responsible industry. Integrating due diligence efforts throughout the supply chain leads to improved transparency, risk management, and overall sustainability performance.

As the mineral sector continues to evolve, the importance of robust sustainability due diligence practices will remain paramount in promoting a responsible and sustainable industry.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- United Nations Guiding Principles for Business and Human Rights
- International Labour Organization's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy
- OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, 2023 Edition
- OECD Due Diligence Guidance for Responsible Business Conduct, 2018 Edition
- OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, Third Edition
- OECD Handbook on Environmental Due Diligence in Mineral Supply Chains, 2023

OBJECTIVES OF THIS CHAPTER

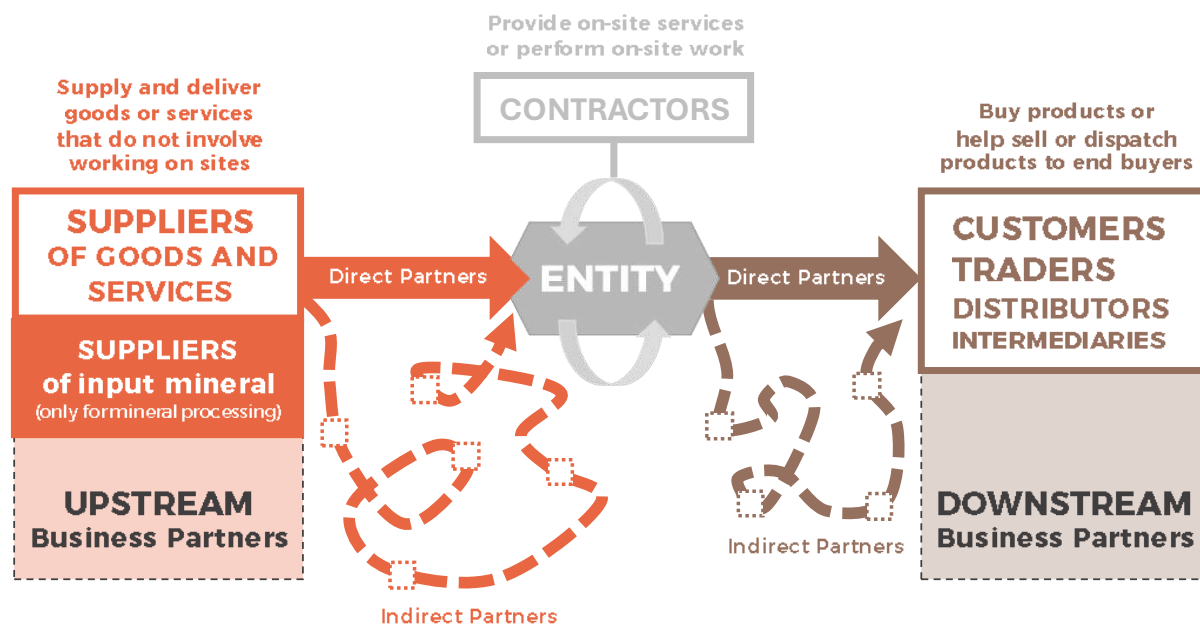
To ensure all indirect and direct business partners, including suppliers of input minerals, respect human rights and prevent environmental and social risks and impacts along the ENTITY's chain of activities.

SCOPE OF APPLICATION

This Chapter is applicable to all exploration, mining and mineral processing projects and operations.

This Chapter is focused on the responsibility of the ENTITY in conducting due diligence on both its upstream (i.e. suppliers) and downstream (i.e. customers, traders, distributors, intermediaries), direct and indirect, business partners. Due diligence on the operations and activities of the ENTITY itself and of its contractors (who provide on-site services or perform on-site work) is fully addressed in Chapter 1.3, also aligned with the UN Guiding Principles. Figure 1.4 clarifies the terminology used to differentiate the ENTITY and its on-site Contractors from upstream and downstream business partners. An ENTITY may develop and implement one unified due diligence system that encompasses the requirements set in both Chapters 1.3 and 1.4. In any case, companies and auditors should not view these chapters as silos, but as two complementary and interconnected aspects.

FIGURE 1.4. Scope and Terminology related to on-site Contractors, Upstream and Downstream Business Partners (direct and indirect), highlighting the focus of Chapter 1.4.



For mineral processing operations, suppliers of input mineral require a particular attention, as mineral sourcing decisions may contribute differently to potential conflicts where those minerals are being mined and transported through (besides the general upstream and downstream sustainability due diligence that is required for all suppliers, i.e. of input mineral and others). For those mineral processing operations, a specific set of requirements is included, aligned with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (hereafter referred to as "OECD Guidance").

The rest of the Chapter is applicable to all exploration, mining, and mineral processing projects and operations, and is fully aligned with the originally-approved version of the 2024 EU Directive 2024/1760 on Corporate Sustainability Due Diligence (hereafter referred to as 'EU CSDDD'). This Chapter offers a faithful transposition of all the EU CSDDD criteria applicable to companies into a set of measurable, assessable, and comparable performance requirements.

The EU CSDDD was initially approved in July 2024, and was due to enter in force in 2027. The European Commission's proposal in February 2025 to fast-track an "omnibus sustainability rules simplification package" and the subsequent vote by the European Parliament to "stop the clock" on key requirements have since changed the applicability of the scope and effective start date of the CSDDD. At the time of the release of this DRAFT, an agreement had not been reached on the final version.

All those requirements aligned with the original EU CSDDD are designated as **IRMA+** and therefore are entirely optional (see more below and greater context in the introduction to the IRMA Standard for how mining companies may choose to be measured against IRMA+ requirements). Entities seeking compliance with the original version of the EU CSDDD should consider these requirements as an integral part of their compliance journey (i.e. and not 'optional').

Given the above, this means for exploration and mining projects/operations (without on-site co-located mineral processing, and without commercial relationships with ASM), there are only five requirements in this Chapter that are mandatory: Formal commitment to ensure risk-based sustainability due diligence across business partners (1.4.1.1); Code of Conduct for business partners (1.4.2.1); Scoping (1.4.3.1 and 1.4.3.2); and Identification of Conflict Affected and High-Risk Areas (1.4.5.1).



CHAPTER 1.4 – Upstream and Downstream Sustainability Due Diligence

Note that the requirements of this Chapter are only applicable to the activities and business relationships that relate to the specific project/operation that is being audited, not all of the ENTITY’s activities and business relationships (i.e. related to other sites, countries and/or business segments).

The categories of risks and adverse impacts that need to be considered are listed in [Annex 1.4-A](#) (see Chapter Annexes).

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are two (2) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are twenty (20) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Mineral Supply Chain Controls and Transparency:

The supply of input mineral for mineral processing operations is often a complex and challenging topic, especially when entities wish to ensure that their feedstock minerals are extracted, transported, and handled in a responsible way and do not cause, or contribute to, conflicts. Learning from previous drafts, the experience of other standard-setting organizations and schemes that have aligned their expectations with the OECD Guidance, IRMA proposes to include similar requirements, also aimed at being fully aligned with the OECD Guidance. Given the difficulties faced by standards and audit systems specialized in this topic, it is with great humility that we propose to apply this set of IRMA requirements to mineral processing sites that will adopt the IRMA V2.0 Standard. The corresponding requirements under Section 1.4.4–Mineral Supply Chain Controls and Transparency (1.4.4.1 to 1.4.4.10) have therefore been signaled with an ‘eye icon’ to ensure that IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not ‘optional’ (unlike IRMA+).

In parallel, IRMA remains committed to collaborating with those established specialized audit systems, such as the RMI’s mineral-relevant Responsible Minerals Assurance Process Responsible Sourcing Due Diligence Standard for Mineral Supply Chains (RMAP) and the CCCMC’s Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains (CCCMC Guidelines) to explore potential cross-recognition, joint audits, and other synergies.

Alignment of this Chapter with the Five-Step Framework for Risk-Based Due Diligence in the Mineral Supply Chain of the OECD Guidance is available on our website (click on the link): [Mapping of IRMA Standard V2.0 2nd DRAFT against the OECD Guidance for Responsible Supply Chains](#).



IRMA Requirements

1.4.1 Formalized Policy

E1 E2 E3 D M P

1.4.1.1 The ENTITY has a formal policy in place¹⁰⁴ that:

- a. Commits to ensure risk-based sustainability due diligence with respect to the operations carried out by its direct and indirect business partners, **both upstream and downstream**¹⁰⁵;
- b. Contains a description of the ENTITY's approach, including in the long term, to upstream and downstream due diligence, to address actual and potential human rights, social and environmental risks and adverse impacts **listed in Annex 1.4-A**.
- c. Is in line with the UN Guiding Principles on Business and Human Rights, and where applicable with the OECD Guidance¹⁰⁶;
- d. **Contains a description of the measures taken to verify compliance with the Code of Conduct referred to in 1.4.2. and to extend that Code's application to all the ENTITY's business partners;**
- e. **Is developed in prior consultation with the ENTITY's workers and their representatives;**
- f. Is approved at the top management level of the ENTITY;
- g. Is proactively shared with personnel, contractors, suppliers, customers, direct and indirect business partners, and other relevant parties linked to the project/operation and the Entity's chain of activities¹⁰⁷;
- h. Is publicly accessible;
- i. The ENTITY has allocated **financial and** staffing resources¹⁰⁸ to oversee and implement this policy at the level of the project/operation.

1.4.2 Code of Conduct

1.4.2.1 The ENTITY has a Code of Conduct (or equivalent) in place, developed by competent professionals, that describes the human rights, social, labor, and environmental rules and principles to be followed:

- Throughout its **own** operations;
- Throughout its direct and indirect **upstream** business relationships (suppliers); and
- Throughout its direct and indirect **downstream** business relationships (customers, traders, distributors, intermediaries).

1.4.2.2 IRMA+

This Code of Conduct clearly describes how the ENTITY will, where relevant:

- Seek from its **direct** business partners contractual assurances that they will ensure compliance with the ENTITY's Code of Conduct and, as necessary, a prevention and/or corrective action plan;
- These contractual assurances (a.) include establishing corresponding contractual assurances from their partners, to the extent that those partners' activities are part of the ENTITY's chain of activities;
- Seek from its **indirect** business partners contractual assurances with a view to achieving compliance with the ENTITY's Code of Conduct and, as necessary, a prevention and/or corrective action plan¹⁰⁹;
- This Code of Conduct describes how the contractual assurances referred to in a. to c. will be accompanied by appropriate measures to verify compliance¹¹⁰.

1.4.3 Scoping

1.4.3.1 Critical Requirement

A scoping process is undertaken by competent professionals to analyze and understand the ENTITY's chain of activities. This process includes:

- A mapping of the ENTITY's direct business partners, both upstream and downstream;
- A mapping of the ENTITY's indirect business partners, both upstream and downstream; and
- Identification of general areas where human rights, social, and environmental adverse impacts listed in **Annex 1.4-A** are most likely to occur and to be most severe across the Entity's chain of activities.

1.4.3.2 The scoping process determines whether the ENTITY plans to source/purchase, or actually sources/purchases, minerals from ASM entities or individuals.



1.4.4 Mineral Supply Chain Controls and Transparency

P

1.4.4.1 For Mineral Processing operations, the scoping process required in 1.4.3.1 and 1.4.3.2 is informed by the information required in Section 1.4.4 (1.4.4.2 to 1.4.4.4), to determine potential “red flags” as defined in the OECD Guidance and available in [Annex 1.4-B](#):

- a. The scoping process determines and documents any red flag location of mineral origin and transit;
- b. The scoping process determines and documents any supplier red flag; and
- c. The scoping process determines and documents any general red flag circumstances.

P

1.4.4.2 For Mineral Processing operations, the ENTITY has a chain of custody and/or traceability system in place that collects¹¹¹ and maintains the following information:

- a. All taxes, fees or royalties paid to government for the purposes of extraction, trade, transport and export of minerals;
- b. Any other payments made to governmental officials for the purposes of extraction, trade, transport and export of minerals;
- c. All taxes and any other payments made to public or private security forces or other armed groups at all points in the supply chain from extraction onwards;
- d. The ownership (including beneficial ownership) and corporate structure of the exporter/s, including the names of corporate officers and directors;
- e. The business, government, political or military affiliations of the company/ies and officers;
- f. The mine/s of mineral origin;
- g. Quantity, dates and method/s of extraction (artisanal and small-scale or large-scale mining);
- h. Locations where minerals are consolidated, traded, processed or upgraded;
- i. The identification of all upstream intermediaries, consolidators or other actors in the upstream supply chain;
- j. Transportation routes; and
- k. Records of all this information (a. to j.) are kept for a minimum of five years.

P

1.4.4.3 If the ENTITY conducts mineral re-processing operations, it also collects¹¹² and maintains the following information:

- a. All export, import and re-export documentation, including records of all payments given for the purposes of export, import and re-export;
- b. All taxes and any other payments made to public or private security forces or other armed groups;
- c. The identification of all immediate supplier/s (local exporter/s);
- d. All information provided by local exporter/s; and
- e. Records of all this information (a. to d.) are kept for a minimum of five years.

P

1.4.4.4 For Mineral Processing operations, the ENTITY can demonstrate that it:

- a. Avoids, where practicable, cash purchases; and
- b. Ensures that all unavoidable cash purchases of minerals are supported by verifiable documentation and preferably routed through official banking channels.

P

1.4.4.5 For Mineral Processing operations, to strengthen its engagement with mineral suppliers the ENTITY can demonstrate that it:

- a. Establishes, where practicable, long-term relationships with suppliers as opposed to short-term or one-off contracts in order to build leverage over suppliers;
- b. Communicates to suppliers its expectations on responsible supply chains of minerals from conflict-affected and high-risk areas;
- c. Incorporates the supply chain policy and due diligence processes required in this Chapter into commercial contracts and/or written agreements with suppliers which can be applied and monitored, including, if deemed necessary, the right to conduct unannounced spot-checks on suppliers and have access to their documentation; and
- d. Identifies opportunities to build capabilities of suppliers to improve their sustainability performance and conform to the Entity's supply chain policy, and where applicable, designs measurable improvement plans with relevant suppliers¹¹³.

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1.4.4.6 For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY's mineral supply chain, the ENTITY:

- a. Assesses the context of conflict-affected and high-risk areas within its mineral supply chain(s) (under way and planned);
- b. Clarifies the chain of custody, the activities and relationships of all upstream suppliers;
- c. Identifies the locations and qualitative conditions of the extraction, trade, handling and export of the mineral;
- d. Assesses the factual circumstances and specific risks¹¹⁴ associated with conflict-affected and high-risk areas within its mineral supply chain against: 1) The ENTITY's supply chain policy and standards; 2) National laws of the countries where the ENTITY is domiciled or publicly-traded (if applicable), of the countries from which the minerals are likely to originate, and of transit or re-export countries; 3) Legal instruments governing company operations and business relations, such as financing agreements, contractor agreements, and supplier agreements; and 4) Other relevant international instruments, such as the OECD Guidelines for Multinational Enterprises, international human rights and humanitarian law; and
- e. Ensures that any reasonable inconsistency between a factual circumstance and the instruments listed in d. is considered a risk with potential adverse impacts.

- P 1.4.4.7** For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY's mineral supply chain, the ENTITY:
- Reports all information¹¹⁵ gained and maintained pursuant to the due diligence requirements articulated in this Chapter, including the findings of the mineral supply chain risk and impact assessment required in Section 1.4.5¹¹⁶, to the responsible top management staff (see 1.4.1.1.h);
 - For all the minerals from a "red flag location of mineral origin and transit", makes all information¹¹⁷ gained and maintained pursuant to the due diligence requirements articulated in this Chapter, available to downstream purchasers¹¹⁸ and auditors
 - Also makes all this information (b.) available to any institutionalized mechanism (regional, or global once in place) with the mandate to collect and process information on minerals from conflict-affected and high-risk areas.

- P 1.4.4.8 Critical Requirement**
- For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY's mineral supply chain, the ENTITY can demonstrate that:
- It does not knowingly or intentionally cause, contribute to, or is linked to, conflict or the infringement of human rights;
 - It does not knowingly provide direct or indirect support to non-state armed groups or their affiliates, public security forces, or private security forces who: 1) Illegally control mine sites, transportation routes and upstream actors in the supply chain; and/or 2) Illegally tax or extort money or minerals at point of access to mine sites, along transportation routes or at points where minerals are traded; and/or 3) Illegally tax or extort intermediaries, export companies or international traders.
 - Building on Section 1.4.5, a prevention, mitigation, and remediation plan (or equivalent) has been developed by competent professionals to prevent, mitigate, and remediate all the potential and actual human rights, social, and environmental impacts identified within the Entity's mineral supply chain, in accordance with Requirements 1.4.7.1 to 1.4.7.5¹¹⁹;
 - Whenever a mineral supplier involved in potential or actual adverse impacts is identified as an SME, the ENTITY ensures that it provides targeted and proportionate support to this SME, where necessary in light of the resources, knowledge and constraints of the SME, in accordance with Section 1.4.8¹²⁰; and
 - Suspension and Termination of Business Relationships with mineral suppliers is handled in accordance with Section 1.4.9¹²¹.

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- 1.4.4.9** For Mineral Processing operations, ~~affected rights-holders and stakeholders~~ have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to the ENTITY's ~~suppliers~~ of mineral feedstock¹²², as follows:
- A grievance mechanism through which ~~affected rights-holders and stakeholders~~ can raise, and seek resolution or remedy for, complaints and ~~grievances~~ specifically related to the ENTITY's ~~suppliers~~ of mineral feedstock are in place;
 - This grievance mechanism is rights-compatible¹²³;
 - ~~Affected rights-holders and stakeholders~~ have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms¹²⁴;
 - The Entity ensures that the following stakeholders are informed about, and have access to, this mechanism: 1) Natural or legal persons who are affected or have reasonable grounds to believe that they might be affected by an adverse impact, and the legitimate representatives of such persons on behalf of them, such as civil society organizations and Rights Defenders; 2) Trade unions and other ~~workers'~~ representatives representing natural persons working in the chain of activities concerned; and 3) Civil society organizations that are active and experienced in related areas where an adverse human rights and/or environmental impact is the subject matter of the complaint;
 - If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to the ENTITY's ~~suppliers~~ of mineral feedstock, the Entity fully meets all requirements in Chapter 1.6¹²⁵; and
 - If a separate mechanism is created to handle only human rights complaints and grievances, it is established and management in a manner that fully meets all requirements in Chapter 1.6.

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- 1.4.4.10** For Mineral Processing operations, the ENTITY makes and maintains ~~publicly accessible~~ an annual supply chain due diligence report that includes, in conformance with the OECD Guidance:
- Its Mineral Supply Chain Policy (see 1.4.1);
 - Details about its Management Systems for Mineral Supply Chain Due Diligence (see 1.4.1, 1.4.2, and 1.4.4);
 - Details about its Mineral Supply Chain Risk Assessment (see 1.4.3, 1.4.4, and 1.4.5);
 - Details about its Mineral Supply Chain Risk Management (see 1.4.4); and
 - Details about its Mineral Supply Chain Performance Tracking (see 1.4.12 and 1.4.13)¹²⁶.

1.4.5 Risk and Impact Assessment

1.4.5.1 Building on 1.4.3, and 1.4.4 where applicable, an in-depth risk and impact assessment is carried out by competent professionals to identify whether any of the ENTITY's business relationships¹²⁷ may be the cause of, or contribute to, or may take place in an area with confirmed or suspected presence of:

- Armed conflict¹²⁸, widespread violence, widespread human rights abuses or other risks of harm to people;
- Political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, or widespread violations of national or international law; and
- The ENTITY has a system in place to ensure that, if and whenever this in-depth assessment identifies any of the ENTITY's business relationships to be the cause of, or contribute, or to take place in an area with confirmed or suspected presence of, any form of such conflicts or high risks (as per sub-requirements a. and b), heightened due diligence is carried out by competent professionals in accordance with Chapter 1.5.

1.4.5.2 IRMA+

This in-depth assessment identifies and assesses potential impacts (hereafter referred to as "risks") and actual impacts on the human rights, social, and environmental issues listed in [Annex 1.4-A](#), from the ENTITY's business partners. It includes:

- A comprehensive list of the risks and impacts identified related to the operations of the ENTITY's business partners, based on a review of the human rights, social, and environmental issues listed in [Annex 1.4-A](#);
- An evaluation of the severity of each identified actual impact, and of the likelihood for and potential severity of each identified risk;
- For each identified potential and actual upstream and downstream human rights, social, and environmental impacts, a determination of whether the potential or actual adverse impact may: 1) be caused only by the ENTITY; 2) be caused jointly by the ENTITY and business partner, through acts or omissions; or 3) be caused only by an ENTITY's business partner in the chain of activities;
- Where relevant, a determination of the ability of the ENTITY to influence the business partner that may cause or jointly cause the potential or actual adverse impact; and
- Recommended measures that can be taken by the ENTITY to prevent all identified potential and actual impacts and, if not possible to prevent them, to mitigate and to remediate them¹²⁹.

1.4.5.3 IRMA+

This in-depth assessment:

- Is informed by relevant internal and/or external human rights, social, and environmental expertise, incorporate analysis of credible independent reports and sources of information;
- Includes an explanation of the assessment methodology;
- Where necessary information can be obtained from business partners at different levels of the chain of activities, the ENTITY prioritize requesting such information, where reasonable, directly from business partners where the adverse impacts are most likely to occur; and
- Where it is not feasible to prevent, mitigate, bring to an end or minimize all identified adverse impacts (as per 1.4.5.1.a) at the same time and to their full extent, it identifies the adverse impacts the ENTITY will prioritize, based on their severity and likelihood¹³⁰.



1.4.6 Commercial Relationships with ASM¹³¹



- 1.4.6.1** If the ENTITY proposes to source/purchase, or actually sources/purchases minerals from ASM entities or individuals (hereafter referred to as 'ASM organizations'), the ENTITY:
- Identifies the legal status of these ASM organizations and maintains commercial relationships only with those engaged in legitimate ASM¹³²;
 - Regularly assesses the safety, social and environmental risks and impacts related to the ASM organizations with whom it may have or has a commercial relationship, in accordance with Section 1.4.5 to the extent possible¹³³; and
 - Collaborates with those ASM organizations with whom it can legally and legitimately engage, to develop and implement a plan to eliminate or mitigate the most significant risks¹³⁴ and, over time, address other social and environmental risks related to those ASM operations, in accordance with Section 1.4.7 to the extent possible.



- 1.4.6.2** If the ENTITY proposes to source/purchase, or actually sources/purchases minerals from ASM organizations, the ENTITY also:
- Monitors and evaluates, at least annually, the effectiveness of its mitigation strategies, and adapts plans as necessary to facilitate continued minimization of risks, in accordance with Sections 1.4.12 and 1.4.13 to the extent possible;
 - Participates in, or supports, initiatives that promote the professionalization, formalization and/or certification of ASM organizations, and supports development opportunities for ASM communities, as appropriate to the situation; and
 - Offers fair commercial terms to all ASM suppliers¹³⁵.

Note: from this point onwards, the rest of this Chapter is entirely optional¹³⁶ (IRMA+)

1.4.7 Prevention, Mitigation, and Remediation Plan

1.4.7.1 IRMA+

Building on 1.4.3, 1.4.4 where applicable, 1.4.5, and other relevant sources of information¹³⁷, and without undue delay, a prevention, mitigation, and remediation plan (or equivalent) is developed by competent professionals to prevent, mitigate, and remediate all upstream and downstream risks and impacts on human rights, social, and environmental issues identified. The plan:

- Outlines the agreed specific measures to prevent or neutralize and, where prevention is not possible or not immediately possible, to adequately mitigate all risks and adverse impacts;
- Where it is necessary to prioritize measures to address risks and adverse impacts, it first seeks to prevent and mitigate those that are most severe or where delayed response would make them irremediable, as per 1.4.5.3.d; and
- Includes qualitative and quantitative performance criteria and indicators (including gender-disaggregated indicators and other categories of disaggregated indicators where appropriate), linked to adequate baseline data, to enable monitoring and evaluation of the effectiveness of measures over time.

1.4.7.2 IRMA+

In order to prevent risks and impacts, and where prevention is not possible or not immediately possible, to minimize and mitigate them, this plan ensures that the ENTITY, where relevant:

- Seeks contractual assurances from any **direct business partner** involved that it will ensure compliance with the company's Code of Conduct (required in Section 1.4.2), and, as necessary, a prevention and/or corrective action plan, including by establishing corresponding contractual assurances from its partners, to the extent that their activities are part of the ENTITY's chain of activities;
- Seeks contractual assurances from any **indirect business partner** involved with a view to achieving compliance with the ENTITY's Code of Conduct and, as necessary, a prevention and/or corrective action plan;
- Accompany such contractual assurances (a. and b.) by appropriate measures to verify compliance¹³⁸;
- Makes necessary financial or non-financial investments in, adjustments or upgrades of, for example, facilities, production or other operational processes and infrastructures;
- Makes necessary modifications of, or improvements to, the ENTITY's own business plan, overall strategies and operations, including purchasing practices, design and distribution practices; and
- In compliance with applicable laws and regulations, including competition laws, collaborates with other companies and organizations, including, where relevant, in order to increase the ENTITY's ability to prevent or mitigate the adverse impact, in particular where no other measure is suitable or effective.



1.4.7.3 IRMA+

This plan ensures that the ENTITY also assesses the possibility of, and where possible integrates measures to, where relevant:

- Engaging with any involved business partner about the ENTITY's expectations with regard to preventing and/or mitigating potential adverse impacts;
- Providing or enabling access to capacity-building, guidance, and/or administrative support, while taking into consideration the resources, knowledge and constraints of the business partner; and
- Providing or enabling access to financial support such as loans or financing, while taking into consideration the resources, knowledge and constraints of the business partner.



1.4.7.4 IRMA+

Where **actual** upstream or downstream human rights, social, and/or environmental adverse impacts have arisen in connection with a direct or indirect business partner, this plan ensures that:

- The ENTITY develops and implements measures to provide remediation, to the greatest extent possible in collaboration with affected rights-holders and stakeholders. If mutually acceptable remedies cannot be found through dialogue, the ENTITY attempts to reach agreement through an independent, third-party mediator or another means mutually acceptable to affected rights-holders and stakeholders;
- Where the ENTITY does not bear the sole responsibility of the impacts, it mitigates and remediates them to the extent of its contribution, and uses its leverage to influence any direct or indirect business partner involved to mitigate and remediate the remaining impacts; and
- Where the actual adverse impact is caused only by ENTITY' business partner/s, the ENTITY uses its leverage to influence any business partner that is causing the adverse impact to provide remediation, and the ENTITY assesses the possibility of, and where possible integrates measures to provide voluntary remediation company to affected rights-holders and stakeholders.



1.4.7.5 IRMA+

To ensure effective implementation of this prevention, mitigation, and remediation plan, the ENTITY:

- Assigns implementation of measures to responsible staff with adequate skills and expertise;
- Assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping¹³⁹;
- Has clearly-defined timelines and an implementation schedule in place that specifies the expected outcomes;
- Maintains estimates of human resources and budget required; and
- Has a financing plan in place to ensure that funding is available for the effective implementation of the plan.

1.4.8 Relationship with Small and Medium Enterprises (SMEs)

1.4.8.1 IRMA+

If and whenever a business partner involved in potential or actual adverse impacts is identified as an SME, the ENTITY has a system in place to ensure that it provides targeted and proportionate support to this SME, where necessary in light of the resources, knowledge and constraints of the SME, through:

- Providing or enabling access to capacity-building;
- Training or upgrading management systems; and
- Where compliance with the Code of Conduct or prevention or mitigation action plans would jeopardize the viability of the SME, by providing targeted and proportionate financial support, such as direct financing, low-interest loans, guarantees of continued sourcing, or assistance in securing financing.

1.4.9 Suspension and Termination of Business Relationships

1.4.9.1 IRMA+

The ENTITY has a system in place to ensure that, as a last resort, when all the measures required in Sections 1.4.7 and 1.4.8 have failed to prevent or adequately mitigate any potential or actual adverse impact that has arisen in connection with a direct or indirect business partner:

- The ENTITY refrains from entering into new or extending existing relations with this business partner;
- The ENTITY adopts and implements an enhanced prevention action plan (or equivalent) for the specific adverse impact without undue delay, by using or increasing the ENTITY' leverage through the temporary suspension of business relationships with respect to the activities concerned, provided that there is a reasonable expectation that those efforts will succeed¹⁴⁰; and
- If there is no reasonable expectation that those efforts would succeed, or if the implementation of the enhanced prevention action plan has failed to prevent or mitigate the adverse impact, the ENTITY terminates the business relationship with respect to the activities concerned if the potential adverse impact is severe.

1.4.9.2 IRMA+

The ENTITY has a system in place to ensure that:

- Where it decides to temporarily suspend or to terminate a business relationship as per 1.4.9.1, it takes steps to prevent, mitigate or bring to an end the impacts of the suspension or termination;
- It provides reasonable notice to the business partner concerned (a.);
- It keeps that decision under review (a.);
- Where it decides **not** to temporarily suspend or terminate the business relationship as per 1.4.9.1, it monitors the potential adverse impact;
- It periodically assesses its decision (d.); and
- It periodically assesses whether further appropriate measures are available.

1.4.10 Meaningful Engagement with Stakeholders



1.4.10.1 IRMA+

In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that relevant stakeholders are consulted at the following stages of the upstream and downstream sustainability due diligence process:

- When gathering the necessary information on actual or potential adverse impacts, in order to identify, assess and prioritize adverse impacts as per Section 1.4.5;
- When developing prevention and corrective action plans as per Section 1.4.7;
- When developing enhanced prevention and corrective action plans as per Section 1.4.9;
- When deciding to terminate or suspend a business relationship as per Section 1.4.9;
- When adopting appropriate measures to remediate adverse impacts as per Section 1.4.7; and
- As appropriate, when developing qualitative and quantitative indicators as per Section 1.4.7.



1.4.10.2 IRMA+

To ensure an effective and meaningful engagement with stakeholders on upstream and downstream sustainability due diligence, this system ensures that the ENTITY proactively shares with them, in accordance with Section 1.2.2:

- Relevant and comprehensive Information about the ENTITY's upstream and downstream risk and impact assessment as per Section 1.4.5;
- Relevant and comprehensive Information about the development and implementation of the ENTITY's upstream and downstream prevention, mitigation, and remediation plan as per Section 1.4.7; and
- Relevant and comprehensive information about the content and implementation of the ENTITY's system to suspension and terminate of business relationships with direct or indirect business partners with which potential or actual adverse impacts have arisen as per Section 1.4.9.



1.4.10.3 IRMA+

This system also ensures that:

- Where it is not reasonably possible to carry out effective engagement with stakeholders to the extent necessary to comply with the requirements of this Chapter, the ENTITY consults additionally with experts who can provide credible insights into actual or potential adverse impacts, upstream and downstream the ENTITY's chain of activities;
- In consulting stakeholders, the ENTITY identifies and addresses barriers to engagement, in line with Section 1.2.5; and
- Participants are not the subject of retaliation or retribution, including by maintaining confidentiality or anonymity, and for participants who are workers or workers' representatives engagement occurs without prejudice to applicable employment and social rights as well as to any applicable collective agreements.

1.4.11 Complaints Procedure**1.4.11.1 IRMA+**

Affected rights-holders and stakeholders have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to the ENTITY's upstream and downstream business partners, as follows:

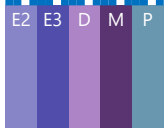
- a. A grievance mechanism through which affected rights-holders and stakeholders can raise, and seek resolution or remedy for, complaints and grievances specifically related to the ENTITY's upstream and downstream business partners are in place;
- b. This grievance mechanism is rights-compatible¹⁴¹;
- c. Affected rights-holders and stakeholders have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms¹⁴²;
- d. The Entity ensures that the following stakeholders are informed about, and have access to, this mechanism: 1) Natural or legal persons who are affected or have reasonable grounds to believe that they might be affected by an adverse impact, and the legitimate representatives of such persons on behalf of them, such as civil society organizations and Rights Defenders; 2) Trade unions and other workers' representatives representing natural persons working in the chain of activities concerned; and 3) Civil society organizations that are active and experienced in related areas where an adverse human rights and/or environmental impact is the subject matter of the complaint;
- e. If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to the ENTITY's upstream and downstream business partners, the Entity fully meets all requirements in Chapter 1.6; and
- f. If a separate mechanism is created to handle only complaints and grievances related to the ENTITY's upstream and downstream business partners, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.

**1.4.11.2 IRMA+**

The ENTITY can demonstrate that

- a. This grievance mechanism and/or other mechanisms (1.4.1.11) are rights-compatible¹⁴³;
- b. The relevant rights-holders and stakeholders (see 1.4.1.11) have been informed about the existence and functioning of this grievance mechanism (or other mechanisms).
- c. If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to ENTITY's upstream and downstream business partners, the Entity fully meets all requirements in Chapter 1.6.
- d. If a separate mechanism is created to handle only human rights complaints and grievances, it is established and management in a manner that fully meets all requirements in Chapter 1.6.

1.4.12 Monitoring and Evaluation



1.4.12.1 IRMA+

To monitor and evaluate the implementation and effectiveness of its prevention, mitigation, and remediation plan, the ENTITY:

- a. At least annually, monitors and evaluates its performance, over successive time periods, against the criteria and indicators defined in 1.4.7.1 and informed by stakeholder engagement as per 1.4.10.1;
- b. At least annually, monitors and evaluates how the measures developed and implemented as per 1.4.7.1 to 1.4.7.3 are adequately and effectively preventing, and where prevention is not possible or not immediately possible, mitigating **potential** upstream and downstream human rights and environmental adverse impacts; and
- c. At least annually, monitors and evaluates how the measures developed and implemented as per 1.4.7.4 are adequately and effectively preventing, and where prevention is not possible or not immediately possible, mitigating or remediating **actual** upstream and downstream human rights and environmental adverse impacts.



1.4.12.2 IRMA+

The monitoring and evaluation process:

- a. Encourages and facilitates joint tracking or joint fact-finding with affected rights-holders and stakeholders/rights-holders
- b. Includes specific facilitation measures to include people from different genders, ages, ethnicities, and disabilities;
- c. Includes specific facilitation measures to include any potentially underserved and/or marginalized people;
- d. Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected rights-holders and stakeholders; and
- e. Includes safeguards to protect the security and privacy of collected personal data or characteristics of affected rights-holders and stakeholders¹⁴⁴.

1.4.13 Continuous Improvement**1.4.13.1 IRMA+**

At least annually, but without undue delay after a significant change occurs and whenever there are reasonable grounds to believe that new risks of the occurrence of upstream or downstream adverse impacts may arise, the ENTITY:

- a. Reviews the monitoring and evaluation results, informed by internal and external feedback, as per Section 1.4.12;
- b. Reviews any grievances related to upstream or downstream sustainability, and the functioning of its relevant grievance mechanism/s required in 1.4.11.1 (see also Section 1.6.3);
- c. Reviews the ENTITY's effectiveness in preventing, and where prevention is not possible or not immediately possible, mitigating and remediating potential and actual upstream and downstream human rights, social, and environmental adverse impacts, informed by the monitoring and evaluation required in 1.4.12.1 and 1.4.12.2;
- d. Updates its sustainability due diligence policy in accordance with Section 1.4.1 and/or its Code of Conduct in accordance with Section 1.4.2, if the reviews (a. to c.) indicate a need for such updates;
- e. Develops and implements time-bound corrective measures to update, if necessary¹⁴⁵, its scoping in accordance with Section 1.4.4 and/or its risk and impact assessment in accordance with Section 1.4.5;
- f. Develops and implements time-bound corrective measures to update, if necessary¹⁴⁶, its prevention, mitigation, and remediation plan in accordance with Section 1.4.7;
- g. Develops and implements time-bound corrective measures to update, if necessary¹⁴⁷, its approach to SMEs in accordance with Section 1.4.8 and to the suspension and termination of business relationships in accordance with Section 1.4.9; and
- h. Develops and implements time-bound corrective measures to update, if necessary¹⁴⁸, its monitoring and evaluation processes in accordance with Section 1.4.12.

1.4.14 Information-Sharing and Public Reporting



1.4.14.1 IRMA+

At least annually, the ENTITY makes and maintains¹⁴⁹ publicly accessible all updated and previous versions of:

- a. Its risk and impact assessment, including an explanation of the assessment methodology and a list of the risks and impacts identified (see Section 1.4.5);
- b. Its prevention, mitigation, and remediation plan, including prioritization criteria and the measures taken to prevent, mitigate, and remediate upstream and downstream human rights, social, and environmental risks and impacts (see Section 1.4.7);
- c. The qualitative and quantitative performance criteria and indicators used to monitor and evaluate the effectiveness and appropriateness of its prevention, mitigation, and remediation plan (defined in 1.4.7.1 and informed by stakeholder engagement as per 1.4.10.1);
- d. Key findings of the monitoring and evaluation process required in 1.4.12, and of the reviews required in 1.4.13;
- e. A summary of the measures developed and implemented as per 1.4.7.1 to 1.4.7.4, and the extent to which they effectively prevented **actual** adverse impacts, and where prevention was not possible or immediately possible, provided timely and adequate remediation to affected rights-holders and stakeholders/rights-holders;
- f. A list of the time-bound corrective measures identified as per 1.4.13.1.
- g. This public reporting (a. to k..) occurs with due regard for the safety and data privacy of affected rights-holders and stakeholders.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

¹⁰⁴ This policy (or equivalent) could be either a stand-alone one or integrated into an overarching human rights policy (or equivalent, see 1.3.1.1.).

¹⁰⁵ For Mineral Processing operations, upstream business partners include all suppliers of minerals.

¹⁰⁶ Alignment of the formal policy with the OECD Guidance is only required for mineral processing operations.

¹⁰⁷ “Doing so provides a starting point from which the enterprise can better leverage respect for human rights in these relationships, should this be necessary. For example, it can facilitate the inclusion of provisions for the respect of human rights in contracts with suppliers and partners; and it can provide the basis for auditing or monitoring performance and for factoring the results into decisions on future business relationships. Conversely, if it is not clear that these expectations with regard to human rights are a firm policy of the enterprise, they can easily become “negotiable” and be sidelined in particular relationships or circumstances. This weakens the ability of the enterprise to ensure it is not involved in human rights abuses by others, which in turn increases its own risks.” UN OHCHR, 2012, The Corporate Responsibility to Respect Human Rights: An Interpretive Guide. Other relevant parties include all (if any) relevant subsidiaries and joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities.

¹⁰⁸ Staffing resources whom authority and responsibility have been assigned to should have the necessary competence, knowledge, and experience to implement this policy at the level of the site.

¹⁰⁹ Achieving compliance with a prevention action plan should be requested when potential adverse impacts could not be prevented or adequately mitigated, contractual assurances will be sought with a view to achieving; while achieving compliance with a corrective action plan should be sought when actual adverse impacts could not be brought to an end or could not be adequately minimized.

¹¹⁰ For the purposes of verifying compliance, the company may refer to independent third-party verification, including through industry or multi-stakeholder initiatives. Regarding applicability to SMEs, the EU CSDDD adds “When contractual assurances are obtained from, or a contract is entered into with, an SME, the terms used shall be fair, reasonable and non-discriminatory. The company shall also assess whether the contractual assurances of an SME should be accompanied by any of the appropriate measures for SMEs referred to in paragraph 2, point (e). Where measures to verify compliance are carried out in relation to SMEs, the company shall bear the cost of the independent third-party verification. Where the SME requests to pay at least a part of the cost of the independent third-party verification, or in agreement with the company, that SME may share the results of such verification with other companies.”

¹¹¹ This must be collected on a disaggregated basis and supported by documentation. This may require the incorporation of disclosure requirements into commercial contracts with suppliers.

¹¹² This must be collected on a disaggregated basis and supported by documentation. This may require the incorporation of disclosure requirements into commercial contracts with suppliers.

¹¹³ Such plans may involve, if relevant and where appropriate, local and central governments, international organisations and civil society when pursuing risk mitigation.

¹¹⁴ Mineral processing operations should refer to the OECD Guidance Appendix – Guiding Note for Upstream Company Risk Assessment, and the relevant commodity-specific guidance: https://www.oecd.org/en/publications/2016/04/oecd-due-diligence-guidance-for-responsible-supply-chains-of-minerals-from-conflict-affected-and-high-risk-areas_g1q65996.html (Third Version, 2016)

¹¹⁵ Including the information generated by the chain of custody and/or traceability system required in 1.4.4.2 and 1.4.4.3.

¹¹⁶ For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY’s mineral supply chain, requirements 1.4.5.2 and 1.4.5.3 should not be considered optional.

¹¹⁷ Including the information generated by the chain of custody and/or traceability system required in 1.4.4.2 and 1.4.4.3.

¹¹⁸ Who should then pass them down the supply chain.

¹¹⁹ For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY’s mineral supply chain, requirements 1.4.7.1 to 1.4.7.9 should not be considered optional

¹²⁰ For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY’s mineral supply chain, Section 1.4.8 should not be considered optional

¹²¹ For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY’s mineral supply chain, Section 1.4.9 should not be considered optional

¹²² For Mineral Processing operations, the mechanism must ensure that concerns can be shared regarding the circumstances of mineral extraction, trade, handling and export in a conflict-affected and high-risk area, in line with the OECD Guidance. This mechanism can be a stand-alone mechanism, or combined with the general mechanism required in Section 1.4.11 (optional), and/or the overall grievance mechanism required in Chapter 1.6.

¹²³ 'Rights-compatible' means ensuring that outcomes and remedies accord with internationally-recognized human rights.

¹²⁴ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file grievances with the company.

¹²⁵ If the Entity has opted in the optional Section 1.4.11 refer to this Section instead of Chapter 1.6.

¹²⁶ For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY's mineral supply chain, Sections 1.4.12 and 1.4.13 should not be considered optional

¹²⁷ Including any ASM entities or individuals from whom the ENTITY may be sourcing, or proposing to source, minerals (see scoping process required in 1.4.4.2 and dedicated Section 1.4.7).

¹²⁸ Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars, etc There are also "new" forms of widespread violence distinct from those associated with traditional armed conflict that have emerged in recent years. This 'non-conventional armed violence' is the result of the activities of groups summarized as tribal networks, thugs (organized crime) and terrorists such as organized criminal groups ('gangs') and violent extremist organizations, illicit economy-related actors and other actors who may not be driven by clear political or ideological agendas, or be organized by the state. See full definition of "conflict-affected and high-risk areas" in the Glossary.

¹²⁹ Where it is necessary to prioritize actions to address actual and potential adverse human rights impacts, the ENTITY should first seek to prevent and mitigate those that are most severe or where delayed response would make them irremediable. (UN Guiding Principles)

¹³⁰ Once the most severe and most likely adverse impacts are addressed within a reasonable time, the ENTITY will address less severe and less likely adverse impacts.

¹³¹ This Section is only relevant if the ENTITY has a commercial/business relationship with an ASM ENTITY, as identified in the scoping process required in 1.4.3.2. An ENTITY sourcing Gold And Associated Precious Metals (silver and/or in some cases platinum group metals), Tin, tantalum and tungsten (3T), Cobalt, or Coloured gemstones from ASM are encouraged to refer to, and use, the CRAFT Code to validate its eligibility to source minerals and metals originating from ASM in conformance with the OECD Due Diligence Guidance and legislations derived from it, like the EU regulation on conflict minerals entered in force in 2021. https://www.craftmines.org/wp-content/uploads/2021/03/CRAFT_2.0_Completo_Ingles_VersionFinal-1.pdf (English Version 2.0).

¹³² See Section 1.4.8 for guidance and requirements related to termination of business relationships.

¹³³ An array of social and environmental issues at ASM operations may pose social and environmental risks. These include, but are not limited to lack of legal compliance, bribery and corruption, child labor, forced labor, low wages, lack of labor rights, poor occupational health and safety (e.g., exposure of workers and communities to toxic chemicals such as mercury and cyanide), lack of gender equality, security risks, human rights abuses, especially in conflict-affected areas, environmental pollution and degradation from poor waste management practices, and operating in protected areas or areas of key biodiversity.

¹³⁴ The most significant risks will vary, depending on the ASM operations. However, if present, the following should always be considered "significant risks": serious human rights abuses, including the worst forms of child labor, forced labor, torture, cruel, inhuman or degrading treatment, sexual violence, war crimes or serious violations of international humanitarian law, crimes against humanity or genocide.

¹³⁵ ENTITY will need to demonstrate how it defined "fair commercial terms" and the extent to which ASM suppliers are satisfied with them. This requires definition and standardization of contractual terms in general (including duration of contracts, division of responsibilities, transparency regarding costs of operation and mineral content).

¹³⁶ For Mineral Processing operations, if the red flag review required in 1.4.4.1, or the in-depth assessment (as per 1.4.5.1), has indicated the presence of CAHRAs in the ENTITY's mineral supply chain, Sections 1.4.7, 1.4.8, 1.4.9, 1.4.12, and 1.4.13 should not be considered optional.

¹³⁷ Other sources of information may include data from monitoring and evaluation, discussions with or grievances filed by stakeholders or workers, internal reviews of particular issues that relate to human rights, etc.

¹³⁸ For the purposes of verifying compliance, the company may refer to independent third-party verification, including through industry or multi-stakeholder initiatives. When contractual assurances are obtained from, or a contract is entered into with, an SME, the terms used shall be fair, reasonable and non-discriminatory. The company shall also assess whether the contractual assurances of an SME should be accompanied by any of the appropriate measures for SMEs referred to in paragraph 2, point (e). Where measures to verify compliance are carried out in relation to SMEs, the company shall bear the cost of the independent third-party verification. Where the SME requests to pay at least a part of the cost of the independent third-party verification, or in agreement with the company, that SME may share the results of such verification with other companies

¹³⁹ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

¹⁴⁰ The action plan includes a specific and appropriate timeline for the adoption and implementation of all actions therein, during which the ENTITY may also seek alternative business partners.

¹⁴¹ 'Rights-compatible' means ensuring that outcomes and remedies accord with internationally-recognized human rights.

¹⁴² There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file grievances with the company.



¹⁴³ 'Rights-compatible' means ensuring that outcomes and remedies accord with internationally-recognized human rights.

¹⁴⁴ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

¹⁴⁵ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁴⁶ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁴⁷ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁴⁸ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁴⁹ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

CHAPTER ANNEXES

ANNEX 1.4-A: Categories of issues to be considered as part of the upstream and downstream sustainability due diligence

Potential risks and impacts to be considered

- Fundamental human rights, including:
 - Freedom from discrimination
 - Freedom from hunger
 - Freedom from slavery
 - Freedom from torture, cruel, inhuman or degrading treatment
 - Freedom of association
 - Freedom of children from social and economic exploitation
 - Freedom of expression
 - Freedom of movement
 - Freedom of non-citizens from arbitrary expulsion
 - Freedom of religion and belief
 - Freedom to choose and accept work
 - Freedom to undertake scientific research and creative activity
 - Right of mothers to special protection before and after birth
 - Right of peaceful assembly
 - Right to an adequate standard of living
 - Right to be treated with humanity in detention
 - Right to education
 - Right to equality before the law
 - Right to equality between men and women
 - Right to fair trial
 - Right to food
 - Right to form trade unions
 - Right to freedom of thought, conscience and religion
 - Right to health, safety, and property
 - Right to just and favorable conditions at work
 - Right to liberty and security of person
 - Right to life
 - Right to marry and found a family
 - Right to participate in public affairs
 - Right to personal honor and reputation
 - Right to privacy
 - Right to recognition before the law
 - Right to respect for private and family life, home and correspondence
 - Right to sanitation
 - Right to social security
 - Right to take part in cultural life
 - Right to work
 - Rights of the Child
 - Rights of Indigenous Peoples
 - Rights of Peasants
 - Rights of All Migrant Workers and Members of their Families
 - Rights of Persons with Disabilities
 - Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities
- Labor rights and industrial relations
 - Right to strike
 - Right to organize and collective bargaining

- Freedom of association
- Occupational health and safety
- Access to adequate housing, adequate food, clothing, and water and sanitation in the workplace
- Child labor
- Forced labor
- Discrimination
- Equal Remuneration
- Trade union freedoms
- Harm to the environment, climate and human health, considering direct, induced, indirect and cumulative effects, including:
 - Air, including air pollution such as greenhouse gas emissions
 - Water, including seabed and marine environment, and including water pollution, water use, water quantities (flooding or droughts) and access to water
 - Soil, including soil pollution, soil erosion, access to land, land use and land degradation
 - Biodiversity, including damage to habitats, wildlife, flora and ecosystems, including ecosystem services
 - Hazardous substances
 - Noise and vibration
 - Plant and facility safety
 - Energy use
 - Waste and residues (including tailings and other waste from mineral processing)
 - Other impact on natural resources, such as deforestation
- Community life, including:
 - Rights, health, safety, wellbeing, and cultural heritage of Indigenous Peoples
 - Right to self-determination, right to culture, religion and language
- Right of individuals, groupings and communities to lands and resources
- Governance, business integrity, and corruption

ANNEX 1.4-B: Red Flag Assessment for Supply of Input Mineral (for Mineral Processing operations only)

The following “red flags” triggers must be integrated in the processes contained in Section 1.4.4, and especially the scoping-related requirement 1.4.4.1:

Red flag locations of mineral origin and transit:

-  The minerals originate from or have been transported via a conflict-affected or high-risk area.ⁱ
-  The minerals are claimed to originate from a country that has limited known reserves, likely resources or expected production levels of the mineral in question (i.e. the declared volumes of mineral from that country are out of keeping with its known reserves or expected production levels).
-  The minerals are claimed to originate from a country in which minerals from conflict-affected and high-risk areas are known to transit.
-  The minerals are claimed to originate from recyclable/scrap or mixed sources and have been refined in a country in which minerals from conflict-affected and high-risk areas are known or reasonably suspected to transit.

Supplier red flags:

-  The company's suppliers or other known upstream companies have shareholder or other interests in companies that supply minerals from or operate in one of the above-mentioned red flag locations of mineral origin and transit.
-  The company's suppliers' or other known upstream companies are known to have sourced minerals from a red flag location of mineral origin and transit in the last 12 months.

General red flag circumstances:

-  Anomalies or unusual circumstances are identified through the information collected in Step 1 which give rise to a reasonable suspicion that the minerals may contribute to conflict or serious abuses associated with the extraction, transport or trade of these minerals.

Source: OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, Third Edition (2016) https://www.oecd.org/en/publications/2016/04/oecd-due-diligence-guidance-for-responsible-supply-chains-of-minerals-from-conflict-affected-and-high-risk-areas_g1g65996.html

ⁱ Conflict-affected and high-risk areas are identified by the presence of armed conflict, widespread violence or other risks of harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars, etc. High-risk areas may include areas of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence. Such areas are often characterized by widespread human rights abuses and violations of national or international law. Source: OECD Guidance, Third Edition.

Chapter 1.5

Conflict-Affected and High-Risk Area Due Diligence**SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES**

- Moved the Chapter under Principle 1 to better reflect the close relationship with Human Rights Due Diligence and Corporate Sustainability Due Diligence.
- Removed all requirements seeking external certification against the OECD Guidance for Responsible Supply Chains of Minerals as those are only designed for mineral processing operations sourcing input minerals. This aspect is now fully, and more robustly, addressed under Chapter 1.4, see in particular Section 1.4.4–Mineral Supply Chain Controls and Transparency.
- This Chapter used to be modelled after the OECD Guidance which, as mentioned above, was not fit for the broader scope and outcomes sought. This chapter has been substantially revisited to align with key steps and recommendations of the 2022 UNDP's Guide on Heightened Human Rights Due Diligence for business in conflict-affected contexts.
- Noting that the need for an Exit Strategy, covered in the UNDP Guide and reflected in this new version of the chapter, is in line with the recent IFC's Approach to Responsible Exit note, published in October 2024.

Response to consultation questions outlined in first draft

Question #	Question	Feedback received and proposed decision
3.4-01	[External Certification against OECD-aligned systems] Question: Do you agree with IRMA recognizing the results of audits conducted for other certification systems (even if the auditing procedures do not fully align with IRMA's assurance procedures) [against the OECD-aligned systems]? If not, please explain your rationale. Do you agree with recognizing audits from other systems conducted within the past two years, or would you suggest a longer or shorter time period in order to recognize past audits? If you prefer a different period, please explain your rationale.	Feedback received: 5 responses received (3 from mining, 1 from finance, 1 from international organizations). 2 mining respondents suggest accepting external certification against "OECD-aligned" systems (2 mining had no opinion). 1 Finance respondent also supports this idea, though extending the validity period to three years, and also suggests that IRMA itself could become recognized as "OECD-aligned". Conversely, international organizations pointed out the weaknesses in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk and, although external certification could be used as a basis, IRMA should require more and highlight the differences. Proposed decision: This Chapter used to be modelled after the OECD Guidance for Responsible Supply Chains of Minerals which is only designed for mineral processing operations sourcing input minerals. This was not fit for the broader scope and outcomes sought for this Chapter. This Chapter has therefore been substantially revisited to align with key steps and recommendations of the 2022 UNDP's Guide on Heightened Human Rights Due Diligence for business in conflict-affected contexts.

		The responsible sourcing of input minerals for mineral processing operations (either at stand-alone or on-site co-located processing operations) is now fully covered in Chapter 1.4 on Upstream and Downstream Sustainability Due Diligence, see Section 1.4.4 (Mineral Supply Chain Controls and Transparency). Section 1.4.4 is intended to be aligned with the OECD Guidance for Responsible Supply Chains of Minerals, and if approved by the IRMA Board for inclusion in the final IRMA Standard V2.0, IRMA could explore options to seek formal recognition of such alignment with the OECD Guidance.
3.4-02	[Ensuring that all sites carry out some due diligence to document the circumstances of extraction and/or supply of minerals] Background: The 2018 Mining Standard (requirement 3.4.1.1) included an CAHRA screening step, similar to requirement 3.4.3.1.a, below. The difference is that the 2018 IRMA requirement allowed sites that were clearly not associated with a CAHRA (i.e., did not mine in a CAHRA, did not transport minerals through or to CAHRA, or did not source from other mines in CAHRA), to mark this chapter as not relevant. There was also an expectation that at every audit the sites would need to again demonstrate that the chapter was 'not relevant' (since political and operational contexts can change over time). However, the revised requirements have been written in a manner that expects that all sites carry out some due diligence, i.e., have a policy, document the circumstances of mineral extraction and/or mineral suppliers, etc. Question: Do you agree with this new approach? Or do you believe that if mining and/or mineral processing operations are clearly not associated with CAHRAs that the chapter should not be applicable to them? A rationale supporting your opinion would be appreciated.	Feedback received: 7 responses received (4 mining, 2 finance, 1 international organizations). The vast majority of respondents supported this approach. One mining respondent recommended to clarify even further that all sites should carry out some due diligence, regardless of the jurisdiction being perceived as a CAHRA, but in proportion to their assessment of the potential risks and impacts should be a minimum requirement. Only 1 respondent (mining) suggested to rely on fixed definitions of what a CAHRA country or site is. Proposed decision: This Chapter used to be modelled after the OECD Guidance for Responsible Supply Chains of Minerals which is only designed for mineral processing operations sourcing input minerals. This was not fit for the broader scope and outcomes sought for this Chapter. This Chapter has therefore been substantially revisited to align with key steps and recommendations of the 2022 UNDP's Guide on Heightened Human Rights Due Diligence for business in conflict-affected contexts. However, to ensure consistent and robust review of the applicability of this Chapter, to ensure the specific risks associated with conflicts and high-risk areas are understood and addressed, and in accordance with the feedback received, we have ensured that all sites are required to carry out due diligence to identify whether any of the ENTITY's activities may be the cause of, or contributing to, or may take place in an area with confirmed or suspected presence of: 1. Armed conflict, widespread violence, widespread human rights abuses or other risks of harm to people; 2. Political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, or widespread violations of national or international law. This is addressed in Chapter 1.3 for what pertains to the Entity's own activities (see requirement 1.3.3.4), and in Chapter 1.4 for the activities of business relationships (see



		requirement 1.4.5.1). The fact that such identification is “outside” this Chapter ensures that evidence will have to be provided by all sites regardless of their “perceived” applicability of this Chapter (now 1.5) to their operation.
3.4-03	[Responding to red flags identified in supply chain] Question: Do you believe that IRMA must be fully OECD-aligned, or would you support IRMA integrating the OECD Due Diligence Guidance 5-Step framework but be more nuanced regarding the actions to be taken when Annex II risks are encountered? For example, IRMA could do away with 3.4.4.3.a, and require that all entities following the risk mitigation in 3.4.4.3.b. Please feel free to suggest additional or different options.	Feedback received: 6 responses received (2 mining, 1 NGO, 2 finance, 1 international organizations). 2 finance and 1 mining supported full alignment with the OECD Due Diligence Guidance for Minerals. 1 mining had no opinion. Conversely, respondents from NGO and international organizations supported a more nuanced approach, especially around exiting strategies and stakeholder engagement. They mention the August 2023 report by UN OHCHR “Business And Human Rights in Challenging Contexts: Considerations for Remaining and Exiting” and the “spirit of due diligence” used in various OECD publications and statements. Proposed decision: This Chapter used to be modelled after the OECD Guidance for Responsible Supply Chains of Minerals which is only designed for mineral processing operations sourcing input minerals. This was not fit for the broader scope and outcomes sought for this Chapter. This Chapter has therefore been substantially revisited to align with key steps and recommendations of the 2022 UNDP’s Guide on Heightened Human Rights Due Diligence for business in conflict-affected contexts. The responsible sourcing of input minerals for mineral processing operations (either at stand-alone or on-site co-located processing operations) is now fully covered in Chapter 1.4 on Upstream and Downstream Sustainability Due Diligence, see Section 1.4.4 (Mineral Supply Chain Controls and Transparency). Section 1.4.4 is intended to be aligned with the OECD Guidance for Responsible Supply Chains of Minerals. This addresses both the need for a strong alignment with the OECD Guidance when it comes to responsible sourcing of input minerals, and the need for a more nuance approach when projects and operations are causing, contributing to, or taking place in areas affected by: conflicts and/or high risks as defined by the OECD. (See also responses to previous Consultations Questions 3.4-01 and 3.4-02).



BACKGROUND

Mineral exploration, mining and mineral processing may take place in areas where there are existing or potential conflicts or socio-political high risks or instability that can adversely affect the project and local stakeholders. In some cases, conflict may be external to a company's operation, and in other cases conflict may be caused, exacerbated, or supported by a company's activities or presence in an area.

"Companies and their investors are paying increased attention to the challenges and opportunities of doing business in conflict-affected and high-risk areas. These areas differ significantly from more stable operating environments and require companies and investors to take into consideration additional factors."¹⁵⁰

Developing suitable responses when operating in or sourcing minerals from conflict-affected and high-risk areas (CAHRAs) is challenging, but guidance exists to assist companies in identifying, assessing, and mitigating risks and impacts associated with operating in those areas. While being the most-widely accepted framework to date, the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas was only designed to apply "to all companies in the mineral supply chain that supply or use minerals sourced from conflict-affected or high-risk areas".¹⁵¹ This critical aspect of responsible mineral processing operations is fully addressed in Chapter 1.4 of this Standard.

This Chapter focuses on all other scenarios where an exploration, mining, or mineral processing company and/or its business relationships, *besides the supply of input mineral for processors*, may be the cause of, or may take place in an area with confirmed or suspected presence of, armed conflict, widespread violence or other risks of harm to people, political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, widespread violence, widespread human rights abuses, or widespread violations of national or international law. For the full range of forms that such conflicts or high risks can take, an extended definition is available in the Glossary.

While it is impossible to provide definitive answers to respond to the multiple challenges of operating responsibly in these different situations, the UNDP in collaboration with the UN Working Group on Business and Human Rights published a Guide¹⁵² in 2022 to provide "parameters to design, update and implement heightened corporate human rights due diligence in contexts affected by armed conflicts and other situations of widespread violence." This Guide is based on the UN Guiding Principles on Business and Human Rights.

This Chapter follows the sequence of this Guide, and articulate its recommendations into measurable and assessable requirements, to ensure companies play a constructive role in sustaining peace, for the preservation of all human rights in conflict-affected and high-risk areas.

It is important to note that companies present in such areas can face high security and safety risks, and therefore should always seek to make the safety of local populations and workers their priority. As with all Chapters of this Standard, where an ENTITY would not implement and conform with one or more requirements due to security or legal issues, or case of force majeure, it can always provide supporting evidence; and the scoping could be adjusted so as not to penalize it unfairly.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- The International Bill of Human Rights (including the 1966 International Covenant on Civil and Political Rights (ICESCR) and International Covenant on Economic, Social and Cultural Rights (ICCPR))
- United Nations Guiding Principles for Business and Human Rights
- OECD Due Diligence Guidance for Responsible Business Conduct, 2018 Edition
- OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, Third Edition
- UNDP Guide on Heightened Human Rights Due Diligence for business in conflict-affected contexts, 2022
- IFC Performance Standard 4: Community Health, Safety, and Security, 2012
- IFC's Approach to Responsible Exit, 2024

OBJECTIVES OF THIS CHAPTER

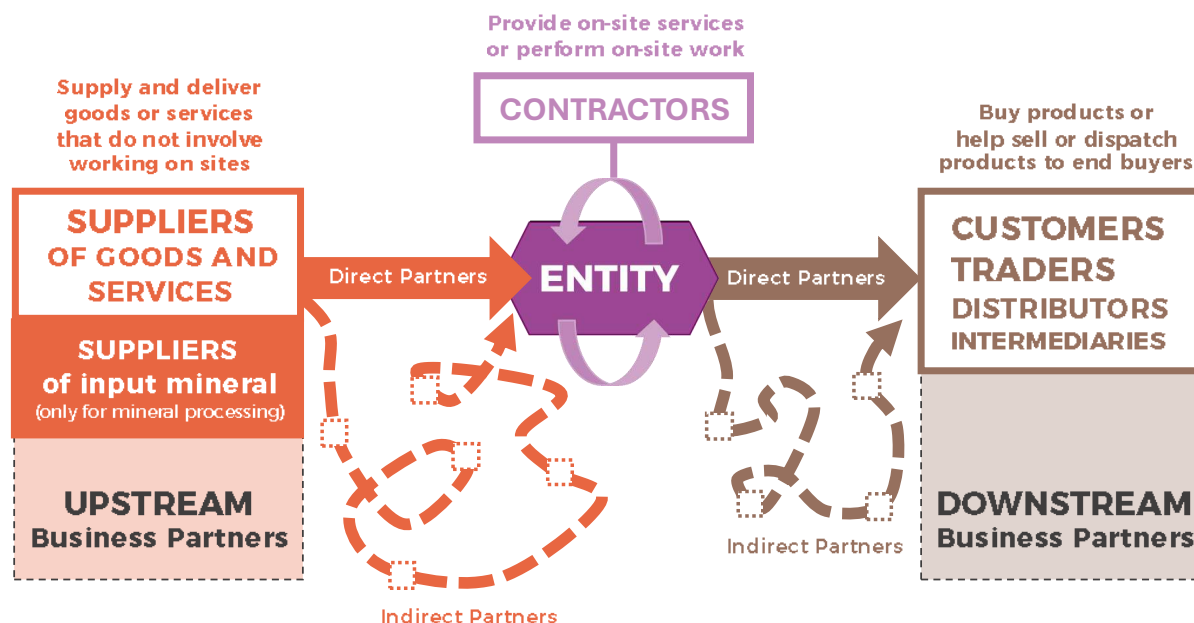
To ensure that a heightened human rights due diligence is implemented in order to avoid contributing to conflict when operating in, transporting materials through, or sourcing minerals or metals from, conflict-affected or high-risk areas.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. However, **when the ongoing human rights due diligence processes conducted in Chapter 1.3** (with regard to the ENTITY's own operations and activities) **and in Chapter 1.4** (with regard to the operations of the ENTITY's business relationships) **demonstrate that none of the ENTITY's own operations/activities and none of its business relationships may be the cause of, or may take place in a, Conflict-Affected or High-Risk Area** (for the range of form that such conflicts or high risks can take, see full definition in the Glossary), **this Chapter 1.5 will not be applicable.**

For mineral processing operations, additional requirements for suppliers of their input mineral are included in Chapter 1.4 on Upstream and Downstream Sustainability Due Diligence (through a series of external conformance audit requirements, aligned on the OECD Guidance, see Chapter 1.4 for more details). Note that mineral processing operations are still required to be audited against this Chapter 1.5 when the ongoing human rights due diligence processes conducted in Chapter 1.3 and 1.4 demonstrate that the ENTITY's own operations/activities and/or its other business relationships may be the cause of, or may take place in a Conflict-Affected or High-Risk Area. Figure 3 clarifies the terminology used to differentiate the ENTITY and its on-site Contractors from upstream and downstream business partners (including upstream suppliers of input mineral for mineral processing operations).

FIGURE 1.5 Scope and Terminology related to on-site Contractors, Upstream and Downstream Business Partners (direct and indirect)





CHAPTER 1.5 – Conflict-Affected and High-Risk Area Due Diligence

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Entire Chapter 1.5 – Conflict-Affected and High-Risk Area Due Diligence:

This Chapter was included in the 2018 IRMA Standard for Responsible Mining V1.0 but has never been audited and assessed. IRMA has acknowledged that the approach taken in the V1.0 was only based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, which is limited to the issue of input mineral supply for mineral processing operations, and thus not adequate (the OECD Guidance was only designed to apply “to all companies in the mineral supply chain that supply or use minerals sourced from conflict-affected or high-risk areas”).

Although this reworked Chapter draws on international best practice and guidance, including the Guide published in 2022 by UNDP and the UN Working Group on Business and Human Rights “Heightened Human Rights Due Diligence for Business in Conflict-Affected Contexts”, it can represent a substantial scope expansion for implementing sites. This Chapter will also present specific challenge for auditors, which IRMA is willing to acknowledge and monitor closely.

The requirements are signaled with an ‘eye icon’ to ensure that IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not ‘optional’ (unlike IRMA+).

IRMA Requirements



1.5.1 Heightened Risk and Impact Assessment

- 1.5.1.1** If and whenever the risk and impact assessment processes required in Section 1.3.3 and/or Section 1.4.4 identify any of the ENTITY's activities and/or any of the ENTITY's business relationships to be the cause of, or to take place in an area with confirmed or suspected presence of, any form of conflicts or high risks¹⁵³ (hereafter referred to as "conflict"), a heightened human rights risk and impact assessment process is conducted to better understand the conflict. This process:
- Is conducted by competent professionals, using a credible methodology;
 - Identifies and analyzes, to the greatest extent possible, the past and present context, including political, economic, social and environmental institutions and structures, shaping the conflict, as well as the current dynamics and trends of the conflict;
 - Identifies and analyzes, to the greatest extent possible, the main actors influencing the conflict, as well as their interests, strategies, motivations, capacity, and leadership structures;
 - Identifies and analyzes, to the greatest extent possible, the structural¹⁵⁴ and proximate¹⁵⁵ causes of the conflict¹⁵⁶;
 - Determines how the ENTITY's activities and/or those of its business partners might affect the positions of power or relationships between different conflict actors;
 - Determines how the ENTITY's activities and/or those of its business partners might affect relevant groups' access to natural resources;
 - Determines whether there are any of the identified conflict actors' among the ENTITY's direct or indirect business relationships;
 - Determines the ENTITY's activities and/or those of its business partners might affect the conflict causes and/or dynamics and trends identified as per b. to d;
 - Identifies whether there is an actual or potential adverse impact on human rights or the conflict connected to the ENTITY's activities and/or those of its business partners, either through actions or omissions, and if so, whether these activities (including actions or omissions) increase the risk of that impact and/or are in, and of, sufficient to result in that impact;
 - Evaluates the severity of each identified impact, and evaluates the likelihood for and potential severity of each identified risk; and
 - Includes recommended measures that can be taken by the ENTITY to prevent all the identified risks and impacts and, where prevention is not possible or not immediately possible, to mitigate and to remediate them.¹⁵⁷

- 1.5.1.2** This heightened human rights risk and impact assessment:

- Is informed by relevant internal and/or external human rights and conflict expertise, incorporate analysis of credible independent reports and sources of information, and includes an explanation of the assessment methodology;
- Includes an analysis of the potential differential risks to, and impacts on, rights-holders of different genders, ages, and ethnicities; and
- Includes an analysis of the potential differential risks to, and impacts on, Rights Defenders, and any people likely to be disproportionately affected by the conflict, including potentially underserved and/or marginalized people.



1.5.2 Heightened Prevention, Mitigation, and Remediation Plan



1.5.2.1 Critical Requirement

Building on 1.5.1 and other relevant sources of information:

- a. A heightened human rights prevention, mitigation, and remediation plan (or equivalent) is developed by competent professionals to prevent, mitigate, and remediate all the identified conflict-related risks and impacts on human rights or on the conflict;
- b. The plan is developed and implemented in accordance with Section 1.3.4 to address its own operations, and in accordance with Section 1.4.5 to address the operations of its relevant business partners¹⁵⁸; and
- c. The plan includes conflict-specific qualitative and quantitative performance indicators (including gender-disaggregated indicators and other categories of disaggregated indicators where appropriate)¹⁵⁹, linked to adequate baseline data (collected as per 1.5.1), to enable monitoring and evaluation of the effectiveness of measures over time.



1.5.2.2 Affected rights-holders and stakeholders, including Rights Defenders and civil society

organizations, have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to the conflict, as follows:

- a. A grievance mechanism through which affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, can raise, and seek resolution or remedy for, complaints and grievances specifically related to the conflict, is in place;
- b. This grievance mechanism is rights-compatible¹⁶⁰;
- c. Affected rights-holders and stakeholders have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms¹⁶¹;
- d. If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to the conflict, the Entity fully meets all requirements in Chapter 1.6; and
- e. If a separate mechanism is created to handle only complaints and grievances related the conflict, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.



1.5.3 Exit strategy

- 1.5.3.1** The ENTITY has a system in place to ensure that, as a last resort, when all the measures required in Sections 1.5.2, and developed and implemented in accordance with Sections 1.3.4 and/or 1.4.5, have failed to prevent or adequately mitigate any potential or actual adverse conflict-related risks and impacts on human rights or on the conflict, the ENTITY:
- Building on 1.5.1 and other relevant sources of information, the ENTITY assesses whether exiting¹⁶² could exacerbate tensions within a conflict-affected setting and whether the adverse impacts of the decision to exit or suspend the operations outweigh the benefits;
 - The ENTITY adopts and implements an enhanced prevention action plan (or equivalent) for the specific conflict-related adverse impact without undue delay, by using or increasing the ENTITY's leverage through the **temporary suspension** of business relationships with respect to the activities concerned, provided that there is a reasonable expectation that those efforts will succeed¹⁶³; and
 - If there is no reasonable expectation that those efforts would succeed, or if the implementation of the enhanced prevention action plan has failed to prevent or mitigate the adverse impact, the ENTITY (as relevant) does **relocate**, or does **suspend**, or does **terminate**, its activities, and/or suspends or terminates the business relationship with respect to the activities concerned.
- 1.5.3.2** The ENTITY has a system in place to ensure that, where it decides to **relocate or suspend** or **terminate** its activities, and/or to suspend or to terminate a business relationship as per 1.5.3.1:
- The ENTITY takes steps to prevent, mitigate or bring to an end the impacts of the suspension or termination, including through the implementation of all relevant closure and post-closure measures required in Chapter 2.7 (where the ENTITY relocates or suspends or terminates its activities);
 - The ENTITY provides reasonable notice to all the relevant stakeholders and the business partner/s concerned; and
 - The ENTITY keeps that decision under review.
- 1.5.3.3** The ENTITY has a system in place to ensure that, where it decides **not to** relocate or suspend or terminate its activities; and/or not to suspend or terminate the business relationship as per 1.5.3.1:
- The ENTITY monitors the potential adverse impact;
 - The ENTITY periodically assesses its decision; and
 - The ENTITY periodically assesses whether further appropriate measures are available.



1.5.4 Meaningful Engagement with Stakeholders

- 1.5.4.1** In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that relevant affected rights-holders and stakeholders¹⁶⁴ are consulted:
- When gathering the necessary information on actual or potential adverse impacts, in order to identify, assess and prioritize adverse impacts as per Section 1.5.1;
 - When developing the heightened human rights prevention, mitigation, and remediation plan as per Section 1.5.2;
 - When monitoring and evaluating the implementation and effectiveness of the heightened human rights prevention, mitigation, and remediation plan per Section 1.5.6;
 - In consulting stakeholders, the ENTITY identifies and addresses barriers to engagement, in line with Section 1.2.5;
 - Participants are not the subject of retaliation or retribution, including by maintaining confidentiality or anonymity, and for participants who are workers or workers' representatives engagement occurs without prejudice to applicable employment and social rights as well as to any applicable collective agreements; and
 - Where it is not reasonably possible to carry out effective engagement with local stakeholders, the ENTITY consults additionally with representative individuals or organizations of the diaspora, and with experts, who can provide credible insights into the conflict and any actual or potential conflict-related human rights impacts;

- 1.5.4.2** If the conflict involves armed groups, the ENTITY develops and adopts a clear strategy to frame its engagement with armed groups. This strategy:
- Builds on 1.5.1, and considers the formal classification of armed groups, particularly when they are designated as terrorist organizations;
 - Considers tools developed by relevant initiatives dealing with security and human rights issues, such as the Voluntary Principles on Security and Human Rights, to avoid abuses; and
 - Includes rules, procedures, and controls to maintain the ENTITY's impartiality, including through demonstrating independence from all government-led or non-state armed group-led efforts and avoiding any activity or public statement that may be construed as supporting or as excusing their abuses.



1.5.5 Grievances Related to Abuses by the Army or Armed Groups

- 1.5.5.1** When grievances or complaints filed through its relevant grievance mechanism/s (see 1.5.2.2, and Sections 1.4.9, 1.5.3, and 1.6.1) or through its relevant whistleblowing mechanism/s (see Section 1.6.2) may refer to abuses by the army or armed groups against people in the community, employees or contractors, the ENTITY:
- Makes the facts known to competent authorities, to avoid any accusation of complicity by omission;
 - Communicate to victims or their families the relevant International Committee of the Red Cross contact information for reporting their case;¹⁶⁵ and
 - Does so in a manner that guarantees the protection of the victims' and relevant stakeholders' safety and data privacy.



1.5.6 Monitoring and Evaluation

- 1.5.6.1** To monitor and evaluate the implementation and effectiveness of its heightened human rights prevention, mitigation, and remediation plan, at least twice a year, the ENTITY:
- Tracks and documents its performance, over successive time periods, against the indicators defined in 1.5.2.1;
 - Tracks and documents how the measures developed and implemented as per 1.5.2 and 1.5.3 are adequately and effectively preventing, and where prevention is not possible or not immediately possible, mitigating all identified conflict-related risks and impacts on human rights or on the conflict; and
 - Tracks and documents how the measures developed and implemented as per 1.5.4 are adequately and effectively enabling meaningful engagement with relevant affected rights-holders and stakeholders and, if applicable, constructive and safe engagement with armed groups.

- 1.5.6.2** The monitoring and evaluation process:
- Encourages and facilitates, to the greatest extent possible, joint tracking or joint fact-finding with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, and any potentially underserved and/or marginalized people;
 - Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected rights-holders and stakeholders, to the greatest extent possible; and
 - Includes safeguards to protect the security and privacy of collected personal data or characteristics of affected rights-holders and stakeholders.¹⁶⁶



1.5.7 Continuous Improvement

- 1.5.7.1** At least twice a year, but without undue delay after a significant change occurs and whenever there are reasonable grounds to believe that new risks of the occurrence of conflict-related impacts may arise, the ENTITY:
- Reviews the monitoring and evaluation results, informed by internal and external feedback, as per Section 1.5.6;
 - Reviews any conflict-related-grievances and the functioning of its relevant grievance mechanism/s required in 1.5.2.1. (see also Section 1.5.3);
 - Reviews the ENTITY's effectiveness in preventing, and where prevention is not possible or not immediately possible, mitigating and remediating all identified conflict-related risks and impacts on human rights or on the conflict, informed by the monitoring and evaluation required in 1.5.6.1 and 1.5.6.2;
 - Develops and implements time-bound corrective measures to update, if necessary¹⁶⁷, its heightened human rights risk and impact assessment in accordance with Section 1.5.1;
 - Develops and implements time-bound corrective measures to update, if necessary¹⁶⁸, its heightened human rights prevention, mitigation, and remediation plan in accordance with Section 1.5.2, and its systems and strategies for meaningful engagement with stakeholders in accordance with Section 1.5.4; and
 - Develops and implements time-bound corrective measures to update, if necessary¹⁶⁹, its monitoring and evaluation processes in accordance with Section 1.5.6.



1.5.8 Information-Sharing and Public Reporting

- 1.5.8.1** At least twice a year, or more frequently if required by affected rights-holders and stakeholders, and with due regard for their safety, data privacy, and for security concerns, the ENTITY:
- Proactively shares with affected rights-holders and stakeholders updated information about how the ENTITY is addressing identified conflict-related human rights risks that are relevant to them. The communication can be limited to each relevant group and takes account of literacy, language and cultural communication barriers¹⁷⁰;
 - Proactively shares with relevant external parties¹⁷¹ updated information about how the ENTITY is addressing a specific conflict-related human rights risk or risks in general¹⁷²; and
 - To the greatest extent possible, and only if public disclosure of such information does not pose risks to affected rights-holders and stakeholders or personnel¹⁷³, it makes publicly accessible an updated version, and maintains publicly accessible all previous versions of, a summary of the measures developed and implemented as per 1.5.2 and 1.5.3 and the extent to which they effectively prevented actual conflict-related human rights impacts, and where prevention was not possible or immediately possible, provided timely and adequate remediation to affected rights-holders.



1.5.9 Capacity-Building

- 1.5.9.1 IRMA+**
- To ensure that all relevant staff develop, or reinforce, their heightened human rights due diligence competencies, the ENTITY develops and implements a capacity-building plan (or equivalent), that includes:
- Training programs on heightened human rights due diligence practice;
 - Institutionalized learning processes that facilitate and encourage reflection on practice; and
 - Creation of safe spaces to talk about what might be going wrong, including conflict issues, lines of division and how a person's work may impact on a context and vice versa, which are extremely sensitive issues, particularly in very fragile and divided contexts.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

¹⁵⁰ UN Global Compact and PRI. 2010. Guidance on Responsible Business in Conflict-Affected and High-Risk Areas: A Resource for Companies and Investors. https://www.unglobalcompact.org/docs/issues_doc/Peace_and_Business/Guidance_RB.pdf

¹⁵¹ Organisation for Economic Cooperation and Development (OECD). 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. (3rd Ed.) <https://mneguidelines.oecd.org/mining.htm>

¹⁵² United Nations Development Programme (2022). Heightened Human Rights Due Diligence for business in conflict-affected contexts; A Guide.

¹⁵³ See Glossary, and requirements 1.3.3.4 and 1.4.4.3, for the full range of forms these may take.

¹⁵⁴ E.g. unequal land distribution, political exclusion, poor governance, impunity, lack of state authority.

¹⁵⁵ E.g. Arms proliferation, illicit criminal networks, emergence of non-state armed actors, overspill of conflict from a neighboring country, natural resource discoveries.



¹⁵⁶ Including the root causes of tensions and drivers of conflict that can contribute to escalating violence.

¹⁵⁷ Where it is necessary to prioritize actions to address actual and potential adverse human rights impacts, the ENTITY should first seek to prevent and mitigate those that are most severe or where delayed response would make them irremediable. (UN Guiding Principles)

¹⁵⁸ These two chapters are fully aligned with the UN Guiding Principles, ensuring that if the ENTITY causes, or may cause, an adverse human rights impact, it is expected to take appropriate measures to cease or, prevent, and remedy the impact. If the ENTITY is contributing, or may contribute, to an adverse impact, it should take appropriate measures to cease, prevent, and remedy its contribution, while also exercising its leverage to mitigate any remaining impact to the greatest extent possible. Finally, if the ENTITY is directly linked to the negative impact, it should exercise its leverage to mitigate any remaining impact to the greatest extent possible.

¹⁵⁹ Other disaggregation may be by age, vulnerability status, proximity to the operation, etc.

¹⁶⁰ 'Rights-compatible' means ensuring that outcomes and remedies accord with internationally-recognized human rights.

¹⁶¹ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file *grievances* with the company.

¹⁶² In this context, 'exiting' refers to permanently terminating its activities and/or relevant business relationships in, or linked to, a conflict-affected context.

¹⁶³ The action plan includes a specific and appropriate timeline for the adoption and implementation of all actions therein, during which the ENTITY may also seek alternative business partners. (UNDP Guide)

¹⁶⁴ Engagement at the local level might not be possible or optimal for a variety of reasons, including fear of retribution or safety. Business should nonetheless strive to get a local perspective, including by engaging the diaspora. (UNDP Guide)

¹⁶⁵ Fundación Ideas para la Paz, Guide on Grievance and Complaints Mechanisms: Respectful of Human Rights and International Humanitarian Law, (Bogotá, Colombia, 2017), p. 18. Available at www.ideaspaz.org/media/website/FIP_GC_Grievance&Complaints_web_C-0519.pdf. ; cited in UNDP Guide.

¹⁶⁶ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

¹⁶⁷ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁶⁸ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁶⁹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁷⁰ For instance whether verbal communications are considered more respectful than written communications. Meetings with the group or its legitimate representatives may be the most appropriate and successful. (UNDP Guide)

¹⁷¹ Including but not limited to civil society organizations, business partners, shareholders.

¹⁷² It might be appropriate to provide documents and presentations at an annual general meeting, web updates, messages to electronic mailing lists of those who self-identify as interested parties or similar means of communication. (UNDP Guide)

¹⁷³ This may be because they would reveal, by implication, the idEntity either of a complainant or of individuals responsible for actions that are judged harmful, making them the potential targets of retaliation. Publicizing information about discussions with government officials or representatives of the armed forces that are aimed at halting or preventing harmful action against individuals might jeopardize that process. Similarly, business must be aware that communication could be – in a particular conflict-affected context – counter-productive, even when providing factual information. Therefore, the way and content of what business communicate must be sensitive to the particular context, including when the communication is with stakeholders outside of the conflict or crisis region. In both cases, however, neither the protection of affected stakeholders nor the required conflict-sensitivity of communication should be seen as a blanket assumption and become an easy justification to avoid sharing information that can legitimately be made public. (UNDP Guide)



Chapter 1.6

Grievance Mechanism, Whistleblowers, and Access to Remedy

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Several requirements from the 2018 Standard have been combined to become the critical requirement in the chapter - this was done in response to feedback received on Consultation Question 1.4-01, and feedback stating that the previous approach - i.e. having as critical only the one requirement that simply required that a grievance mechanism exist - was insufficient.
- Offered clarity concerning the question of how "serious" human rights impacts should be addressed by removing the reference to serious and requiring instead that entities explain the process for handling grievances that involve allegations of impacts on human rights, including the potential for adjudication by an independent, third-party mediator or mechanism when dialogue does not lead to agreed remedies (1.6.1.1).
- Added additional sub-requirements to Section 1.6.1 to more clearly state a zero-tolerance approach to retaliation for utilizing grievance mechanism, and how the specific barriers to participation and needs of underserved and/or marginalized people should be addressed.
- Moved proposed whistleblower requirements from Chapter 3.1 (where they were in the October 2023 draft) to Chapter 1.6. See section 1.6.2.
- Added a Continuous Improvement section to be consistent with other Chapters in the Standard
- Other minor changes to language for consistency / clarity.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Decision
1.4-01	(1.4.1.1) Background: Requirement 1.4.1.1 was a critical requirement in the 2018 Mining Standard and is currently a critical requirement (for more on critical requirements see the note that accompanies 'Critical Requirements In This Chapter,' above). One of the issues that has arisen is that there may be a mechanism in place that allows grievances to be filed and addressed, but the mechanism may not be considered as entirely effective by some stakeholders. Question: Should the critical element simply be that there is a mechanism that allows stakeholders to raise and seek remedy for their grievances, or should we add additional expectations to this critical requirement that speak to the quality and/or effectiveness of the mechanism? For example, we could add the content of (non-critical) requirement 1.4.2.1 to this (critical) requirement.	Feedback received: Feedback on this consultation question overwhelmingly supported moving 'quality' related sub-requirements from former 1.4.2.1 and 1.4.3.1 to the critical requirement (now 1.6.1.1). Decision: We propose that the critical requirement be a combination of two previous requirements related to "existence" and "quality/maturity" of the grievance mechanism (See requirement 1.6.1.1).
1.4-02	(1.4.1.1) Background: Chapter 1.4 - 'Complaints and Grievance Mechanism and Access to Remedy' includes a range of requirements surrounding the existence of an accessible and effective operational-level grievance mechanism. It is not possible to score well on Chapter 1.4 if the mechanism does not have certain quality-related characteristics. Other chapters (i.e., human rights, gender, resettlement, security, ASM) also have requirements relating to the existence of a grievance mechanism; however, the requirements in each of those chapters ask only that a mechanism is in place that allows grievances to be filed and addressed, but they do not speak to the overall quality of that mechanism. This is an approach proposed by IRMA to avoid too much repetition across chapters. However, this creates a situation in which an ENTITY could theoretically score 'fully meets' on the grievance-related requirement in an individual chapter (which in most cases only asks that stakeholders have "access to" a grievance mechanism), even if the grievance mechanism as a whole is not an effective one (as reflected in the overall score for Chapter 1.4). Question: Should an ENTITY's score on grievance-related requirements within individual non-grievance-specific chapters be restrained or linked to the overall score that the ENTITY gets on the grievance chapter (Chapter 1.4) as a whole?	Feedback received: Feedback largely supported putting a 'cap' on the ENTITY's score on grievance-related mechanisms in other chapters based on its performance on Chapter 1.6 (former 1.4). Decision: Based on input, we are proposing to adjust the IRMA Assessment Scoring system such that an ENTITY's potential score on the grievance-related requirement in an individual chapter (which simply requires the existence of a grievance mechanism capable of receiving grievances relating to the particular issue, or in Chapter 2.2 that mechanism/s are specifically designed with, and for, Indigenous Peoples) is limited by their score on Chapter 1.6 (former 1.4) on Grievances (which addresses not just the existence but also the quality of a grievance mechanism). This means that, although an ENTITY may have otherwise received 'fully meets' on a grievance mechanism requirement in an issue-specific chapter, if the ENTITY does not receive a full score on Chapter 1.6 as a whole, then their score on the issue-specific grievance requirement cannot be higher than 'partially meets'. If the ENTITY has developed separate issue-specific grievance mechanism/s, it will be assessed separately against all relevant requirements of Chapter 1.6.



	For example, if a site scores 80% on Chapter 1.4, the most the site could receive for a grievance requirement in the other chapters would be a 'substantially meets,' but if a site scores 100% on Chapter 1.4 then, assuming the mechanism can handle grievances specific to the other chapters, they could possibly get a 'fully meets' rating on those grievance requirements.	
1.4-03	(1.4.2.1) Question: Stakeholder feedback suggested that an independent third-party should be involved in the assessment of more grievances to ensure that resolutions are unbiased, impartial, and fair to all parties involved. Is this considered best practice and, if so, is it applicable to only the most serious grievances or to all grievances?	Feedback received: Feedback was very split on this question - some said that third-party review was not necessary because there are enough checks and balances already built into IRMA on this topic, including stakeholder review of grievance processes; others said that regular review as part of the regular grievance resolution process would delay timely response to grievances; others said that review of the process could be done externally every 2-3 years; others still said that only human rights grievances or grievances where there is a potential conflict of interest with ENTITY personnel responsible for reviewing the grievance should be reviewed. Decision: We are proposing a new sub-requirement for 1.6.1.1 (former 1.4.2.1) that requires the ENTITY to explain the process for handling grievances that involve allegations of impacts on human rights, including the potential for adjudication by an independent, third-party mediator or mechanism. This is in accordance with IRMA Chapter 1.3 (requirements 1.3.4.3 and 1.3.4.5). See 1.6.1.1.d.

BACKGROUND

Mining, mineral processing, and other large development projects inevitably raise concerns and complaints from community members and stakeholders affected by these projects. It is now expected practice for mining and mineral processing entities to have in place site-level procedures for systematically receiving, tracking, resolving, and communicating with stakeholders, including workers and local communities, about their complaints or grievances. Combined, these various procedures are referred to as an “operational-level grievance mechanism”.

The words ‘grievance’ and ‘complaint’ are sometimes used interchangeably, but this is not always the case. Often a complaint is seen as an isolated or event-based concern, while a grievance is a more complex or accumulated sense of wrong. Similarly, complaints are often seen as concerns that can be addressed through informal means, while grievances require a more formal process. However, perceptions of this relationship can also be the reverse.¹⁷⁴ For the purposes of the IRMA Standard, a “grievance mechanism” is expected to be able to handle both complaints and grievances; however, for simplicity the term ‘grievance’ is used in the requirements of this Chapter, and throughout the Standard.¹⁷⁵

Having accessible and trusted procedures in place to receive stakeholder complaints can lead to the quick resolution of many issues before they escalate into serious grievances or conflicts. Stakeholders are more likely to trust grievance procedures if they have some say in their design so that they are adapted to local expectations and needs.

Operational-level grievance mechanisms are an integral and essential component required from all business enterprises in order to comply with the UN Guiding Principles on Business and Human Rights, which also define a set of internationally-approved effectiveness criteria. Operational-level grievance mechanisms should be: legitimate, accessible, predictable, equitable, transparent, rights-compatible, a source of continuous learning, and based on engagement and dialogue. This Chapter ensures that all these dimensions are reflected and articulated through one or more requirements.

Importantly, grievance mechanisms should not be considered a substitute for community and stakeholder engagement processes that allow for airing of concerns. The two are complementary and should be mutually reinforcing.¹⁷⁶

Additionally, operational-level grievance mechanisms are just one option for individuals to seek justice or remediation for damages that they believe have occurred as a result of ENTITY activities. For example, traditional authorities may have conflict or dispute resolution systems in place; countries may have legal frameworks, such as court systems, to provide recourse to aggrieved parties; workers may have access to project- or corporate-level whistle-blower procedures; and remedies may be sought through national or international human rights bodies, labor tribunals or other non-judicial mechanisms. Operational-level grievance mechanisms should neither be used to undermine the role of legitimate trade unions in addressing labor-related disputes, nor preclude any stakeholder from accessing judicial or other non-judicial grievance mechanisms.¹⁷⁷

To ensure the promotion and protection of the fundamental right of opinion and expression, while ensuring ethical conduct, more companies have been establishing effective whistleblowing mechanisms (or similar procedures) that enable individuals from within or external to the company to raise concerns about unethical or unlawful conduct. Like grievance mechanisms, best practices and criteria for such whistleblowing mechanisms have been discussed and recommended at the international level, as well as at the national level (at least 170 States and territories have adopted some form of whistleblower protection as a part of their national laws, including 60 that have established comprehensive legal frameworks to protect whistleblowers in all employment sectors). Those should allow anonymous, confidential reporting, and prevent any form of retaliation against persons or groups who use them.



KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UN Guiding Principles on Business and Human Rights, 2011
- OECD Due Diligence Guidance for Responsible Business Conduct, 2018
- IFC Guide to Designing and Implementing Grievance Mechanisms for Development Projects, 2008
- IFC Good Practice Note Addressing Grievances from Project-Affected Communities, 2009
- ILO Recommendation R130 on Examination of Grievances Recommendation, 1967
- ITUC Legal guide for setting up an operational-level grievance mechanism for the world of work in the context of business and human rights, 2022
- EBRD Performance Requirement 2: Labour and working conditions – Guidance note on employee grievance mechanisms, 2023

OBJECTIVES OF THIS CHAPTER

To provide credible, effective, and accessible means for affected communities, individuals, and other stakeholders to raise and resolve grievances or concerns arising, while not limiting their ability to seek remedy through other mechanisms.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor



ISSUE-SPECIFIC GRIEVANCE MECHANISMS ACROSS THE STANDARD

There are other Chapters in this Standard that require the ENTITY to ensure that stakeholders have access to, and are preemptively informed about, a rights-compatible grievance mechanism and/or other mechanisms through which they can raise, and seek resolution or remedy for, complaints and grievances related to specific topics. This applies to Human Rights (Chapter 1.3); Upstream and Downstream Business Partners (Chapter 1.4); Conflicts (in the context of conflict-affected and high-risk areas, Chapter 1.5); Gender (Chapter 2.3); Displacement and Resettlement (Chapter 2.5); Grievance Mechanism for Workers (Chapter 3.1); and Security Management (Chapter 3.4).

The operational-level grievance mechanism developed as per this Chapter 1.6 may be used as the mechanism to receive and address those issue-specific grievances, or a separate mechanism (or mechanisms) may be created to handle those issue-specific grievances only.

Separately, and if Indigenous Peoples whose rights or interests may be directly or indirectly affected by the ENTITY's mining-related activities have been identified as per 1.2.1.1. and 1.3.2.3, Chapter 2.2 requires the ENTITY to collaborate with affected Indigenous Peoples "to develop and implement a rights-compatible grievance mechanism (or mechanisms), in line with all Sections of Chapter 1.6, through which affected Indigenous Peoples can raise, and seek resolution or remedy for, complaints and grievances related to the impacts of the project/operation and/or the ENTITY's actions on their rights and interests". Unlike all the issue-specific mechanism listed above, the grievance mechanism required in Chapter 2.2 cannot be simply addressed through the 'general' grievance mechanism required in Chapter 1.6. Indeed, as required in 2.2.4.8.b, "if the operational-level grievance mechanism required in Chapter 1.6 is to be used for this purpose, the ENTITY does so **only with the express and explicit approval of affected Indigenous Peoples**, and that mechanism's procedures are reviewed, revised if necessary, and agreed to by affected Indigenous Peoples".

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are no (0) optional IRMA+ requirements in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

1.6.1 Operational-Level Grievance Mechanism

1.6.1.1 Critical Requirement

The ENTITY has an operational-level grievance mechanism (or equivalent) in place that:

- Allows all affected rights-holders and stakeholders, and others (referred to collectively as “stakeholders”) ¹⁷⁸ to raise, and seek resolution or remedy for, complaints and grievances (hereafter referred to collectively as “grievances”) related to the site, its associated facilities, and the ENTITY’s actions;
- Clearly defines how grievances and communications with those filing grievances are recorded, acknowledged, investigated, monitored, and equitably resolved or remedied, including with indicative timeframes for each stage of the procedure;
- Clearly defines how complainants can file grievances anonymously, and/or confidentially;
- Clearly defines the procedure for handling grievances that involve allegations of impacts on human rights, including the potential for adjudication by an independent, third-party mediator or mechanism, when dialogue does not lead to agreed remedies ¹⁷⁹;
- Explicitly states that participation in an operational level grievance mechanism does not preclude a complainant from seeking redress through administrative, judicial, or other non-judicial remedies, and that no remedy provided by an operational-level grievance mechanism requires or implies that complainants waive their right to seek recourse for the same grievance through other available mechanisms; and
- Clearly lists options for recourse if a complainant does not find the resolution of their grievance satisfactory and/or if the mechanism is deemed inadequate or inappropriate for handling grievances, especially relating to human rights abuses.

1.6.1.2 This grievance mechanism ensures that:

- Complainants are not the subject of retaliation or retribution, including by maintaining their confidentiality or anonymity (as per 1.6.1.1.c), and that complainants who are workers or workers’ representatives can use the grievance mechanism ¹⁸⁰ without prejudice to applicable employment rights and social benefits as well as to any applicable collective agreements;
- Differentiated gender-sensitive procedures are in place to provide timely, appropriate, and effective remedies specifically for women, girls, and LGBTIQ+ complainants, particularly where they are survivors of discrimination and/or sexual- and gender-based violence;
- The ENTITY identifies potential barriers to using the operational-level grievance mechanism by people of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people ¹⁸¹, and identifies support and facilitation measures; and
- The ENTITY clearly defines procedures for stakeholders of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people to request and benefit from such support and facilitation measures.

1.6.2 Whistleblowing Mechanism

1.6.2.1 The ENTITY has a formal and documented whistleblower mechanism in place that:

- a. Is overseen by a dedicated person or department;
- b. That enables and invites individuals and entities to submit notifications where they have information or concerns regarding: 1) Actual or potential adverse impacts with respect to the ENTITY's own operations; 2) Actual or potential adverse impacts with respect to the operations of the ENTITY's business direct and indirect business partners in its chain of activities; and 3) Unlawful or unethical activity or behavior¹⁸² related to the site or its associated facilities¹⁸³;
- c. Ensures that notifications can be made either anonymously or confidentially;
- d. Ensures that the ENTITY prevents any form of retaliation¹⁸⁴ against a whistleblower, including by ensuring that the identity of individuals or entities that submit notifications remains confidential (see c.), and when whistleblowers are workers or workers' representatives they can use the whistleblowing mechanism without prejudice to applicable employment rights and social benefits as well as to any applicable collective agreements; and
- e. Ensures that individuals or entities that submit notifications¹⁸⁵ are informed about how their notifications will be recorded, acknowledged, investigated, monitored, and acted upon where relevant, including with indicative timeframes for each stage of the procedure.

1.6.3 Implementation and Management

1.6.3.1 The ENTITY has a system in place to ensure that affected rights-holders and stakeholders are proactively and preemptively informed, in accordance with Section 1.2.3, about:

- a. The existence of the operational-level grievance mechanism, of the whistleblowing mechanism, and their associated procedures;
- b. How to file a grievance and to submit whistleblowing notifications;
- c. The fact that using the operational-level grievance mechanism does not preclude them from seeking redress related to grievances through administrative, judicial, or non-judicial remedies;
- d. The ability of any complainant to request appropriate follow-up on the complaint from the ENTITY;
- e. The ability of any complainant to meet with the ENTITY's representatives at an appropriate management level to discuss actual or potential severe adverse impacts that are the subject matter of the complaint, and potential remediation; and
- f. The ability of any complainant to be provided by the ENTITY with the reasons a complaint has been considered founded or unfounded and, where considered founded, with information on the measures taken or to be taken.

1.6.3.2 The ENTITY has a system in place to ensure that:

- a. Relevant personnel (including ENTITY's employees and contractors) who interact with affected rights-holders and stakeholders are informed of, and understand, the proper procedures for handling stakeholder grievances;
- b. Relevant personnel (including ENTITY's employees and contractors) directly involved in the implementation and management of the operational-level grievance mechanism are trained on, and understand, the respectful and equitable handling of all grievances, whether real or perceived; and
- c. All grievances¹⁸⁶ are recorded, acknowledged, investigated, monitored, and equitably resolved or remedied, as per the procedures and indicative timeframes required in 1.6.1.1;
- d. All whistleblowing notifications are recorded, acknowledged, investigated, monitored, and acted upon where relevant, as per the procedures and indicative timeframes required in 1.6.2.1.

1.6.4 Monitoring and Evaluation

1.6.4.1 To monitor and evaluate the effectiveness and appropriateness of the measures taken to manage grievances and whistleblowing notifications,¹⁸⁷ and to provide remedy, the ENTITY:

- a. Regularly tracks and documents, over successive time periods, the number and nature of grievances filed¹⁸⁸, the measures taken in response, and how those are providing effective, equitable, and satisfactory resolution and/or remedy to complainants, against the indicative timeframes required in 1.6.1.1;
- b. Regularly tracks and documents, over successive time periods, the number and nature of whistleblowing notifications submitted, the measures developed in response, and how those are effectively addressing the adverse impacts and unlawful or unethical activity or behavior raised, against the indicative timeframes required in 1.6.2.1; and
- c. Disaggregates the data required in a. and b. according to gender-disaggregated indicators and other categories of disaggregated indicators where appropriate.

1.6.4.2 The monitoring and evaluation process:

- a. Encourages and facilitates joint tracking or joint fact-finding with complainants, including about their level of satisfaction with the remedy process and its outcomes, and suggestions for improvements to the operational grievance mechanism¹⁸⁹, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2¹⁹⁰;
- b. Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with complainants; and
- c. Includes safeguards to protect the security and privacy of collected personal data or characteristics of complainants and whistleblowers.¹⁹¹

1.6.5 Continuous Improvement

1.6.5.1 At least twice a year the ENTITY:

- Review monitoring and evaluation results, informed by internal and external feedback, as per Section 1.6.4;
- Review the functioning and uptake, including by people of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, of the operational-level grievance mechanism/s and the whistleblowing mechanism/s¹⁹²;
- Reviews its effectiveness in providing effective, equitable, and satisfactory resolution and/or remedy to complainants, informed by the monitoring and evaluation required in 1.6.4.1 and 1.6.4.;
- Develops and implements time-bound corrective measures to update, if necessary¹⁹³, its operational-level grievance mechanism/s¹⁹⁴ in accordance with Section 1.6.1, and/or its whistleblowing mechanism/s in accordance with Section 1.6.2, and their implementation and management in accordance with Section 1.6.3;
- Develops and implements time-bound corrective measures to update, if necessary¹⁹⁵, the measures developed and taken to provide effective, equitable, and satisfactory resolution and/or remedy to complainants, and to avoid repetition of the same complaints/grievances; and
- Develops and implements time-bound corrective measures to update, if necessary¹⁹⁶, its monitoring and evaluation processes in accordance with Section 1.6.4.

1.6.6 Information-Sharing and Public Reporting

1.6.6.1 Unless grievances are filed anonymously, complainants filing grievances are systematically informed by the ENTITY, either in writing or verbally with documentation of the exchange, and in accordance with Section 1.2.3, of:

- The reasons a complaint has been considered founded or unfounded and, where considered founded, with information on the measures taken or to be taken;
- How their grievances were investigated, monitored, and resolved or remedied, as per the procedures and indicative timeframes required in 1.6.1.1; and
- How their levels of satisfaction with the remedy process and its outcomes were assessed and documented, including through joint tracking or joint fact-finding with complainants as per 1.6.4.2.

1.6.6.2 At least annually, and with due regard for complainants' and whistleblowers' safety, data privacy, and for security concerns, the ENTITY makes and maintains¹⁹⁷ publicly accessible all updated and previous versions of:

- The total number and nature of grievances filed and whistleblowing notifications submitted during the reporting period¹⁹⁸;
- The percentage of grievances that were addressed and resolved during the reporting period;
- The percentage of grievances remedied during the reporting period;
- These datapoints (a. to c.) are disaggregated by gender-disaggregated indicators and other categories of disaggregated indicators where appropriate;
- Key findings of the monitoring and evaluation process required in 1.6.4, including feedback from stakeholders for improving the mechanisms, and of the review process required in 1.6.5.1; and
- A list of the time-bound corrective measures identified as per 1.6.5.1.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

This chapter does not pertain to grievances related to IRMA. However, IRMA has developed its own grievance mechanism specific to the IRMA system, and IRMA's procedures outline measures to take to raise concerns about IRMA audits, the IRMA assessment process, and the IRMA system more generally. The mechanism is available online (click [here to access](#)).

¹⁷⁴ John F. Kennedy School of Government, Harvard Univ. 2008. Rights-Compatible Grievance Mechanisms: A Guidance Tool for Companies and Their Stakeholders. p. 12. Available at: <https://unglobalcompact.org/library/57>

¹⁷⁵ It is also possible that other forms of stakeholder feedback such as solicitations and suggestions may also be managed through a centralized system to track stakeholder engagement that may be linked to or even constituent of the 'grievance mechanism'. These forms of stakeholder engagement are assessed under Chapter 1.2 (Community and Stakeholder Engagement). To the extent that there is overlap between the mechanisms utilized to receive grievances and those utilized to receive stakeholder feedback more broadly, auditors will consider the evidence as it applies to relevant requirements in both chapters.

¹⁷⁶ IFC. 2009. Good Practice Note: Addressing Grievances from Project-Affected Communities. p. 6. <https://www.ifc.org/en/types/insights-reports/2000/publications-gpn-grievances>

¹⁷⁷ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. A/HRC/17/31. Commentary for Principle 29. Available at: www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

¹⁷⁸ For workers, see specific requirement in Chapter 3.1; for Indigenous Peoples, see specific requirement in Chapter 2.2.

¹⁷⁹ This is in accordance with IRMA Chapter 1.3, which requires that any identified human rights impacts be managed by developing "timely ... mitigation strategies and remediation in collaboration with affected rights-holders. If mutually acceptable remedies cannot be found through dialogue, the ENTITY attempts to reach agreement through an independent, third-party mediator or another means mutually acceptable to affected rights-holders." (See Chapter 1.3, requirement 1.3.4.3).

¹⁸⁰ Note that a specific worker grievance mechanism is required in Chapter 3.1 (which could be separate or combined with the general mechanism required in this Chapter).

¹⁸¹ What may constitute 'underserved and/or marginalized people' requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those who are not able or willing to participate without particular considerations/accommodations; this often includes persons with disabilities, socially or geographically marginalized groups, those in a state of poverty, the illiterate, groups for whom local cultural practices or household duties deter participation (i.e., women, elderly, children), etc. Additional guidance is provided in the IRMA Guidance Document.

¹⁸² E.g., bribery, corruption, willfully ignoring safety standards, etc...

¹⁸³ This includes activity or behavior of employees, contractors, suppliers, but also any ENTITY's corporate owner/s' administration or management bodies (such as Board of Directors, Board of Trustees, direct owners, shareholders, State-level governing individuals or departments)

¹⁸⁴ In particular, whistle-blowers must be protected against coercion or harassment of themselves or their families, discrimination, physical harm to a person or property, threats of retaliation, job loss, suspension or demotion, transfer or other hardship, disciplinary penalty, blacklisting or prosecution on grounds of breach of secrecy laws, libel or defamation. As identified in the 2015 UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression annual report to the General Assembly (A/70/361) <https://documents.un.org/doc/undoc/gen/n15/273/11/pdf/n1527311.pdf>

¹⁸⁵ For persons and entities who submit notification anonymously, internal or third-party mechanism are encouraged to allow for follow-up and tracking too (e.g. using unique identification numbers or credentials that can be reused by anonymous whistleblower, ensuring that their IP address or location when doing so is not determined or stored).

¹⁸⁶ Including those received verbally, anonymously, and/or any other manners. This should include also all topic-specific grievances (filed either through dedicated grievance mechanism/s or the general one).

¹⁸⁷ This should include also all topic-specific grievances (filed either through dedicated grievance mechanism/s or the general one).

¹⁸⁸ Including those received verbally, anonymously, and/or any other manners. This should include also all topic-specific grievances (filed either through dedicated grievance mechanism/s or the general one).

¹⁸⁹ E.g., How to make grievance mechanism(s) more effective, trusted, and accessible to all stakeholders.

¹⁹⁰ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

¹⁹¹ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

¹⁹² This should include also all topic-specific grievances (filed either through dedicated grievance mechanism/s or the general one).



¹⁹³ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁹⁴ This should include also all topic-specific grievances (filed either through dedicated grievance mechanism/s or the general one).

¹⁹⁵ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁹⁶ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁹⁷ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

¹⁹⁸ This should include also all topic-specific grievances (filed either through dedicated grievance mechanism/s or the general one).



Chapter 1.7

Anti-Corruption and Financial Transparency

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Restructured the Chapter to address corruption first, and then financial transparency; to better reflect the fact that expectations and regulations around financial transparency in the extractive sector have emerged as a result of corruption risks and cases. This also offers a flow of Sections that is more consistent with the rest of the Standard (formalized policy, risk assessment, mitigation measures, public reporting).
- Sub-requirements of the policy requirement have been adjusted to be consistent with the rest of the Standard.
- Require banning the use of facilitation payments, to reflect latest international guidance.
- New Sections and requirements added to close the Plan-Do-Check-Act loop to deliver continuous improvement (through regular updates and revised processes and criteria, informed by monitoring, evaluation, and review), this is now harmonized throughout the Standard.
- Added one optional requirement related to lobbying practices and political engagement (1.7.1.2), to reflect latest international guidance.
- Added one optional requirement related to inclusion of beneficial ownership, conflicts of interest, Politically Exposed Persons (PEPs), and previous cases and allegations in the risks and impact assessment (1.7.2.2), to reflect latest international guidance.
- Added one optional requirement related to beneficial ownership threshold, State control, and family ownership (1.7.9.2), to reflect latest international guidance.
- Added one optional requirement related to public reporting related to lobbying practice and political contribution (1.7.10.2).
- Added one optional requirement related to assessment, external reporting, and training related to bribe solicitation (1.7.3.2).
- Other minor changes to language for consistency / clarity.



Response to consultation questions outlined in first draft

Question #	Question	Feedback received and proposed decision
1.5-01	(Chapter background) Question: Should IRMA require that standalone mineral processing facilities engaged with IRMA publicly report the revenues and payments paid to government?	Feedback received: 7 responses received (3 from mining, 3 from NGO, 1 from finance). All respondents supported the extension of reporting to mineral processing operations. Some respondents flagged the situation of an ENTITY being audited for both a mine site and a co-located on-site processing facility: they all agreed that when payments are made as a single ENTITY (as a single 'economic project') there is no need to break the figures down (as this would create unnecessary reporting burden, and risks confusion), but that such figures should be broken down when payments are made separately (the same way a stand-alone mineral processing ENTITY would do) Proposed decision: IRMA proposes to follow the recommendation of respondents by extending the reporting requirement to mineral processing operations, but making breakdown optional for any co-located on-site processing operations (see endnote for requirement 1.7.7.1).
1.5-02	(1.5.1.2) Question: Requirement 1.5.1.2.c.v has been adapted for mineral processing sites; however, it is not clear if taxes on feed materials are paid by mineral processing sites or by the mines. Do you have any input on whether or not such taxes are paid?	Feedback received: 3 responses received (3 from mining). Not much information was shared, respondents all pointed that such taxes could vary. Proposed decision: IRMA proposes to keep the sub-requirement (now included in 1.7.7.1.c), making sure that this gets reported only if relevant to the ENTITY being audited. IRMA also proposes to complement the Guidance as feedback gets collected from the implementation of this version of the Standard.
1.5-03	(1.5.1.3) Question: Should IRMA require that financial statements be audited by credible third-party experts (e.g., certified public accountants) to provide added assurance that they ENTITY is adhering to international accounting standards?	Feedback received: 3 responses received (2 from mining companies, 1 from finance). Respondents unanimously supported this requirement. One respondent noted that while third-party audit of annual financial statements was a common practice for listed companies, requiring this for quarterly interim statements could be expensive and not achievable time-wise. Proposed decision: IRMA proposes to require credible third-party audits of annual financial statements (see requirement 1.7.7.3).



1.5-04	(1.5.1.5) Question: Do you have any suggestions on the criteria for who should be considered a beneficial owner, such as ownership thresholds (e.g., those who hold more than 10% of shares) or a certain % of voting rights, or those who have other means of exercising control over the ENTITY such as appointing or firing members of governing bodies, etc.	Feedback received: 4 responses received (2 from mining, 1 from finance, 1 from NGO). 1 respondent pointed out the importance to make <u>publicly accessible</u> information about State-owned and State-controlled beneficial owners, regardless of a minimum ownership threshold. Another mentioned the 10% threshold required by EITI, while suggesting that IRMA could adopt a more progressive approach with a 5% or 3% threshold. The latter response also included recommendations re. the need to identify politically exposed persons, and to aggregate shares (or their equivalent) across holdings by family or close associates of a beneficial owner into one holding, “as dispersing formal ownership across a range of trusted contacts is one way in which beneficial owners try to avoid such disclosures.” Proposed decision: IRMA proposes to use the 10% threshold adopted by EITI, and to require the identification of politically exposed persons (see requirement 1.7.9.1). Regarding the adoption of a lower ownership thresholds (including a 0% threshold for State ownership), IRMA proposes to create an optional IRMA+ requirement (see requirement 1.7.9.2).

BACKGROUND

Revenues derived from the extraction of a country's mineral resources can make a major contribution to funding public services and other valuable government activities; however, where citizens have limited knowledge of revenues paid by natural resource companies the chances of theft or inappropriate usage of revenues from extractives companies grows. Increased transparency of material payments to and revenues received by the country of operation's government is an essential step toward addressing this matter.

The Extractive Industries Transparency Initiative (EITI) is a global coalition of governments, companies and civil society working together to improve openness and accountable management of revenues from natural resources, allowing citizens to see for themselves how much their government is receiving from their country's natural resources. The EITI is complemented and extended by mandatory transparency regimes enacted into law in the European Union and other jurisdictions. The IRMA Standard is intended to support, without duplicating, the work of the EITI and mandatory transparency regimes.

The Natural Resource Governance Institute (NRGI) has also made significant contributions to advancing anti-corruption measures and transparency within the mineral sector. NRGI has published numerous reports and policy briefs that critically examine the governance frameworks of mineral-rich countries, highlighting systemic vulnerabilities and proposing actionable reforms. Their "Diagnosing Corruption in the Extractive Sector" tool¹⁹⁹, as well as several detailed case studies, offer recommendations and pathways for enhancing transparency and accountability.

Many payments, however, continue to be illegal and hidden from view. According to the OECD, "Corrupt behavior can range from simple acts such as a cash payment to a border guard, or involve complex networks of enablers, corporate entities and sophisticated financial transactions across multiple jurisdictions. . .[and] Corruption risks may arise, for example, when companies enter into joint ventures, when a government awards or amends mining licenses, when companies subcontract during the exploration or extraction phases, during routine government inspection of mine sites, when minerals are shipped across borders, and in the collection of taxes. Companies or their agents are reported to offer bribes to public officials for favorable treatment, or conversely, public officials may solicit bribes from companies."²⁰⁰

The International Monetary Fund (IMF) estimates that bribes, alone, annually amount to \$US1.5 – 2 trillion, while the "overall economic and social costs of corruption are likely to be even larger, since bribes constitute only one aspect of the possible forms of corruption."²⁰¹ The OECD estimates that one in five cases of foreign bribery occurs in the extractives sectors (mining, quarrying mining support services and oil and gas extraction).²⁰²

Transparency of exploration and mining contracts, disclosure of beneficial ownership, and strong ENTITY policies and internal controls are all important mechanisms for combatting the various forms of corruption.²⁰³

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UN Convention Against Corruption, 2003
- OECD Convention on Combating Bribery in International Business Transactions (Anti-Bribery Convention), 1997
- Transparency International, Business Principles for Countering Bribery, 2013
- ISO 37001: 2016, 2016



OBJECTIVES OF THIS CHAPTER

To combat all forms of bribery and corruption, to increase financial transparency, and to provide communities and the general public with the information they need to understand and assess the fairness and ethical nature of an entity’s financial activities and arrangements.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are five (5) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

1.7.1 Formalized Policy

1.7.1.1 The ENTITY has a formal policy in place that:

- a. Commits to zero tolerance towards all forms of corruption²⁰⁴ and other unethical behavior within the ENTITY's operations and the operations of its business partners;
- b. Explicitly acknowledges the broad range of activities which can be described as corruption, including those which may be legal in a country of operation;
- c. Is approved at the top management level of the ENTITY;
- d. Is proactively communicated to personnel, contractors, and other relevant parties²⁰⁵ linked to the site and its associated facilities;
- e. Is publicly accessible; and
- f. The ENTITY has allocated financial and staffing resources to implement this policy at the level of the project/operation.

1.7.1.2 IRMA+

The ENTITY has a formal policy in place that commits to

- a. Respect legal frameworks and codes of conduct related to lobbying and political engagement applicable to the country of operation;
- b. Explicitly sets out that the ENTITY will not mislead public officials or the public, that they will avoid placing officials in real or apparent conflict of interest situations, and that they provide public disclosures on direct and indirect lobbying carried out, including membership of any government advisory or expert groups; and
- c. Is approved at the most senior level of the ENTITY;
- d. Is communicated to any lobbying firms contracted to represent the company, and the ENTITY has allocated financial and staffing resources to implement this policy at the level of the project/operation; and
- e. Is publicly accessible.

1.7.2 Risk and Impact Assessment

1.7.2.1 A risk and impact assessment is carried out, by competent professionals, at the level of the site, to identify and assess risk and impact related to corruption, money laundering, and unethical or anti-competitive behavior, from the ENTITY and its business partners. The assessment includes:

- a. A comprehensive list of the risks and impacts related to corruption, money laundering, and unethical or anti-competitive behavior, from the ENTITY and its business partners;
- b. An evaluation of the severity of each identified impacts, and of the likelihood for and potential severity of each identified risk; and
- c. Recommended measures that can be taken by the ENTITY to prevent all identified risks and impacts and, where prevention is not possible or not immediately possible, to mitigate and to remediate them.²⁰⁶



1.7.2.2 IRMA+

This risk and impact assessment:

- Incorporates data on beneficial ownership, conflicts of interest, politically exposed persons (PEPs), and previous corruption cases and allegations;
- Includes a description of how this data was used to assess risk; and
- Is made and maintained publicly accessible, as well as all previous versions.

1.7.3 Prevention and Management Controls



1.7.3.1 Critical Requirement

Building on 1.7.2, the ENTITY has a system in place to ensure internal controls are implemented to prevent, detect and address all forms of corruption, money laundering, and unethical or anti-competitive behavior, through:

- Banning the use of facilitation payments, including in countries where these payments are legal;
- Clearly defined prohibited actions²⁰⁷;
- Clearly defined corruption-risk-prone behaviors²⁰⁸ that may be deemed acceptable under certain circumstances, and corresponding approval processes;
- Protections, including non-retaliation, for employees, contractors, and whistleblowers²⁰⁹ who raise concerns about suspected corruption, money laundering, or unethical or anti-competitive behavior associated with the site and its associated facilities, or who refuse to pay bribes even if such refusal results in the loss of business;
- Investigation of alleged cases and situations that contravene the ENTITY's anti-corruption policies or procedures;
- Disciplinary actions to be taken if a case or situation is confirmed;
- Internal reporting and recording of all approved and unapproved gifts, contributions, advantages, and payments given to or received from employees, contractors, agents or other intermediaries, business partners, and third-parties²¹⁰; and
- Regular training on the ENTITY's policy, procedures and controls for all relevant employees and contractors across all management levels, and, where appropriate, relevant business partners.



1.7.3.2 IRMA+

These internal controls also include:

- A risk-based assessment of external reporting of bribe solicitation to the appropriate Law Enforcement Authority/ies²¹¹;
- Procedures for reporting bribe solicitation to the appropriate Law Enforcement Authority/ies, informed by the assessment required in a.²¹²; and
- Awareness-raising and training activities on bribe solicitation and the ENTITY's corresponding reporting procedure/s for all relevant employees and contractors across all management levels, and, where appropriate, relevant business partners.

1.7.4 Monitoring and Evaluation

- 1.7.4.1** To monitor and evaluate the effectiveness and appropriateness of its measures to prevent, detect and address all forms of corruption, money laundering, and unethical or anti-competitive behavior, the ENTITY, at least annually:
- Tracks and documents, over successive time periods, the number and nature of confirmed incidents of corruption or other unacceptable behavior related to the project/operation;
 - Tracks and documents, over successive time periods, all public legal cases regarding corruption brought against the ENTITY and its corporate owner(s) or their employees during the reporting period, and the outcomes of such cases; and
 - Tracks and documents how the mitigation measures it put in place are effectively preventing, detecting and/or addressing all forms of corruption, money laundering, and unethical or anti-competitive behavior.

1.7.5 Continuous Improvement

- 1.7.5.1** At least annually, the ENTITY:
- Reviews the monitoring and evaluation results, and its effectiveness in preventing, detecting and/or addressing all forms of corruption, money laundering, and unethical or anti-competitive behavior as per Section 1.7.4;
 - Reviews any corruption-related grievances filed through its grievance mechanism/s required in Section 1.6.1, and any notification submitted through its whistleblowing mechanism required in Section 1.6.2; and
 - Develops and implements time-bound corrective measures to update, if necessary²¹³, its risk and impact assessment in accordance with Section 1.7.2;
 - Develops and implements time-bound corrective measures to update, if necessary²¹⁴, its internal controls and mitigation measures in accordance with Section 1.7.3.

1.7.6 Support for the Extractive Industries Transparency Initiative (EITI)

- 1.7.6.1** The ENTITY has formalized its support to the EITI as follows:
- The ENTITY makes publicly accessible a clear statement endorsing the EITI Principles and the EITI Expectations for supporting companies;
 - This public statement explicitly includes the ENTITY's support for contract disclosure and beneficial ownership transparency; and
 - If the site is located in a country where EITI is active, the ENTITY engages constructively with, and supports implementation of, the EITI process in accordance with the EITI multi-stakeholder process adopted in that country.

1.7.7 Financial Transparency

1.7.7.1 Annually, the ENTITY makes publicly accessible an updated²¹⁵ version of, and maintains publicly accessible all previous versions of, a report of the payments made in relation with the site²¹⁶ by its corporate owner/s to the country of operation's government, as follows²¹⁷:

- a. All payments are broken down by recipient government body²¹⁸ (where applicable);
- b. For each recipient government body (where applicable), all payments are then broken down by the following types of payment, as applicable: 1) The producing government's production entitlement; 2) National State-owned enterprise's production entitlement; 3) Bonuses, such as signature, discovery, and production bonuses; 4) License fees, rental fees, entry fees and other considerations for licenses and/or concessions (or equivalent); 5) Payments for infrastructure improvements; and
- c. For each recipient government body (where applicable), all payments are also broken down by the following types of payment, as applicable: 6) Taxes on income, production, or profits of companies²¹⁹; 7) Taxes, tariffs, or other specific payments related to processing and/or transportation of minerals; 8) Royalties; 9) Dividends and; 10) Any other significant payments and material benefits to government, including in-kind payments.

1.7.7.2 Annually, the ENTITY makes publicly accessible an updated²²⁰ version of, and maintains publicly accessible all previous versions of, a report of the following project-level information:

- a. Payments to politicians' campaigns, political parties or related organizations over the reporting period;
- b. Fines and/or other penalties related to the site or its associated facilities over the reporting period; and
- c. Social expenditures, including the names and functions of beneficiaries²²¹ over the reporting period.

1.7.7.3 Annually, the ENTITY makes publicly accessible an updated²²² version of, and maintains publicly accessible all previous versions of, a report of:

- a. Its production of minerals and/or metals, disaggregated by product type and mass or volume, over the reporting period; and
- b. Revenues from sales of minerals and/or metals, disaggregated by product type, over the reporting period; and
- c. The ENTITY can demonstrate that it adheres to international accounting standards, including through credible third-party audits of its annual financial statements.

1.7.8 Contracts Disclosure

- 1.7.8.1** The ENTITY makes and maintains publicly accessible all the contracts and/or licenses that grant it the rights to, as relevant, exploration, development, extraction, and/or processing of minerals, as follows:
- In full text without redaction²²³;
 - In the official language(s) of the country(ies) in which the site is located;
 - Including all related annexes, addendums, riders, and amendments, also in full text without redaction²²⁴, and in the official language(s) of the country(ies) in which the site is located; and
 - Where these terms are not negotiated but rather governed by law, the ENTITY makes publicly accessible all relevant statutory documentation²²⁵, including all related annexes, addendums, and amendments in full text without redaction.

1.7.9 Beneficial Ownership

- 1.7.9.1** At least annually, or more frequently as required by applicable regulations and listing requirements, the ENTITY makes and maintains publicly accessible information on the beneficial owners that own at least 10% of the ENTITY(ies) that bid for, operate or invest in its mining-related assets and activities, as follows:
- The names, nationalities and countries of residence of the individuals that are the ultimate beneficial owner(s) (i.e. not only direct shareholders) of these ENTITY(ies), over the reporting period;
 - For each of those individuals, the level of ownership and details about how ownership or control is exerted; and
 - Clear identification of any of those beneficiaries who are politically exposed persons.

- 1.7.9.2** **IRMA+**
The ENTITY ensures that its annual public update on beneficial ownership:
- Adopts a 3% ownership threshold, instead of 10%, for non-State-owned and non-State-controlled beneficial owners;
 - Includes details on all State-owned and State-controlled beneficial owners, regardless of their ownership level; and
 - Aggregates shares (or their equivalent) across holdings by family or close associates of a beneficial owner into one holding to determine the ownership level²²⁶.

1.7.10 Information-Sharing and Public Reporting

1.7.10.1 At least annually, the ENTITY makes publicly accessible updated versions of, and maintains publicly accessible all previous versions of the following information, over the reporting period:

- The total number and nature of confirmed incidents of corruption or other unacceptable behavior related to the site and its associated facilities;
- The total number of confirmed incidents in which the project's/operation's employees were dismissed or disciplined for corruption or other unacceptable behavior;
- The total number of confirmed incidents where the project's/operation's contracts with contractors or business partners were terminated or not renewed due to violations of the ENTITY's anti-corruption policy and procedures;
- Details about all public legal cases regarding corruption brought against the ENTITY and its corporate owner(s) or their employees;
- Details about the outcomes of such cases, including Deferred Prosecution Agreements (DPAs) and cases in countries other than the country(ies) of operation; and
- Details about the mitigation measures the ENTITY has put in place to address corruption allegations within its operations and the operations of its business partners, and efforts made to monitor and track performance for risk mitigation.

1.7.10.2 IRMA+

Annually, the ENTITY makes publicly accessible an updated²²⁷ version of, and maintains publicly accessible all previous versions of, a report of the following information, over the reporting period:

- Confirmation that no facilitation payments were made by the ENTITY or its corporate owner(s) to public or government officials (when operating in countries where such payments are legal), and if such payments were made (in breach of requirement 1.7.3.1.a) the ENTITY makes publicly accessible full disaggregated details and amounts;
- The names, roles, and responsibilities of those involved²²⁸ in the ENTITY's or its corporate owner(s) lobbying activities in relevant project-level jurisdictions; and
- The names of public officials or institutions engaged as part of those lobbying activities, the subjects discussed, and the outcomes being sought.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

¹⁹⁹ NRGI, 2023. Diagnosing Corruption in the Extractive Sector: A Tool for Research and Action – 2nd Edition. <https://anticorruptiontool.resourcegovernance.org/>

²⁰⁰ OECD. 2021. Frequently Asked Questions: How to address bribery and corruption in mineral supply chains. p. 5. <https://mneguidelines.oecd.org/faq-how-to-address-bribery-and-corruption-risks-in-mineral-supply-chains.pdf>

²⁰¹ IMF. 2016. Corruption: Costs and Mitigating Strategies. p. 5. <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1605.pdf>

²⁰² OECD. 2014. OECD Foreign Bribery Report: An Analysis of the Crime of Bribery of Foreign Public Officials. pp. 21, 22. https://www.oecd-ilibrary.org/governance/oecd-foreign-bribery-report_9789264226616-en

²⁰³ See, for example: Transparency International. Accountable Mining.” <https://www.transparency.org/en/projects/accountable-mining>; EITI. “Beneficial Ownership.” <https://eiti.org/beneficial-ownership>; and OECD. 2021. Frequently Asked Questions: How to address bribery and corruption in mineral supply chains. <https://mneguidelines.oecd.org/faq-how-to-address-bribery-and-corruption-risks-in-mineral-supply-chains.pdf>

²⁰⁴ See the Glossary for full definition of corruption, in line with Transparency International and the Natural Resource Governance Institute’s definitions.

²⁰⁵ Such as joint-venture partners’ staff or contractors responsible for operation/management, organizations or public agencies visiting the site.

²⁰⁶ Where it is necessary to prioritize actions to address actual and potential adverse impacts, the ENTITY should first seek to prevent and mitigate those that are most severe or where delayed response would make them irremediable. (Aligned with the UN Guiding Principles)

²⁰⁷ E.g. direct corruption, including bribery, extortion, money laundering, attempts to gain undue influence, illegal payments, etc.

²⁰⁸ E.g. the offer of and acceptance of financial and in-kind gifts, including hospitality, entertainment, and travel (to and from employees, contractors, third-parties and business partners); political contributions; charitable contributions and sponsorships.

²⁰⁹ See Section 1.5.2 that requires a formal and documented whistleblower mechanism.

²¹⁰ Third-parties may include government/public officials, politicians, auditors, or others with potential influence.

²¹¹ Including authorities in the country of the solicitation, and the home country(ies) of the ENTITY.

²¹² The report could be in the country of the solicitation, the home country(ies) of the entity, or to an international Anti-Corruption organisation. The report can often be completed as a formal crime report, as intelligence or even anonymously

²¹³ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to b.

²¹⁴ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to b.

²¹⁵ Reports are made publicly accessible at least within 12 months after the end of each financial year in which payments occurred.

²¹⁶ When the audited site encompasses legal entities that do make separate payments to governments, the ENTITY is required to make publicly accessible all of them, in a separated or aggregated manner (as relevant to its operational and legal context). For example, if mineral processing facilities are co-located with mining operations, the reporting of payments and revenues may either be reported in aggregate or reported separately. The site here encompasses the term ‘project’ used by EITI, which is defined as operational activities that are governed by a single contract, licence, lease, concession or similar legal agreement, and form the basis for payment liabilities with a government. However, in some jurisdictions, projects may encompass a set of operationally and geographically integrated contracts, licenses, leases or concessions or related agreements with substantially similar terms that are signed with a government. Where this is the case, disclosures of payments may reflect this aggregation.

Alternatively, some jurisdictions may only require that payments be made at the ENTITY level, rather than the project level. In such cases, disclosures may be made at the ENTITY level.

For more information see: EITI. 2020. Guidance Note 29 “Project-level Reporting.” Page 3. <https://eiti.org/sites/default>

²¹⁷ Reports filed to meet equivalent regulatory requirements may provide the evidence of conformity with this requirement.

²¹⁸ Where applicable, national, provincial, regional, municipal, local, as well as specific government department for each of these levels.

²¹⁹ This excludes taxes levied on consumption such as value added taxes, personal income taxes or sales taxes.

²²⁰ Reports are made publicly accessible at least within 12 months after the end of each financial year in which payments occurred.

²²¹ Social expenditures include in-kind expenditures. As per EITI Guidance, reporting of social expenditures includes both the names/functions of recipients (e.g., government agency or fund) as well as beneficiaries of in-kind expenditures (e.g., non-governmental organization or local community initiative), and the value of the expenditure. Also an indication of legal/contractual basis of expenditures. (See: EITI Requirement 6.1 Guidance Note. https://eiti.org/sites/default/files/2022-01/en_eiti_gn_6.1.pdf). Reporting does not include expenditures agreed upon with affected Indigenous Peoples’ governing bodies, e.g., “impact and benefit” or similar agreements reached through the process of Free, Prior and Informed Consent (see Chapter 2.2). Those expenditures may be reported if agreed by the Indigenous Peoples.

²²² Reports are made publicly accessible at least within 12 months after the end of each financial year in which payments occurred.

²²³ Confidential business information that is not material to the terms for mineral exploration, development and production may be excluded or redacted from the publicly accessible documentation as necessary, but in accordance with Requirement 1.2.3.1.

²²⁴ Confidential business information that is not material to the terms for mineral exploration, development and production may be excluded or redacted from the publicly accessible documentation as necessary, but in accordance with Requirement 1.2.3.1.

²²⁵ Depending on the jurisdiction, this can include: permitting documents, authorizations, decrees, orders, rulings.

²²⁶ As dispersing formal ownership across a range of trusted contacts can be a way in which beneficial owners try to avoid public disclosures.

²²⁷ Reports are made publicly accessible at least within 12 months after the end of each financial year in which payments occurred.

²²⁸ Including individuals employed by the ENTITY or its corporate owner(s), and by any lobbying firms contracted to represent the ENTITY or its corporate owner(s).



Principle 2

Planning for Positive Legacies



Chapter 2.1

Socio-Environmental Baseline and Ongoing Impact Assessment

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Changed the name of the Chapter, to clarify that the requirements are not limited to legally-bound ESIA processes (although such ESIA processes can be used as evidence to demonstrate conformance with this Chapter, as and when they align with the requirements).
- Added two requirements related to the integration of Traditional Knowledge and Traditional Ecological Knowledge (see Section 2.1.9)
- Development of a management plan for exploration projects whose scoping indicated an initial socio-environmental impact assessment was not necessary moved to relevant Section (2.1.7)
- New subrequirement (2.1.4.1.c) to identify the project/operation's area of influence (which can then be used across all other relevant chapters that make reference to this "area of influence"; this was previously not consistent).
- Added a requirement for the social baseline data to be updated at least every five years (2.1.11.5)
- Titles of Sections updated for consistency across the Standard.
- Added a new section to strengthen and clarify the intent of the Standard regarding ongoing impact assessment, including for any operations where an initial ESIA was not undertaken, or was undertaken but not aligned with Sections 2.1.4 to 2.1.9 (see Section 2.1.11)
- Moved the section on Site Selection for Mineral Processing Projects proposed in the Soil Quality chapter (former proposed 4.XX, which has not been retained in this new draft of the Standard) to the beginning of this chapter.
- Strengthened the references to soil resources in the list of issues that must be considered for the ESIA process (listed in Annex 2.1-B) to ensure these issues are considered in the ESIA process (taken from former proposed Chapter 4.XX).
- Major structural changes for greater auditability and consistency across the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
2.1-01	(Scope of application) Question: Do you agree with the proposed approach for operations? Or do you think all operations should be assessed against the entirety of this chapter and transparently release their scores? The challenge with auditing all operations against the ESIA requirements (2.1.2 – 2.1.8) is that these requirements apply to actions that have taken place in the past. Therefore, if no ESIA was conducted (e.g., in jurisdictions that do not have ESIA requirements), or if the ESIA process followed regulatory requirements that were not as robust as the IRMA chapter, the site will not score well or ever be able to fully meet the chapter's expectations. This chapter is different than other IRMA chapters where scores can increase over time as additional actions to improve or correct deficiencies are taken by an ENTITY	Feedback received: 4 responses received (2 mining, 1 finance, 1 consultancy). Responses were split: the mining sector supporting the idea of only applying this Chapter to new projects and major modifications to existing operations only; comment from the finance sector flagged the importance of identifying areas in a past ESIA that were missing compared to current best practice, in order to inform due diligence and decision-making; comment from consultants proposed to set a cut-off date, similar to the Resettlement Chapter. Proposed Decision: We are proposing that mining and mineral processing operations that have not had major modification after June 2018 (the date that version 1.0 of the IRMA Standard went into effect) will not be required to be audited against Sections 2.1.3 to 2.1.8 of this Chapter. But these existing operations will all be audited against Sections 2.1.9 to 2.1.12. In particular, Section 2.1.11 requires an ongoing socio-environmental impact assessment process, including for sites where an initial impact assessment was not undertaken, or was undertaken but not aligned with Sections 2.1.3 to 2.1.8, to help gradually address those past deficiencies. Various existing industrial operations have indeed undertaken socio-environmental impact assessments in alignment with the IFC PSs, at a later stage, to update their identification and assessment of impacts and risks, in order to supplement previous "weak" or incomplete EIAs that were undertaken to obtain in-country legal approval. There is therefore definitely a precedent for how historical gaps in impact assessments processes can be addressed, as best practice. This is now included in the previously proposed Section on Ongoing Environmental and Social Due Diligence (now called 'Ongoing Impact Assessment and Continuous Improvement'). We propose to add an 'eye icon' to this Section 2.1.11, to make sure we monitor more closely the implementation and relevance of those requirements, as the Standard 2.0 gets adopted by Entities, and review the decision if necessary. See all details in the scope of application section below.

2.1-02	(2.1.1.3) Question: How should IRMA balance the benefits of developing the capacity of local professionals (which may take much longer than the screening process for exploration projects) with the need to ensure the plan developed can effectively mitigate adverse environmental and social impacts? Should this be done by creating a new requirement related to local sourcing and capacity building in the context of the provision of goods and services by local (in-country) professionals and companies?	Feedback received: 6 responses received (1 consultant, 1 finance, 4 mining). There are conflicting opinions on the proposal. But it is generally viewed as a desirable to hire locally, as long as it does not affect the quality of the work being done. A number of commenters suggest that it not be a requirement, but that it be encouraged. Proposed Decision: We acknowledge that adding sub-requirements asking to “demonstrate that efforts are made to hire local competent professionals” will be hard to audit and score consistently. We propose to create one new requirement dedicated to maximizing opportunities for the hire of local professionals under Chapter 2.4 (see 2.4.3.4).
2.1-03	(2.1.3.1 and Annex 2.1-B) Background: We are proposing that all projects demonstrate that they have considered a comprehensive list of potential impacts during their scoping process. We posted a consultation question in the IRMA-Ready draft standard, and received support for the suggestion that we include such a list of issues that, at minimum, should always be considered during scoping. As a result, we developed a draft list of scoping questions based on the range of potential impacts included within the IRMA Standard (Annex 2.1-B). Every issue will not be relevant at every site, but the intention is that all should be considered during the scoping process, because if the questions are not asked, then it is possible that some potential impacts will be overlooked. Question: Do you agree with the minimum list of issues that should be scoped for mineral development projects in Annex 2.1-B? If not, are there particular issues/scoping questions that should be added or removed? Please provide a rationale for your suggestions.	Feedback received: 7 responses received (1 Indigenous organization, 3 mining, 1 Ngo, 1 finance, 1 consultant). Overall support to the inclusion of this Annex. Some questions were posed regarding the compatibility/contradiction with existing regulated list of issues in certain jurisdictions, as well as regarding the inclusion of affected Indigenous rights-holders in the scoping process. Proposed Decision: We propose to keep the Annex. It is important to note that Annex 2.1-B contains a minimum list of issues. It is not meant to replace but rather supplement any pre-existing local requirements. We will further clarify this in guidance.
2.1-04	(2.1.3.3) Question: Do you agree that the mitigation strategies investigated as part of the ESIA should include: 1) nature-based solutions; 2) circularity; 3) climate change/climate adaption? Why or why not? Do you have suggestions for other ways or places in the IRMA Standard that we might incorporate these concepts?	Feedback received: 6 responses received (4 mining, 1 NGO, 1 finance). NGO and finance respondents were supportive of this approach, while all mining respondents were not. The latter pointed out difficulty in auditing and scoring consistently, the need for credible data to be collected first (i.e. after the operations start), and the highly context-specific nature of these strategies. Proposed Decision: While we propose to keep references to and considerations for climate change in this Chapter (and develop them further in Chapter 4.6 Climate Action), the concept of circularity has

		been refocused on circular materials management, and waste reduction in Chapter 4.1 (Waste and Materials Management). Nature-based solutions are now addressed in Chapter 4.4 (Biodiversity, Ecosystem Services, and Protected and Conserved Areas)
2.1-05	(Section 2.1.5) Question: What might be some ways to reduce stakeholder concerns about the subjectivity of impact/risk assessment processes? Is it enough to be transparent about how the ratings are assigned? Should stakeholders be invited to play a larger role in determining the methodology used and assigning ratings?	Feedback received: 11 responses received (1 Indigenous organization, 2 NGO, 1 Consultant, 5 mining, 1 finance, 1 audit firm). Responses provided a range of suggestions, including participation of <u>affected rights-holders and stakeholders</u> in the processes, or peer-review of key documents by scientists and external experts. The vast majority of respondents agree that transparency is essential, and that participation is important too. Note: We acknowledge that this question gave the wrong impression that impacts and risks are interchangeable terms for the same thing, which they are not. We realized we needed to be clear in our explanations as to what the differences are between impacts and risks, as many stakeholders and even many environmental practitioners do not necessarily know the difference between them, despite it being substantial. Proposed Decision: We have clarified and strengthened requirements related to transparent information-sharing and collaborative and inclusive participation of <u>affected rights-holders and stakeholders</u>, in Sections 2.1.8 and 2.1.12. We will also develop detailed guidance on risk assessments, as this discipline is often poorly understood particular as to the difference compared to impacts, the approach/methods to assess risks and develop appropriate mitigation measures.
2.1-06	(Section 2.1.9) Question: Do you agree with the proposal to remove ESMS as a requirement in the IRMA Standard? If not, what are the specific benefits that you believe result from having ESMS in place?	Feedback received: 9 responses received (1 Indigenous organization, 1 consultant, 1 audit firm, 4 mining, 1 NGO, 1 finance). There was general consensus that a stand-alone requirement for an Environmental and Social Management System (ESMS) was redundant with the IRMA Standard as a whole (i.e. all specific social and environmental chapters). But there were conflicting opinions re. ESMS in general, some mining respondents flagging that this could be too onerous and difficult for smaller companies to have, while the consultant and audit firm pointed out the IFC Performance Standard 1 (seen by many as a minimum level of international best practice) which demands ESMS is a vital element

		to the effective implementation of management measures and critical controls. Proposed Decision: We are not proposing any substantial change to requirements proposed in the first draft. The 27 chapters of the IRMA Standard do require management of issues and impacts in the manner intended by an ESMS, and so a 'generic' Section on ESMS was not deemed necessary or meaningful. However, as per the first draft, we propose to require confirmation by auditors that all of the significant adverse environmental and social risks/impacts identified through an ESIA process have actually been incorporated into a management plan (either a standalone plan or, more likely, into the management plans found in individual IRMA Chapters), so that stakeholders can be reassured that the outcomes of the ESIA process are actually guiding the management of social and environmental risks as intended. See requirement 2.1.7.1.

BACKGROUND

In many jurisdictions companies are legally required to conduct initial environmental impact assessments (EIAs) or environmental and social impact assessments (ESIAs) prior to development of major industrial facilities such as industrial mines and mineral processing operations. Some also require assessments prior to the commencement of mineral exploration activities. A strong and robust initial socio-environmental impact assessment process enables regulators, rights-holders and other stakeholders to participate in the identification, assessment, and review of predicted impacts and risks associated with a proposed project before the project planning is finalized, regulatory approval (or denial) is issued, and proposed project activities start²²⁹.

As part of an initial impact assessment process, strategies for maximizing the potential positive impacts associated with a project are explored with affected rights-holders and stakeholders, so that their needs and interests are prioritized. To be meaningful, rights-holders and stakeholders should also have input into strategies to mitigate potential adverse impacts.

The use of a mitigation hierarchy to avoid, or where avoidance is not possible, minimize, restore, and as a last resort, compensate for adverse impacts to workers, communities and the environment is widely considered a best practice approach to managing environmental and social risks and impacts.²³⁰

Prevention and mitigation strategies for adverse impacts developed during the initial impact assessment process are integrated into management plans and adverse impacts, as well as potential risks, are monitored for the early detection of negative trends and to gauge the effectiveness of mitigation measures. As necessary, mitigation measures are improved and management plans are updated throughout the operation's life cycle. This Plan-Do-Check-Act loop aimed at preventing harm and delivering continuous improvement is at the heart of an ongoing socio-environmental impact assessment process, beyond the exercise of the initial impact assessment; and applies to all projects and operations whether such initial impact assessment was properly conducted or not.

As acknowledged by major finance institutions, in many instances initial socio-environmental impact assessments were commenced or completed to meet national permitting requirements (in some cases through processes that are commissioned and controlled by the government itself) without full consideration of all applicable international best practicesⁱ, as articulated in the IRMA Standard for example. Existing operations can gradually fill the gaps by implementing a robust and rigorous socio-environmental ongoing impact assessment process.

The importance of rights-holders and other stakeholder involvement throughout this ongoing process, from the identification of potential impacts and risks to the management and monitoring of environmental and social issues, is increasingly recognized as best practice, as it improves both the quality of the impact and risk assessments and the effectiveness of mitigation measures.

Integration of local and Indigenous traditional knowledge, especially traditional ecological knowledge, into socio-environmental impact assessment processes is also being increasingly mainstreamed, as governments and companies realize that this inter-generational knowledge, often preserved as oral tradition, can help navigate environmental changes and better respond to climate change.

The involvement of local rights-holders and stakeholders in collaborative decision-making processes related to mitigation and management of risks and impacts can also greatly help to build mutual trust and long-term support for a project.

ⁱ Equator Principles, 2022, 'Guidance Note to Support Effective Consistent Application of the Equator Principles'. Available at: https://equator-principles.com/app/uploads/PUBLIC-Guidance_Application-of-EP.pdf

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts, 2012
- United Nations Rio Declaration on Environment and Development, 1992
- United Nations Convention on Biological Diversity, 1993
- World Bank Environmental and Social Framework, 2016
- ADB Environment and Social Framework, 2023
- EBRD Environmental and Social Policy – Performance Requirement 1: Assessment and Management of Environmental and Social Risks and Impacts, 2019
- AfDB Integrated Safeguards System, 2013
- United Nations Guiding Principles on Business and Human Rights, 2011
- European Union Corporate Sustainability Due Diligence Directive (CSDDD), 2024

OBJECTIVES OF THIS CHAPTER

To proactively anticipate and assess potential adverse social and environmental and manage them in accordance with the mitigation hierarchy; identify strategies for maximizing positive impacts; and continue to assess, monitor and adapt environmental and social management strategies in a manner that protects and benefits affected communities, workers, and the environment throughout the entire mineral development life cycle.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations.

However, for exploration projects, depending on the outcome of the preliminary screening process required in 2.1.2, the initial impact assessment process requirements in the chapter may or may not be relevant (2.1.3 through 2.1.18).

Additionally, all the requirements related to the initial socio-environmental impact assessment process, i.e. prior to site-disturbing activities, are only applicable to:

- An exploration project proposed after June 2018 where preliminary screening required in 2.1.2 indicated that an initial impact assessment was necessary;
- A mining or mineral processing project proposed after June 2018; and
- A major modification to existing operations proposed after June 2018.

This is summarized in the flowchart below.

Additionally, for each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame.

There are four (4) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are no (0) optional IRMA+ requirement in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Ongoing Impact Assessment and Continuous Improvement for all sites, including sites that did not undertake an initial socio-environmental impact assessment process, or that undertook one that was not aligned with best practices articulated through the requirements of this Chapter:

Various existing industrial sites have undertaken socio-environmental impact assessment processes in alignment with the IFC Performance Standards (or equivalent), at a later stage, to update their identification and assessment of impacts and risks, to supplement previous “weak” processes (often limited to environmental impact assessments, EIAs) that were undertaken to obtain in-country legal approval. There is therefore definitely a precedent for how historical gaps in socio-environmental impact assessment processes can be addressed, as best practice.

In this 2nd DRAFT, IRMA proposes to strengthen and clarify the requirements for all sites, including such existing operations where the initial impact assessment process was not in conformance with this Chapter, to revise or update their understanding of socio-environmental risks and impacts, and their mitigation strategies, on an ongoing basis, as necessary, based on monitoring results or other information. This expands substantially the former requirement 2.1.7.3 in the 2018 IRMA Standard V1.0; and is now covered in a dedicated Section (2.1.11).

Such an ongoing process is aligned with the more recent approach taken by international finance institutions regarding “supplementary environmental and social assessments”ⁱⁱ, used to support sites in addressing residual risks and impact through scoping, background data collection, risk and impact assessment, and integration of results in relevant management plans and monitoring and evaluation activities.

These requirements (2.1.11.1 to 2.1.11.5) have been signaled with an ‘eye icon’ to ensure IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not ‘optional’ (unlike IRMA+).

ⁱⁱ “In many instances the Client’s assessments have been commenced or completed to meet national permitting requirements without full consideration of the applicable Lender standards, including the Equator Principles. Addressing the deficiencies in the Client’s environmental and social assessments identified through due diligence often requires specialist resources and extended time periods. Supplementary environmental and social assessments undertaken as an outcome of due diligence may require additional baseline studies and stakeholder engagement that requires several months or more to complete.” Equator Principles, 2022, ‘Guidance Note to Support Effective Consistent Application of the Equator Principles’. Available at: https://equator-principles.com/app/uploads/PUBLIC-Guidance_Application-of-EP.pdf

Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into socio-environmental impact assessment processes:

In 1992, in the Rio Declaration on Environment and Development, over 175 countries affirmed that “Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development”. And in its associated UN Convention on Biological Diversity²³¹, which all UN member states (except the USA) have ratified, article 8(j) specifically request each state to, “respect, preserve and maintain knowledge, innovations and practices of Indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices[...].”

Several countries have since adapted these expectations into national laws and regulations, or for projects sporadically, including in relation with mineral development and mining activities (e.g., Canada, Norway, Rwanda, USA²³²). The lack of explicit reference to TEK in the was one of the very few areas for improvement identified in a recent benchmark of standards against the 2023 Risk Readiness Assessment Criteria Guide V3.0 (conducted by a consultancy firm on behalf of an industry association). IRMA added two requirements, assessing how entities integrate TK and TEK of local affected communities, and Indigenous rights-holders if applicable, into initial and ongoing socio-environmental impact assessment processes.

These requirements (2.1.9.1 and 2.1.9.2) are signaled with an ‘eye icon’ to ensure IRMA monitors more closely their implementation and relevance, while more caste studies emerge globally and as the Standard 2.0 gets adopted by Entities, and reviews the decision if necessary. Note that these requirements are not ‘optional’ (unlike IRMA+).

IRMA Requirements

2.1.1 Site Selection for Mineral Processing Projects

- 2.1.1.1** For a mineral processing project proposed after [DATE-OF-PUBLICATION-OF-STANDARD-V2.0], the ENTITY has a system in place to ensure that:
- The avoidance of adverse impacts to soils is considered and documented by competent professionals in the selection of the project location;
 - The potential to locate the project, including any associated facility, on an existing brownfield site is evaluated; and
 - If the project is developed on a greenfield site, a rationale is documented, and made and maintained publicly accessible.

2.1.2 Preliminary Socio-Environmental Screening for Exploration Projects Proposed after [DATE-OF-PUBLICATION-OF-STANDARD-V2.0]

- 2.1.2.1 Critical Requirement**
- For exploration project proposed after [DATE-OF-PUBLICATION-OF-STANDARD-V2.0], a preliminary screening process is undertaken and documented by competent professionals to determine the likelihood of the project to have adverse social and/or environmental impacts and risks that warrant undertaking an initial assessment of social and environmental impacts. The screening process:
- Starts after an exploration plan for the project has been sufficiently developed (see [Annex 2.1-A](#))²³³, and is completed prior to starting proposed exploration activities;
 - Is conducted in collaboration with potentially affected rights-holders and stakeholders (as identified in Chapter 1.2-Section 1.2.1 and Chapter 1.3-Section 1.3.2), and, if potentially affected Indigenous rights-holders are identified, in collaboration with them in accordance with Chapter 2.2;
 - Is repeated or updated should the exploration plan be significantly revised or new information of a material nature regarding the project area of influence emerges;
 - Includes identification of all potential adverse environmental and social impacts and risks likely to be associated with the proposed exploration project; (see [Annex 2.1-B](#) for list of potential issues to scope);
 - Determines which potential impacts and risks are likely to be significant, or whether proposed activities are likely to have minimal or no significant impacts, using a credible methodology;
 - Includes a rationale as to why an initial assessment of social and environmental impacts is or is not necessary for the proposed exploration project²³⁴; and
 - The rationale is made and maintained publicly accessible, and is proactively shared with affected rights-holders and stakeholders²³⁵, in accordance with Section 1.2.3²³⁶.

2.1.3 Initial Planning for Projects and Modifications Proposed after June 2018

2.1.3.1 Critical Requirement

For an exploration project proposed after June 2018 where preliminary screening required in 2.1.2 indicated that an initial impact assessment was necessary, or for a mining or mineral processing project proposed after June 2018, or for a major modification to existing operations proposed after June 2018, an initial socio-environmental impact assessment process is conducted and documented by competent professionals. This process:

- Is completed prior to starting any of the proposed site-disturbing activities;
- Identifies the role of affected rights-holders and stakeholders in collaborative scoping, baseline data collection, risk and impact assessment, and development, implementation, and monitoring and evaluation of management plans; and
- Is undertaken again should the plans for a proposed project or proposed major modification be significantly revised that will result in significant new, or changes to existing, risks or adverse impacts²³⁷.

2.1.3.2 For such a site (see 2.1.3.1), the ENTITY has systems in place to ensure that, prior to the implementation of the initial socio-environmental impact assessment process:

- It organizes and delivers wide, public announcement of this initial impact assessment process, including details on the proposed location, and nature and duration of the project/modification and related activities, using a range of diverse and appropriate communication channels and languages;
- It preemptively and proactively shares all relevant information related to this initial impact assessment process, including details on the proposed location, and nature and duration of the project/modification and related activities, with affected rights-holders²³⁸ and stakeholders, in accordance with Section 1.2.3; and
- It allocates financial and staffing resources to conduct this initial impact assessment process in accordance with the subsequent Sections and requirements of this chapter.

2.1.4 Initial Scoping for Projects and Modifications Proposed after June 2018

2.1.4.1 Critical Requirement

For a project or modification proposed after June 2018 (see 2.1.3.1), a process is undertaken by competent professionals to define the scope of the impact assessment in terms of the environmental and social risks and impacts to be considered, and the appropriate temporal and spatial boundaries. This scoping process:

- Includes description of the proposed project/modification, including the geographic location, nature and duration of all on-site and off-site mining-related activities, including those at associated facilities;
- Builds on the results of the Stakeholder Mapping and Analysis required in Section 1.2.1, and the Scoping of rights-holders required in Section 1.3.2, to identify rights-holders and stakeholders who may be directly or indirectly affected by the proposed project/modifications, including potentially affected Indigenous Peoples²³⁹;
- Includes spatial identification and mapping of the **area of influence** of the project/modification, considering direct, indirect and cumulative impacts and risks²⁴⁰.
- Includes a review of existing environmental and social baseline data²⁴¹ for the project/modification's area of influence;
- Includes a determination of the applicability of all the potential social and environmental issues listed in Annex 2.1-B, taking into consideration the preferences of affected rights-holders and stakeholders for post-closure end-uses of potentially affected areas; and
- Includes a preliminary overview of potential environmental and social risks and impacts, including documentation of which are likely to occur at the different stages of the proposed project/modification life cycle, from exploration and pre-construction through concurrent reclamation, decommissioning, closure, and post-closure, where applicable.

2.1.4.2 The scoping process also includes:

- Consideration of whether the potential impacts are adverse or positive, direct or indirect, or if the project may contribute to cumulative impacts in its area of influence;
- Consideration of differential impacts and risks of the proposed project/modification on rights-holders and stakeholders of different genders, ages, ethnicities, and on potentially underserved and/or marginalized people; and
- Consideration of climate change within the life of the proposed project/modification (or longer, if relevant to post-closure risks related to waste disposal facilities, water and biodiversity management)²⁴², including whether increasing temperatures and changing location, frequency, duration or severity of weather, fire or other physical events, might affect the scope or magnitude of project/modification-related social and environmental impacts or risks.



2.1.4.3 For a project or modification proposed after June 2018 (see 2.1.3.1), as an outcome of the scoping process, a draft scoping report (or equivalent) is prepared by competent professionals. This draft report includes:

- a. The potential significant environmental and social risks and impacts, and their associated receptors²⁴³, that require further assessment;
- b. Any existing social and environmental baseline data relevant to the area of influence of the proposed project/modification;
- c. A data gap analysis and plan (or equivalent), with timelines, to collect additional baseline data and conduct any additional studies or investigations needed to further understand and assess the potential impacts and risk;
- d. The technically feasible alternatives to avoid or prevent significant adverse risks and/or impacts²⁴⁴, avoiding a priori assumptions and judgments about alternatives;
- e. Options to mitigate significant adverse risks and impacts in a manner that aligns with the mitigation hierarchy and aligns, to the extent possible, with affected rights-holders' and stakeholders' preferences for post-closure end-uses of potentially affected areas²⁴⁵; and
- f. Options to mitigate and/or adapt to climate change effects identified in 2.1.4.2.c²⁴⁶;
- g. The description of the main steps of the initial impact assessment process that will be carried out, the estimated timeline;
- h. The range of opportunities for affected rights-holders and stakeholders to participate in consultation and collaborative decision-making during the initial impact assessment process, in accordance with Chapter 1.2;
- i. The contact details for the person or team responsible for the management of the initial impact assessment process; and
- j. This draft report is made and maintained publicly accessible, in relevant languages²⁴⁷.



2.1.4.4 Once affected rights-holders and stakeholders have provided their comments on this draft report (see 2.1.8), a finalized scoping report²⁴⁸ is prepared by competent professionals and includes:

- a. A summary of the public consultation process that was followed;
- b. A summary of input received from affected rights-holders and communities, and relevant stakeholders; and
- c. A summary of the feedback provided to them by the ENTITY, and how the ENTITY took their input into consideration to revise the report (or if not, the reason why).

2.1.5 Initial Baseline Data Collection²⁴⁹



2.1.5.1 For project or modification proposed after June 2018 (see 2.1.3.1), and building on 2.1.4:

- a. Baseline data describing the prevailing environmental and social²⁵⁰ context in which the project/operation takes place are collected by competent professionals²⁵¹;
- b. They are collected using credible methods²⁵²;
- c. They are collected with an appropriate level of detail and disaggregation²⁵³ to understand and assess the potential risks and impacts from the proposed project/modification; and
- d. Any additional studies identified during scoping as necessary (see 2.1.4.3.c) are carried out by competent professionals.

2.1.6 Initial Risk and Impact Assessment

2.1.6.1 For project or modification proposed after June 2018 (see 2.1.3.1), and building on 2.1.4 and 2.1.5, a risk and impact assessment, appropriate to the nature and scale of the proposed project/modification and commensurate with the level of environmental and social risks and impacts. This risk and impact assessment:

- Is carried out and documented by competent professionals;
- Evaluates and predicts in detail the characteristics of the significant environmental and social risks and impacts identified during scoping²⁵⁴;
- Includes differential risks and impacts on rights-holders and stakeholders of different genders, ages, ethnicities, and on potentially underserved and/or marginalized people;
- Defines the criteria used to identify levels of significance of risks and impacts;
- Addresses adaptation to climate change effects identified in 2.1.4.2.c²⁵⁵; and
- Evaluates options to optimize potential positive impacts.

2.1.6.2 This risk and impact assessment evaluates options and measures to address potentially significant social and environmental risks and impacts in a manner that aligns with the mitigation hierarchy as follows²⁵⁶:

- By first evaluating the technically feasible alternatives to avoid/prevent significant adverse risks and impacts²⁵⁷, avoiding a priori assumptions and judgements about alternatives;
- Then, where avoidance or prevention is not possible, by evaluating options to minimize predicted significant adverse risks and impacts;
- As a last resort, where minimization is not possible, by evaluating strategies available to restore conditions after impacts occur.
- The assessment identifies significant adverse residual impacts that cannot be avoided/prevented or minimized or restored, evaluates whether an offset or other compensatory measures appropriate to address those will be required, and documents the nature and scope of such measures, as well as the viability of implementation effectiveness.



2.1.6.3 Critical Requirement

As an outcome of this risk and impact assessment, a draft report (or equivalent) is prepared by competent professionals. This report includes:

- a. A description of the proposed project/modification;
- b. A spatial delineation of the project/modification's area of influence, considering all significant risks and impacts;
- c. A description of baseline conditions and results of any additional evaluations and studies;
- d. Identification and detailed description of the environmental and social risks, and adverse and positive direct, indirect, and cumulative impacts likely to result from the proposed project/modification;
- e. The criteria used to identify levels of significance of risks and impacts, and identification of the significant risks and potential adverse impacts, as well as significant opportunities for positive impacts;
- f. Description of the alternatives considered to avoid/prevent all significant adverse impacts from the project, and alternatives to optimize positive impacts, along with a detailed rationale²⁵⁸ for recommending or rejecting certain alternatives;
- g. Recommended measures to avoid/prevent, minimize, and restore significant adverse impacts;
- h. Recommended measures to offset and/or compensate for residual impacts;
- i. Recommended measures to optimize positive impacts;
- j. Description of any assumptions, uncertainties, gaps in knowledge, or limitations related to the project description, baseline data, alternatives assessment, impact and risk assessment, recommended mitigation measures, and associated stakeholder engagement process;
- k. Names and affiliations of the authors of the risk and impact assessment, and any others involved in technical studies; and
- l. Appendices containing detailed and complete information on baseline conditions, evaluations and studies²⁵⁹.



2.1.6.4 Once affected rights-holders and stakeholders have provided their comments on this draft report (see 2.1.8), a finalized report²⁶⁰ is prepared by competent professionals and includes:

- a. A summary of the public consultation process that was followed;
- b. A summary of input received from affected rights-holders and communities, and relevant stakeholders; and
- c. A summary of the feedback provided to them by the ENTITY, and how the ENTITY took their input into consideration to revise the report (or if not, the reason why).

2.1.7 Integration into Management Plans²⁶¹

2.1.7.1 For all projects/operations, the ENTITY has systems in place to ensure that relevant management plans²⁶² are developed, documented, and implemented by competent professionals to address all significant social and environmental risks and impacts identified during the initial (see Section 2.1.6) and ongoing (see Section 2.1.11) impact assessment process.

2.1.7.2 For a proposed exploration project where preliminary screening required in 2.1.2 indicated that an initial socio-environmental impact assessment was **not** necessary, a socio-environmental management plan (or equivalent) is developed by competent professionals. The plan:

- a. Outlines the specific mitigation measures that will be carried out to address the adverse social and environmental impacts and risks, in a manner that strictly aligns with the mitigation hierarchy;
- b. Outlines the specific measures that will be taken to optimize positive social and environmental impacts;
- c. Includes appropriate time-bound performance indicators²⁶³, and monitoring measures to enable evaluation of the effectiveness of mitigation measures, and of measures taken to optimize positive impacts, over time²⁶⁴;
- d. Identifies the role of affected rights-holders and stakeholders in the collaborative development, implementation, and monitoring and evaluation of the plan;
- e. Assigns implementation of measures to responsible staff with adequate skills and expertise;
- f. Assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping²⁶⁵;
- g. Has clearly-defined timelines and an implementation schedule in place that specifies the expected outcomes for affected rights-holders and stakeholders;
- h. Maintains estimates of human resources and budget required; and
- i. Includes a financing plan to ensure that funding is available for the effective implementation of the plan.

2.1.8 Meaningful Engagement with Stakeholders



2.1.8.1 For a project or modification proposed after June 2018 (see 2.1.3.1), and in accordance with Chapter 1.2, and as per 2.1.3, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders:

- a. Are preemptively provided with relevant and comprehensive information, in accordance with Section 1.2.3, about the main steps of the initial impact assessment process that will be carried out, the estimated timeline, and the range of opportunities for them to participate in consultation and collaborative decision-making during this initial impact assessment process;
- b. Are included in consultations and collaborative decision-making in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people²⁶⁶; and
- c. Are provided with the final reports from the scoping (2.1.4.4) and the impact assessment processes (2.1.6.4), in accordance with Section 1.2.3.



2.1.8.2 For a project or modification proposed after June 2018 (see 2.1.3.1), and in accordance with Chapter 1.2, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders are consulted and can review and comment, at least 60 days before reports and/or processes are finalized²⁶⁷, on:

- a. The issues, risks, and impacts to be considered in the scoping required in 2.1.4, as well as the draft and finalized versions of the scoping report also required in 2.1.4;
- b. Methodologies for the collection of environmental and social baseline data required in 2.1.5;
- c. The findings of the environmental and social risk and impact assessment, and the recommended mitigation measures, required in 2.1.6; and
- d. The draft and finalized versions of the initial impact assessment report also required in 2.1.6.



2.1.8.3 For a project or modification proposed after June 2018 (see 2.1.3.1), and in accordance with Chapter 1.2, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders:

- a. If necessary, are provided with resources for capacity building and training to enable meaningful stakeholder engagement in the consultation and review processes required in 2.1.8.2²⁶⁸;
- b. Are provided with the opportunity to propose independent experts to provide input to the ENTITY on the initial impact assessment scoping process, the draft and finalized versions of the scoping report, and the baseline data collection; and
- c. Are provided with the opportunity to propose independent experts to provide input to the ENTITY on the risk and impact assessment, and the draft and finalized versions of the initial impact assessment report.



2.1.9 Traditional Knowledge



- 2.1.9.1** For a project or modification proposed after June 2018 (see 2.1.3.1), the ENTITY has systems in place to ensure that traditional knowledge, and especially traditional ecological knowledge, of local affected communities, and Indigenous rights-holders if applicable, is integrated into:
- The initial impact assessment scoping process, and the draft and finalized versions of the scoping report (see Section 2.1.4);
 - Initial baseline data collection (see Section 2.1.5); and
 - The initial risk and impact assessment, and the draft and finalized versions of the initial impact assessment report (see Section 2.1.6).



- 2.1.9.2** For all projects/operations, the ENTITY has systems in place to ensure that traditional knowledge, and especially traditional ecological knowledge, of local affected communities, and Indigenous rights-holders if applicable, is also integrated into:
- Relevant monitoring and evaluation processes;
 - Relevant review and continuous improvement processes; and
 - The ongoing socio-environmental impact assessment process required in 2.1.11.

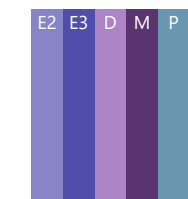
2.1.10 Monitoring and Evaluation²⁶⁹



- 2.1.10.1** For all projects/operations, and if requested by relevant stakeholders, the ENTITY facilitates the independent monitoring and evaluation of key risks and/or impacts indicators by external individuals who have received appropriate site-specific health and safety orientation and training²⁷⁰.



2.1.11 Ongoing Impact Assessment and Continuous Improvement



- 2.1.11.1** For all projects/operations, the ENTITY has an ongoing socio-environmental impact assessment process (or equivalent) in place to ensure that, **at least annually but without undue delay after a significant change**, a review of the applicability of all the potential social and environmental issues listed in [Annex 2.1-B](#) to the site and its associated facilities is conducted and documented by competent professionals, taking into consideration:
- Any minor changes to the operation²⁷¹;
 - Any changes in the operating context²⁷² that have occurred in the past year; and
 - Any updated knowledge related to climate change, including increased frequency, duration, or severity of weather events in the operating area.



- 2.1.11.2** For all projects/operations, the review required in 2.1.11.1 is informed by:
- The preferences of affected rights-holders and stakeholders for post-closure end-uses of potentially affected areas;
 - Information and feedback obtained through relevant grievance mechanisms and engagement processes with rights-holders and stakeholders; and
 - Results and outcomes of relevant monitoring and evaluation processes.



2.1.11.3 For all projects/operations, the ongoing socio-environmental impact assessment process required in 2.1.11.1 ensures that, whenever new social or environmental risks and/or impacts are identified, and/or whenever there is the potential that the magnitude, duration, or probability of already-identified social or environmental risks and impacts have changed:

- a. Direct, indirect, and cumulative risks and impacts are further assessed by competent professionals, using a credible methodology, to determine if they are significant enough to require new or revised avoidance, mitigation or compensation measures;
- b. If necessary, additional baseline/background are collected and documented by competent professionals to inform the evaluation process²⁷³; and
- c. If necessary, additional studies are conducted and documented by competent professionals to inform the evaluation process.



2.1.11.4 For all projects/operations, the ongoing socio-environmental impact assessment process required in 2.1.11.1 ensures that, if new/changing risks and/or impacts are deemed significant (see 2.1.11.3.a):

- a. Mitigation strategies are developed and/or updated, and documented by competent professionals;
- b. They are designed in collaboration with affected rights-holders and stakeholders;
- c. They are designed to strictly align with the mitigation hierarchy;
- d. They are integrated into relevant management plans; and
- e. They are integrated into monitoring and evaluation, and continuous improvement programs²⁷⁴.



2.1.11.5 For all projects/operations, the **social baseline data** describing the prevailing social context in which the project/operation takes place is updated and documented at least every five years²⁷⁵:

- a. By competent professionals, using credible methods;
- b. With an appropriate level of detail and disaggregation²⁷⁶ to understand and assess the potential risks and impacts from the proposed project/modification; and
- c. In collaboration with affected rights-holders and stakeholders.

2.1.12 Information-Sharing and Public Reporting²⁷⁷

- E1E2E3DMP
- 2.1.12.1** For project or modification proposed after June 2018 (see 2.1.3.1), and with due regard for the safety of affected rights-holders and stakeholders, data privacy, and for security concerns, the ENTITY makes publicly accessible updated versions of, and maintains²⁷⁸ publicly accessible all previous versions of:
- a. The full versions of the initial impact assessment report, including an explanation of the assessment methodology and a list of the risks and impacts identified;
 - b. Any supporting data and analyses²⁷⁹; and
 - c. An anonymized version of the record of stakeholder comments (see Section 2.1.8) and the ENTITY’s responses, including how each comment was taken into account (and if not, why).
- E2E3DMP
- 2.1.12.2** For all projects/operations, at least annually and with due regard for the safety of affected rights-holders and stakeholders, data privacy, and for security concerns, the ENTITY makes publicly accessible updated versions of, and maintains²⁸⁰ publicly accessible all previous versions of:
- a. A summary of the outcomes and key findings of the ongoing socio-environmental impact assessment process (see Section 2.1.11);
 - b. A summary of, and key findings from, the updated baseline/background data and any additional studies carried out, for all relevant social and environmental issues; and
 - c. A summary of the mitigation strategies developed or updated as per 2.1.11.4 to address new/changing risks and/or impacts identified.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

Many jurisdictions have legal requirements for undertaking impact assessment, to various degrees. Similarly, socio-environmental impact assessments are often mandated by organizations that provide funding for projects (e.g., International Finance Corporation (IFC)/World Bank). The requirements of Chapter 2.1 are meant to align, and build on, the good practice requirements described by IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts.

The chapter does not list all the issues and impacts that are likely to be significant, as these will vary greatly depending on the scale, nature, duration and location of the particular project and the nature and sensitivity of potential receptors. It is the responsibility of the ENTITY, in consultation with interested and affected rights-holders and stakeholders, to ensure that all relevant issues and impacts are identified and considered. Issues/impacts to be considered may include (but are not limited to) those noted in Annex 2.1-B.

An initial socio-environmental impact assessment that meets the requirements of this chapter is a critical step in informing interested and affected rights-holders and stakeholders and rights-holders including Indigenous Peoples, where applicable, about a proposed project/modification and its potential impacts, prior to decision-making. The fact that an effective initial impact assessment has been designed and implemented does not imply that a project should necessarily proceed. With effective engagement of rights-holders and stakeholders, however, it should provide a sound basis for consideration as to whether a project should or should not proceed.

²²⁹ This is inclusive of any land disturbance and clearing, road building, sampling, drilling, construction, ore removal, and brine extraction, amongst other project activities within the project area of influence.

²³⁰ International Finance Corporation (IFC). 2012. Guidance Note 1: Assessment and Management of Environmental and Social Risks and Impacts. GN62, pp. 20, 21. Available at: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>

²³¹ Convention on Biological Diversity, <http://www.cbd.int/convention/text/default.shtml>

²³² Examples in Canada: <https://www.sciencedirect.com/science/article/abs/pii/S2214790X23000540>

Norway: LOV-2009-06-19-100: Lov om forvaltning av naturens mangfold (naturmangfoldloven) [Nature Diversity Act]. Sametingets retningslinjer for vurderingen av samiske hensyn ved endret bruk av meahcci/ utmark i Finnmark (Guidelines for Assessment of Sami interests in cases of changes in land use in Finnmark), 2007. The status of the Guidelines as injunction to the FA was approved by the Norwegian government in 2007. The guidelines are available from <https://lovdata.no/dokument/SF/forskrift/2007-06-11-738> (accessed February 4, 2015). Sametingets planveileder. Veileder for sikring av naturgrunnlaget for samisk kultur, næringsutøvelse og samfunnsliv ved planlegging etter plan- og bygningsloven (plandelen) (The Sami Parliament's Planning Guidelines), 2010. <http://www.sametinget.no/Miljoe-areal-ogkulturvern/Areal/Sametinget-planveileder/Sametinget-planveileder> (accessed September 7, 2015). LOV-2005-06-17-85: Lov om rettsforhold og forvaltning av grunn og naturressurser i Finnmark fylke (finnmarksloven) [Finnmark Act]. LOV-2008-06-27-71: Lov om planlegging og byggesaksbehandling (plan- og bygningsloven) [Plan and Building Act].

Rwanda: There exists a national law n° 28/2016 of 22/7/2016 on the preservation of both tangible and intangible cultural heritage and traditional knowledge.

USA: see EPA Tribal Councils and

²³³ A well-developed plan is necessary to enable a reasonable identification and estimation of potential significant impacts and risks related to the project.

²³⁴ The absence of a legal requirement, alone, is not sufficient justification for not doing an ESIA. See [Annex 2.1-C](#) for an example of a rationale for why an ESIA may or may not be required for a project.

²³⁵ Rights-holders and stakeholders must include, but not be limited to, all affected communities of Indigenous Peoples.

²³⁶ Timeliness, comprehensiveness, usability, comparability, accessibility, and cultural appropriateness criteria for the sharing of information and data are identified, defined and reviewed in collaboration with stakeholders on a regular basis. Adequacy of the information sharing in this requirement therefore relies on Section 1.2.3.

²³⁷ This includes changes in the magnitude, duration or probability of environmental or social risks and/or impacts.

²³⁸ If Indigenous Peoples whose rights or interests have been or may be directly or indirectly affected by the project/modification have been identified (as per 1.2.1.1. and 1.3.2.3), requirements are covered in Chapter 2.2 of the IRMA Standard.

²³⁹ If there are potentially affected Indigenous Peoples, then an FPIC process as per Chapter 2.2 will also be necessary at this stage, if not conducted earlier.

²⁴⁰ This must include consideration of social, cultural and environmental receptors, including Indigenous Peoples.

²⁴¹ This could include data from past studies conducted by or for the project or operation, publicly available demographic data published by a government department/ministry, past water quality or biodiversity reports by non-profit organizations, or human rights reports by international organizations, amongst other types of data and sources.

²⁴² A changing climate may affect physical/biological environments (result in new hazards, or exacerbate existing ones), or result in social, financial, political, regulatory or reputational impacts and risks. The risks and potential impacts may be direct, indirect or cumulative, and may change over time.

²⁴³ The likely receptors of impacts and risks should be sufficiently disaggregated to clearly reflect whom/what they are (e.g., a specific community or underserved and/or marginalized people in a community, specific species, particular tributary of a river etc.)

²⁴⁴ E.g., through changes in project designs, technologies, processes, siting of facilities. As per proposed Chapter 4.4, alternative locations such as brownfield sites may be feasible for mineral processing facilities. For mines, some facilities such as open pits, will necessarily be tied to a specific location due to the location of the ore, however, there should be options to move other facilities and infrastructure to alternative locations, some of which may already have been developed/brownfields.

²⁴⁵ As identified in 2.1.4.1.e. Note that alignment with rights-holders' or stakeholders' needs and expectations may not be possible when country of operation's laws are in place that designate/deed the post-closure end uses. See also requirement 2.7.1.1 in Chapter 2.7.

²⁴⁶ E.g., enhance adaptive capacity, strengthen resilience, and reduce vulnerability of human, biological, and physical systems to climate change. It is recognized that the identification of mitigation options related to climate change adaptation during Scoping may not yet include detailed or final engineering designs, which will be informed by baseline data collection (2.1.5) and the impact and risk assessment process (2.1.6), and may only be completed after conclusion of the ESIA process but must be included in the relevant Chapter management plans and monitoring that build on 2.1.6.

²⁴⁷ Including national languages, and Indigenous languages if applicable.

²⁴⁸ Draft and finalized reports are expected to have the same structure and general content, but the draft version will be revised in line with feedback from rights-holders and stakeholders.

²⁴⁹ To reliably determine appropriate topic-specific baselines, the Entity must ensure that relevant baseline data (and/or background data where relevant) are collected by competent professionals. This is explained across, and assessed in accordance with, the relevant Chapters of this Standard.

²⁵⁰ Including the legal, socio-economic, human rights, and political context,

²⁵¹ For example, collection of ore and waste rock samples, and subsequent geochemical assessment to understand contaminants of potential concern (COPCs) (See Chapter 4.1), or studies to evaluate potential for revenue streams from waste products, mineral by-products, or other opportunities to maximize mineral circularity.

²⁵² This includes but is not limited to the collection of a representative number of samples at appropriate locations, periods of time (e.g., times of day, relevant seasons) and frequencies (e.g., daily, monthly, quarterly); application of good practice analysis and assessment techniques (e.g., by appropriately accredited laboratories; using appropriate sampling equipment and methods; applying industry recognized statistical or modelling software; taxonomic identification by recognized experts etc.), amongst other aspects.

²⁵³ Considering gender, age, ethnicity, Indigenous status, disability, or any other factor of factor of disproportionate exposure or susceptibility to risks/impacts in the project's/operation's area of influence.

²⁵⁴ Characteristics of impacts will vary, but may include: nature (positive, adverse, direct, indirect, cumulative); magnitude (severe, moderate, low); extent/location (area/volume covered, distribution); timing (during construction, operation, closure and reclamation; immediate, delayed, rate of change); duration (short or long term; intermittent or continuous); reversibility/irreversibility; likelihood (probability, uncertainty or confidence in the prediction); and extent (local, regional, global).

²⁵⁵ E.g., enhance adaptive capacity, strengthen resilience, and reduce vulnerability of human, biological, and physical systems to climate change.

²⁵⁶ The typical mitigation hierarchy prioritizes, in the following order: First, avoidance or prevention of impacts (e.g., through changes to project designs, choice of equipment and technologies, alternative siting of infrastructure etc.); second, minimization of impacts; third, restoration back to the original state; and finally, offsetting or compensation for residual impacts. The waste hierarchy (see Chapter 4.1), or the hierarchy of controls for occupational health and safety (see Chapter 3.2) have slightly different approaches. In all approaches, however, avoidance or prevention of impacts is the top priority. This requirement is meant to align with many other standards and guidelines for ESAs, such as IFC's Performance Standard 1 (see Para. 1 to 4, 7 to 19, 22, 23, 25 to 36), World Bank Environmental and Social Framework, EBRD Environmental and Social Policy: Performance Requirement 1, AfDB Integrated Safeguards System, ADB Environment (and Social) Safeguards etc.

²⁵⁷ E.g., through changes in project designs, technologies, processes, siting of facilities. Alternative locations such as brownfield sites may be feasible for mineral processing facilities. For mines, some facilities such as open pits, will necessarily be tied to a specific location due to the location of the ore, however, there should be options to move other facilities and infrastructure to alternative locations, some of which may already have been developed/brownfields.

²⁵⁸ E.g., economic, technical, social and environmental.

²⁵⁹ Detailed assessments of some issues and impacts may be reported as stand-alone documents, but the ESIA report presents results of the full analysis in an integrated manner.

²⁶⁰ Draft and finalized reports are expected to have the same structure and general content, but the draft version will be revised in line with feedback from rights-holders and stakeholders.

²⁶¹ To address all significant environmental and social risks and impacts identified during the initial or ongoing socio-environmental impact assessment process, the ENTITY must develop, document, and implement relevant management plans that build on 2.1.6. This is explained across, and assessed in accordance with the relevant Chapters of this Standard.

²⁶³ Indicators should be quantitative to the greatest extent practically possible, but qualitative at a minimum.

²⁶⁴ Appropriate performance criteria and indicators must include those required by country of operation's law (e.g., regulator maximum concentrations of certain chemicals in air or water), and, as relevant, those associated with external standards (e.g., IRMA water quality criteria in Chapter 4.2), those agreed with stakeholders, or indicators that are tied to an identified baseline (e.g., annual GHG emissions do not exceed baseline emissions measured in 2002).

²⁶⁵ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

²⁶⁶ Affected rights-holders and communities must be offered equal opportunities to participate in consultations and collaborative decision-making, whether they are supportive of the proposed project/modification or not supportive.

²⁶⁷ Unless a longer period is required through a regulatory process. Implications for finalizing any update may vary depending on the jurisdiction. The intent is to ensure that a period of at least 60 days is offered for consultation and feedback on the scoping process; then, once the scoping process is formally finalized, another period of at least 60 days is offer for consultation and feedback on the scoping report; then, once the scoping report is formally finalized, another period of at least 60 days is offered regarding baseline data collection; and so on through risk and impact assessment, and the ESIA report.

²⁶⁸ For more on meaningful stakeholder engagement see Chapter 1.2, and for more on strengthening capacity to engage see Section 1.2.3 of that chapter.

²⁶⁹ To monitor and evaluate the effectiveness and appropriateness of its measures to prevent, mitigate, and remediate all significant environmental and social risks and impacts identified during the initial or ongoing ESIA process, the ENTITY must ensure that relevant monitoring and evaluation programs are developed, documented, and implemented by competent professionals. This is explained across, and assessed in accordance with, the relevant Chapters of this Standard.

²⁷⁰ Entities may facilitate independent monitoring by providing funding to stakeholders to hire experts, allowing independent experts to have access to sites for monitoring social or environmental indicators, and by allowing access to relevant operations-related monitoring records, reports and/or documentation.

²⁷¹ E.g., changes in management personnel, minor modifications to technologies or processes. Note that when there are major modifications proposed to operations (e.g., new processes, facilities, extraction zones, etc.) a new initial socio-environmental impact assessment process must be initiated and undertaken by competent professionals, in accordance with Sections 2.1.4 to 2.1.9 of this Chapter.

²⁷² E.g., legal, social, political, human rights, economic, environmental.

²⁷³ The collection of baseline data is required during initial impact assessments (See 2.1.5). After mines or mineral processing facilities become operational, even if baseline data were not collected at the appropriate time, entities can still attempt to collate data to provide the best possible picture of baseline conditions in order to better understand the magnitude of impacts caused by their activities. For example, in Chapter 4.2 (Water Management) entities are expected to establish background water quality conditions even when project baseline water quality data were not collected (see Chapter 4.3, requirement 4.3.1.1 and endnotes for that requirement).

²⁷⁴ To ensure continuous improvement of its environmental and social impact assessment and management, the ENTITY must ensure that regular reviews, and time-bound corrective measures are developed, documented, and implemented by competent professionals. This is explained across, and is assessed in accordance with, the relevant Chapters of this Standard.

²⁷⁵ In addition to the annual ongoing review and update process required in 2.1.11.1 to 2.1.11.4.

²⁷⁶ Considering gender, age, ethnicity, Indigenous status, disability, or any other factor of factor of disproportionate exposure or susceptibility to risks/impacts in the project's/operation's area of influence.

²⁷⁷ The ENTITY must ensure regular information-sharing and public reporting on its management of all relevant social and environmental issues. This is explained across, and assessed in accordance with, the relevant Chapters of this Standard.

²⁷⁸ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

²⁷⁹ Detailed assessments of some issues, risks and impacts may be reported as stand-alone documents, but the impact assessment report shall review and present the results of the full analysis in an integrated manner.

²⁸⁰ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

CHAPTER ANNEXES

ANNEX 2.1-A: Exploration Plan

Exploration plans contain detailed information on, as relevant:

1. License details (if relevant, e.g., number, application date, duration/expiry date, location map, boundary coordinates);
2. Necessary legal permits;
3. Permissions from, and agreements with, Indigenous and local communities, landowners, and surface rights-holders (as relevant);
4. Topographical map showing principal environmental, social and infrastructure features (potential sensitive receptors);
5. Expected geology and mineralogy (to the extent known);
6. Location, size and nature of existing roads and tracks;
7. Location, size and nature of proposed new temporary and permanent access roads;
8. Location, size and nature of proposed temporary and permanent worker accommodation and facilities;
9. Location, size and nature of proposed staging/laydown areas;
10. Location, size and nature of proposed drill pads;
11. Location, size and nature of any other areas that will be directly disturbed;
12. Construction methods and transport of materials to site;
13. Number of workers (including during different phases of exploration if relevant);
14. Description of exploration method(s) to be employed, e.g.:
 - Aerial/airborne surveysⁱ
 - Ground-based geophysical surveys
 - River and stream sediment sampling
 - Soil sampling
 - Surface pitting and trenching;
 - Drilling
 - Sources of potable and non-potable water
15. Proposed water management methods (including surface runoff);
16. Volume and nature of solid and liquid wastes expected to be generated;
17. Proposed waste management methods;
18. Vehicle types, numbers and number of journeys;
19. Plant types and numbers;
20. Exploration program schedule (timing and duration of different activities); and
21. Proposed site reinstatement/restoration activities.

ⁱ Extensive desktop studies can be undertaken using existing data, but these are assumed to have no associated environmental or social impacts and so would we did not include them in this list, which is meant to inform the environmental and social impact assessment

ANNEX 2.1-B: Potential Social and Environmental Issues To Be Screened/Scoped

TOPIC	ISSUES	CHAPTER REF
Indigenous Peoples	Are there any Indigenous Peoples who live in or use or have a right to resources in the <u>area of influence</u> ?	1.2, 1.3, 2.2
	Are there any Indigenous Peoples outside the direct <u>area of influence</u> whose rights may be affected (e.g., those living downstream, or along proposed transportation corridors)?	1.2, 1.3, 2.2
	Will any natural resources owned, used or valued by Indigenous Peoples be affected by the proposed project/modification?	2.2
	Will cultural heritage owned, used or valued by Indigenous Peoples be affected by the proposed project/modification?	2.2, 3.6
	Are there any risks to Indigenous Peoples due to the legal framework in the country of operation (e.g., where the country of operation has not ratified ILO 169 or expressed support for UNDRIP, or does not recognize Indigenous Peoples) ⁱⁱ	1.3, 2.2
Communities	Are there any communities not identified as Indigenous Peoples' communities present in the <u>area of influence</u> ?	1.2
	Are there any communities that will receive or have received people displaced as a result of the proposed project/modification (i.e., host communities)?	2.5
Community Health, Safety and Quality of Life ⁱⁱⁱ	Are there potential traffic-related hazards created by the proposed project/modification that pose a risk to people, wildlife hunted for sustenance, or livestock?	3.3, 2.6, 3.2,
	Is there the potential that the proposed project/modification will increase the prevalence of water-borne, vector-borne, airborne or sexually transmitted infectious diseases (e.g., through transmission from mine to community or vice versa)?	3.3
	Is there a potential for pollution of water resources that provide communities with sustenance or livelihoods?	3.3, 4.3, 1.3
	Is there a potential for a decrease in the amount of water available for community use?	3.3, 4.3, 1.3
	Is the potential for air emissions or dust that may impact people's health or quality of life?	3.3, 4.5, 1.3
	Is the potential for degradation or pollution of lands used by affected communities (e.g., for farming, livestock grazing, food sources, medicinal plants, cultural purposes)?	3.3, 4.1, 4.3, 4.4
	Will the proposed project/modification affect natural ecosystems that provide provisioning, regulating, cultural or supporting ecosystem services to communities?	3.3, 4.4

ⁱⁱ "The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted by the General Assembly on Thursday, 13 September 2007, by a majority of 144 states in favor, 4 votes against (Australia, Canada, New Zealand and the United States) and 11 abstentions (Azerbaijan, Bangladesh, Bhutan, Burundi, Colombia, Georgia, Kenya, Nigeria, Russian Federation, Samoa and Ukraine). Years later the four countries that voted against have reversed their position and now support the UN Declaration."

<https://social.desa.un.org/issues/indigenous-peoples/united-nations-declaration-on-the-rights-of-indigenous-peoples>

Status of ratifications of ILO 169 – Indigenous and Tribal Peoples Convention.

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0:NO:11300:P11300_INSTRUMENT_ID:312314:NO

ⁱⁱⁱ Applies to communities of Indigenous Peoples and communities that are not self-described as Indigenous Peoples.

TOPIC	ISSUES	CHAPTER REF
	Is there a potential that noise from facilities, blasting, equipment, machinery, vehicles may affect nearby residents, commercial or institutional facilities?	2.5, 3.3, 3.7
	Is there the potential that vibration may affect peoples' health or quality of life, or the integrity of structures/property?	2.5, 3.3, 3.7
	Is there the potential for industrial accidents or incidents, including spills or releases of chemicals or hazardous materials, that could put communities at risks or affect the natural resources or ecosystem services used by them?	2.6, 3.2, 3.3, 4.6
	Is the potential for failure of tailings or other waste impoundments that could put communities at risk or affect the natural resources used by them?	3.3, 4.2, 1.3
	Is there a potential that availability of energy sources may change (e.g., become less available or more expensive; or become more available and less expensive)?	3.3, 4.6, 2.4
	Will there be security forces used in relation to the project/operation (e.g., directly employed security guards, private security forces, public security forces) that could interact with community members?	3.3, 3.4
	Do any of the risks to community health, safety or quality of life create greater risks for certain genders?	3.3, 2.3
Socio-Economic Impacts	Are there potential positive or adverse impacts from the project/operation on the socio-economics of communities on the local or regional scale?	2.4
	Is there potential for the proposed project/modification to create opportunities and benefits for local communities (e.g., jobs, training programs, community development projects, taxes, service provider or procurement opportunities, etc.)?	2.4, 1.7
	Are there opportunities for shared facilities or infrastructure during operations or post-closure, e.g., roads, energy, medical, communications, etc.	2.1, 2.4, 3.3, 4.6
	Is there potential for in-migration of <u>workers</u> to change community demographics in a manner that could create social or cultural conflicts, the potential for increased sexual violence, violence against women, girls, and <u>LGBTIQA+ persons</u> , or violence or exploitation of women, children, or other potentially <u>underserved and/or marginalized people</u> ?	3.3, 2.3, 1.3
	Is there potential for in-migration of people seeking to benefit from land acquisition /resettlement processes, including compensation and livelihoods programming, that could create social or cultural conflicts, land speculation, or the potential for increased sexual violence or exploitation of women, children, or other potentially <u>underserved and/or marginalized people</u> ?	2.5
Infrastructure (e.g., Transportation, Communications, Health, Energy)	Is there potential that in-migration of <u>workers</u> or the needs of the operation itself would create stresses on local and regional infrastructure such as housing, sanitation, water supply, public health, energy supply, roads, etc.?	3.3
	Will infrastructure associated with the operation create potential opportunities to benefit communities (e.g., creation jobs, better energy, transportation and/or communications systems, access to improved health facilities, etc.)?	2.4
	Will infrastructure associated with the operation create adverse impacts on communities (e.g., displacement), or on the resources that support them (e.g., create easy access to areas, leading to increased hunting, poaching or resource depletion)?	2.5, 4.4
Land Use	Will lands disturbed by the operation need to be rehabilitated/restored?	2.7

TOPIC	ISSUES	CHAPTER REF
	Will lands acquired for the operation require the physical and/or economic displacement and relocation of people (voluntary or involuntary)?	2.5
	Will there be involuntary economic displacement of people due to impacts on land or land use (e.g., will agricultural lands or forests be converted or become unusable by those whose livelihoods or sustenance depend on them? Will herders have to travel farther to graze their animals?)	2.5
	Will lands used by artisanal and small-scale miners be affected?	3.5
	Will involuntary displacement or impacts on land use create greater risks for certain genders or age groups (e.g., require women or children to travel further for food, water, fuel)?	1.3, 2.3, 2.5, 3.3
Cultural Heritage	Are there cultural resources (archaeological, paleontological, historical) in the area of influence? And will the proposed project/modification affect cultural heritage (replicable, non-replicable or critical cultural heritage) of local communities, or cultural heritage of regional, national or international significance?	3.6
	Will the proposed project/modification affect cultural heritage that is used or valued by Indigenous Peoples?	3.6, 2.2
	Will lands acquired for the proposed project/modification require cultural structures or areas of cultural significance to be demolished or relocated?	2.5, 3.6
	Will cultural heritage of Indigenous Peoples be proposed for commercial use?	3.6, 2.2
Human Rights	Is there potential that the proposed project/modification will affect any internationally recognized human rights, including, but not limited to (see Annex 1.3 for a comprehensive list): • Right to life, liberty and security • Right of self-determination • Right to a standard of living adequate for health and wellbeing • Right to education • Right to take part in cultural life • Right to benefit from scientific progress • Rights of minorities • Right of protection for the child • Right to freedom from war propaganda, and freedom from incitement to racial, religious or national hatred • Right not to be subjected to torture, cruel, inhuman and/or degrading treatment or punishment • Right to equality before the law, equal protection of the law, non-discrimination • Right to access to effective remedies • Right to freedom of movement • Right to freedom of thought, conscience and religion • Right to freedom of opinion, information and expression • Right to participate in public life • Right to freedom of assembly • Right to freedom of association • Right to form and join trade unions and the right to strike • Right to work	1.3

TOPIC	ISSUES	CHAPTER REF
	• Right to enjoy just and favorable conditions of work • Right not to be subjected to slavery, servitude or forced labor • Right to social security, including social insurance	
	Is there the potential to affect human rights that have been identified as being particularly relevant for extractives sectors? ^{iv}	1.3
	Are there security forces used in relation to the operation (e.g., directly employed security guards, private security forces, public security forces) that might have impacts on human rights and will therefore need to be trained on human rights?	3.5, 1.3
	Is the proposed project/modification located in, or will it source or transport minerals through a conflict-affected or high-risk area?	1.5, 1.3
	Is the proposed project/modification located in an area where bribery, corruption or use of facilitation payments (e.g., to facilitate acquisition of permits, licenses, concessions, etc.) is possible or likely?	1.7
	Do any of the potential impacts on human rights create greater risks for certain genders?	2.3
Workers	Are there any risks to <u>workers</u> due to the legal framework in the country of operation (e.g., has the country of operation ratified the fundamental ILO conventions and instruments ^v ; does the country of operation have weak laws/regulations or none at all to provide minimum protections related to wages, hours of work, paid leave, etc.)?	3.1
	Have there been increases or changes in risks to <u>workers'</u> rights and protections (e.g., as a result of strikes or a breakdown in negotiations, regulatory changes such as decrease in benefits or legal rights, economic changes such as recession, etc.)?	3.1
	Are there differential risks to the human rights of particular <u>workers</u> (e.g., those of different genders, ethnicities, religious affiliation, etc.)?	1.3, 2.3
	What are the specific hazards related to the proposed project/modification that create health or safety risks to <u>workers</u> ? • Will any of these hazards be exacerbated by a changing climate? (e.g., if daily temperatures increase, will there be a need for increased ventilation, cooling systems, air conditioning and water in breakrooms, etc.)	3.2
	Have there been increases or changes in risks to worker health or safety (e.g., due to changes in operations such as equipment failures, changes in equipment or processes, influx of new <u>workers</u> needing to be trained, changes in climate or extreme weather events that alter working conditions, etc.)?	3.2
	Is there the potential for industrial <u>accidents</u> or incidents, including spills or releases of chemicals or hazardous materials, that could put <u>workers</u> at risks?	3.2, 2.6
	Are there differential risks to particular <u>workers</u> (due to the nature of the work, or gender/health status of the worker)	2.3, 3.2

^{iv} For example, see: <https://www.bsr.org/en/primers/10-human-rights-priorities-for-the-extractives-sector>

^v The eleven fundamental instruments are: Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); Right to Organise and Collective Bargaining Convention, 1949 (No. 98); Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol); Abolition of Forced Labour Convention, 1957 (No. 105); Minimum Age Convention, 1973 (No. 138); Worst Forms of Child Labour Convention, 1999 (No. 182); Equal Remuneration Convention, 1951 (No. 100); Discrimination (Employment and Occupation) Convention, 1958 (No. 111); Occupational Safety and Health Convention, 1981 (No. 155); Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187).

TOPIC	ISSUES	CHAPTER REF
Water Resources	Is there potential for impacts on water quality in streams, rivers, lakes, <u>marine environments</u> , wetlands, groundwater aquifers from: • Mine waste storage or disposal areas (tailings facilities, waste rock facilities) • Other waste storage or disposal areas • Mineral extraction areas (pits, underground workings, heap leach pads) • Mineral processing facilities • Roads • Pipelines • Chemical or fuel storage and/or handling facilities • Vehicle parking areas • Stormwater runoff	4.3
	Is there the potential that extraction or use of water by the operation will lead to diminishment in the volume or availability of local or regional water supplies?	4.3
	Is there the potential that extraction of fresh water or brine may lead to subsidence of ground surface, which could then pose risks to safety, the physical integrity of facilities, environmental resources, etc.?	4.3, 4.2
	Is there the potential that a failure of a tailings or other waste facility would affect water resources?	4.2, 4.3
	Are there any processes or activities that may result in air emissions and subsequent deposition that may affect water quality and subsequently pose a risk to fauna (including humans), flora or fungi (e.g., via ingestion, direct contact, or bioaccumulation)?	4.2
	Are there any known hazardous chemicals or materials being used on site? Is there the potential for spills or releases of chemicals or hazardous materials that could affect surface water or groundwater resources?	4.1, 4.3
	Is the potential that hydrologic features may create risks to physical stability of any facilities?	4.2
Waste	Will the proposed project/modification generate new or more hazardous wastes? New or more non-hazardous wastes?	4.1
	Will the generated wastes pose specific problems such as <u>acid rock drainage (ARD)</u> , radioactivity, contaminant or metals leaching (ML)?	4.1
	Will a facility be required to store or dispose of effluent or waste? Will any effluent or waste be discharged into the environment?	4.1, 4.2
	Is there the potential that treatment, handling, storage, disposal or discharge (including dilution) of waste may negatively affect: • The designated uses, and quality, of the receiving water system • Availability of, and access to, water resources • Biodiversity values, and the ecological processes and habitats supporting them • Life on land and below water • Human health and safety • Farming, agriculture, and food security • Economic activities • Working conditions and <u>workers' rights</u>	4.1, 4.2, 4.3, 4.4, 4.5, 1.3, 2.2, 2.4, 3.2, 3.3

TOPIC	ISSUES	CHAPTER REF
	If additional land is required to build and operate any waste storage or management facility, will land acquisition processes require the physical and/or economic displacement and relocation of people (voluntary or involuntary)?	2.5, 2.2
	Will waste storage or management facility/areas pose stability risks? What would the consequences of failure be for people, ecosystems and the environment? Would specific emergency response, response or recovery measures be required?	4.2, 2.6
Air Resources	Are there any thermal processes or mining-related activities that will result in air emissions that may affect local or regional air quality, and subsequently pose a risk to human health, fauna, flora or fungi (e.g., via inhalation, ingestion or contact)?	4.5, 3.2, 3.3
	Is there the potential for emissions or dust that may detrimentally affect local or regional air quality, or visual amenity of protected areas?	4.5, 3.3, 4.6
	Are there any known hazardous chemicals or materials being used on site? Is there the potential for spills or releases of those chemicals or hazardous materials that could affect air quality?	3.2, 4.1, 4.5
Climate and Energy	Will development of the proposed project/modification have associated greenhouse gas emissions from land or vegetation clearing, including clearing carried out for associated facilities?	2.1, 4.6
	Will the proposed project/modification have significant energy requirements?	4.6
	Will the proposed project/modification have significant Scope 1, Scope 2 and/or Scope 3 emissions?	4.6
	Might climate change exacerbate any of the risks/impacts associated with the proposed project/modification? (question repeated in various sections in this table)	2.1
	Question related to climate change adaptation ^{vi} : - Have project-related physical climate risks been identified and addressed? - Is the Project consistent with national policies and commitments for the climate adaptation or resilience of the wider system in question and the context it operates? - Is the Project consistent with global sector-specific decarbonization pathways in line with the Paris Agreement mitigation goals, considering countries' common but differentiated responsibilities and respective capabilities? - Does the Project prevent opportunities to transition to Paris-aligned activities, OR primarily support or directly depend on non-aligned activities in a specific country/sectoral context?	4.6
Geology	Are there any active or potentially active faults or geologic characteristics that may trigger or result in surface fault ruptures, seismicity, earthquake ground shaking, liquefaction, landslides/mass wasting, uplift, subsidence, seiches or tsunamis, which could then pose risks to safety, the physical integrity of facilities, environmental resources, etc.?	2.6, 3.2, 3.3, 4.1, 4.2, 4.4
Soil Resources	What are the current and potential future uses of land in the project/operation's area of influence that may potentially be affected, or that have been affected, by current or past mining-related activities? Are there	3.2, 4.2

^{vi} https://equator-principles.com/app/uploads/Guidance-CCRA_May-2023.pdf

TOPIC	ISSUES	CHAPTER REF
	expansive soils in the ~~area of influence~~ that could pose risks to worker safety or the physical integrity of facilities?	
	How can the following potential sources of adverse impacts affect soil (including soil quality and the physical stability of soil) and/or current and potential future land uses: • Construction of mine facilities (e.g., open pits, ore heap and dump leach and waste storage facilities) and mineral processing facilities, land clearing, earthmoving, mine roads and other excavation and soil-disturbing activities; • Emergencies and major ~~accidents~~, including failure of facilities; • Waste management activities, including potential dispersion of contaminants from waste handling, storage, treatment, or disposal locations^{vii}; • Erosion of waste storage and disposal facilities and waste dumps; • The planned discharge and unplanned release of contaminants (e.g., in effluent, or from storage or waste facilities that hold fluids), that may have subsequent downstream/downgradient contact with soil resources; and • The emission, deposition and dispersion of airborne contaminants, dusts, and gases from mining-related activities.	2.1, 2.6, 4.1, 4.2, 4.3, 4.5
	Are there expansive soils in the ~~area of influence~~ that could pose risks to worker safety or the physical integrity of facilities?	4.2
	Will the proposed project/modification result in increased erosion and loss of topsoil?	2.6, 3.3, 4.4
	Are there any processes or activities that may result in air emissions and deposition that may affect soil quality, and subsequently pose a risk to fauna (including humans), flora or fungi?	3.3, 4.5, 4.4
	Are there any known hazardous chemicals or materials being used on site? Is there the potential for spills or releases of chemicals or hazardous materials that could affect soil quality?	4.1, 2.6
	Will the proposed project/modification affect soil resources that will require reclamation/remediation upon closure?	2.7
Ecosystems	Will the proposed project/modification affect ecosystems that will require restoration upon closure?	2.7
	Will the proposed project/modification affect ecosystems that support important global, national or local biodiversity?	4.4
	Will the proposed project/modification affect Key Biodiversity Areas?	4.4
	Will the proposed project/modification affect natural ecosystems or species that provide provisioning, regulating, cultural or supporting ecosystem services?	4.4, 3.3
	Might climate change exacerbate any of the risks/impacts on ecosystems?	2.1
Fauna	Are there potential direct impacts on fauna (i.e., any animals including insects, aquatic organisms, amphibians, mammals, birds, etc.) such as: • Disturbance, fragmentation or reduction/loss in species' populations or their habitats (e.g., from linear infrastructure, land clearing, road traffic, facilities, other drivers of fragmentation or degradation etc.);	4.4, 2.7

^{vii} For example, contaminant transport to soils via spills, release of treated effluents, erosion of waste disposal sites, surface runoff from sites, etc.

TOPIC	ISSUES	CHAPTER REF
	- Effects on health or behavior from air or water emissions/effluents, noise, traffic, etc. - Effects due to barriers to movement of wildlife or livestock (e.g., from fences, open pits, etc.) - Effects due to changes in surface hydrology, land forms, and coastal processes - Reduction in habitat, food or ecosystem services due to competition from invasive species - Edge effects - Spread of invasive alien species from proposed project or modification-related activities that may lead to impacts on native species	
	Are there potential indirect impacts on fauna such as:	4.4, 3.3, 2.7
	Increased impacts on wildlife resources (hunting, poaching and wildlife trade, spread of invasive alien species) from proposed project or modification-induced access by third parties or in-migration or land conversion	
	Are there potential cumulative impacts on fauna? For example:	2.1, 4.4
	- What is the extent to which the proposed project/modification might exacerbate any preexisting threats/impacts from other existing or planned^{viii} or developments (e.g., incremental impact of added traffic or infrastructure on migratory routes or wildlife movement or behavior or mortality) - What is the extent to which the proposed project/modification might exacerbate any threats/impacts to animal species' populations or habitats that already exist due to climate change (e.g., from changing precipitation levels or temperatures, sea level rise, saltwater inundation during storms, etc.)	
	Are any of the impacts on species that may be important to affected communities (for livelihoods/economic ventures, sustenance, etc.), or important in terms of biodiversity?	2.3, 2.5, 3.3, 4.4
	Will the proposed project/modification affect natural, modified or critical habitat critical habitat for aquatic or terrestrial fauna?	4.4
	Will the proposed project/modification affect any threatened or endangered species of aquatic or terrestrial fauna?	4.4
	Is there a potential that noise from facilities, blasting, equipment, machinery, vehicles may affect wildlife, especially during sensitive life periods such as during lactation or calving? ^{ix}	3.7
Flora and Fungi *	Are there potential direct impacts on flora (i.e., plants) or fungi (i.e., plants), such as: Degradation or loss in native species' populations or habitats (e.g., from land clearing, pollution, facility footprints, changes in surface hydrology,	3.3, 4.1, 4.3, 4.5, 4.4

^{viii} Those that are existing or planned or reasonably defined at the time the risks and impacts identification process is conducted.

^{ix} U.S. National Parks Service. 2014. Annotated Bibliography – Impacts of Noise on Wildlife. <https://www.nhsec.nh.gov/projects/2014-04/documents/150420pastoriza.pdf>

* Prior to 2015, fungal species were barely present on the IUCN Red List of Threatened Species. <https://www.mdpi.com/1424-2818/14/9/736>. As of June 2023, the Red List has 635 fungal species listed (as viewed under the "Taxonomy" tab. <https://www.iucnredlist.org/search>

TOPIC	ISSUES	CHAPTER REF
	land forms, and coastal processes; or from introduction and spread of invasive alien species from proposed project/modification activities)?	
	Are there potential indirect impacts on flora or fungi such as: • Spread of invasive alien species from proposed project- or modification-induced access by third parties or in-migration or land conversion • Use of these resources by third parties	2.7, 3.3, 4.4
	Are there potential cumulative impacts on native species of flora or fungi (in particular those that may be important to affected communities or important in terms of biodiversity)? • What is the extent to which the proposed project/modification might exacerbate any preexisting threats/impacts from other existing or planned^{xi} or developments (e.g., incremental impact of project-related vegetation clearing, or pollution, on the health or abundance of flora or fungi, etc.) • What is the extent to which the project might exacerbate any threats/impacts to plants of fungi species' populations or habitats that already exist due to climate change (e.g., from changing precipitation levels or temperatures, sea level rise, saltwater inundation during storms, etc.)?	3.3, 4.4
	Will the proposed project/modification affect natural, modified or critical habitat for aquatic or terrestrial flora or fungi?	4.4
	Will the proposed project/modification affect any threatened or endangered species of aquatic or terrestrial flora or fungi?	4.4
Protected Areas	Will the proposed project/modification affect the values being protected (e.g., cultural, geological, geomorphic, biological, biodiversity, ecosystems, ecological processes, habitats, species, landscapes, seascapes, scenic values, etc.) in any local, national, or internationally protected area?	4.4, 3.6 (for cultural)
Ecological processes	Will the proposed project/modification alter ecological processes such as: - Climatic processes - Space/time variability in primary productivity - Hydrological processes - Formation of biophysical habitats - Interactions between organisms - Movements of organisms - Natural disturbance regimes Will the proposed activities result in, or exacerbate, the following risk factors to ecological processes: - climate change (e.g. effects of global warming on regional temperature and rainfall); - degradation, fragmentation and loss of habitats (e.g. forest destruction, draining wetlands); - alterations to hydrological flows and reduction of aquatic connectivity (e.g. water extraction, dams, breakwaters and artificial channels); - nutrient and chemical additions to ecosystems (e.g. fertilizers, pesticides, insecticides);	4.4

^{xi} Those that are existing or planned or reasonably defined at the time the risks and impacts identification process is conducted.

TOPIC	ISSUES	CHAPTER REF
	- unsustainable harvesting of natural resources (e.g. exploitation of fish stocks, timber and other plant products beyond the rate of natural replacement); - impacts of introduced and invasive species.	

ANNEX 2.1-C: Rationale for Carrying or Not Carrying Out ESIA

Proposed projects/modifications will need to develop a defensible rationale for why a full, partial or no ESIA is warranted.

One possible approach has been developed by the International Finance Corporation (IFC).^{xii} The IFC (described below) uses a process of environmental and social categorization to reflect the magnitude of risks and impacts associated with investment projects and based on the category of risk, determines if a full or partial ESIA is warranted. IFC's approach is not intended to cover all possible investment scenarios or categorization variables; therefore, IFC stresses that the categorization will ultimately be the result of professional judgment.

Category A	Business activities with potential significant adverse environmental or social risks and/or impacts that are diverse, irreversible, or unprecedented.	A full ESIA is required. The project or modification's potential adverse and positive environmental impacts, compares them with those of feasible alternatives (including, the "without project" / "without modification" situation), and measures needed to prevent, minimize, mitigate or compensate for adverse impacts and improve environmental and social performance are recommended.
Category B	Business activities with potential limited adverse environmental or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.	The scope of ESIA for a Category B project may vary from project to project (or modification to modification), but it is narrower than what would be required for Category A. The project or modification's potential adverse and positive environmental and social impacts are examined, and measures needed to prevent, minimize, mitigate or compensate for adverse impacts and improve environmental performance are recommended.
Category C	Business activities with minimal or no adverse environmental or social risks and/or impacts.	Beyond screening, no further assessment action is required for a Category C project or modification.

^{xii} International Finance Corporation (IFC). 2012. "Interpretation Note on Environmental and Social Categorization." (Accessed 31 March 2023). <https://www.ifc.org/wps/wcm/connect/f873da60-4adf-4fa0-83ec-729227aa5511/Interpretation+Note+on+E+and+S+Categorization.pdf?MOD=AJPERES&CVID=mUtZ0yc>



Chapter 2.2

Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Major structural changes for greater auditability and consistency across the Standard.
- Updated names of some Sections for clarity and consistency throughout the Standard.
- Strengthened language of policy requirement and added new sub-requirement to ensure allocation of financial and staffing resources to implement this policy.
- Removed redundant requirement for identification of Indigenous Peoples, as this is now fully addressed in Chapter 1.2 (1.2.1.1) and Chapter 1.3 (1.3.2.3). This also ensures that if this Chapter is mistakenly marked “not relevant” during the self-assessment stage, the needed identification of whether Indigenous Peoples may be potentially affected or affected by the site is covered by requirements outside this chapter (on which the site will always need to provide supporting evidence, helping to flag the mistake).
- Several requirements restructured to increase clarity and auditability.
- Strengthened language and approach with regard to Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact, to ensure prevention of all harm and protection of these extremely vulnerable Indigenous Peoples whose lives and way of life is being threatened. Removed use of “voluntary isolation” term. The two relevant requirements are now critical requirements (as non-conformity would risk immediate harm).
- New requirement added to ensure that general stakeholder-engagement or public-consultation processes are never considered as an acceptable process for engagement with affected Indigenous Peoples unless Indigenous Peoples expressly and explicitly agree to that process.
- New requirement added with regard to the need for a dedicated process for affected Indigenous Peoples to determine how, when and in what formats information will be communicated to them, aligned with similar requirement for general community and stakeholder engagement (Chapter 1.2).
- Grievance mechanism requirement moved to Engagement Section for clarity and consistency.
- Clarified that generic grievance mechanism can only be used if affected Indigenous Peoples have expressly and explicitly approved it.
- Split Section 2.2.4 into two distinct Sections (one for remedy processes (2.2.5), and another for FPIC processes (2.2.6)) to increase clarity and auditability.
- Clarified cutoff date for applicability of Section 2.2.6–Respecting the Right to FPIC for Proposed Activities: June 2018, i.e. the release of the IRMA Standard V1.0 to be consistent with the approach taken by IRMA so far.
- Added endnote to flag potential challenges with attributing responsibilities for past harm.
- The expectations about entity’s provision of financial support to Indigenous Peoples during remedy processes (2.2.5.1.d) are clarified by re-stating that such process is “mutually-agreed” (as mentioned in 2.2.5.1).
- Added new optional IRMA+ requirement to remedy not only ongoing harm from activities implemented before June 2018 without FPIC, but also past unremediated harm (2.2.5.5).
- Clarified the need to inform members of Indigenous communities about the implementation of agreements.
- Clarified that (potential and actual) impacts on Indigenous Peoples indeed include those related to “associated facilities”.
- Added sub-requirement to ensure remedy agreements are not communicated as equivalent to FPIC.

- A new requirement was added to address situations where affected Indigenous Peoples do not wish to engage in a remedy process, or where no remedy agreement is reached; but later removed as it was identified as a circumstance that could not be considered as 'best practice'.
- Clarified that full FPIC process and consent is required where affected Indigenous Peoples identify impacts that do require FPIC.
- Clarified that implementation is assessed through the monitoring and evaluation of implementation and effectiveness.
- Moved clauses related to development of action plans into agreement processes and their respective Sections (for remedy: 2.2.5.2; for FPIC: 2.2.6.5).
- New requirements on joint investigation and resolution where a potential breach in FPIC agreement/s or new information that could change the outcome of the FPIC process/es is identified (2.2.6.7 and 2.2.6.8). They addressed situations when, under very specific conditions, affected Indigenous Peoples could withdraw their consent. This reflects latest guidance from SIRGE and is aligned with the UN FAO Guide on FPIC (2016) and the 2024 IFC's Approach to Responsible Exit.
- New requirement added to strengthen joint monitoring and evaluation processes, this is now harmonized throughout the Standard.
- "Ongoing engagement" Section refocused on Continuous Improvement.
- New requirement added (2.2.8.1) to close the Plan-Do-Check-Act loop to deliver continuous improvement (through regular reviews, updates and corrective actions/measures, informed by monitoring, evaluation, and review), this is now harmonized throughout the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback Received and Proposed Decision
2.2-01	(Representativeness of Indigenous decision-making structures) Question (first part): How might IRMA revise its standard to address the situations where 1) there is more than one decision-making structure that is considered legitimate by members of an affected population of Indigenous Peoples?	Feedback received: IRMA received comments from 16 organizations on this consultation question (5 mining, 4 NGOs, 3 Indigenous organizations, 1 Finance, 1 Law firm, 2 Consultancy firms). No consensus emerged for a practical way forward. Some commenters flagged the need to obtain consent from all the structures considered legitimate by members / sections of the Indigenous population. Others suggested requirement to engage with all and disclose the criteria used to determine levels of legitimacy; or to facilitate dialogue; or to require an outside, independent party (not the company or its consultants) to be the one to do the fieldwork to determine which structures are legitimate. One organization suggested to defer to the country of operation's recognized structures or subsets, but this not aligned with international norms and best practice. Proposed Decision: No substantial change to requirements. The requirement to engage with affected Indigenous Peoples and to follow their preferred processes and protocols has been strengthened, and relevant cross-references have been harmonized throughout the chapter. IRMA proposes to also develop additional Guidance, and have it reviewed by experts.

2.2-01	(Representativeness of Indigenous decision-making structures) Question (second part): How might IRMA revise its standard to address the situations where 2) where there is only one structure, but it is not considered legitimate by all members of the affected population of Indigenous Peoples?	Feedback received: IRMA received comments from 16 organizations on this consultation question (5 mining, 4 NGOs, 3 Indigenous organizations, 1 Finance, 1 Law firm, 2 Consultancy firms). No consensus emerged for a practical way forward. Some commenters flagged the need to understand context, and to respect affected Indigenous Peoples' right to choose their own representatives, noting that this would require adequate time. Some commenters recommended to require specific additional consultation with affected Indigenous Peoples; others to facilitate the establishment of an independent, inclusive, community-led decision-making structure recognition process; or to have a third-party carry out analysis to determine if additional engagements are necessary. One organization suggested to consider the one structure to be representative, but precedents indicate that this option should not be favored. Proposed Decision: No substantial change to requirements. The requirement to engage with affected Indigenous Peoples and to follow their preferred processes and protocols has been strengthened, and relevant cross-references have been harmonized throughout the chapter. IRMA proposes to also develop additional Guidance, and have it reviewed by experts.
2.2-02	(Expanding requirement for FPIC beyond Indigenous Peoples) Question: Do you think IRMA should expand the requirement for FPIC, or some subset of FPIC principles, beyond Indigenous Peoples? Put differently, do you think IRMA should require that entities obtain the FPIC of non-Indigenous Peoples prior to initiating a project? What is the basis for this opinion? And if you think that FPIC or a subset of FPIC requirements should apply beyond Indigenous Peoples, to whom should they apply and why (e.g., those with customary land rights, vulnerable land-connected peoples, historically underserved traditional local communities), and what sorts of requirements would you propose be included?	Feedback received: 22 responses received (6 from the mining sector, 5 from the NGO sector, 4 from Indigenous Rights organizations, 7 from other stakeholder groups). Results: 8 supportive, with conditions (e.g., different chapter, different nomenclature, some criteria needed). 10 not supportive to apply broadly (although some thought could expand definition of Indigenous, or that FPIC needed in certain contexts). 4 did not state a preference. Commenters provided many examples that enumerate where expert bodies have defined cases where this right is already conveyed under certain circumstances to various collectives (in most cases, very specific to a region or area), through their processes (legal, UN-level bodies); including ILO 169 and IAHR jurisprudence regarding when certain ethnic groups may be considered Indigenous Peoples, as well as when Afro-descendent and other customary land rights-holders might be considered Indigenous Peoples.

		Proposed Decision: No substantial change to requirements. The already wide and inclusive definition of <u>Indigenous Peoples</u> adopted by the IRMA Standard has been expanded to include the 2018 World Bank Guidance for the Borrower on the application of the Environmental and Social Standards ESS7 (see Glossary for full updated definition). Legal compliance with the country of operation's laws and regulations is still addressed in Chapter 1.1. IRMA proposes to also develop additional Guidance, and have it reviewed by experts.
2.2-03	(Identification of Indigenous Peoples' "rights and interests") Question: Are you aware of any sources that provide a definition or at least an explanation of what might constitute the <i>interests</i> of <u>Indigenous Peoples</u>? Is this something that IRMA should be concerned about? Or are the interests of <u>Indigenous Peoples</u> simply something that will be expressed during discussions with the ENTITY, and therefore not something that needs to be defined by IRMA?	Feedback received: There was no definition of "interests of <u>Indigenous Peoples</u>" identified by commenters, and the overwhelming opinion was that IRMA does not need to create a definition. However, there was also a desire expressed by some industry representatives for IRMA to provide some guidance on the topic, as the term is very broad and vague. The most common advice provided by commenters is that entities should see guidance from the potentially affected or affected <u>Indigenous Peoples</u> by asking them to elaborate on their interests related to a proposed (or ongoing) development. Proposed Decision: No change made. Throughout this Chapter, but also Chapter 2.2 on Human Rights Due Diligence, collaborative assessment of risk and impacts is paramount; meaning that companies are required to give <u>Indigenous Peoples</u> the central role of identifying how an ENTITY's operations and activities could negatively and/or positively impact their rights and interests. A process and reality that will be different in each context. IRMA proposes to develop additional Guidance, and have it reviewed by experts.
2.2-04	(Remedy process and agreement for past impacts of activities implemented without FPIC) Question: Until the IRMA Board approves changes to the standard (based on input gathered through global stakeholder consultations) IRMA is not making changes to critical requirements (for more on critical requirements see the note that accompanies 'Critical Requirements In This Chapter,' below). However, we would be interested in knowing if you believe this new requirement (formerly 2.2.4.1; now 2.2.5.1 in this new draft) should be critical. Why or why not?	Feedback received: 8 responses received, representing a mix of stakeholders (NGOs, practitioners, mining entities). Results: the majority (6) suggested that this be a critical requirement. However, no mining entities supported this position. Proposed Decision: Version 2.0 of the IRMA Standard is attempting to more fully integrate the notion of remedy, where impacts have occurred and have not been remediated. The best tool that we have for trying to move the needle on this issue is to make it a requirement for entities to make a good faith effort to understand the past and ongoing impacts and work with <u>Indigenous Peoples</u> to agree on appropriate remedies. The responses to various consultation questions suggest that most IRMA stakeholders agree that it is critical for entities that operate existing mines to make an effort to provide remedy for impacts from activities that are still ongoing but started without the Free, Prior, and Informed Consent of affected <u>Indigenous Peoples</u>, even if they did not cause them (e.g., they were caused by an



	exploration company, or previous owner). We believe that this aspect of the proposed new requirements in Section 2.2.5 (the effort to engage on remedy) is, in itself, a step forward compared to other standards, and will contribute to formalize and normalize the evolution of best practice in this field. We acknowledge that collaborating with Indigenous Peoples to address and remedy harm that was due to past impacts/activities undertaken without the FPIC of affected (or then-affected) Indigenous Peoples that are not occurring anymore (but harm that was never adequately remediated)- is not yet a widespread practice and still emerging. We want to encourage more companies to remediate such past impacts, and to do so in collaboration with Indigenous Peoples. This is why we have proposed an optional IRMA+ requirement that addresses these situations (2.2.5.5). However, from the responses it was also clear that this approach created concern that participation in a process and mutual agreement on remedy for past impacts would somehow be seen as conferring FPIC for existing operations. Thus, we have added a requirement that reaching a remedy agreement NOT be communicated publicly as meaning FPIC has been achieved [See 2.2.5.3.c] Based on various comments, and a review of the entire chapter flow, we are proposing: 1) To not make this requirement critical; and 2) To make some structural changes. In particular, we are proposing to clearly separate the Remedy Agreement process from the FPIC process by creating two separate Sections: - 2.2.5. Remedy for Impacts from Activities Implemented without FPIC before June 2018 - 2.2.6. Respecting the Right to FPIC for New Activities This resulted in repeating the content of two requirements under both Sections 2.2.5 and 2.2.6 (e.g., previously, the provision of experts for remedy process, and provision of experts for FPIC were in one requirement). However, this does not change the workload or general intent of the Chapter, and the expectations are more clear and easier to audit if they are included in both places.

2.2-05	(Remedy process and agreement for past impacts of activities implemented without FPIC) Question: There may be situations in which Indigenous Peoples do not wish to enter into or continue an agreement-making process. If this is the case, should the ENTITY just score 'does not meet' (i.e., zero) on this requirement (2.2.4.1)? Or could they get 'partially meets' or 'substantially meets' if they've made a good-faith effort even if no process is initiated due to Indigenous Peoples' decision not to participate or if Indigenous Peoples decide to terminate discussions?	Feedback received: 16 response received, representing a mix of stakeholders (NGOs, practitioners, mining entities). Results: Numerous respondents agreed that entities that tried to engage in good faith should receive some credit, but were mixed on how that might translate to a score. Several respondents were more focused on the outcome, and said that if remedy was not provided then it did not matter how hard the ENTITY tried, the requirement is not being met. And some argued that if Indigenous Peoples choose to not engage in a remedy process this means an operation does not have FPIC and should be shut down. Proposed Decision: See response to 2.2-04 above. There have been structural changes but no specific requirement added for this situation.

BACKGROUND

For more than a quarter century, the international community has recognized that heightened attention needs to be paid to the collective and individual rights of Indigenous Peoples and their members.²⁸¹ Acknowledging that an official definition of “Indigenous” has not been adopted by the United Nations system due to the diversity of the world’s Indigenous Peoples, IRMA enshrines a modern and inclusive understanding of “Indigenous” (see full definition in the Glossary). When Indigenous Peoples are identified among potentially affected rights-holders (e.g. through the human rights due diligence process, see Chapter 1.3), specifically designed processes must be agreed with Indigenous Peoples and followed. As described by the UN Special Rapporteur on the Rights of Indigenous Peoples: “A defining characteristic of Indigenous Peoples is the existence of their own institutions of representation and decision-making, and it must be understood that this feature makes consultations with Indigenous Peoples very different from consultations with the general public or from ordinary processes of State or corporate community engagement”.²⁸²

It is important to note that, while certain rights may require specific attention in the context of industrial-scale mineral development, the full range of human rights as they relate to Indigenous Peoples may be at stake in any given context and must be analyzed as such (see Chapter 1.3). That said, the following rights of Indigenous Peoples are especially but not exclusively relevant in relation to industrial-scale mineral development:²⁸³

- The right to self-determination, by virtue of which Indigenous Peoples freely determine their political status and pursue their economic, social, and cultural development;
- Rights to property, culture, religion, and non-discrimination in relation to lands, territories, and natural resources, including sacred places and objects;
- Rights to revitalize, use, develop and transmit to future generations their languages, oral traditions, writing systems and literatures;
- Rights to health and physical well-being in relation to a clean and healthy environment;
- Rights to set and pursue their own priorities for development; and
- The right to make authoritative decisions about external projects or investments.

It is the responsibility of both States and corporations to respect and protect Indigenous Peoples’ rights, including their fundamental right of Indigenous Peoples to Free, Prior, and Informed Consent (FPIC). Key elements of the right of Indigenous Peoples to FPIC have been recognized by international law since 1989, when the General Conference of the International Labour Organization (ILO) adopted Convention 169 on Indigenous and Tribal Peoples.²⁸⁴ Since 1989, FPIC has been widely recognized by international bodies, tribunals, and instruments, including private sector bodies, and it is also increasingly reflected in national laws, jurisprudence, and policies.²⁸⁵ In 2007, the UN General Assembly adopted the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) which restated existing international human rights obligations concerning Indigenous Peoples. UNDRIP explicitly provides for Indigenous Peoples’ right to FPIC as a procedural safeguard for the protection and realization of Indigenous Peoples’ rights, including their right to self-determination.

FPIC, in the context of this standard, requires that engagement with Indigenous Peoples be free from external manipulation, coercion and intimidation; that potentially affected Indigenous Peoples be notified that their consent will be sought, and that notification occur sufficiently in advance of commencement of any mining-related activities; that there be full disclosure of information regarding all aspects of the proposed mining project in a manner that is accessible and understandable to the Indigenous Peoples; and that Indigenous Peoples can fully approve, partially or conditionally approve, or reject a project or activity, and companies will abide by the decision.

It is important to note that Indigenous Peoples’ customary approaches to engagement may not always include participation of women, underserved and/or marginalized people within Indigenous communities. The UN Rapporteur on Indigenous Peoples has written that: “Indigenous Peoples should be encouraged to include appropriate gender balance within their representative and decision-making institutions. However, such gender balance should not be dictated or imposed upon Indigenous Peoples by states or

companies, any more than Indigenous Peoples should impose gender balance on them." Women, men, youth, elders, etc. may have different needs, priorities and interests that should be considered and factored into the company's understanding of the project's full impacts, and its own subsequent decision-making processes. It is recommended that any efforts undertaken by the company to find other ways of facilitating involvement of women, underserved and/or marginalized Indigenous Peoples be carried out in coordination with and/or through mutual agreement with the Indigenous Peoples' representative institutions (as suggested by the UN Rapporteur, above, under no conditions should a company impose such processes on Indigenous Peoples).

The chapter uses the term **affected Indigenous Peoples** to refer to all Indigenous Peoples (individuals and groups, other than those uncontacted, living in voluntary isolation or in initial contact) whose rights or interests may be directly or indirectly affected by the ENTITY's mining-related activities. IRMA recognizes that there may be peoples for whom this chapter applies who prefer to use other terms such as tribal, aboriginal, First Nations, Adivasi, etc., but who have the right to FPIC according to international and/or in-country laws. For the purposes of interpreting this standard IRMA uses the full inclusive definition presented in the Glossary, which is directly adapted from guidance published by the United Nations Permanent Forum on Indigenous Peoples and from guidance published by the World Bank.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- United Nations Declaration on the Rights of the Indigenous Peoples, 2007
- ILO Convention C169 on Indigenous and Tribal Peoples, 1989
- IFC Performance Standard 7: Indigenous Peoples, 2012
- World Bank Guidance for the Borrower on the application of the Environmental and Social Standards (ESSs) ESS7: Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities, 2018
- IFC's Approach to Responsible Exit, 2024
- Cultural Survival, First Peoples Worldwide, SIRGE Coalition Securing Indigenous Peoples' Right to Self-determination: A Guide on Free, Prior and Informed Consent, 2023
- UN FAO, Free Prior and Informed Consent: An Indigenous Peoples' right and a good practice for local communities – Manual for Project Practitioners, 2016

OVERLAP WITH COUNTRY OF OPERATION’S LAWS

The State always holds the primary duty to protect Indigenous Peoples’ rights.²⁸⁶ Nothing in this chapter is intended to reduce the primary responsibility of the state to consult with Indigenous Peoples in order to obtain their FPIC and protect their rights. IRMA recognizes that in the exercise of their right to self-determination, some Indigenous Peoples may wish to engage with entities such as exploration or mining companies even if the state failed to fulfill its obligations. It is important to note, in such engagements, the need for the ENTITY to adhere to Indigenous Peoples’ own laws/enactments, protocols, or policies where these exist (see requirements 2.2.4.1 and 2.2.6.1). In all cases, all entities need to conduct a review and evaluation process to understand if the state carried out this duty, in conformance with the FPIC requirements articulated in the IRMA Standard, prior to granting land access or concession rights (see Section 2.2.3), and share this with the Indigenous Peoples so that they can make an informed decision regarding whether or not to proceed with discussions with the ENTITY.

As per Chapter 1.1, if country of operation’s laws related to FPIC exist, entities must abide by those laws. Additionally, where country of operation’s laws require or enable agreements between entities and Indigenous Peoples, entities will need to demonstrate to IRMA auditors that the process whereby the agreement was reached conformed with or exceeded IRMA FPIC requirements and met the general intent of this chapter (for example, there was no express or implied threat to invoke compulsory powers if agreement could not be reached, and Indigenous communities were informed at the outset that the ENTITY would not pursue proposed activities in the absence of the Indigenous Peoples’ consent), and also that consent was given for the range of activities and operations that are proposed or ongoing. If gaps exist between what the national laws/processes require and the IRMA chapter, the ENTITY will be expected to implement additional measures, to the extent legally possible, to fill those gaps.

OBJECTIVES OF THIS CHAPTER

To demonstrate respect for the dignity, aspirations, cultures, livelihoods, and rights (including the right to free, prior and informed consent) of Indigenous Peoples.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. However, when the stakeholders and rights-holders scoping and mapping processes required in Chapters 1.2 and 1.3 demonstrate the total absence of (directly and indirectly) affected or potentially affected Indigenous Peoples (for the range of relevant individuals and groups, see full definition in the Glossary), this Chapter 2.2 will not be applicable.

For mines, processing operations, and any associated facilities that became operational **before June 2018** (i.e. release of the IRMA Standard V1.0) and where FPIC was not obtained in the past, Entities are required to demonstrate conformance with Section 2.2.5–Remedy for Impacts from Activities Implemented without FPIC (before June 2018), but Section 2.2.6–Respecting the Right to FPIC for New Activities is not applicable. Section 2.2.6–Respecting the Right to FPIC for New Activities is applicable to all activities and associated facilities that were planned to, or are proposed to, become operational **after June 2018**. This cutoff date is consistent with the approach that IRMA has been taking so far.

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are four (4) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are two (2) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Remedy for Impacts from Activities Implemented without FPIC before June 2018:

This was an expectation of the 2018 IRMA Standard for Responsible Mining V1.0, but only mentioned in the 'Scope of application' section and not actually transposed in auditable requirements. This has resulted in a lack of audit and assessment of the actions and agreements related to the Remedy for past and/or ongoing impacts from activities implemented without FPIC. These requirements (2.2.5.1 to 2.2.5.4) are signaled with an 'eye icon' to ensure that IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not 'optional' (unlike IRMA+).

Potential breach or violation of FPIC agreement/s and emergence of new information likely to change the outcome of FPIC process/es:

Requirement 2.2.6.7 reflects the ongoing nature of FPIC and frame how best can companies prepare and respond to the situations when, under very specific conditions, affected Indigenous Peoples would withdraw their consent. This is aligned with latest guidance from SIRGE, the 2016 UN FAO Guide on FPIC, and the 2024 IFC's Approach to Responsible Exit.

This requirement was not included in the 2018 IRMA Standard for Responsible Mining V1.0. This requirement (2.2.6.7) is signaled with an 'eye icon' to ensure that IRMA closely monitor its relevance, and its implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that this requirement is not 'optional' (unlike IRMA+).



IRMA Requirements

2.2.1 Formalized Policy²⁸⁷

E1 E2 E3 D M P

2.2.1.1 The ENTITY has a formal policy in place that:

- a. Commits to respect Indigenous Peoples' rights related to lands, territories and resources, self-determination, and to Free, Prior and Informed Consent (FPIC) as set out in international law and policy frameworks including those affirmed in the ILO Indigenous and Tribal Peoples Convention²⁸⁸ and the UN Declaration on the Rights of Indigenous Peoples²⁸⁹;
- b. Sets clear expectations for how personnel, contractors, and other relevant parties²⁹⁰ linked to the site and its associated facilities shall respect these fundamental rights;
- c. Is approved at the top management level of the ENTITY;
- d. Is proactively communicated to personnel, contractors, and other relevant parties²⁹¹ linked to the site and its associated facilities;
- e. Is publicly accessible; and
- f. The ENTITY has allocated financial and staffing resources to implement this policy at the level of the site.

2.2.2 Uncontacted Indigenous Peoples and Indigenous Peoples Living in Voluntary Isolation or in Initial Contact

2.2.2.1 Critical Requirement

If Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact have been identified (as per 1.3.2.3) as being potentially present in the area of influence and/or affected by the site and its associated facilities, the ENTITY does not initiate or make contact with any of them²⁹².

2.2.2.2 Critical Requirement

If Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact have been identified (as per 1.3.2.3) as being potentially present in the area of influence and/or affected by the site and its associated facilities:

- a. The ENTITY consults with relevant Indigenous Peoples' organizations or bodies if they exist²⁹³, and with external experts²⁹⁴, to determine if the ENTITY's current, past, or proposed mining-related activities are affecting or may affect the rights or territories of those Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact²⁹⁵;
- b. If **existing** impacts on their rights or territories are identified, the ENTITY immediately halts all relevant activities and removes all infrastructure impacting their rights or territories, and it consults with representative bodies for Indigenous Peoples, and external experts, to determine the appropriate remedial measures to rehabilitate impacted areas and safeguard the health, safety and existence of the affected peoples, and implements their recommendations;
- c. If **past** impacts on their rights or territories are identified (and are no longer occurring), the ENTITY consults with representative bodies for Indigenous Peoples, and external experts, to determine the appropriate remedial measures to rehabilitate impacted areas and safeguard the health, safety and existence of the affected peoples (which may in some cases be the cessation of operations and/or removal of infrastructure), and implements their recommendations; and
- d. If **proposed activities** may affect their rights or territories, the ENTITY redesigns the project to avoid all such impacts, or, if avoidance is not possible, ceases to pursue the proposed activities.

2.2.3 Review and Evaluation of State Obligations²⁹⁶

2.2.3.1 If Indigenous Peoples whose rights or interests have been or may be directly or indirectly affected by the site and its associated facilities have been identified as per 1.2.1.1. and 1.3.2.3, a legal review process is conducted by competent professionals to understand and review the country of operation's laws and processes that pertain to Indigenous Peoples' rights, through:

- Documenting all country of operation's laws and regulations related to the identification and/or official recognition of Indigenous Peoples, to the recognition of their rights, and to the protection of those rights;
- Documenting all country of operation's laws and regulations pertaining to Free, Prior, and Informed Consent (or similar²⁹⁷) and State-led FPIC and/or consultation processes associated with mineral development;
- If such laws or processes are in place (b.), summarizing the State's implementation of the process/es followed when granting access to the mineral resources or lands that are proposed (or being used) by the ENTITY for the site and its associated facilities;
- Evaluating to what extent the content and implementation of those laws and processes (b. and c.) comply with international Indigenous rights norms, and with relevant regional and national jurisprudence; and
- Documenting whether the country of operation's laws (or their absence), or implementation of its laws (or lack of implementation), have been challenged or critiqued by Indigenous Peoples' organizations or communities, or others as not being aligned with international law and/or internationally-recognized human rights including those affirmed in the ILO Indigenous and Tribal Peoples Convention and the UN Declaration on the Rights of Indigenous Peoples.

2.2.3.2 The ENTITY makes and maintains publicly accessible, and in appropriate Indigenous language(s), key findings of this legal review process.

2.2.3.3 If findings of this review process reveal that the country of operation's government failed to fulfill its duty to obtain the FPIC of affected Indigenous Peoples prior to granting access to mineral resources or lands for mineral development (proposed or already in operation), or reveal that the FPIC process did not conform with all IRMA FPIC-related requirements and/or FPIC was not given for the full range of relevant activities and associated facilities, but the ENTITY still decides to proceed/continue with project/operation:

- The ENTITY makes and maintains publicly accessible, and in appropriate Indigenous language(s), a justification for proceeding/continuing with the project/operation;
- The ENTITY ensures that all affected Indigenous Peoples and their advisors (where applicable) are provided with such justification to proceed/continue, in accordance with requirement 2.2.4.2; and
- If the project/operation is proposed to become operational after June 2018, the ENTITY collaborates with affected Indigenous Peoples to conduct an FPIC process and respect the right to FPIC for the project/operation, in accordance with Section 2.2.6²⁹⁸; and
- If the operation became operational before June 2018, the ENTITY collaborates with affected Indigenous Peoples to provide remedy for the impacts related to those activities implemented without FPIC, in accordance with Section 2.2.5.

2.2.4 Meaningful Engagement with Indigenous Peoples

2.2.4.1 Critical Requirement

If Indigenous Peoples (other than those Uncontacted or Living in Voluntary Isolation or in Initial Contact) whose rights or interests may be directly or indirectly affected by the site and its associated facilities have been identified as per 1.2.1.1. and 1.3.2.3:

- The ENTITY collaborates with affected Indigenous Peoples' representatives to determine if they have an autonomous consultation and/or engagement protocol (or equivalent) in place that outlines rules of engagement for outside actors;
- If such protocol is in place, the ENTITY follows the protocol;
- If no such protocol exists, the ENTITY consults with affected Indigenous Peoples' representatives on their preferred rules of engagement, and documents, in a manner agreed to by affected Indigenous Peoples' representatives, the mutually-agreed engagement process to be followed;
- If there is more than one distinct group of affected Indigenous Peoples²⁹⁹, the ENTITY follows the engagement process agreed to by their representatives (whether they request to be included in coordinated or in separate engagement processes); and
- The ENTITY has a system in place to ensure that general stakeholder-engagement or public-consultation processes³⁰⁰ are never considered as an acceptable process for engagement with affected Indigenous Peoples unless they expressly and explicitly agree to.

2.2.4.2 The Entity collaborates, in appropriate Indigenous language/s, with a diversity of members and representatives of affected Indigenous Peoples to identify:

- How, when and in what formats relevant information³⁰¹ will be shared with them to ensure that communications and information-sharing with affected Indigenous Peoples occurs in a manner that is deemed meaningful and usable by them³⁰²;
- Also in a manner that is deemed culturally appropriate and easily accessible by them³⁰³;
- Also in a manner that is deemed timely by them³⁰⁴. When information cannot be shared in a timely manner, the ENTITY systematically provides affected Indigenous Peoples with a documented justification or explanation for the delay; and
- This collaborative identification is inclusive of different genders, ages, and any potentially underserved and/or marginalized people, and includes all distinct groups (if applicable).

2.2.4.3 The ENTITY proactively shares with directly and indirectly affected Indigenous Peoples, in accordance with requirement 2.2.4.2:

- Its Indigenous Peoples' policy (2.2.1), and Indigenous Peoples are aware of the ENTITY's commitment to respect the right of Indigenous Peoples to FPIC;
- Up-to-date information about its proposed, ongoing and past activities and associated facilities, as relevant; and
- Up-to-date information about the potential human rights, environmental and social impacts of any proposed activities and associated facilities, and/or the actual impacts related to past and existing activities and associated facilities.



2.2.4.4 Through a mutually-agreed process (see 2.2.4.1), the ENTITY collaborates with a diversity of members and representatives of affected Indigenous Peoples to:

- a. Identify all affected Indigenous Peoples' rights³⁰⁵ and interests that may **potentially** be affected by proposed activities, **are being** affected by ongoing activities, and/or **have been** affected by past activities and have not yet been remediated, building on the Indigenous rights scoping process required in requirement 1.3.2.3;
- b. Identify additional studies or assessments needed to determine the range and degree of potential or actual impacts on affected Indigenous Peoples' rights and interests, **identify how and by whom such additional information will be gathered, and conduct these additional studies or assessments accordingly;**
- c. Identify if there are capacity, accessibility, and/or financial issues that may prevent full and informed participation of affected Indigenous Peoples in any of those additional studies and assessments (b.);
- d. Identify if there are capacity and/or financial issues that may prevent full and informed participation of affected Indigenous Peoples in any remedy and/or in FPIC processes;
- e. Identify if there are capacity and/or financial issues that may prevent the participation of women, youth, persons with disabilities, and potentially underserved and/or marginalized people³⁰⁶ from the community, and from all distinct groups (if applicable), in ongoing engagement processes³⁰⁷;
- f. Design and implement plans, in the manner preferred by Indigenous Peoples³⁰⁸, to address any identified capacity, accessibility, and financial needs, including through the provision of funding and/or other financial support to affected Indigenous Peoples in a manner agreed to by them³⁰⁹; and
- g. These collaborative identification and design processes are inclusive of different genders, ages, and any potentially underserved and/or marginalized people, and includes all distinct groups (if applicable).



2.2.4.5 The ENTITY collaborates with affected Indigenous Peoples to develop and implement a grievance mechanism (or mechanisms) specific to Indigenous Peoples through which affected Indigenous Peoples can raise, and seek resolution or remedy for, complaints and grievances related to the site, its associated facilities, and the ENTITY's actions, as follows:

- a. A grievance mechanism through which affected Indigenous Peoples, including Indigenous Rights Defenders, can raise, and seek resolution or remedy for, complaints and grievances related to the site, its associated facilities, and the ENTITY's actions is in place;
- b. This grievance mechanism (or mechanism) is rights-compatible³¹⁰;
- c. This mechanism (or mechanisms) allows for both individual and collective/group complaints or grievances to be filed and addressed;
- d. **Members of affected Indigenous Peoples' communities have been informed about the existence and functioning of this grievance mechanism (or mechanisms), as well as of other relevant mechanisms³¹¹;**
- e. If the operational-level grievance mechanism developed as per Chapter 1.6 is to be used for this purpose, the ENTITY does so only with the express and explicit approval of affected Indigenous Peoples, **the Entity fully meets all requirements in Chapter 1.6**, and that mechanism's procedures are reviewed, revised if necessary, and agreed to by affected Indigenous Peoples; and
- f. **If a separate mechanism is created to handle only complaints and grievances related to human rights, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.**



2.2.5 Remedy for Impacts from Activities Implemented without FPIC before June 2018



2.2.5.1 At operations where the FPIC of affected Indigenous Peoples was not previously obtained (either by the ENTITY or a prior owner/operator) for any mining-related activity and/or associated facility³¹² that became operational before June 2018 and where there are any unremediated impacts that are continuing to affect the rights or interests of those affected Indigenous Peoples (as identified per 2.2.4.4, and hereafter referred to as '**ongoing unremediated impacts**')

- a. The ENTITY develops, in collaboration with affected Indigenous Peoples and in accordance with requirement 2.2.4.1, a mutually-agreed **remedy process** (or equivalent) to discuss/negotiate the measures that will be taken to provide remedy³¹³ for any **ongoing** unremediated impacts identified as per 2.2.4.4.a, and any applicable terms and conditions;
- b. If there are impacts on specific individuals, the process includes input from and remedy for these directly affected individuals;
- c. The ENTITY, in collaboration with affected Indigenous Peoples' representatives, takes specific action to facilitate the participation of potentially underserved and/or marginalized people³¹⁴ from the community, and from all distinct groups (if applicable);
- d. The ENTITY provides funding to affected Indigenous Peoples, in a manner agreed to by them³¹⁵, to select and hire technical and/or legal advisors of their own choosing to support them during this mutually-agreed remedy process (or equivalent);
- e. The process is documented.



2.2.5.2 If this process results in mutual agreement to remediate ongoing unremediated impacts, a draft agreement (or agreements) containing the measures, terms and conditions reached during negotiations is prepared by competent professionals in collaboration with affected Indigenous Peoples' representatives, as follows:

- a. It includes the mutually-agreed measures to be taken to prevent, and where prevention is not possible or not immediately possible, to mitigate and remediate, ongoing unremediated impacts on affected Indigenous Peoples' rights and interests, and the mutually-agreed measures to be taken to deliver sustained positive benefits to affected Indigenous Peoples;
- b. It includes the mutually-agreed implementation schedule, and details on how implementation and effectiveness will be monitored and evaluated³¹⁶;
- c. It includes details on the mutually-agreed process for the parties to resolve any future disputes³¹⁷;
- d. It includes a financing plan to ensure that funding is available for effective implementation;
- e. Members of affected Indigenous Peoples' communities are provided an opportunity to review and verify that the draft agreement's terms and conditions³¹⁸ reflect what was understood by them during negotiations; and
- f. Once, and only once the draft agreement has been reviewed and verified (e.), it is formally approved (signed or otherwise validated) by affected Indigenous Peoples' representatives and the Entity's top management.



2.2.5.3 Once the agreement has been formally approved by all parties (as per 2.2.5.2), the ENTITY:

- a. Prior to any implementation, proactively informs members of the affected Indigenous Peoples' communities of the mutually-agreed remedy agreement (or agreements) that is to be implemented, unless affected Indigenous Peoples' representatives explicitly request otherwise;
- b. Documents, in a manner agreed to by affected Indigenous Peoples, the implementation and outcomes of the remedy agreement (or agreements), and proactively shares this information with affected Indigenous Peoples, in accordance with requirement 2.2.4.2; and
- c. Neither states nor implies in any public communications that a mutually-agreed remedy agreement constitutes, or is the equivalent of, the FPIC of affected Indigenous Peoples for any past, current, or future activities.



2.2.5.4 In a manner agreed to by affected Indigenous Peoples, the ENTITY:

- a. Publicly reports on the process that was followed to obtain agreement on remedy measures;
- b. Publicly reports on the implementation and outcomes of the mutually-agreed remedy agreement; and
- c. Makes and maintains publicly accessible the final agreement reviewed and formally approved (signed or otherwise validated) by affected Indigenous Peoples' representatives.



2.2.5.5 **IRMA+**

At operations where **past** activities that affected the rights or interests of Indigenous Peoples are unremediated (as identified per 2.2.4.4), the ENTITY collaborates with Indigenous Peoples' representatives to support them in:

- a. Identifying an independent body that could establish and/or lead remedy or reconciliation processes, transitional justice or other relevant mechanisms to address these past unremediated impacts;
- b. Facilitating the participation of potentially underserved and/or marginalized people³¹⁹ from the Indigenous community, and from all distinct groups (if applicable), in such processes; and
- c. Providing funding to those affected Indigenous Peoples, in a manner agreed to by them, to select and hire technical and/or legal advisors of their own choosing to support them during such processes.



2.2.6 Respecting the Right to FPIC for New Activities³²⁰



- 2.2.6.1** If any mining-related activity and/or associated facility (for new projects or at existing operations³²¹) planned to, or proposed to, become operational after June 2018 may result in new or increased impacts on the rights or interests of affected Indigenous Peoples:
- The ENTITY collaborates with affected Indigenous Peoples' representatives to determine if they have an autonomous FPIC protocol (or equivalent) in place for respecting their FPIC for proposed activities;
 - If such protocol is in place, the ENTITY follows the protocol unless changes are agreed by affected Indigenous Peoples;
 - If no such protocol exists, the ENTITY consults with affected Indigenous Peoples' representatives and support them to develop, document, and implement a process, in their preferred manner, that aligns with the internationally-recognized dimensions of the right to FPIC³²²; and
 - If there is more than one distinct group of affected Indigenous Peoples (e.g., nation, population) that may be affected by the ENTITY's mining-related activities, each is included in an FPIC process as agreed to by their representatives (whether they request to be included in coordinated or in separate FPIC processes); and
 - The ENTITY provides funding to affected Indigenous Peoples, in a manner agreed to by them³²³, to select and hire technical and/or legal advisors of their own choosing to support them during each FPIC process.



- 2.2.6.2** In all cases (b. or c.), each **FPIC process** for mining-related activities and/or associated facilities (for new projects or at existing operations) planned to, or proposed to, become operational after June 2018 that may result in new or increased impacts on the rights or interests of affected Indigenous Peoples:
- Outlines any affected Indigenous Peoples' customs and protocols to be respected, and specifies the decision-making processes of the respective parties;
 - Includes discussions on potential impacts of those proposed mining-related activities and/or associated facilities;
 - Includes negotiations/discussions on measures that could be taken to prevent, and where prevention is not possible or not immediately possible, to mitigate and to remediate, adverse impacts on affected Indigenous Peoples' rights and interests;
 - Includes negotiations/discussions on measures that could be taken to deliver sustained positive benefits to Indigenous Peoples;
 - Includes negotiations/discussions on the conditions under which affected Indigenous Peoples may (or may not) withdraw or revoke consent, and includes the conditions under which the ENTITY may (or may not) request renewal of discussions if the process fails to result in consent for proposed activities or associated facilities;
 - Includes specific actions, developed in collaboration with affected Indigenous Peoples' representatives, to facilitate the participation of potentially underserved and/or marginalized people³²⁴ from the community; and
 - The process is documented.

2.2.6.3 Critical Requirement

If the FPIC process (or processes) results in identification by affected Indigenous Peoples that any mining-related activity and/or associated facility (for new projects or at existing operations³²⁵) planned to, or proposed to, become operational after June 2018 may result in new or increased impacts on their rights or interests, the ENTITY pursues the proposed activities **only if has obtained** the free, prior, and informed consent of affected Indigenous Peoples³²⁶.

2.2.6.4 If the FPIC process (or processes) results in mutual agreement that led affected Indigenous Peoples to give their free, prior, and informed consent for the proposed mining-related activity and/or associated facility, a **draft agreement** (or agreements) containing the terms and conditions reached during negotiations is prepared by competent professionals in collaboration with affected Indigenous Peoples, as follows:

- a. It includes the mutually-agreed measures to be taken to prevent, and where prevention is not possible or not immediately possible, to mitigate and remediate, potential and actual adverse impacts on affected Indigenous Peoples' right and interests, and the mutually-agreed measures to be taken to deliver sustained positive benefits to affected Indigenous Peoples;
- b. It includes the mutually-agreed implementation schedule, and details on how implementation and effectiveness will be monitored and evaluated³²⁷;
- c. It includes details on the mutually-agreed process for the parties to resolve any future disputes³²⁸;
- d. It includes a financing plan to ensure that funding is available for effective implementation;
- e. Members of affected Indigenous Peoples' communities are provided an opportunity to review and verify that the draft agreement's terms and conditions³²⁹ reflect what was understood by them during negotiations; and
- f. Once, and only once the draft agreement has been reviewed and verified (e.), it is formally approved (signed or otherwise validated) by affected Indigenous Peoples' representatives and the ENTITY's top management.

2.2.6.5 Once the agreement has been formally approved by all parties (as per 2.2.6.4), the ENTITY:

- a. Prior to any implementation, proactively informs members of the affected Indigenous Peoples' communities of the mutually-agreed remedy agreement (or agreements) that is to be implemented, unless affected Indigenous Peoples' representatives explicitly request otherwise;
- b. Takes specific measures, in collaboration with affected Indigenous Peoples' representatives, to facilitate the participation of women, youth, persons with disabilities, and potentially underserved and/or marginalized people³³⁰ from the community, and from all distinct groups (if applicable), in the implementation of this agreement (or agreements); and
- c. Documents, in a manner agreed to by affected Indigenous Peoples, the implementation and outcomes of this FPIC agreement (or agreements), and proactively shares this information with affected Indigenous Peoples, in accordance with requirement 2.2.4.2.



2.2.6.6 In a manner agreed to by affected Indigenous Peoples, the ENTITY:

- Publicly reports on the process (or processes) that was followed to obtain the free, prior, and informed consent of affected Indigenous Peoples;
- Publicly reports on the implementation and outcomes of the mutually-agreed FPIC agreement (or agreements); and
- Makes publicly accessible the final FPIC agreement (or agreements) reviewed and formally approved (signed or otherwise validated) by affected Indigenous Peoples' representatives.



2.2.6.7 The ENTITY has a system in place to ensure that, if affected Indigenous Peoples³³¹ or credible sources of information indicate a possible breach or violation of the FPIC agreement/s by the ENTITY, or indicate the existence of new information that affected Indigenous Peoples should have had when making their decision, mutually-agreed competent professionals collaborate with affected Indigenous Peoples and the ENTITY to:

- Jointly determine the existence and nature of such breach or violation, and/or the significance of such new information and its likelihood to change the outcomes of the FPIC process/es;
- Establish a resolution mechanism to remedy any harm done, and where necessary to modify, suspend or terminate the activities or facilities for which consent would be withdrawn; and
- Provide, if required, funding to affected Indigenous Peoples, in a manner agreed to by them, to select and hire technical and/or legal advisors of their own choosing to support them during this joint investigation and resolution mechanism.



2.2.6.8 **IRMA+**

The ENTITY has a system in place to ensure that, if affected Indigenous Peoples³³² or credible sources of information indicate a possible breach or violation of the FPIC agreement/s by the ENTITY, or indicate the existence of new information that affected Indigenous Peoples should have had when making their decision:

- As a precautionary measure, the ENTITY immediately suspends the activities or facilities for which the validity of the FPIC process/es may be affected, while the joint investigation and resolution mechanism is established and ongoing (see 2.2.6.7);
- Where the joint investigation and resolution mechanism results in consent being withdrawn, the ENTITY takes steps to prevent or mitigate the impacts of the suspension or termination of the activities or facilities for which consent is withdrawn, including through the implementation of all relevant closure and post-closure measures required in Chapter 2.7; and
- The ENTITY provides reasonable notice to all relevant stakeholders and business partner/s.

2.2.7 Monitoring and Evaluation

2.2.7.1 To monitor and evaluate the implementation and effectiveness of remedy and/or FPIC agreements, the ENTITY collaborates with affected Indigenous Peoples to:

- Regularly track and document implementation progress of any remedy and/or FPIC agreements, over successive time periods, in the manner defined and validated by affected Indigenous Peoples (see 2.2.5.2.b and/or 2.2.6.4.b);
- Regularly track and document how the measures developed and implemented as per 2.2.5.2 and 2.2.6.4 are effectively preventing, and where prevention is not possible or not immediately possible, mitigating and remediating adverse impacts on affected Indigenous Peoples' rights and interests; and
- Regularly track and document how the measures developed and implemented as per 2.2.5.2 and 2.2.6.4 are effectively delivering sustained positive benefits to affected Indigenous Peoples.

2.2.7.2 The monitoring and evaluation process:

- Encourages and facilitates joint tracking or joint fact-finding with affected Indigenous Peoples, in a manner that is inclusive of different genders, ages, and any potentially underserved and/or marginalized people from the community, and from all distinct groups (if applicable);
- Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected Indigenous Peoples;
- Includes continuous stakeholder feedback on the timeliness, accessibility, inclusiveness, and cultural appropriateness of information-sharing (see 2.2.4.2); and
- Includes safeguards to protect the security and privacy of collected personal data or characteristics of affected Indigenous Peoples³³³.

2.2.8 Continuous Improvement

2.2.8.1 At least twice a year, or more frequently if requested by affected Indigenous Peoples, the ENTITY collaborates with them to:

- Review the monitoring and evaluation results, informed by internal and external feedback, as per Section 2.2.7;
- Review any Indigenous-rights-related grievances and the functioning of its relevant grievance mechanism/s required in 2.2.4.5 (see also Section 1.6.4);
- Review the ENTITY's effectiveness in preventing, and where prevention is not possible or not immediately possible, mitigating and remediating adverse impacts on affected Indigenous Peoples' rights and interests, and in delivering sustained positive benefits to affected Indigenous Peoples, informed by the monitoring and evaluation required in 2.2.7.1 and 2.2.7.2;
- Develop and implement time-bound corrective measures to update, if necessary³³⁴, how, the ENTITY engage with affected Indigenous Peoples, in accordance with Section 2.2.4;
- Develop and implement time-bound corrective measures to update, if necessary³³⁵, the remedy and/or FPIC agreements, in accordance with Sections 2.2.5 and 2.2.6;
- Develop and implement time-bound corrective measures to update, if necessary³³⁶, the monitoring and evaluation processes, in accordance with Section 2.2.7.

CROSS REFERENCES TO OTHER CHAPTERS

Chapter	Requirements
1.2 – Community and Stakeholder Engagement	1.2.1.1 requires the identification of whether Indigenous Peoples may be affected or potentially-affected by the project/operation, directly and/or indirectly, and if there is more than one distinct group of Indigenous Peoples (e.g., nation, population).
1.3 – Human Rights Due Diligence	Building on Chapter 1.2, 1.3.2.3 requires the detailed identification and mapping of the rights of all Indigenous rights-holders potentially affected by the site. The process should include consultations with relevant Indigenous Peoples' organizations or bodies, if they exist, and external experts and credible independent sources of information to determine if there are any potentially affected Indigenous Peoples who have not been identified by the ENTITY, and to determine if there are any Uncontacted Indigenous Peoples and/or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact who may be present in the area of influence and/or affected by the project/operation. Besides 1.3.2.3, the whole chapter is based on a required identification of potential human rights risks and impacts related to the site and associated facilities, informed by a review of all the issues listed in Annex 1.3 that includes the Rights of Indigenous Peoples and cultural heritage of Indigenous Peoples.
1.4 – Upstream and Downstream Sustainability Due Diligence	The whole chapter is based on a required identification of potential human rights risks and impacts related to the Entity's suppliers and customers, informed by a review of all the issues listed in Annex 1.3 that includes the Rights of Indigenous Peoples and cultural heritage of Indigenous Peoples.
2.1 – Environmental and Social Impact Assessment and Management	2.1.2.3 is a direct cross-reference to Chapter 2.2, to ensure a site that potentially affect Indigenous Peoples cannot obtain a full score if it has not fully met all the critical requirements of Chapter 2.2. 2.1.3.6 requires the draft initial Environmental and Social Impact Assessment (ESIA) to be made and maintained publicly accessible, in relevant languages, including in Indigenous languages if applicable. Section 2.1.8 requires systems to ensure that traditional knowledge, and especially traditional ecological knowledge, of local affected communities, and Indigenous rights-holders if applicable, is integrated into the initial ESIA, baseline data collection, risks and impact assessment, monitoring and evaluation, review and continuous improvement processes, and ongoing EIA process.
2.3 – Gender Equity, and Sexual and Gender-Based Violence	In this chapter, the entity is required to conduct an intersectional gender impact assessment to identify, assess, and manage, potential positive and negative impacts on people of different genders, identities and abilities, from the ENTITY's mining-related activities. This requires applying an intersectional lens that integrates the Intersectional factors of discrimination and marginalization listed in Table 2.3-B. This table includes the Indigenous status. 2.3.4.1.c also explicitly requires analyzing the differential risks and impacts on People of different genders, ages, ethnicities, and Indigenous status (if relevant).
2.5 – Land Acquisition, Displacement, and Resettlement	2.5.1.1 requires a land acquisition review process to identify and document whether there was any physical or economic displacement of Indigenous Peoples from lands acquired by/for the project/operation by the ENTITY, prior owner/s, or government in the case of government-led land acquisition.

	If any new activities (or recent activities that happened after 2012) requires/required displacement of <u>Indigenous Peoples</u> (identified as per 1.2.1.1. and 1.3.2.3) from their lands, or economically displacing them from pursuing their traditional livelihoods, requirement 2.5A.7.1 is a direct cross-reference to Chapter 2.2, to ensure an Entity cannot obtain a full score if it has not fully met all the critical requirements of Chapter 2.2. For historical land acquisition process (that were completed before 2012), 2.5B.5.1 requires the Entity to establish mutually-agreed processes for <u>Indigenous Peoples</u> to raise concerns related to past and present impacts or concerns related to displacement and to determine provisions for the mitigation and remediation of past and ongoing impacts in a manner that is acceptable to <u>Indigenous Peoples</u>, in accordance with Chapter 2.2.
3.4 – Security Management	3.4.6.1 requires mandatory initial training (prior to deployment) and refresher courses for all private security personnel, including on ethical conduct, and respect for the rights of <u>workers</u>, Indigenous rights-holders (if applicable), and affected communities, with specific reference to groups and individuals disproportionately affected by human rights violations. 3.4.6.2 requires similar provisions for public security forces.
3.6 – Cultural Heritage	3.6.1.1 requires identification of any <u>Indigenous Peoples</u> and/or others who may have rights associated with cultural heritage in the context of the operation. And 3.6.1.2 requires the same thing when any new activities or changes in the project/operation are proposed. If past impacts on cultural heritage are identified, 3.6.2.1 requires sites to document any past activities taken to mitigate or remedy the impacts on cultural heritage, including if past mitigation or remediation efforts were agreed by affected <u>Indigenous Peoples</u>, if relevant. 3.6.4.2 requires that the cultural heritage management plan developed by the site ensures that continued access to cultural sites is allowed, subject to consultations with relevant <u>Indigenous Peoples</u> and affected communities. 3.6.5.1 requires specific measures for Cultural Heritage of <u>Indigenous Peoples</u>, to ensure it only takes place in conformance with Chapter 2.2, and procedures to allow for the public sharing of information related to <u>Indigenous Peoples</u>' cultural heritage, subject to agreement with affected <u>Indigenous Peoples</u>. When the project intends to make commercial use of cultural heritage of <u>Indigenous Peoples</u>, 3.6.5.2 requires that this only takes place after the <u>Indigenous Peoples</u> have been informed of their rights, the scope and nature of proposed commercial development and its potential consequences, and that this only takes place if the Entity has obtained the free, prior and informed consent of the <u>Indigenous Peoples</u>, in accordance with relevant requirements of Chapter 2.2, and after the negotiations have resulted in a mutual agreement on the fair and equitable sharing of benefits. 3.6.8.1 requires the public disclosure of summary versions and key findings of cultural heritage management plan, including specific measures for cultural heritage of <u>Indigenous Peoples</u> (if applicable), and an annual update on the progress made to implement the plan.
4.2 – Tailings Storage Facilities and Physical Stability Management	The IRMA Standard offers a more detailed and comprehensive framework of best practice than GISTM on key social and environmental issues related to tailings including, but not limited to human rights due diligence, <u>Indigenous Peoples</u> and the right to FPIC, financial assurance, closure and post-closure management, and emergency preparedness.

4.3 – Water Management	If the need for long-term water treatment is predicted for any proposed project or activity (to address long-term <u>acid rock drainage</u> or contaminant or metal leaching), 4.3.4.1 requires the Entity to cease to pursue the proposed project or activity unless certain conditions are met, including a direct cross-reference to Chapter 2.2 to ensure that, if <u>Indigenous Peoples</u> whose rights or interests have been or may be directly or indirectly affected by any of the proposed or existing project or activity have been identified, the Entity cannot obtain a full score if it has not fully met all the critical requirements of Chapter 2.2.
4.4 – Biodiversity, Ecosystem Services, and Protected and Conserved Areas	Section 4.4.7 requires systems to ensure that traditional knowledge, and especially traditional ecological knowledge, of local affected communities, and Indigenous rights-holders if applicable, is integrated into the scoping, risk and impact assessment, management planning, monitoring and evaluation and continuous improvement processes related to Biodiversity, Ecosystem Services, and Protected and Conserved Areas.
4.6 – Climate Action	Section 4.6.9 requires systems to ensure that traditional knowledge, and especially traditional ecological knowledge, of local affected communities, and Indigenous rights-holders if applicable, is integrated into the scoping, risk and impact assessment, management planning, monitoring and evaluation and continuous improvement processes related to Climate Action.

CHAPTER ENDNOTES

²⁸¹ United Nations. 2008. Guidelines on Indigenous Peoples' Issues.

www.un.org/esa/socdev/unpfii/documents/UNDG_guidelines_EN.pdf

²⁸² Report of the Special Rapporteur on the rights of Indigenous Peoples, James Anaya "Extractive industries and Indigenous Peoples", 1 July 2013 https://www.ohchr.org/sites/default/files/HRBodies/HRC/RegularSessions/Session24/Documents/A-HRC-24-41_en.pdf

²⁸³ Anaya, J. 2013. Extractive Industries and Indigenous Peoples. Report of the Special Rapporteur on the Rights of Indigenous Peoples. UN Doc. A/HRC/24/41. Para. 28. Available at: unsr.jamesanaya.org/study/report-a-hrc-24-41-extractive-industries-and-indigenous-peoples-report-of-the-special-rapporteur-on-the-rights-of-indigenous-peoples

²⁸⁴ ILO. Indigenous and Tribal Peoples Convention, 1989 (No. 169). Available at:

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0:NO:12100:P12100_ILO_CODE:C169

²⁸⁵ For a detailed discussion of recent international jurisprudence related to FPIC see: Gilbert, J. and Doyle, C. 2011. "A New Dawn over the Land: Shedding Light on Collective Ownership and Consent." pp. 24-42. Available at: <https://repository.uel.ac.uk/item/86165>

²⁸⁶ See e.g., Rights of Indigenous Peoples, A/HRC/45/34, 18 June 2020, para. 61-2. <https://www.ohchr.org/en/documents/thematic-reports/ahrc4534-rights-indigenous-peoples-report-special-rapporteur-rights> ("It is necessary to ... focus on the international human rights obligations that States must observe at all times. Any restrictions on these rights, such as a decision to proceed without the free, prior and informed consent of an Indigenous people, imposes on the State a burden to prove the permissibility of the said restrictions under the international criteria of legality, necessity and proportionality in relation to a valid public purpose. 62. The Special Rapporteur, in common with previous mandate holders, has highlighted the need for review mechanisms through a judicial or other impartial and competent body in order to ensure that any decision by a State ENTITY that does not have the consent of the Indigenous Peoples affected complies with these criteria and does not affect the physical and cultural survival of the Indigenous Peoples concerned. If these requirements are not met, it ought to be concluded that the measure or activity should not proceed without Indigenous consent").

²⁸⁷ Having a policy in place is only required if Indigenous Peoples whose rights or interests have been or may be directly or indirectly affected by the site and/or its associated facilities have been identified as per 1.2.1.1. and 1.3.2.3. See 'Scope of Application' section in the introduction of the Chapter.

²⁸⁸ International Labour Organisation. Indigenous and Tribal Peoples Convention, 1989 (No. 169).

²⁸⁹ Id. para. 48 (explaining that "the conceptualization and application of Indigenous prior consultation and consent should be based not only on the Indigenous and Tribal Peoples Convention and the guidelines developed by ILO in that regard, but also on a much broader, and subsequent, body of law consisting of various instruments, resolutions, declarations – in particular the United Nations Declaration on the Rights of Indigenous Peoples, jurisprudence and authoritative interpretations developed by international and regional human rights mechanisms").

²⁹⁰ Such as joint-venture partners' staff or contractors responsible for operation/management, organizations or public agencies visiting the site.

²⁹¹ Such as joint-venture partners' staff or contractors responsible for operation/management, organizations or public agencies visiting the site.

²⁹² This requirement being a critical requirement, failure to meet it will not only prevent the ENTITY to achieve IRMA 100, but also to achieve any Achievement Level higher than IRMA Transparency. Additionally, any attempt to initiate or make contact with those Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or Initial Contact who may be affected by mining-related activities would constitute intentional contribution to serious human rights abuses. According to IRMA Policy on Association, approved by the IRMA Board in October 2023, such endeavor would represent grounds for IRMA to exclude an operating company or its corporate owner from participating, or terminate a relationship with a company that has a participating IRMA mine. In the current version of the policy, the decision of whether or not to deny or withdraw IRMA achievement recognition, and any terms and conditions that might allow a company to re-associate with IRMA, has to be made by the IRMA Board. IRMA welcomes comments on its policy, available at: <https://responsiblemining.net/wpcontent/uploads/2023/12/IRMA-Policy-on-Association-v2023-01.pdf>.

²⁹³ Typically, the most credible source of information will be Indigenous Peoples in the area; however, contact must not be made with Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact (see critical requirement 2.2.2.1). In such cases, entities should consult with Indigenous organizations and Indigenous rights organizations with expertise in Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or in Initial Contact. Other additional experts could include competent professionals who are academics or practitioners (may be governmental or non-governmental) with cultural, anthropological, and/or human rights expertise in the regions where projects/operations are located. Note that there is no consensus on a single term that should be used to denote these peoples. Terms in the international sphere include Uncontacted Peoples, Indigenous Peoples in voluntary isolation, peoples in isolation, as well as free, hidden or invisible peoples. Other terms used for Indigenous Peoples in initial contact include recently-contacted peoples. (Source: UN Human Rights Council. 2009. Draft Guidelines On The Protection Of Indigenous Peoples In Voluntary Isolation And In Initial Contact Of The Amazon Basin And El Chaco. A/HRC/EMRIP/2009/6. https://www2.ohchr.org/english/issues/indigenous/ExpertMechanism/2nd/docs/A_HRC_EMRIIP_2009_6.pdf)

²⁹⁴ E.g., academics or practitioners (may be governmental or non-governmental) with cultural, anthropological, and/or human rights expertise in the region where projects are located.

²⁹⁵ By far the greatest threat towards uncontacted Indigenous peoples is that of disease as this is the greatest cause of their population collapse. Survival International's recent research on Uncontacted Indigenous Peoples shows that uncontacted tribes typically lose between 50-100% of their population following forced contact, with a mean average of 61%. Deaths from disease can begin literally days after first contact and it is important to emphasise here that most of the deaths are accidentally spread by the newly contacted relatives to their uncontacted families. The United Nations Human Rights Council describes how attempting to contact these peoples or obtain consent by force or coercion "would lead to serious violations of their human rights, including the crime of genocide." (UN Human Rights council, 2009, "Draft Guidelines on the Protection of Indigenous Peoples in Voluntary Isolation and in Initial Contact of the Amazon Basin and El Chaco").

²⁹⁶ According to the United Nations, "The primary responsibility for the promotion and protection of Indigenous Peoples' human rights resides with States.", but "while the obligation to consult is borne by States, corporations and other private actors are also required to respect the human rights of indigenous peoples. They can also play an important role in promoting and protecting the rights of indigenous peoples". The United Nations Declaration on the Rights of Indigenous Peoples: A Manual for National Human Rights Institutions. p. 44. <https://www.ohchr.org/sites/default/files/Documents/Issues/IPeoples/UNDRIPManualForNHRIs.pdf>

²⁹⁷ Even if there is not FPIC-specific legislation, there may be other laws that incorporate a similar right to that of consent (Example from Russia). See BSR (2012) 'Engaging With Free, Prior, and Informed Consent' https://www.bsr.org/reports/BSR_Engaging_With_FPIC.pdf.

Other sources of information on particular countries can be found in UN Committee on the Elimination of Racial Discrimination (UN CERD) reviews.

²⁹⁸ In this case, the "proposed activities" are the proceeding/continuation with the project/operation.

²⁹⁹ E.g., nation, population.

³⁰⁰ i.e., those processes that are not specifically designed for engagement or consultation with Indigenous Peoples.

³⁰¹ This includes information related to: Legal compliance (1.1.4); Stakeholder engagement processes (1.2.4, 1.2.6, 1.2.7, 1.2.8); Human rights due diligence (1.3.3, 1.3.4, 1.3.5, 1.3.6, 1.3.7); Conflict-affected and high-risk area due diligence (1.5.4, 1.5.8); Community grievances and whistleblowers (1.6.1, 1.6.2, 1.6.3, 1.6.4, 1.6.5, 1.6.6); Socio-environmental impact assessment process (2.1.3, 2.1.4, 2.1.6, 2.1.8, 2.1.9, 2.1.10, 2.1.11, 2.1.12); Gender equity, and sexual and gender-based violence (2.3.3, 2.3.4, 2.3.5, 2.3.6, 2.3.8); Community support and benefits (2.4.2, 2.4.3, 2.4.5, 2.4.6); Land acquisition and resettlement (2.5A.2, 2.5A.3, 2.5A.5, 2.5A.6, 2.5A.7, 2.5A.8, 2.5A.9, 2.5A.10, 2.5A.11, 2.5B.2, 2.5B.3, 2.5B.5, 2.5B.6, 2.5B.7, 2.5B.8, 2.5B.9); Emergency preparedness and response (2.6.1, 2.6.2, 2.6.3, 2.6.4, 2.6.7, 2.6.8); Reclamation and closure (2.7.1, 2.7.4, 2.7.5, 2.7.7); Community health and safety (3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6); Security forces (3.4.2, 3.4.3, 3.4.7, 3.4.8, 3.4.9, 3.4.11); Engagement with ASM (3.5.2, 3.5.3); Cultural heritage (3.6.1, 3.6.2, 3.6.3, 3.6.4, 3.6.6, 3.6.7, 3.6.8); Noise and vibration (3.7.3, 3.7.4); Waste and materials management (4.1.1, 4.1.5, 4.1.9, 4.1.10, 4.1.11); Tailings storage and mine waste storage management (4.2.7, 4.2.15, 4.2.16, 4.2.17); Water management (4.3.2, 4.3.3, 4.3.4, 4.3.6, 4.3.7, 4.3.8, 4.3.9); Biodiversity, ecosystem services and protected and conserved areas (4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.4.6, 4.4.7, 4.4.8, 4.4.9); Air quality and dust management (4.5.1, 4.5.3, 4.5.7, 4.5.8, 4.5.9); Climate action (4.6.2, 4.6.8, 4.6.11).

³⁰² These dimensions must be collaboratively defined as per 2.2.4.2, and regularly reviewed and updated as per 2.2.7.2.

³⁰³ As these will depend largely on a specific context, stakeholders will help define what is considered culturally appropriate and easily accessible. It is important to mention, among others, the role of the native language in the engagement and agreement processes. All translations from and to native languages should be made by competent and independent professionals. These dimensions must be collaboratively defined as per 2.2.4.2, and regularly reviewed and updated as per 2.2.7.2.

³⁰⁴ “in a timely manner” will likely vary based on the ENTITY’s resources and procedures (e.g., some companies may have due diligence procedures in place for releasing data publicly) and also the size/nature of the request. Generally, however, requests should be fulfilled within 1 to 3 months, although for particularly large requests or requests made to companies with limited capacity to fulfill information requests, some flexibility may be needed. Also, some companies have stringent quality assurance procedures that must be followed in order to share data publicly, and so may require more time to prepare materials for release. This dimension must be collaboratively defined as per 2.2.4.2, and regularly reviewed and updated as per 2.2.7.2.

³⁰⁵ Including fundamental human rights, customary rights, and other relevant rights.

³⁰⁶ Identification of ~~underserved and/or marginalized people~~ requiring specific focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement in particular, special attention should be paid to traditional participatory structures and power dynamics and those whose voices may not be heard within those structures.

³⁰⁷ Indigenous Peoples’ customary approaches to engagement may not always include participation of women, ~~underserved and/or marginalized people~~ within Indigenous communities. The UN Rapporteur on Indigenous Peoples has written that: “Indigenous Peoples should be encouraged to include appropriate gender balance within their representative and decision-making institutions. However, such gender balance should not be dictated or imposed upon Indigenous Peoples by states or companies, any more than Indigenous Peoples should impose gender balance on them.” Women, men youth, elders, etc. may have different needs, priorities and interests that should be considered and factored into the company’s understanding of the project’s full impacts, and its own subsequent decision-making processes. It is recommended that any efforts undertaken by the company to find other ways of facilitating involvement of women, underserved and/or marginalized Indigenous Peoples be carried out in coordination with and/or through mutual agreement with the Indigenous Peoples’ representative institutions (as suggested by the UN Rapporteur, above, under no conditions should a company impose such processes on Indigenous Peoples).

³⁰⁸ In their “preferred manner” relates to both the form of the support and processes themselves. Identification of capacity or financial gaps, and design of plans collaboratively with Indigenous Peoples should ensure they consider the potentially adverse socio-economic consequences that direct financial support may have on Indigenous communities.

³⁰⁹ The Entity will always need to demonstrate that it proactively offers to provide funding/financial support, in a manner agreed to by Indigenous Peoples. In situations where Indigenous Peoples agreed on a manner to receive such financial assistance, the Entity will need to demonstrate that, and to what extent, it conformed with the agreed manner in actually providing funding/financial support. In situations where Indigenous Peoples did not want or refused such financial assistance, the Entity must respect their decisions.

³¹⁰ ‘Rights-compatible’ means ensuring that outcomes and remedies accord with internationally-recognized human rights. Where desired by the Indigenous communities, the grievance mechanism should incorporate communities’ own systems for dispute resolution: Indigenous Peoples may have their own conflict-resolving mechanisms and legal systems that should be considered when agreeing how to resolve disputes.

³¹¹ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file ~~grievances~~ with the company.

³¹² It is important to recognize that some ongoing unremediated impacts will be cumulative in nature and, whilst Entities can make efforts to contribute to remedy, there will be cases when attributing causality to cumulative impacts is challenging.

³¹³ Examples of such actions include, but are not limited to: mitigation, compensation, provision of benefits.

³¹⁴ Identification of ~~underserved and/or marginalized people~~ requiring specific focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement in particular, special attention should be paid to traditional participatory structures and power dynamics and those whose voices may not be heard within those structures.

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³¹⁶ This may require establishing joint monitoring, evaluation and implementation bodies to ensure that the agreed measures are implemented in good faith. This could also be in the form of a designated impartial and independent body or entity to monitor compliance with the agreement. This impartial entity can serve either as a member of a joint implementation committee integrated by the Parties themselves or as a wholly independent regulatory oversight and monitoring entity which can audit the implementation and effectiveness of the measures at regular, agreed upon intervals, make recommendations for improvements, and encourage the Parties to rectify non-compliance. The Parties can also empower this entity to refer matters to arbitration or to any other dispute resolution mechanisms previously agreed upon by the Parties.

³¹⁷ Including through the identification of a mechanism or a process to be followed if, for example, there are breaches of the agreement or commitments in the agreement, or differences of opinions regarding the interpretation and application of the agreement. The process could include one or more of the following steps: dialogue, mediation, independent arbitration, adjudication via an international forum for grievances, etc.

³¹⁸ In a situation where distinct groups requested separated FPIC processes that led to separate FPIC agreements, the Indigenous Peoples' representatives will indicate if and how community members could have access to draft agreements prepared by other groups.

³¹⁹ Identification of underserved and/or marginalized people requiring specific focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement in particular, special attention should be paid to traditional participatory structures and power dynamics and those whose voices may not be heard within those structures.

³²⁰ This Section (2.2.6–Respecting the Right to FPIC for New Activities) is applicable to all activities and associated facilities that were planned to, or are proposed to, become operational after June 2018. This cutoff date is consistent with the approach that IRMA has been taking so far. See the 'Scope of Application' section at the beginning of the Chapter for more details.

³²¹ As noted in the applicability color guide, this section is applicable as early as Exploration – Stage 2 (i.e., as soon as on-the-ground or in-the-air activities or activities that presume future exploration are planned or expected to take place). Different FPIC processes are required for the different stages of development (e.g., exploration, mining, mineral processing, closure), unless explicitly agreed by affected Indigenous Peoples to give consent for more than one stage. Similarly, best practice expects that if FPIC has been given to the Entity for a given operational setup, any significant change will require the FPIC Indigenous Peoples in order to move forward (e.g. major expansion of existing facilities, construction of new facilities, etc...).

³²² The ENTITY could support the development of the FPIC process by providing funding or other resources to provide Indigenous Peoples with the technical or legal support that may be necessary for them to develop an FPIC process. Support could also be shown by respecting the Indigenous Peoples' timeline for developing its own protocol.

The process could include the following elements: Identify the decision-makers and parties to the negotiation; Specify the decision-making processes of the respective parties; Identify the role, if any, of outside counsel, advisors, facilitators or mediators; Come to a common understanding of any applicable laws or principles to guide the FPIC process; Agree on time periods and scheduling; Identify any Indigenous Peoples' customs and protocols to be respected; Agree on measures to create an environment without coercion or duress; Determine how the affected Indigenous Peoples will participate in the analysis of impacts and risk; Determine formats and protocols for sharing information. (Source: The Accountability Framework. 2019. Operational Guidance on Free, Prior and Informed Consent. https://accountability-framework.org/fileadmin/uploads/afi/Documents/Operational_Guidance/OG_FPIC-2020-5.pdf)

³²³ The Entity will always need to demonstrate that it proactively offers to provide funding/financial support, in a manner agreed to by Indigenous Peoples. In situations where Indigenous Peoples agreed on a manner to receive such financial assistance, the Entity will need to demonstrate that, and to what extent, it conformed with the agreed manner in actually providing funding/financial support. In situations where Indigenous Peoples did not want or refused such financial assistance, the Entity must respect their decisions.

³²⁴ Identification of underserved and/or marginalized people requiring specific focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement in particular, special attention should be paid to traditional participatory structures and power dynamics and those whose voices may not be heard within those structures.

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³²⁶ If an agreement is reached, then requirements 2.2.6.4 to 2.2.6.7 are applicable. If affected Indigenous Peoples' representatives clearly communicate, at any point during engagement with the Entity, that they do not consent to proposed activities, or that they do not wish to engage in or continue with FPIC-related discussions, the Entity must recognize that it does not have consent, and must cease to pursue any proposed activities affecting the rights or interests of the Indigenous Peoples. In such case, further discussions should only be renewed in accordance with the conditions agreed in 2.2.6.2.

Note that, because of the requirement that FPIC be free from external manipulation, coercion and intimidation, an FPIC process cannot be undertaken -and consent cannot be deemed given- in situations where Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or Initial Contact may be affected (see also Section 3.6.5). This requirement being a critical requirement, failure to meet it will not only prevent the ENTITY to achieve IRMA 100, but also to achieve any Achievement Level higher than IRMA Transparency. Additionally, any attempt to initiate or make contact with those Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or Initial Contact who may be affected by mining-related activities would constitute intentional contribution to serious human rights abuses. According to IRMA Policy on Association, approved by the IRMA Board in October 2023, such endeavor would represent grounds for IRMA to exclude an operating company or its corporate owner from participating, or terminate a relationship with a company that has a participating IRMA mine. In the current version of the policy, the decision of whether or not to deny or withdraw IRMA achievement recognition, and any terms and conditions that might allow a company to re-associate with IRMA, has to be made by the IRMA Board. IRMA welcomes comments on its policy, available at: <https://responsiblemining.net/wpcontent/uploads/2023/12/IRMA-Policy-on-Association-v2023-01.pdf>.

³²⁷ This may require establishing joint monitoring, evaluation and implementation bodies to ensure that the agreed measures are implemented in good faith. This could also be in the form of a designated impartial and independent body or entity to monitor compliance with the agreement. This impartial entity can serve either as a member of a joint implementation committee integrated by the Parties themselves or as a wholly independent regulatory oversight and monitoring entity which can audit the

implementation and effectiveness of the measures at regular, agreed upon intervals, make recommendations for improvements, and encourage the Parties to rectify non-compliance. The Parties can also empower this entity to refer matters to arbitration or to any other dispute resolution mechanisms previously agreed upon by the Parties.

³²⁸ Including through the identification of a mechanism or a process to be followed if, for example, there are breaches of the agreement or commitments in the agreement, or differences of opinions regarding the interpretation and application of the agreement. The process could include one or more of the following steps: dialogue, mediation, independent arbitration, adjudication via an international forum for grievances, etc.

³²⁹ In a situation where distinct groups requested separated FPIC processes that led to separate FPIC agreements, the Indigenous Peoples' representatives will indicate if and how community members could have access to draft agreements prepared by other groups.

³³⁰ Identification of ~~underserved and/or marginalized people~~ requiring specific focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement in particular, special attention should be paid to traditional participatory structures and power dynamics and those whose voices may not be heard within those structures.

³³¹ Including through the monitoring and evaluation activities required in Section 2.2.8.

³³² Including through the monitoring and evaluation activities required in Section 2.2.8.

³³³ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

³³⁴ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

³³⁵ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

³³⁶ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.



Chapter 2.3

Gender Equity, and Sexual and Gender-Based Violence**SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES**

- Changed title to “Gender Equity, and Sexual- and Gender-Based Violence” (SGBV) to reflect focus on equity and prevention of SGBV.
- Though the term “gender equality” was generally approved, it was pointed out as a more ambitious and aspirational desired outcome, which can be achieved through processes that promote and aim for gender equity. ‘Gender equity’ recognizes that women, girls, and LGBTIQ+ persons, are not in the same ‘starting position’ as most men (in spite of other intersectional factors). Gender equity is more about process, with the desired goal of achieving gender equality.
- The term “gender protections” was also pointed out as potentially confusing or limiting, since the intent is to really protect women, girls, and LGBTIQ+ persons from sexual- and gender-based discrimination, violence, and harm.
- Moved Chapter under Principle 2–Planning for Positive Legacies as chapter integrates a dimension around promotion of gender equity and empowerment that go beyond ‘business integrity’.
- Strengthened and clarified language around positive impacts, promotion of gender equity and empowerment of women, girls, and LGBTIQ+ persons.
- Added multiple occurrences of “to the extent legally possible” to address operational contexts in jurisdictions that criminalize some or all LGBTIQ+ persons, and/or restrict the rights of women, girls, and LGBTIQ+ persons.
- Split the policy requirement to separate the commitment to have zero-tolerance for all forms of sexual- and gender-based violence from the commitment to advance gender equity and gender mainstreaming to increase auditability and comparability.
- Added a new section for Baseline Data collection, as this was retrospectively expected within the management plan, but not laid out upfront.
- Expanded public reporting requirement to add disclosure of the performance criteria and indicators used to evaluate progress and effectiveness.
- Added in endnotes a reference to the new South African legislation which requires mines to develop and submit a GBVF [Gender-Based Violence and Femicide] report every year together with a progress report on the prevention measures implemented the previous year.
- Substantial structural changes to add clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
1.X-01	(Definitions: Gender, Gender Diverse, Gender Equality, Gender Mainstreaming, Gender Protections, Intersectional, Vulnerable Groups) Question: Below are proposed definitions of key terms in this chapter. Do you have any comments or suggestions on these definitions and/or suggestions for references to other definitions we should review and/or incorporate?	Feedback received: 8 responses received (4 mining, 2 NGO, 1 government, 1 audit firm). Many amendments and changes proposed. Proposed Decision: Definitions have been revised and updated based on stakeholder input. Major changes include: - Proposing to refer to “women, girls, and <u>LGBTIQ+ persons</u>” instead of “gender-diverse individuals” (which can be perceived as limited to trans-gender persons). - Proposing to add the following terms to the glossary: ‘Gender Equity’, ‘Gender Identity’, and ‘Intersectional’. - Proposing to remove examples from definitions, as some of this material overlaps with content in the Background to the Chapter (and that is a more appropriate location for it). Additional context can be provided in Guidance.
1.X-02	(Definitions: Vulnerable Groups) Question: References to women and gender-diverse individuals as potentially “vulnerable” or as “vulnerable groups” may sound disempowering and/or otherwise not aligned with the objectives of this chapter to advance gender equality. Are there other widely recognized terms or phrases we could use that recognize the potential susceptibility of women and gender-diverse individuals to adverse impacts such as health impacts or lack of economic opportunities due to social biases or cultural norms?	Feedback received: 13 responses received (6 mining, 3 NGO, 2 Finance, 1 consultant, 1 audit firm). Many versions and alternatives proposed. Respondents overall in favor of not referring to women and girls as “vulnerable”. Proposed Decision: We propose to drop the term “vulnerable” altogether and use instead “underserved” (as in “potentially <u>underserved and/or marginalized people</u>”). This proposition is informed by responses to this terminology question across multiple chapters.
1.X-03	(1.X.2.2, factors to be incorporated in gender impact and opportunities assessments) Question: Do you have any comments on the set of minimum factors listed above and/or can you provide examples of common factors used in gender assessments (with reference to original source)?	Feedback received: 9 responses received (4 mining, 3 NGO, 1 finance, 1 consultant). Comments are generally supportive of the factors proposed. A few respondents highlight again the challenges faced by companies in jurisdictions that criminalize some or all LGBTIQ+ persons. Some mining respondents flagged the complexity of such impact assessment. Proposed Decision: We propose to expand the list based on stakeholder comments. This list will appear in as Table 2.3-A, and will form the basis of the risks

		and impacts that need to be considered during scoping (Section 2.3.3).
1.X-04	(1.X.2.2, factors to be incorporated in gender impact and opportunities assessments) Question: In some circumstances a person may prefer not to disclose their gender, e.g., when filing a grievance—including a grievance related to gender. Allowing a worker or community member to choose not to disclose this information can have the positive impact of protecting a stakeholder or stakeholder group in some cases and may also make assessing and addressing impacts and opportunities by gender more challenging. Should we include a requirement that allows a preference not to disclose one's gender? Why or why not? In what contexts might a preference not to disclose one's gender be necessary? In what contexts might this not be appropriate?	Feedback received: 11 responses received (7 mining, 3 NGO, 1 consultant). The vast majority of respondents support the option to not disclose gender. Some respondents point out the differences between grievance and hiring processes for example. Proposed Decision: IRMA to state in the guidance that the option for <u>workers</u> or community members to not disclose gender is to be clearly articulated by the Entity, even though this may impede the ENTITY's ability to fully assess and properly remediate some grievances and claims. More details on how the grievance mechanism/s should be designed and implemented to respect fundamental rights and safety are provided in Chapter 1.6. IRMA to also state in guidance that information collection should adhere to applicable country of operation's laws, per Chapter 1.1.
1.X-05	(1.X.2.2, factors to be incorporated in gender impact and opportunities assessments) Question: We note that in some circumstances a person may prefer not to disclose sexual orientation, marital status, or other factors. Should we include a requirement to allow a preference not to disclose particular intersectional factor(s)? If so, what factors and why? In what contexts might a preference not to disclose the factor(s) you've identified be necessary? Are there any contexts in which a preference not to disclose the factor(s) may not be appropriate?	Feedback received: 10 responses received (7 mining, 2 NGO, 1 consultant). All the respondents support the option to not disclose certain personal information. Proposed Decision: IRMA to state in the guidance that the option for <u>workers</u> or community members to not disclose certain personal information is to be clearly articulated by the Entity, even though this may impede the ENTITY's ability to fully assess intersectional discrimination and subsequent risks and opportunities. IRMA to also state in guidance that information collection should adhere to applicable country of operation's laws, per Chapter 1.1.
1.X-06	(1.X.2.2, factors to be incorporated in gender impact and opportunities assessments) Question: This chapter aims to take an intersectional approach, promoting assessment of impacts by gender and understanding and addressing related factors of discrimination such as ethnicity, socioeconomic status, disability, age, geographic location, gender identity, sexual orientation, religion, or marital status, for example. Are there specific factors you recommend for intersectional assessments?	Feedback received: 10 responses received (5 mining, 3 NGO, 1 government, 1 consultant). Multiple factors suggested across sectors. Proposed Decision: We propose to expand the list based on stakeholder comments. This list will appear in as Table 2.3-B, and will be used in the scoping of potential risks and impacts (Section 2.2.3) and intersectional assessment (Section 2.2.4).

1.X-07	(1.X.5, Reporting) Question: Is the requirement to report ‘annually’ appropriate here? Do you recommend any other specific timeframe (e.g., bi- annually) and/or circumstance (e.g., major modifications to the mining or mineral processing operation, significant changes in technology, etc.) that should prompt a public report?	Feedback received: 12 responses received (7 mining, 3 NGO, 1 finance, 1 consultant). 7 respondents (across sectors) are supportive of annual public information-sharing. 2 mining suggest only once every two years, 1 NGO and 1 mining suggest twice a year (though the mining respondent flags important budget considerations). 1 mining suggests to report information only when there is significant change. 1 mining did not have an opinion at this stage. Proposed Decision: We propose to keep annual public information-sharing.

BACKGROUND

Women, girls, and LGBTQIA+ persons are currently under-represented in the mining and mineral processing workforce in jobs where they could access experience, training, and skills development and earn income to improve their lives and autonomy. There is vast untapped potential for leadership and employment of women, girls, and LGBTQIA+ persons in these sectors that, if realized, could advance progress toward the United Nations Sustainable Development Goals (SDGs) and targets on gender equality while also contributing to company performance.³³⁷

Gender norms and discrimination must be addressed in recruitment processes, local procurement strategies, and workplace policies. Entities should also seek to understand traditional beliefs, gender norms, and power dynamics of communities surrounding exploration, mining and processing sites to ensure operations do not potentially exacerbate gender inequalities or increase risks of sexual- and gender-based violence (SGBV) and discrimination, as well as to be aware of how these norms may limit opportunities and benefits for women, girls, and LGBTQIA+ persons.

Women, girls, and LGBTQIA+ persons in communities affected by mining or mineral processing are at an increased risk of social and economic marginalization, domestic and sexual- or gender-based violence (SGBV), and exclusion from community engagement and decision-making. In some countries, women, girls and LGBTQIA+ persons are excluded or discouraged from stakeholder meetings and participation in decision-making out of respect for, or because of, the community's customs and norms.³³⁸ Women, girls, and LGBTQIA+ persons are also more likely to report a lack of trust in grievance mechanisms often resulting from a lack of gender-balanced management, lack of timely resolutions, or lack of anonymity. In the context of access to mineral resources, resettlement has the potential to disproportionately impact women who may lack formal property rights and are responsible for reproductive work such as unpaid care work and providing food and water for their families.

Intersectionality is a critical framework for understanding and addressing gender inequity, and SGBV. Formulated in the late 1980s, this approach emphasizes that individuals experience overlapping social identities—such as ethnicity, class, sexual orientation, and disability—that shape their experiences of discrimination and privilege. Recognizing these intersections is vital for developing effective strategies to combat SGBV. Indeed, gender inequity cannot be examined in isolation; it is influenced by various systemic factors that disproportionately affect marginalized groups. For instance, women of historically-discriminated or under-recognized ethnic groups or religions (actual or perceived), women that are poor or from lower socio-economic backgrounds, Indigenous women and girls, Afro-descendants, LGBTQIA+ persons, non-married persons, women and girls with disabilities, often face compounded vulnerabilities, and experience higher rates of violence and discrimination. An intersectional approach highlights these disparities, ensuring that solutions are inclusive and reflective of diverse experiences.

Moreover, policies and programs that do not account for intersectionality may inadvertently perpetuate existing inequalities. By acknowledging the complexity of individuals' identities, companies can create more tailored interventions that address the root causes of gender inequity, and SGBV.

Impact assessments and mitigation measures that focus on gender-differentiated impact and context analysis, using an intersectional lens, as well as consultation with women, girls, LGBTQIA+ persons, their representatives or organizations defending their rights, and/or gender experts, can significantly improve an ENTITY's ability to identify and address issues of gender equality in the surrounding community caused or exacerbated by mining activity. Collecting gender-disaggregated data, conducting gender analyses, and developing measures and targets to promote gender equity and empowerment of women, girls, and LGBTQIA+ persons can all help identify and address these issues.

This chapter complements the strong cross-cutting commitment to gender equity, and to respecting and protecting the rights of women, girls, and LGBTQIA+ persons, articulated throughout the IRMA Standard.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- United Nations Guiding Principles for Business and Human Rights, 2011
- United Nations Convention on the Elimination of all Forms of Discrimination Against Women, 1979
- UN CEDAW General recommendation No.39 (2022) on the Rights of Indigenous Women and Girls, 2022
- UN CEDAW General recommendation No. 34 (2016) on the Rights of Rural Women, 2016
- IFC Guidance for Boards of Directors on Overseeing Gender-Based Violence and Harassment Risk, 2023

GENDER AS A TRANSVERSAL THREAD THROUGHOUT THE IRMA STANDARD

Gender – including gender equity, and SGBV – is a cross-cutting dimension of this Standard. It is covered across almost all chapters of the IRMA Standard, including:

Chapter 1.2:	Community and Stakeholder Engagement
Chapter 1.3:	Human Rights Due Diligence
Chapter 1.4:	Upstream and Downstream Sustainability Due Diligence
Chapter 1.5:	Conflict-Affected and High-Risk Area Due Diligence
Chapter 1.6:	Grievance Mechanism, Whistleblowers, and Access to Remedy
Chapter 2.1:	Environmental and Social Impact Assessment and Management
Chapter 2.2:	Indigenous Peoples and Free, Prior, and Informed Consent (FPIC)
Chapter 2.4:	Obtaining Community Support and Delivering Benefits
Chapter 2.5:	Land Acquisition, Displacement, and Resettlement
Chapter 2.7:	Concurrent Reclamation, Closure, and Post-Closure
Chapter 3.1:	Fair Labor and Terms of Work (incl. equal pay for equal work, and parental leave)
Chapter 3.2:	Occupational Safety, Health and Wellbeing (inc. gender appropriate PPE and facilities)
Chapter 3.3:	Community Health and Safety
Chapter 3.4:	Security Arrangements
Chapter 3.5:	Artisanal and Small-Scale Mining
Chapter 3.6:	Cultural Heritage
Chapter 4.1:	Waste and Materials Management
Chapter 4.3:	Water Management
Chapter 4.4:	Biodiversity, Ecosystem Services, and Protected and Conserved Areas
Chapter 4.5:	Air Quality and Dust Management

Chapter 2.3, which is generally aligned with Chapter 1.3–Human Rights Due Diligence (which is based on international laws, conventions and frameworks), provides additional specific details and requirements to ensure Entities integrate gender equity and gender mainstreaming into the responsible management of their projects/operations, and use an intersectional lens to effectively understand and address gender inequity and SGBV. As with most chapters, requirements for baseline data collection, scoping, and impact assessment processes, as well as for the development, monitoring and evaluation, and continuous improvement of management and mitigation measures does not have to be demonstrated through stand-alone processes, plans, and systems; as those can be integrated into broader/overarching ones that encompass multiple issues.



OBJECTIVES OF THIS CHAPTER

To strive for gender equality, through gender equity and gender mainstreaming, and to combat sexual- and gender-based violence in the workplace and communities where mining and mineral processing takes place.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

The categories of risks and adverse impacts that need to be considered in this Chapter are listed in Table 2.3-A below:

Table 2.3-A – Categories of differences and barriers for, and risks and adverse impacts on, women, girls, and LGBTIQ+ persons:

- Gender inequalities within the workplace, including:
 - Differences in remuneration (e.g., non-equal pay for equal work);
 - Differences in retention;
 - Differences in roles and responsibilities, including participation in senior leadership and management roles and responsibilities;
 - Differences in benefits;
 - Differences in levels of health and safety;
- Gender-specific risks for women workers and LGBTIQ+ workers including:
 - Sexual- and Gender-based Violence;
 - Sexual harassment;
 - Intimidation;
 - Health and wellbeing;
 - Safety, including when walking home or to accommodations at night;
- Gender-specific barriers to employment and career advancement including:
 - Education level
 - Training opportunities;
 - Accommodating family roles;
 - Marital status, and having children or not;
 - Cultural norms;
 - Legal status;
 - Rural women;

- Gender-specific barriers to stakeholder engagement (e.g., participation in consultations, training, capacity building) including:
 - Accommodating family roles;
 - Cultural norms and systemic discrimination;
 - Health and safety;
 - Sexual orientation;
 - Marital status;
 - Survivors of sexual- or gender-based violence;
 - Women-headed and child-headed families;
 - Rural women;
- Gender-specific differences in or barriers to equitable community development, benefit sharing opportunities, and procurement opportunities;
- Gender-specific difference or barriers to access land ownership or participation in land decision-making and inheritance of land, territories and resources;
- Gender-specific differences in or barriers to restoration of livelihoods and in outcomes of resettlement action plans, if relevant;
- Gender-specific risks in the communities affected by mining and mineral processing projects and operations, including:
 - Sexual- and gender-based violence;
 - Sexual harassment;
 - Intimidation;
 - Human trafficking;
 - Forced prostitution;
 - Health and wellbeing;
 - Safety, including risks associated with the site's security personnel, and public and private security forces.

The intersectional factors of discrimination and marginalization to be considered in this Chapter are listed in Table 2.3-B below:

Table 2.3-B – Intersectional factors of discrimination and marginalization, where applicable (in alphabetical order): ▪ Age; ▪ Beliefs and Religion (actual and perceived); ▪ Caste (where applicable); ▪ Disability; ▪ Employment status (i.e. employee vs contractor vs sub-contractor); ▪ Ethnicity; ▪ Gender identity (actual and perceived); ▪ Geographic location, especially rural vs urban; ▪ Indigenous status; ▪ Marital status; ▪ Migration and legal status; ▪ Number of dependent children; ▪ Physical appearance (e.g. weight, clothing, tattoo, piercing) ▪ Race (as a multi-dimensional social construct); ▪ Sexual orientation (actual and perceived); ▪ Skin color; ▪ Socioeconomic status and social class (actual and perceived); ▪ Women-headed and child-headed families.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is no optional IRMA+ requirement in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

 ISSUES UNDER CLOSE WATCH (EYE ICON)

Entire Chapter 2.3 – Gender Equity, and Sexual and Gender-Based Violence:

This Chapter was not included in the 2018 IRMA Standard for Responsible Mining V1.0.

Although this Chapter draws on international best practice for the promotion and mainstreaming of gender equity, and the prevention of sexual and gender-based violence, it can represent a substantial scope expansion for implementing sites. Therefore, all requirements are signaled with an ‘eye icon’ to ensure that IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not ‘optional’ (unlike IRMA+).

IRMA Requirements



2.3.1 Formalized Policy



2.3.1.1 Critical Requirement

The ENTITY has a formal policy in place that

- Commits to having zero-tolerance for all forms of sexual- and gender-based violence (SGBV)³³⁹;
- Sets clear expectations for how personnel, contractors, and other relevant parties³⁴⁰ linked to the site and its associated facilities shall have zero-tolerance for all forms of SGBV; and
- Is approved at the top management level of the ENTITY;
- Is proactively communicated to personnel, contractors, and other relevant parties³⁴¹ linked to the site and its associated facilities;
- Is publicly accessible; and
- The ENTITY has allocated financial and staffing resources to implement this policy at the level of the project/operation,.

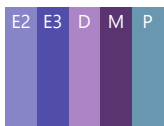


2.3.1.2 The ENTITY has a formal policy in place that

- Commits to advancing gender equity and gender mainstreaming³⁴².
- Sets clear expectations for how personnel, contractors, and other relevant parties³⁴³ linked to the site and its associated facilities shall advance gender equity and gender mainstreaming;
- Is approved at the top management level of the ENTITY;
- Is proactively communicated to personnel, contractors, and other relevant parties³⁴⁴ linked to the site and its associated facilities;
- Is publicly accessible; and
- The ENTITY has allocated financial and staffing resources to implement this policy at the level of the project/operation,.



2.3.2 Baseline Data



2.3.2.1 To the extent legally possible, baseline data describing the prevailing external gender context of which the site and its associated facilities take place are collected or carried out by competent professionals³⁴⁵, as follows:

- This baseline data includes quantitative and qualitative metrics, that are relevant to the risks and impacts listed in Table 2.3-A, and the intersectional factors listed in Table 2.3-B³⁴⁶;
- The data is collected with an appropriate level of detail to be able to identify and assess the potential risks and impacts related to past and ongoing mining and mineral processing activities in the country of operation and the site's area of influence; and
- The data is updated whenever social, political, or environmental conditions have changed significantly, or are predicted to change significantly, but at least every five years.



2.3.3 Scoping

2.3.3.1 Building on 2.3.2, a scoping process (or equivalent) is carried out and documented by competent professionals, to define the scope of the gender impact assessment, as follows:

- This process includes a review of laws, including customary and/or traditional laws, and regulations that are applicable to the site and its associated facilities, the ENTITY's contractors, and other relevant parties³⁴⁷ that: 1) may have adverse impacts on women, girls, and LGBTIQ+ persons; and 2) are relevant to the promotion of gender equity and the prevention of all forms of SGBV;
- This process includes an intersectional analysis of norms and contexts that may have adverse impacts on women, girls, and LGBTIQ+ persons (see Tables 2.3-A and 2.3-B), and those that may foster or create positive opportunities to promote gender equity and empowerment of women, girls, and LGBTIQ+ persons in the workplace and in the site's area of influence; and
- To the extent legally possible, this process is informed by consultations with women, girls, and LGBTIQ+ persons, and/or their representatives (if any), and other relevant stakeholders³⁴⁸.



2.3.4 Intersectional Gender Impact Assessment

2.3.4.1 Building on 2.3.2 and 2.3.3, and on the identification of stakeholders and rights-holders required in Chapters 1.2 and 1.3, competent professionals carry out an intersectional gender impact assessment (or equivalent) as follows:

- The assessment includes a comprehensive analysis of the potential risks and adverse impacts identified in 2.3.3.1, applying an intersectional lens that integrates the factors listed in Table 2.3-B, to establish a list of the actual risks and adverse impacts on people of different genders, identities and abilities in the workplace and in the site's area of influence from the ENTITY's mining-related activities and associated facilities;
- It includes an evaluation of the severity of each identified adverse impacts, and of the likelihood for and potential severity of each risk identified in 2.3.4.1.a;
- It includes an analysis of the potential differential risks and impacts on the following categories or groups of relevant stakeholders and rights-holders and a disaggregation of the results by such categories or groups: 1) People of different genders, ages, ethnicities, and Indigenous status (if relevant); 2) Rights Defenders; and 3) Persons with disabilities, and any potentially underserved and/or marginalized people;
- It is informed by relevant internal and/or external gender expertise, and incorporates analysis of credible independent reports and sources of information;
- It uses a credible intersectional methodology and includes an explanation of the assessment methodology;
- It identifies any gender-related impacts that have already occurred in relation to the site and its associated facilities, how these impacts may be aggravated by the ENTITY's current and future mining-related activities;
- It identifies whether measures have been taken to remedy these past gender-related impacts, and the extent to which affected rights-holders and stakeholders are satisfied with those measures; and
- It includes recommended measures that can be taken by the ENTITY to prevent all identified risks and adverse impacts and, where prevention is not possible or not immediately possible, to mitigate and to remediate them³⁴⁹.



2.3.4.2 To help advance gender equity and gender mainstreaming, this assessment also includes:

- a. An analysis of the potential opportunities for enhanced awareness-raising and capacity-building on gender equity and SGBV in the workplace and in the site's area of influence;
- b. An analysis of the potential opportunities for delivering sustained positive impacts on women, girls, and LGBTIQ+ persons in the workplace and in the site's area of influence;
- c. An analysis of how change in gender dynamics could actually result in additional or exacerbated risks to and adverse impacts on women, girls, and LGBTIQ+ persons;
- d. Recommended measures that can be taken to promote gender equity and empowerment of women, girls, and LGBTIQ+ persons, while mitigating any risks and impacts linked to change in gender dynamics.



2.3.4.3 To the extent legally possible, this risk and impact assessment process is informed by consultations with affected women, girls, LGBTIQ+ persons, and other affected rights-holders and stakeholders and rights-holders, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people to ensure that:

- a. The affected people who participate have opportunities to review and provide feedback, for a period of at least 60 days, on draft key issues, findings, and recommendations that are relevant to them;
- b. They have opportunities to validate these key issues, findings and recommendations, before the ENTITY can consider the process finalized or completed³⁵⁰; and
- c. Draft and final versions of relevant documents and information are shared with stakeholders and rights-holders, in a meaningful, accessible, and culturally appropriate way (as per Section 1.2.3), clearly showing how their feedback and input was taken into account.



2.3.5 Management Plan

- 2.3.5.1** Building on 2.3.4 and other relevant sources of information³⁵¹, a gender management plan (or equivalent) is developed and documented by competent professionals to prevent, mitigate, and remediate gender-related risks and impacts identified, and (to the extent legally possible) to promote gender equity and empowerment of women, girls, and LGBTQIA+ persons in the workplace and in the site's area of influence, to the extent legally possible, as follows:
- The plan outlines specific measures to prevent and, where prevention is not possible or not immediately possible, to mitigate all potential gender-related risks and actual gender-related impacts. Where it is necessary to prioritize measures to address actual and potential adverse impacts, it first seeks to prevent and mitigate those that are most severe or where delayed response would make them irremediable³⁵²;
 - It outlines specific measures to promote, to the extent legally possible, gender equity and empowerment of women, girls, and LGBTQIA+ persons, in the workplace and in the site's area of influence;
 - It includes qualitative and quantitative gender-disaggregated performance indicators (and other categories of disaggregated indicators where appropriate)³⁵³, linked to the baseline data collected as per 2.3.2, to enable monitoring and evaluation of the effectiveness of measures over time;
 - It assigns implementation of measures to responsible staff with adequate skills and expertise;
 - It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping³⁵⁴;
 - It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for affected rights-holders and stakeholders;
 - It maintains estimates of human resources and budget required; and
 - It includes a financing plan in place, to ensure that funding is available for the effective implementation of the plan.
- 2.3.5.2** Affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to gender-related risks and impacts, as follows:
- A grievance mechanism through which affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, can raise, and seek resolution or remedy for, complaints and grievances specifically related to gender-related risks and impacts (see categories listed in Table 2.3-A) is in place³⁵⁵;
 - This grievance mechanism is rights-compatible³⁵⁶;
 - Affected rights-holders and stakeholders have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms³⁵⁷;
 - If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievances specifically related to human rights, the Entity fully meets all requirements in Chapter 1.6; and
 - If a separate mechanism is created to handle only complaints and grievances related to human rights, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.



2.3.6 Monitoring and Evaluation



2.3.6.1 To monitor and evaluate the effectiveness and appropriateness of its gender management plan, at least annually, the ENTITY:

- Tracks and documents its performance, over successive time periods, against the gender-disaggregated indicators defined in 2.3.5.1 (and other categories of disaggregated indicators where appropriate);
- Tracks and documents how the measures developed and implemented as per 2.3.5 are effectively preventing gender-related impacts, and where prevention is not possible or not immediately possible, providing timely and adequate remediation to affected people; and
- Tracks and documents how the measures developed and implemented as per 2.3.5 are effectively promoting gender equity and empowerment of women, girls, and LGBTIQ+ persons, at the workplace and in the project/operation's area of influence.



2.3.6.2 The monitoring and evaluation process:

- To the extent legally possible, encourages and facilitates joint tracking or joint fact-finding with affected people, in a manner that is inclusive of different genders, ages, ethnicities, disabilities, and any potentially underserved and/or marginalized people, as per Chapter 1.2³⁵⁸;
- Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected people; and
- Includes safeguards to protect the security and privacy of collected personal data or characteristics of people³⁵⁹.



2.3.7 Continuous Improvement



2.3.7.1 At least annually, but without undue delay after a significant change, the ENTITY:

- Reviews the monitoring and evaluation results, informed by internal and external feedback, as per Section 2.3.6;
- Reviews any gender-related grievances and the functioning of the relevant grievance mechanism/s required in 2.3.5.2 (see also Section 1.6.4);
- Reviews its effectiveness in preventing and remediating actual gender-related impacts as per 2.3.5, informed by the monitoring and evaluation required in 2.3.6.1 and 2.3.6.2;
- Develops and implements time-bound corrective measures to update, if necessary³⁶⁰, the scoping in accordance with Section 2.3.3;
- Develops and implements time-bound corrective measures to update, if necessary³⁶¹, the risk and impact assessment in accordance with Section 2.3.4;
- Develops and implements time-bound corrective measures to update, if necessary³⁶², its gender management plan in accordance with Section 2.3.5, and
- Develops and implements time-bound corrective measures to update, if necessary³⁶³, its monitoring and evaluation processes in accordance with Section 2.3.6.



2.3.8 Information-Sharing and Public Reporting

- 2.3.8.1** At least annually, the ENTITY makes publicly accessible updated versions of, and maintains publicly accessible all previous versions of:
- A list of the gender-related risks and impacts identified as per 2.3.4, and details on the intersectional methodology used;
 - The qualitative and quantitative gender-disaggregated performance indicators (and other categories of disaggregated indicators where appropriate) used to monitor and evaluate the effectiveness and appropriateness of its gender management plan (defined in 2.3.5.1); and
 - A summary of the measures developed and implemented as per 2.3.5, and the extent to which they effectively prevented gender-related impacts, and where prevention was not possible or immediately possible, provided timely and adequate remediation to affected people (informed by the monitoring and evaluation required in 2.3.6 and the review process required in 2.3.7.1)³⁶⁴.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

- ³³⁷ P. A. Argenti et. al., The Secret Behind Successful Corporate Transformations, Harvard Business Review (2021), <https://hbr.org/2021/09/the-secret-behind-successful-corporate-transformations>. This study identifies six common attributes of company transformations, with three of these attributes related to diversity and inclusivity, including the number of women employees and managers, finding that companies with more gender diversity are more flexible and adaptable to change. Likewise, a 2015 McKinsey report on 366 companies found that those in the top quartile for gender diversity are 15% more likely to have financial returns above the industry mean. While the study does not attribute direct causation, the presumed drivers for the higher returns in companies with more gender diversity come from attracting the best talent, having a strong customer orientation, improved decision making, and increased employee satisfaction. D. Hunt, et. al, Why Diversity Matters, McKinsey & Co. (2015) <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/why-diversity-matters>
- ³³⁸ Eftimi, A., Heller, K. & Strongman, J. (2009) Gender Dimensions of the Extractive Industries: Mining for Equity. Extractive Industries and Development Series No. 8 (World Bank). <https://openknowledge.worldbank.org/handle/10986/18236>
- ³³⁹ IRMA recognizes that for some entities, a policy commitment may be made at the corporate level. In these cases, entities do not need to have developed their own policies, but they will be expected to demonstrate that they are operating in compliance with their corporate owner's policy (e.g., site-level management understand the policy, and have integrated it into the site-level procedures and dealings with business partners, contractors, etc.).
- ³⁴⁰ This may include, as relevant, trade unions, employer organizations, joint venture partners' staff and contractors responsible for operation/management, organizations or public agencies visiting the site.
- ³⁴¹ This may include, as relevant, trade unions, employer organizations, joint venture partners' staff and contractors responsible for operation/management, organizations or public agencies visiting the site.
- ³⁴² IRMA recognizes that for some entities, a policy commitment may be made at the corporate level. In these cases, entities do not need to have developed their own policies, but they will be expected to demonstrate that they are operating in compliance with their corporate owner's policy (e.g., site-level management understand the policy, and have integrated it into the site-level procedures and dealings with business partners, contractors, etc.).
- ³⁴³ This may include, as relevant, trade unions, employer organizations, joint venture partners' staff and contractors responsible for operation/management, organizations or public agencies visiting the site.
- ³⁴⁴ This may include, as relevant, trade unions, employer organizations, joint venture partners' staff and contractors responsible for operation/management, organizations or public agencies visiting the site.
- ³⁴⁵ Collating information which may be sensitive, such as on gender-based violence, may require specific gender-sensitive methodologies and approaches to research engagement.
- ³⁴⁶ Some of this data may have been collected as part of the social baseline established in Chapter 2.1.
- ³⁴⁷ This may include, as relevant, trade unions, employer organizations,

³⁴⁸ Collating information which may be sensitive, such as on gender-based violence, may require specific gender-sensitive methodologies and approaches to research engagement.

³⁴⁹ Where it is necessary to prioritize actions to address actual and potential adverse human rights impacts, the ENTITY should first seek to prevent and mitigate those that are most severe or where delayed response would make them irremediable. (UN Guiding Principles)

³⁵⁰ If evidence demonstrates that some or all stakeholders and rights-holders did/do not provide feedback and/or validation despite being provided with adequate and meaningful time, and with information-sharing taking place in accordance with Section 1.2.3, the ENTITY may “fully meet” this requirement.

³⁵¹ Other sources of information may include data from monitoring and evaluation, discussions with or grievances filed by stakeholders or workers, internal reviews of particular issues that relate to gender-related issues, risks and impacts, etc.

³⁵² Once the most severe and most likely adverse impacts are addressed within a reasonable time, the ENTITY will address less severe and less likely adverse impacts.

³⁵³ Other disaggregation may be by age, ethnicity, disability, vulnerability status, proximity to the operation, etc.

³⁵⁴ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

³⁵⁵ The operational-level grievance mechanism developed as per IRMA Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) may be used as the mechanism to receive all types of complaints, including those related to human rights, or a separate mechanism may be created to handle only human rights complaints and grievances. If a separate mechanism is developed, it shall be done in a manner that is consistent with Chapter 1.6. Also, there may be other mechanisms that are not operated by the company through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file human rights related grievances with the company. ‘Rights-compatible’ means ensuring that outcomes and remedies accord with internationally-recognized human rights.

³⁵⁶ ‘Rights-compatible’ means ensuring that outcomes and remedies accord with internationally-recognized human rights.

³⁵⁷ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file grievances with the company.

³⁵⁸ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business’ own tracking of the effectiveness of its response to it.

³⁵⁹ Especially of rights-holders at heightened risk of criminalization, vulnerability and marginalization, including LGBTIQ+ persons, or any other sensitive data.

³⁶⁰ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

³⁶¹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

³⁶² This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

³⁶³ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

³⁶⁴ Note that, effective 1st November 2024, South Africa legally requires all mines to “develop and submit a GBVF [Gender-Based Violence and Feminicide] implementation plan” every year with a “progress report of the previous year”. Source: Mine Health and Safety Act, 1996 (Act No. 29 of 1996) Guidance Note for the Management of GBVF, Safety and Security Challenges for Women in the South African Mining Industry (2 August 2024) https://www.gov.za/sites/default/files/gcis_document/202408/51003gon5098.pdf

Chapter 2.4

Obtaining Community Support and Delivering Benefits

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Feedback from stakeholders during the public review period indicated significant concerns with the two proposed IRMA requirements addressing "Broad Community Support" (BCS) (2.3.2.1 which asks that entities be able to demonstrate having obtained BCS through local democratic or other governance mechanism, and 2.3.2.2 which asks that entities demonstrate that they are maintaining BCS over time). Some of these concerns were that:
 1. Formal indications of support such as that envisioned by 2.3.2.1 are extremely rare in practice.
 2. If / where such processes do occur it is unlikely that auditors would have access to the full range of information required to assess if they meet 2.3.2.1 and / or these processes likely will not change to meet IRMA requirements.
 3. There is potential for wide inconsistency in terms of how auditors determine whether BCS was / has been obtained in a particular context.
 4. Where BCS already exists *de facto*, asking entities to go out and formalize it may provide perverse incentives to communities to suddenly 'withhold (formal / *de jure*) support' to obtain more benefits than those they had previously deemed sufficient.
 5. Where BCS already exists *de facto* and communities are willing to formalize this, then "obtaining BCS" becomes just an expensive and time-consuming 'check-box' process that doesn't substantively change the situation on the ground.
 6. If an ENTITY seeks to obtain *de jure* BCS and is unsuccessful (either because BCS does not *de facto* exist, or because of the situation indicated in #4 above, or because logistically it is simply not feasible), unless IRMA is also going to require that operations stop unless / until BCS is obtained, it is somewhat of an empty process.
 7. Given that the requirements for BCS are not critical, there are no consequences (besides receiving a low score on these two IRMA requirements), meaning entities may simply opt to take no action on this.
- Proposed to move away from the concept of obtaining and maintaining "BCS" to instead create an entirely new set of requirements that are not only auditable, but also hopefully lead to positive changes on the ground. Our proposed approach is based on the premise that all sites should demonstrate that they understand the level and causes of support (and opposition) in affected communities and that they use this information to make efforts to continuously improve relationships so that support is strengthened over time. These are reflected in the new proposed Section 2.4.2 below.
- Strengthened and clarified requirements related to procurement in Section 2.4.3, including a local content management plan (with targets/goals related to local employment and procurement), and also added a new requirement related to transparency around local hiring (2.4.6.3).
- Proposed one optional requirement (IRMA+) for additional data disaggregation re. to local content (2.4.6.4).
- Removed requirement for minimum standards for suppliers of goods and services, as this is now covered in Chapter 1.4–Upstream and Downstream Sustainability Due Diligence, requirement 1.4.2.1, however, included in this Chapter monitoring requirements related to the supplier Code of Conduct mentioned in 1.4.2 (2.4.4.2.c) and reporting on compliance in 2.4.6.2.c.
- Substantial structural changes to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback Received and Proposed Decision
2.3-01	Background: 'Broad community support' neither requires nor implies 100% agreement in the community. Therefore, even if a democratic vote is taken or an agreement signed there will almost always be some community members who are supportive of a project or operation, and some who are opposed (see a similar discussion related to free, prior and informed consent (FPIC) in CONSULTATION QUESTION 2.2-01 in Chapter 2.2). Furthermore, even if agreements have been signed or there was at some point in time a community vote, etc., sentiments can change over time: opposition may emerge or increase if entities are not responsive to community concerns and/or do not manage social or environmental impacts well; or support may increase if efforts are made to create positive opportunities or benefits such as jobs or training programs. As a result, at one point in time there may be significant enough community-based opposition to say that a site has not obtained or maintained broad community support, and a few years later this situation could reverse. Ultimately, at every audit the auditors will need to determine about whether a project /operation has broad community support based on the weight of evidence that they have reviewed. Typically, auditors: • Carry out interviews with affected community members, local and regional non-governmental organizations, and local authorities to understand any processes, events, or outcomes that might indicate presence/absence or change in level of broad community support; and • Review current social and traditional media to ascertain community opinions and responses to the ENTITY/project. IRMA will continue to train auditors so that the narratives that accompany this requirement in the public audit report reflect the weight of evidence (i.e., any positive support and any opposition that may exist) that led to their conclusions. We will also develop additional guidance and training for auditors on how to assess/factor in the presence of some opposition (i.e., how much weight to give to a handful of negative articles, a few oppositional	Feedback received: Public feedback expressed concern with the idea of being able to consistently and objectively determine indicators to "assess" whether BCS had been 'obtained' or 'maintained', although feedback indicated that indicators to gauge level of support were possible, as distinct from attempting to establish a definitive indication of when and how support is widespread and consistent enough to constitute "broad" community support as a static concept. Feedback also suggested, as a result of the difficulties outlined above, that auditors should use their best judgment when accessing and be trained to appropriately weigh evidence. Proposed Decision: Based on stakeholder feedback received, IRMA proposes to move away from the concept of obtaining and maintaining "Broad Community Support" (BCS) to instead create an entirely new set of requirements that can be consistently and objectively audited, and also hopefully lead to positive changes on the ground. Our proposed approach is based on the premise that all sites demonstrate that they understand the level and reasons for support (and opposition) in affected communities, and that they use this information to make efforts to continuously improve relationships so that support is strengthened over time. These are reflected in the new proposed Section 2.4.2. We will no longer use the term "broad community support" in Chapter 2.4. Our decision is based on the concerns expressed with being able to objectively define and measure what constitutes BCS. Though directly taken from the language of the IFC Performance Standard, we have had to acknowledge the methodological impossibility (or inadequate pretention) of claiming that a site 'obtained broad community support'. As expressed in an Advisory Noteⁱ published in 2010 by the Office of the Compliance Advisor/Ombudsman (CAO) for the International Finance Corporation (IFC) Multilateral Investment Guarantee Agency (MIGA) Members of the World

ⁱ Review of IFC's Policy and Performance Standards on Social and Environmental Sustainability and Policy on Disclosure of Information. https://www.cao-ombudsman.org/sites/default/files/2021-06/CAOAdvisoryNoteforIFCPolicyReview_May2010.pdf

	tweets, a group of unhappy community members, etc.). Question: Are there specific metrics that can consistently and objectively reflect whether or not broad community support is being maintained? Or is it enough that auditors weigh the evidence and are transparent about their findings?	Bank Group: <i>"IFC's implementation of its Broad Community Support commitment has been highly restrictive and not transparent. As a result, IFC has missed the opportunity to play a leadership role in helping to advance the implementation of local approval processes. IFC's application of the Broad Community Support commitment has changed over time, yet these changes have not been clearly communicated."</i> Determination of Broad Community Support in the most up-to-date version of the IFC Environmental & Social Review Procedures Manual (2016) remains a very opaque and subjective procedure. And IRMA has not been able to come up with agreed, clear metrics, and a weighting system, that would enable auditors to consistently make a determination of the achievement or non-achievement of broad community support.

BACKGROUND

There is widespread acknowledgement from extractive industries that efforts spent on building respectful relationships, responding to community and Indigenous Peoples' concerns, and minimizing and mitigating project-related impacts, can be beneficial to both companies and affected communities.

Mining companies typically contribute national and local economic benefits through payments in taxes and royalties. Mining and mineral processing companies can also contribute –often even more– by procuring goods and services from businesses owned and run by entrepreneurs located in the vicinity of the project/operation, or from the wider local area, or nationally in the country of operation. Leading companies also recognize the need for not only preventing harm, but also delivering additional benefits to affected communities, and that benefits are best defined by the communities themselves. When communities' needs and aspirations are not at the forefront of company investments, experience shows that efforts often fail to deliver long-lasting benefits. Increasingly, efforts are being made to ensure that community investments made by mining and mineral processing companies provide both immediate and ongoing benefits that last beyond the life of the mining operation. Measures and programs to support skills development and to maximize employment opportunities for local community members, including as consultants or contractors, have the potential to significantly contribute to the achievement of the United Nations Sustainable Development Goals (SDGs) that aims at preventing poverty and hunger, and at ensuring quality education, reduced inequalities, and good health and wellbeing, while also contributing to development and retention of talents for mining and mineral processing companies.

Benefit-sharing approaches can take many forms, according to the local context, and the needs and aspirations of affected communities. It is worth noting that benefit-sharing modalities may include co-ownership or co-management modalities with affected communities (which may also include Indigenous Peoples), as evidenced by recent examples in the sector. To maximize the meaningfulness and appropriateness of those models, as well as other benefit-sharing models, companies must understand barriers and enablers, to support communities' developmental aspirations and more broadly, to support a fairer distribution of benefits from mining and mineral processing operations with local communities. Those options may not be desired and pursued by all communities.

In addition to providing tangible benefits to affected communities, there is a growing need for companies to obtain and maintain a high level of community support for their projects and operations.³⁶⁵ Steps taken by a company to obtain and expand community support can foster the development and maintenance of strong relationships with affected communities. And a high level of community support can provide reassurance to an ENTITY's shareholders and investors regarding the longer-term stability of its project/operation.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts, 2012
- IFC Guidance Note 1: Assessment and Management of Environmental and Social Risks and Impacts, 2012 (updated 2021)
- IFC Community Development Resource Guide for Companies – Investing in People: Sustaining Communities through Improved Business Practice, 2001

OBJECTIVES OF THIS CHAPTER

To understand, measure, and take measures to increase support from affected communities; and produce tangible and equitable benefits to communities that are in alignment with their needs and aspirations and sustainable over the long term.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining, and mineral processing, projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

2.4.1 Formalized Policy

2.4.1.1 The ENTITY has a formal policy in place that:

- a. Commits to improve, or at least maintain, the health, and social and economic wellbeing³⁶⁶ of communities affected by the site and its associated facilities, and to operate with the highest possible level of community support for its projects/operations;
- b. Commits to maximize employment and procurement opportunities for local community members;
- c. Sets clear expectations for how personnel, contractors, and other relevant parties³⁶⁷ linked to the site and its associated facilities shall adhere to this policy;
- d. Is approved at the top management level of the ENTITY;
- e. Is proactively communicated to personnel, contractors, and other relevant parties³⁶⁸ linked to the site and its associated facilities;
- f. Is publicly accessible; and
- g. The ENTITY has allocated financial and staffing resources to implement this policy at the level of the site.

2.4.2 Understanding and Strengthening Community Support³⁶⁹

2.4.2.1 Critical Requirement

Building on the identification of affected rights-holders and stakeholders required in Chapters 1.2 and 1.3, a methodology to gauge the level and diversity of support for, and opposition to, the site and its associated facilities amongst affected communities, is developed by competent professionals, as follows:

- a. The methodology includes qualitative and quantitative performance indicators, linked to appropriate baseline data, to enable monitoring and evaluation of the level and diversity of support for, and opposition to, the site and its associated facilities amongst affected communities, as well as protocols and/or processes to collect the data necessary to measure performance against those indicators;
- b. It includes gender-disaggregated indicators, and other categories of disaggregated indicators where appropriate³⁷⁰; and
- c. It is developed in collaboration with members and representatives of affected communities, in a manner that is inclusive of different genders, ages, and any potentially underserved and/or marginalized people.



2.4.2.2 The ENTITY has a system in place to ensure that:

- a. The data necessary to measure performance against the indicators required in 2.4.2.1 is collected and updated at least every two years, or more frequently if requested by affected communities³⁷¹;
- b. The data and results are proactively shared and discussed with affected communities, in accordance with Chapter 1.2;
- c. It proactively seeks input from affected communities on measures that could strengthen the level and/or diversity of support for the project/operation amongst affected communities;
- d. It proactively seeks input from affected communities on whether or not the methodology for gauging community support needs to be improved; and
- e. When seeking input (c. and d.), it facilitates inclusion of affected rights-holders and stakeholders of different genders, ages, and any potentially underserved and/or marginalized people on these engagement activities;



2.4.2.3 Building on the data collected and the community input obtained as per 2.4.2.2, a community support plan (or equivalent) is developed by competent professionals, as follows:

- a. The plan outlines specific measures to strengthen the level and diversity of community support for the project/operation;
- b. If necessary³⁷², it outlines specific measures to improve the methodology for gauging community support;
- c. It assigns implementation of measures to responsible staff with adequate skills and expertise;
- d. It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping³⁷³;
- e. It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for affected rights-holders and stakeholders;
- f. It maintains estimates of human resources and budget required; and
- g. It includes a financing plan to ensure that funding is available for the effective implementation of the plan.

2.4.3 Management Plans to Deliver Community Benefits

2.4.3.1 Building on the identification of affected rights-holders and stakeholders required in Chapters 1.2 and 1.3, a **community benefit plan** (or equivalent³⁷⁴) is developed and documented by competent professionals, in collaboration with affected communities, as follows:

- a. The plan includes community development and benefit measures/initiatives that benefit a broad spectrum of the community or that target specific groups³⁷⁵ in ways that are accepted by the beneficiaries and the communities;
- b. Those measures/initiatives include clear and agreed expected outcomes for the beneficiaries, aimed at improving, or at least maintaining, the social and economic wellbeing³⁷⁶ of affected people;
- c. The plan includes mechanisms that can be self-sustaining after closure of the operation, including through building community capacity to oversee and sustain any measures/initiatives agreed upon through negotiations;
- d. The plan ensures that measures/initiatives are developed and documented in culturally appropriate and easily accessible manner, in accordance with Chapter 1.2;
- e. It assigns implementation of measures to responsible staff with adequate skills and expertise;
- f. It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping³⁷⁷;
- g. It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for affected rights-holders and stakeholders;
- h. It maintains estimates of human resources and budget required; and
- i. It includes a financing plan in place to ensure that funding is available for the effective implementation of the plan.

2.4.3.2 In accordance with Chapter 1.2, the plan is informed by a participatory planning process with affected communities, that:

- a. Facilitates participation by a broad spectrum of the communities, including different genders, ages, and ethnicities;
- b. Include specific measures to facilitate the participation any potentially underserved and/or marginalized people³⁷⁸;
- c. Adheres to principles of **good governance**, through: 1) An agreed set of procedures to guide the process; and 2) An agreed set of criteria for how initiatives and beneficiaries will be selected;
- d. Adheres to the principle of **transparency**, through ensuring that: 1) Information on the planning process and procedures are widely accessible and understood within the community; and 2) The planning process and any outcomes, decisions, and/or agreements are documented and made publicly accessible in languages and formats that are understandable to affected communities; and
- e. If assistance by independent experts chosen by affected communities³⁷⁹ is not provided by the appropriate public authorities, the ENTITY offers to cover, in full or in part, costs related to such external assistance, and a mutually-acceptable agreement for covering costs is developed.



2.4.3.3 To maximize procurement opportunities for local community members, a **local procurement management plan** (or equivalent) is developed by competent professionals, in collaboration with affected communities, as follows:

- a. The plan includes quantitative targets and/or goals for sourcing from, and supporting, local suppliers and businesses (including gender-disaggregated indicators and other categories of disaggregated indicators where appropriate)³⁸⁰;
- b. It outlines processes for the transparent selection of local suppliers and the management of corruption risks in the selection process (see Chapter 1.7);
- c. It is proactively shared with local suppliers, business-owners and entrepreneurs, along with the suppliers' Code of Conduct required in 1.4.2;³⁸¹
- d. It assigns implementation of measures to responsible staff with adequate skills and expertise;
- e. It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping³⁸²;
- f. It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for local suppliers and businesses;
- g. It maintains estimates of human resources and budget required; and
- h. It includes a financing plan in place to ensure that funding is available for the effective implementation of the plan.



2.4.3.4 To maximize employment opportunities for local community members, a **local employment management plan** (or equivalent) is developed by competent professionals, in collaboration with affected communities, as follows:

- a. Outlines specific measures to address barriers to, and maximize enablers and opportunities to, employment of local community members, including as consultants or contractors;
- b. Outlines specific measures to support skills development and career advancement of employees coming from local communities;
- c. Includes appropriate time-bound performance indicators (including gender-disaggregated indicators and other categories of disaggregated indicators where appropriate)³⁸³ to enable evaluation of the effectiveness of the local employment measures taken;
- d. It assigns implementation of measures to responsible staff with adequate skills and expertise;
- e. It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping³⁸⁴;
- f. It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for the affected communities;
- g. It maintains estimates of human resources and budget required; and
- h. It includes a financing plan in place to ensure that funding is available for the effective implementation of the plan.

2.4.4 Monitoring and Evaluation

2.4.4.1 To monitor and evaluate the implementation and effectiveness of the **community benefit plan**, the ENTITY:

- a. Collaborates with affected communities to, at least annually, track and document the ENTITY's performance on improving, or at least maintaining, the social and economic wellbeing³⁸⁵ of communities affected by its activities, over successive time periods, against the expected outcomes defined in 2.4.3.1, and the performance indicators developed and updated as per 2.4.2.1;
- b. Encourages and facilitates joint monitoring and joint tracking with affected communities, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2³⁸⁶; and
- c. Includes continuous feedback from internal and external sources to inform these monitoring and evaluation activities.

2.4.4.2 To monitor and evaluate the implementation and effectiveness of the **local procurement and employment management plans**, the ENTITY:

- a. Tracks and documents its performance on maximizing **procurement** opportunities for local community members, over successive time periods, against the local procurement targets and goals required in 2.4.3.3.a;
- b. Tracks and documents its performance on maximizing **employment** opportunities for local community members, over successive time periods, against the local employment performance indicators required in 2.4.3.4.c;
- c. Includes continuous feedback from internal and external sources to inform these monitoring and evaluation activities;
- d. Monitors its local suppliers for compliance with the human rights, social, labor, and environmental rules and principles defined in its Code of Conduct required in 1.4.2.

2.4.5 Continuous Improvement

- 2.4.5.1** At least annually, but without undue delay after a significant change, the ENTITY:
- Reviews the monitoring and evaluation results, informed by internal and external feedback, as per Section 2.4.4;
 - Reviews any grievances related to community support, community benefit, and local content, and the functioning of the relevant grievance mechanism/s (see also Section 1.6.4);
 - Reviews its effectiveness in improving, or at least maintaining, the social and economic wellbeing³⁸⁷ of communities affected by its activities as per 2.4.3, informed by the monitoring and evaluation required in 2.4.4.1;
 - Reviews its effectiveness in maximizing local procurement and local employment opportunities as per 2.4.3, informed by the monitoring and evaluation required in 2.4.4.2;
 - Develops and implements time-bound corrective measures to update, if necessary³⁸⁸, its methodology to gauge the level, and diversity, of support for, and opposition to, the project/operation amongst affected communities in accordance with Section 2.4.2;
 - Develops and implements time-bound corrective measures to update, if necessary³⁸⁹, its community benefit plan in accordance with Section 2.4.3;
 - Develops and implements time-bound corrective measures to update, if necessary³⁹⁰, its local procurement and employment management plans in accordance with Section 2.4.3; and
 - Develops and implements time-bound corrective measures to update, if necessary³⁹¹, its monitoring and evaluation process in accordance with Section 2.4.4.

2.4.6 Information-Sharing and Public Reporting

- 2.4.6.1** At the same frequency as in 2.4.2.2, the ENTITY makes publicly accessible updated versions of, and maintains publicly accessible all previous versions of:
- The methodology used to gauge community support, required in 2.4.2;
 - A summary of the data collected through, and the results of, all the protocols and/or processes implemented to gauge community support; and
 - A summary of the measures taken to strengthen community support, and the extent to which they are being effective.
- 2.4.6.2** At least annually, the ENTITY makes publicly accessible updated versions of, and maintains publicly accessible all previous versions of:
- A summary of its local procurement management plan, as required per 2.4.3.3;
 - A summary of its local employment management plan, as required per 2.4.3.4; and
 - A summary of the results of the local supplier compliance monitoring process required in 2.4.4.2.d, and the corrective measures taken in response (see 2.4.5.1);



2.4.6.3 At least annually, the ENTITY makes publicly accessible updated versions of, and maintains publicly accessible all previous versions of:

- a. The number of people from local communities who work as employees, disaggregated by gender, for the reporting period;
- b. The number of people from local communities who work for its contractors, disaggregated by gender, for the reporting period; and
- c. The number of people from local communities working as employees and for its contractors who have been promoted to more senior positions over the reporting period.



2.4.6.4 **IRMA+**

The ENTITY also disaggregates the data required in 2.4.6.3 by:

- a. Age group/range;
- b. Disability³⁹²;
- c. Indigenous status, if relevant; and
- d. Any potentially underserved and/or marginalized people.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

³⁶⁵ For example, ICMM members recognize that: "Successful mining and metals projects require the support of a range of interested and affected parties. This includes both the formal legal and regulatory approvals granted by governments and the broad support of a company's host communities." (ICMM. 2013. Indigenous Peoples and Mining. Position Statement. <https://www.icmm.com/en-gb/members/member-commitments/position-statements/indigenous-peoples-and-mining-position-statement>)

³⁶⁶ **Economic wellbeing** can refer to material living conditions which determine people's consumption possibilities and command over resources (OECD Better Life Initiative 2011), whereas **social wellbeing** can refer to the degree to which individuals are functioning well in their social lives (perception of integration into society, acceptance of other people, coherence of society and social events, sense of contribution to society, potential and growth of society (Keyes, C. L. M. (1998). Social well-being. Social Psychology Quarterly, 61, 121-140.) Beyond offering these definitions, it is not feasible for IRMA to determine a checklist of 'wellbeing' indicators that entities need to commit to, because what constitutes wellbeing in each context will vary. IRMA's approach, rather, is to incorporate throughout the various chapters ample guidance for entities concerning determining, in conjunction with affected stakeholders, the needs and interests of those stakeholder themselves (many of which contribute to their economic and social well-being), and seeking to achieve those co-established goals.

³⁶⁷ This may include, as relevant, trade unions, employer organizations, joint venture partners' staff and contractors responsible for operation/management, organizations or public agencies visiting the site.

³⁶⁸ This may include, as relevant, trade unions, employer organizations, joint venture partners' staff and contractors responsible for operation/management, organizations or public agencies visiting the site.

³⁶⁹ The requirements in 2.3.2 apply to non-Indigenous communities. If an affected community is an Indigenous Peoples' community, the ENTITY is required to respect all fundamental rights of Indigenous Peoples, including their right to free, prior and informed consent (FPIC) (as per Chapter 2.2).

³⁷⁰ Other disaggregation may be by age, ethnicity, disability, vulnerability status, proximity to the operation, etc.

³⁷¹ IRMA recognizes that, ideally, this should be taking place on an ongoing basis. But the Standard is proposing flexibility in how entities choose to meet this requirement - depending on the relationship with the communities, agreements with communities as to how engagement should occur, presence of traditional structures influencing engagement processes, preferences of the communities, existing methodologies to gauge community support, and what is logistically feasible in the specific context, entities may choose to take a 'snapshot' of community support every three years, or they may choose to continually update such an understanding and simply commit to publishing findings at least every two years.

³⁷² As informed by 2.4.2.2.d. This plan will be reviewed and continuously improved, as necessary, as per Section 2.4.5.

³⁷³ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

³⁷⁴ E.g. These provisions could be integrated into (and evidenced through) a community benefit agreement (or agreements), if affected communities request, or are willing to, formally approve agreements.

³⁷⁵ E.g. historically- or traditionally-underserved and/or marginalized people.

³⁷⁶ Community health and safety is addressed in dedicated Chapter 3.3.

³⁷⁷ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

³⁷⁸ Note that the purpose of including a broad range of stakeholders is to ensure that benefits to communities are not confined to a few, but rather are shared throughout the community. This approach should also aid in reducing potential conflicts within communities that could arise if some groups or individuals are viewed as gaining benefits while others do not.

Which stakeholders must be included and what may constitute 'underserved and/or marginalized people' requiring additional focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those who are not able or willing to participate in planning processes without particular considerations/accommodations; this often includes persons with disabilities, socially or geographically marginalized groups, those in a state of poverty, the illiterate, groups for whom local cultural practices or household duties deter participation (i.e., women, elderly, children), etc. Additional guidance will be provided in the IRMA Guidance Document.

³⁷⁹ E.g., as facilitators and/or community advisors of their own choosing, to support them in, for example: understanding, negotiating, navigating, monitoring and evaluating, measures/initiatives/opportunities led or co-led by the Entity to improve the social and economic wellbeing of affected people.

³⁸⁰ Other disaggregation may be by age, ethnicity, disability, vulnerability status, proximity to the operation, etc.

³⁸¹ See [MSV LPRM standard](#) for additional details pertaining to best practice for local procurement.

³⁸² If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

³⁸³ Other disaggregation may be by age, ethnicity, disability, vulnerability status, proximity to the operation, etc.

³⁸⁴ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

³⁸⁵ Community health and safety is addressed in dedicated Chapter 3.3.

³⁸⁶ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

³⁸⁷ Community health and safety is addressed in dedicated Chapter 3.3.

³⁸⁸ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to d.

³⁸⁹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to d.

³⁹⁰ This will be informed by the monitoring and evaluation process required in the previous Section –including the monitoring of any non-compliance of local suppliers with the ENTITY's Code of Conduct (see 2.4.4.2.d)–, and on the review process required in a. to d.

³⁹¹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to d.

³⁹² See all GRI - Disability reporting in sustainability reporting (2021)

https://www.globalreporting.org/media/0zmnlesh/dhub_disability_reporting_guide.pdf



Chapter 2.5

Land Acquisition, Displacement, and Resettlement**SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES**

- Combined former 2.4A.7.3 and 2.4A.7.5 as they both dealt with the same issue, i.e. measures to be taken if expropriation occurs, expanded on those measures, and clarified that the ENTITY is to cooperate with the responsible government agency, in recognition that expropriation is often carried out by the government once ENTITY-led efforts to negotiate a land sale agreement have failed. (see new requirement 2.5A.7.6).
- Altered now requirement 2.5A.7.2 to add more clarity that 'forced evictions' (which, by definition, are done without provision of legal protections) are distinct from legal expropriation processes, and that forced evictions simply should never be done.
- Re-organized Section 2.5A.7 to follow the logical flow of resettlement proceedings more accurately
- Clarified in chapter "scope of application" that the following requirements previously being considered as 'optional' for post-2012 resettlements are now mandatory for any resettlement undertaken after 2012:
 - 2.5A.7.4 - temporary transitional resettlements
 - 2.5A.7.5 - voluntary land transactions (i.e. voluntary displacement)
- Added a note in the "scope of application" section clarifying what it means for a land acquisition process / resettlement to have "occurred" prior to 2012, between 2012 and 2024, etc. (i.e. that both the planning and implementation, but not the extended M&E, had to have been completed before 2012 for it to be considered as having 'occurred' in that time period).
- Added mention of need for entities to consider climate change adaptation in RAP / LRP planning (2.5A.4.1.f)
- Added an endnote to sub-requirement 2.5.1.1.a stating that entities must explicitly consider all informal landowners or others affected by displacement as 'involuntary' as they will not have any legal basis on which to seek compensation from entities for impacts
- Included a remediation sub-requirement to ensure that, where "voluntary" transactions have fallen short of the provisions of 2.5A.7.5 (mostly in terms of payment of fair market value), that the ENTITY remediates this (see 2.5A.7.5.e)
- Added an optional IRMA+ requirement to consider temporary displacement impacts during discovery / early exploration stages (2.5A.2.2).
- Added language that entities must explicitly demonstrate why temporary transitional displacement is deemed unavoidable and that legal or professional advice must be offered to those being temporarily displaced (2.5A.7.4)
- Removed former Section 2.4A.9 relating to ENTITY responsibilities in government-led resettlements, instead indicating at the outset of the chapter ENTITY obligations in these cases. Previously, this placed the ENTITY's entire chapter score on this single requirement, which asks for the ENTITY to develop a supplementary plan to address gaps between IRMA requirements and the government-led resettlement, in the case of a government-led resettlement. We are proposing instead to specify in the 'scope of application' section that the entire chapter applies, but that in cases where the ENTITY was restricted by the government in their ability to influence resettlement outcomes, that they only have to demonstrate good faith efforts to exert this influence. We will also propose providing guidance that auditors highlight in an opening narrative where entities have been unable to influence the government and therefore resettlement results have fallen short of expectations (which might, if the ENTITY made good faith efforts mentioned above, tell a different story than their total score on the chapter). Public feedback indicated this was important

to avoid IRMA perpetually assigning achievement levels on this chapter to entities who knowingly invest in areas where they know they will not be able to influence the resettlement and that it will therefore fall short of IRMA expectations).

- Minor changes made in 2.5B to reflect changes in 2.5A where relevant.
- Monitoring and Evaluation, and Continuous Improvement requirements have been broken down into multiple requirements to ensure auditability and assessability.
- Substantial structural changes, to ensure clarity, and consistency throughout the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback Received and Proposed Decision
2.4-01	(Grievances related to displacement and resettlement) (Note: question repeated from Chapter 1.4 – ‘Complaints and Grievance Mechanism and Access to Remedy’) Question: Should an ENTITY’s score on grievance-related requirements within individual non-grievance-specific chapters be restrained or linked to the overall score that the ENTITY gets on the grievance chapter (Chapter 1.4) as a whole?	See Chapter 1.6 (former 1.4) for feedback received, proposed decision, and relevant changes to chapter guidance.
2.4A-01	(Inclusion of climate resiliency and climate adaptation during resettlement planning) IRMA has identified climate resiliency and adaptation as a necessary consideration in the ESIA process. Should IRMA also require that climate resiliency and climate adaptation be considered during resettlement planning (e.g., in terms of social capital development, social learning and effective community organization and leadership; livelihoods restoration strategies which respond to changing climatic conditions; climate-resilient housing, settlements layout and infrastructure; or other key areas of climate-related impact as it relates to resettlement)? Examples of current, emerging, or predicted concerns are welcome for context.	Feedback received: Public feedback overwhelmingly supported inclusion of this topic in Chapter 2.5A. Proposed Decision: Add sub-requirement 2.5A.4.1.f requiring entities to consider climate adaptation needs when designing livelihood restoration measures.
2.4A-02	(Displacement of households with no legal or formal claim to lands) Background: IFC guidance states that entities are not obligated to provide replacement land or compensation for land to affected people with no formal or customary claim to the lands on which they live /engage in productive activities. However, PS5 does state that affected people, “should be offered resettlement assistance sufficient to restore their standards of living at a suitable alternative site.” If not through offering replacement land or compensation for land, how should entities restore standards of living of affected people who do not own land and, without compensation, may not be able to purchase land to reestablish their affected structures/livelihoods?	Feedback received –(including an additional survey distributed to leading global resettlement experts): suggested that the decision to provide replacement lands to physically displaced people with no claim to land is a very context-dependent decision, and therefore should not be mandated by IRMA in all contexts (this approach is also taken by the IFC). There is a need to balance ensuring that underserved and/or marginalized people are not made more vulnerable as a result of displacement, with concerns about legitimizing land grabbing and speculation that itself can have negative impacts on communities impacted by a project. Where the opportunistic occupation of lands with the intent of obtaining

	Question: What guidance should IRMA give to entities concerning obligations towards physically displaced households in particular, where those households do not own lands on which to reestablish their residential structures? How should IRMA guide auditors to interpret “options for adequate housing with security of tenure” and the overall obligation to restore previous standards of living?	benefits from a project occurs on public lands, legitimizing these land claims can set a dangerous precedent and in many jurisdictions is incompatible with local legislation. Where speculation occurs through purchases of privately-owned lands in a project area at low costs with the anticipation of selling them to a project for a profit, vulnerable households that perhaps do not have the knowledge or capacity to enforce their rights and ensure a fair sale price are most likely to fall victim to this behavior. That being said, there are other contexts in which the occupation of lands is not opportunistic, i.e. individuals have been living on (or making productive use of) public lands for an extended period of time in jurisdictions that do not recognize this as constituting a customary land claim (which in many other jurisdictions would constitute a customary land claim). Proposed Decision: We are retaining the requirement that entities, at a minimum, undertake measures to ensure that physically displaced households with no legal or formal claim to lands are provided with options for housing with security of tenure appropriate to the context (2.5A.5.3), keeping in mind that all proposed measures will be decided on in communication with the affected people themselves. This could include enabling them to establish a rental situation, offering loans to enable them to purchase lands at a discounted rate, etcetera. Note: this will be reflected in guidance, there is no corresponding change in the chapter text.
2.4A-03	(Displacement of tenants) Background: In the case of tenants, IFC does not specify a particular outcome. IFC guidance states that, “In some cases, tenants may qualify for replacement housing and in other cases they will be resettled in similar housing under similar or improved tenure arrangements.”³⁹³ Without some boundaries it is difficult for companies and auditors to know if the requirement for providing “adequate housing with security of tenure” is fully being met. Question: What should ‘security of tenure’ look like in practice for households renting residential structures that are affected by the project? Should IRMA specify a best practice outcome? If so, what would that look like, e.g., similar housing with a 12-month lease (if there was no previous lease), or something else?	Feedback received: Feedback was limited on this question - some suggested IRMA should defer to country of operation’s laws, others suggested that 12 months is an appropriate timeframe. Proposed Decision: As with Consultation Question 2.4A-02, above, we are retaining the requirement that entities, at a minimum, undertake measures to ensure that physically displaced households with no legal or formal claim to lands, such as households that are renting residences, are provided with options for housing with security of tenure appropriate to the context (2.5A.5.3), keeping in mind that all proposed measures will be decided on in communication with the affected people themselves. This could include providing them

		with at least a 12-month lease in a similar residential structure (similar to the requirements for commercial renters in 2.5A.6.1.b) or other reasonable solution agreed to by the affected person/household, unless a lease of this duration is prohibited by country of operation's laws. Note: this will be reflected in guidance, there is no corresponding change in the chapter text.
2.4A-04	(Transitional temporary physical resettlement) Background: Per IRMA guidance for requirement 2.4.7.6 (which was 2.4.6.6 in the 2018 Mining Standard³⁹⁴) the IFC PS5 requires entities to pay compensation and provide affected people with replacement lands/structures prior to displacement, while recognizing that circumstances can arise in which it is not feasible to do so. However, there is little international guidance detailing how these 'transitional' temporary resettlements should occur. Requirement 2.4.7.7 is designed to fill this gap and ensure that the treatment of displaced people subject to transitional temporary physical resettlement is done in a manner that is consistent with the spirit of this chapter in terms of reducing vulnerability and ensuring that stakeholders are not made worse off as a result of displacement. Question: Do you agree that this is an issue that needs to be addressed? And if so, do you have any feedback on the requirement as proposed	Feedback received: Public feedback was strongly supportive of addressing this issue for any resettlement occurring post 2012. Some even suggested strengthening it. Proposed Decision: The new draft adjusts the requirement (now 2.5A.7.4) to require entities to not only "make efforts" to avoid transitional temporary physical resettlement, but also to demonstrate how / why it was not avoidable. Also, the requirement now includes that affected households are offered the option for independent legal or professional advice (see 2.5A.7.4.c) before formally agreeing/not agreeing to the proposed temporary resettlement terms.
2.4A-05	(Applicability of requirements related to voluntary displacement) Background: The current proposal for requirement 2.4.7.9 is that entities undertaking their land acquisition between 2012 and the release of the updated IRMA Standard can choose to be exempted from this requirement, based on the logic that regulation of voluntary land transactions goes beyond the IFC PS and therefore cannot be said to have been normative (and therefore expected of entities) beginning in 2012. However, one might also argue that the requirements indicated for voluntary transactions (fair market price, decisions made free of coercion, etc.) constitute norms of fair market value transactions that were normative long before 2012. Question: Do you agree with the proposed approach of allowing entities whose land acquisition occurred between 2012 and the release of IRMA Version 2.0 (2024) to choose to be audited (or not) against this requirement (2.4.7.9 - obligation to assess and ensure quality of "voluntary" [willing buyer-seller] transactions)	Feedback received: Public feedback supported the idea that global norms pertaining to fair market value transaction norms and good faith negotiations and voluntary transactions (as represented by the sub-requirements of current 2.5A.7.5) were widely accepted international best practice even before 2012. Therefore, this requirement should be retroactively applied to resettlements occurring after 2012. Some requested a remediation requirement, i.e. that if 'voluntary transactions' did not, for example, pay full market value, that the ENTITY should remediate this. Proposed Decision: The requirements will apply to all entities post-2012, and sub-requirement on remediation has been added (2.5A.7.5.e).

	as it was arguably not considered international best practice. Or do you believe that despite not falling under the gamut of the IFC standards (the motivation for the current 'exemption' clause indicated above), 2.4.7.9 reflects extant normative expectations since 2012 concerning the characteristics and outcomes of good faith free-market negotiations, and that it should therefore be applied retroactively to all voluntary land acquisition processes occurring between 2012 and the release of the updated IRMA Standard? Put differently, do you agree that entities should not be exempt from this requirement in the updated IRMA Standard, as they are from others that arguably go beyond IFC norms?	
2.4A-06	(Voluntary displacement) Background: The previous consultation question suggests that the conditions under which voluntary (willing buyer-seller) land transactions occur in the context of land acquisition for mining-related activities often do not meet the requirements for truly voluntary (informed, equitable, non-coerced) land transactions. Question: If that is the case, should IRMA go further than the proposed 2.4.7.9 for entities undertaking land acquisition after the release of the updated IRMA Standard and require that <u>all land acquisition</u> be treated as "involuntary," regardless of whether it is what the IFC deems to be involuntary (i.e., the ENTITY has recourse to expropriation) or voluntary (willing buyer-seller)? This would mean that entities acquiring lands after the release of this version of the IRMA Standard would therefore be required to meet the full set of requirements in this Chapter 2.4A, including not only the outcome components (full replacement value, livelihood restoration, etc.) but also the process requirements such as creation of a transparent common compensation framework, community engagement, creation of a RAP/LRP, etc.	Feedback received: Public feedback was split on this topic, with some stating that all land transactions should be treated as 'involuntary' and others stating that minimum requirements for 'involuntary' are sufficient. Proposed Decision: As a compromise, and in recognition that it is perhaps not yet international best practice for entities engaging in voluntary transactions to engage in the full range of activities outlined in Chapter 2.5A, we will elaborate in guidance that treating all land acquisition as involuntary is advisable from a risk reputation perspective. The new draft includes a remediation sub-requirement (2.5A.7.5.e) to ensure that, where "voluntary" transactions have fallen short of the provisions of 2.5A.7.5 (mostly in terms of payment of fair market value), that the ENTITY remediates this. There is also new proposed language in 2.5.1.1 clarifying that must explicitly consider all informal landowners or others affected by displacement as 'involuntary' as they will not have any legal basis on which to seek compensation from entities for impacts (see endnote for 2.5.1.1.a). This was previously insinuation in the introductory material for the chapter, but it is now an explicit requirement. Finally, the IRMA Standard already asks entities to explicitly consider impacts on all stakeholders affected by land acquisition - whether voluntary or involuntary - in human rights impacts assessments, and will make cross-linkages between Chapter 1.3 on human rights due diligence and Chapter 2.5 more apparent.

2.4A-07	(Private Sector Responsibilities Under Government-Managed Resettlement) Background: As per IRMA Chapter 1.1, entities are not expected to violate host country law in order to meet IRMA requirements. Therefore, under both the 2018 and this proposed version of the IRMA Standard entities will only be expected to fulfill IRMA requirements to the extent that is possible within the law in situations where host country law largely controls the resettlement process. If the law is silent on aspects addressed in the IRMA chapter, then entities will be expected to advocate for their inclusion in government resettlement projects or plans, or the ENTITY should include those provisions in their own supplemental resettlement plan. This is aligned with the IFC PS, which state that, "While government agencies are often mandated to lead resettlement efforts, experience indicates that there are generally opportunities for clients to either influence or supplement the planning, implementation and monitoring of government-led resettlement..."³⁹⁵ However, the auditing of this requirement as written is challenging because, if an ENTITY applies for IRMA assessment and their land acquisition was (or will be) government-led, then the Standard as currently written asks them to attempt - to the extent possible - to meet all of the requirements in this entire chapter but only evaluates them against 2.4.9.1. This puts the full weight of the chapter onto a single requirement and does not allow the audit report to easily capture nuances such as which of the various components of this chapter the ENTITY did or did not meet and/or where the ENTITY failed to meet a component due to negligence/omission versus where they made a good faith effort to do so but were constrained by government regulations. Working group members also expressed concerns that hinging an ENTITY's performance on this 'best effort' requirement in the case of a government-led resettlement might allow entities to shift blame onto governments for poorly executed resettlements and claim 'government restrictions' prevented them from fair compensation and due process. Even where the ENTITY does indeed make acceptable efforts to supplement or substitute government actions, in instances where government regulations are particularly restrictive, IRMA could end up certifying a land acquisition/resettlement process that is, in fact, deeply problematic. Question: Is it common that host country laws explicitly <u>prohibit</u> private entities from supplementing/supporting land acquisition processes (i.e., engagement, notification timelines, etc.) and outcomes (i.e., compensation and other support) provided for by government bodies? If	Feedback received: Public feedback - including an additional survey distributed to leading global resettlement experts - suggested that it is quite rare that governments legally prohibit entities from influencing resettlement and livelihood restoration processes. However, others mentioned again the concerns indicated in the premise / background to the consultation question, that entities might use 'government-led' as an excuse to shirk obligations. Proposed Decision: In the case of government-led resettlements, entities are to be audited against the requirements of Chapter 2.5 that apply to their particular situation (i.e., historical, recent, new / planned); however, where entities can provide robust evidence that efforts made to influence the government in various issue areas failed, the auditors will take this into consideration in their evaluation. To address a valid concern expressed about wanting to avoid a situation in which entities are consistently investing in places where they know the government will not allow or enable them to meet IRMA requirements, yet are being awarded IRMA achievement levels based on 'robust efforts', IRMA will require that, in such cases, auditors write an opening narrative or disclaimer providing objective context for the entities' achievement on this chapter in order to draw attention to the reality of the achievement level and the risks associated. Note: the 2018 Standard section relating to private ENTITY responsibilities for government-led resettlements (2.4.8) essentially placed the ENTITY's entire chapter score on this single requirement, which asked for the ENTITY to develop a supplementary plan to address gaps between IRMA requirements and the government-led resettlement. We have gotten rid of this requirement, and rather specified in the 'scope of application' section in the chapter introduction the approach proposed above (i.e. that entities must endeavor to meet the requirements of the chapter as applicable to their situation, and will be evaluated on the robustness of their efforts to do so in areas where their ability to achieve a particular outcome was either legally prohibited within the country of operation context, or explicitly objected to by the country of operation government).

	so, should entities be simply evaluated against the extent of their demonstrable efforts to influence government (the 2018 and proposed approach)? If not, should entities be audited against the full set of requirements of this chapter, regardless of whether it is an ENTITY-led or government-led land acquisition/resettlement?	
2.4B-01	(Assessing affected people and impacts of historical displacement/resettlement) Background: Depending on the nature of a project's land acquisition process or the amount of time since it occurred, there may be instances where entities are unable to find information on the extent/nature of a historical land acquisition/displacement process. In these cases, IRMA proposed that the requirement be assessed based on the robustness of the methodology utilized by the ENTITY to determine sufficiency in terms of investigating the impacts of a historical displacement. The purpose of doing so is to avoid an open-ended obligation on entities to investigate historical displacement. Question: Keeping in mind the intent to balance robustness of the due diligence process with the constraints faced by entities whose efforts are unlikely to bear fruit (due to previous project owners, amount of time passed since displacement occurred, etc.), what criteria should be considered when evaluating the 'robustness' of the investigation? Some suggestions are: What sources did the ENTITY use to attempt to determine historical events? Were interviews conducted? Were local authorities involved? Were notices posted in relevant communities soliciting information, if relevant? Are there recordkeeping timeframes by law that limit access before a certain period?	Feedback received: Public feedback supported the idea of using robustness of efforts to identify historical impacts as a way of both limiting perverse incentives for entities do not do a thorough due diligence and ensuring such efforts do not become a limitless pursuit and that entities can achieve this requirement even if, ultimately, the result is that they are unable to identify historical resettlement impacts. Feedback on what criteria should be used specifically to gauge this was somewhat limited. Proposed Decision: IRMA to develop guidance pertaining to robust due diligence for historical land acquisition. This guidance will speak to attempts to obtain documentation or other formal evidence such as imaging, as well as engagement with authorities and communities to triangulate findings (or lack thereof).

BACKGROUND

In some cases, often by virtue of the location of a mineable ore body, mining or mineral processing projects are located in close proximity to where people live. In order to develop a project, companies often have to acquire land – either permanently or temporarily – on which people are living, or are dependent on.

Land acquisition includes both outright purchases of property and acquisition of access rights, such as easements or rights of way.³⁹⁶ This may result in people being economically displaced from their livelihoods as well as physically displaced from their lands, homes, communities, and social and cultural ties. Project impacts can also, if sufficiently adverse and not mitigated, result in physical and economic displacement even where no land acquisition occurs.

For the purposes of this Standard, the situation where those affected do not have the legal right to refuse land acquisition is referred to as involuntary displacement.³⁹⁷ IRMA considers 'involuntary' therefore to also include people who are involuntarily displaced from (or otherwise adversely impacted as a result of the acquisition of) lands that they do not own as a result of 'voluntary' transactions between a landowner (different from those people) and the ENTITY.

The World Bank experience indicates that, "involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social and environmental risks: productive systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost."³⁹⁸ Social disintegration and severe impoverishment are therefore some of the immediate risks of resettlement that affect not only the displaced people but also communities receiving them (referred to as 'host communities').³⁹⁹

IRMA does not prohibit involuntary resettlement, although it encourages entities to avoid it when doing so is in the best interest of the people and communities affected. When avoidance is not possible nor in the best interest of those affected, IRMA, like other internationally recognized standards on resettlement (e.g., the International Finance Corporation's (IFC) Performance Standard 5 on Land Acquisition and Involuntary Resettlement) requires that companies strive to minimize impacts on affected people by implementing mitigation measures such as fair compensation and improvements to livelihoods and living conditions that are discussed ahead of time with affected peoples. Active engagement of affected people and their advisors is required throughout the process, from the earliest stages of resettlement risk and impact assessment through the monitoring of resettlement outcomes.

As does the IFC, IRMA encourages entities to use negotiated settlements, even if they have the legal means to acquire land without the seller's consent.⁴⁰⁰ Negotiated settlements typically give affected people a greater role in planning the resettlement, help avoid expropriation, and eliminate the need to use governmental authority to remove people forcibly.⁴⁰¹ However, should efforts at good faith negotiations and subsequent arbitration options fail, any legally-permitted expropriation process ending in involuntary removal of people from the lands they occupy must only be conducted in accordance with national laws and international best practices.⁴⁰²

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- United Nations Guiding Principles on Business and Human Rights, 2011
- IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement, 2012
- IFC Performance Standard 5 Guidance Note, 2012
- European Bank for Reconstruction and Development (EBRD) Performance Requirement 5: Land Acquisition, Involuntary Resettlement and Economic Displacement, 2014
- European Bank for Reconstruction and Development (EBRD) Resettlement Guidance and Good Practice, 2017
- UN Basic Principles and Guidelines on Development-Based Evictions and Displacement, 2007

RELEVANCE TO VOLUNTARY AND INVOLUNTARY DISPLACEMENT

IRMA considers that informal land occupiers or users displaced from lands or otherwise impacted as a result of 'voluntary' (i.e., "willing buyer-seller") land transactions on behalf of the landowner fall into the category of 'involuntary displacement', even if there is no inherent underlying recourse to expropriation to make the transaction by definition 'involuntary'. Therefore, as part of the initial land acquisition review process (requirement 2.5.1.1), Entities are required to investigate the conditions surrounding 'voluntary' land transactions as well. This is necessary not only to identify people that may be considered "involuntarily displaced" (and therefore subject to most of the requirements of this Chapter) but also to identify potential human rights abuses associated with land acquisition (as required in Chapter 1.3) and to allow for evaluation of dedicated requirements aimed at ensuring quality of 'voluntary' land transactions (see requirements 2.5A.7.5 in Sub-Chapter 2.5A).

OBJECTIVES OF THIS CHAPTER

To understand past and potential land acquisition and displacement, avoid displacement and resettlement if that is the most protective option for people, and, when avoidance is not the best option, equitably compensate affected people and ensure that the livelihoods and standards of living of displaced people are improved and sustainable over the long term.

SCOPE OF APPLICATION

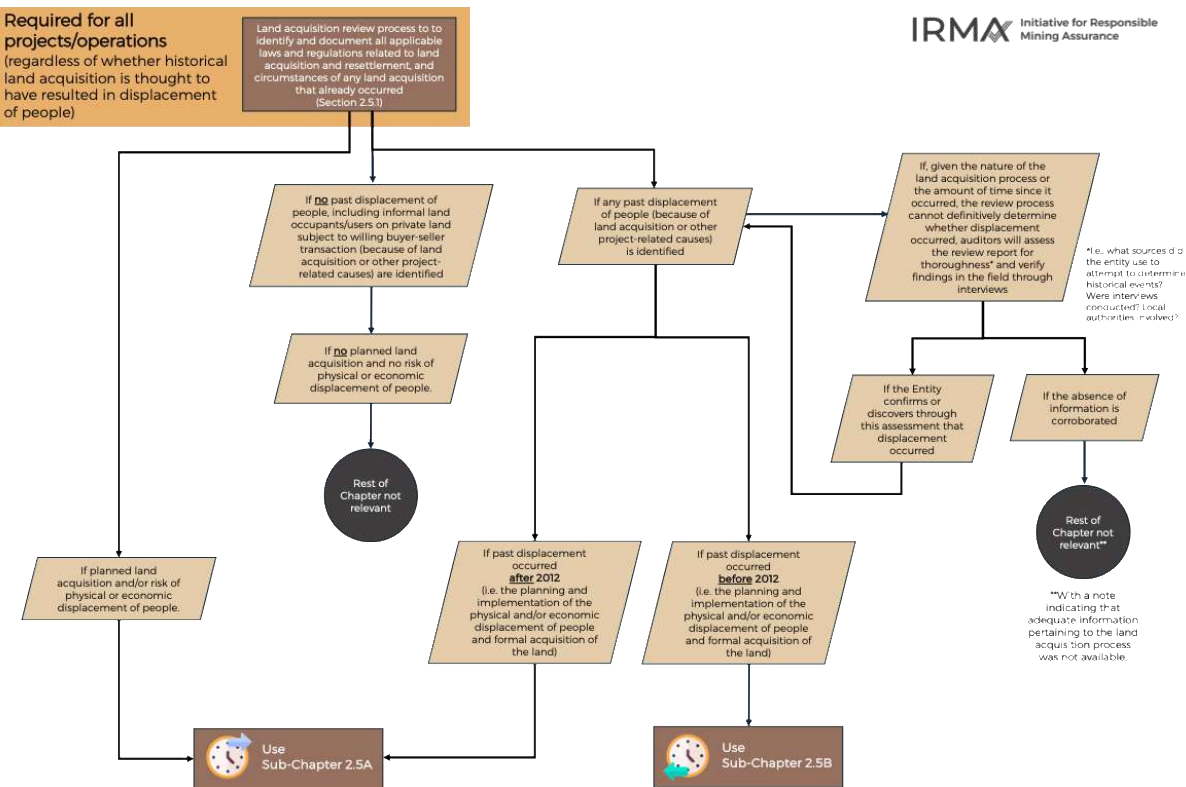
All sites undertaking and IRMA assessment must conduct the land acquisition review process required in 2.5.1.1, regardless of whether land acquisition is thought to have resulted in (or may potentially result in) permanent or temporary involuntary or voluntary physical or economic displacement of people.⁴⁰³ (see ‘Relevance of Voluntary and Involuntary Displacement’ above). Beyond that, entities will be audited according to the following scheme:

- For sites that fully meet requirement 2.5.1.1 AND that demonstrate that no past land acquisition processes resulted in (or may potentially result in) permanent or temporary involuntary or voluntary physical or economic displacement of people, and that there is no proposed land acquisition planned, the rest of the Chapter will be mark ‘not applicable’ (and not scored).
- Sites where land acquisition occurred, was or is ongoing, or is proposed to occur, **after 2012**, are audited against the requirements of **2.5A**. There are some requirements that, if entities do not do them from the outset of their resettlement process and prior to entering the IRMA system, cannot be retroactively met due to their temporal nature; however, with remediation measures they may be able to achieve ‘substantially’ or ‘partially’ meets.⁴⁰⁴
- Sites where any land acquisition occurred and were completed **before 2012**⁴⁰⁵ are audited against the full set of requirements in **2.5B**. This applies irrespective of whether the ENTITY owned the asset at the time of the land acquisition. It may be the case that an ENTITY conducted and concluded a resettlement process prior to this date that adhered to international norms (i.e., the IFC PS). In such cases, the ENTITY may not wish to be audited against 2.5B, as its focus on retroactive assessment and remediation do not make sense for an already-concluded resettlement that meets many of the requirements of 2.5A. In such cases, the ENTITY may opt to be audited against 2.5A.
- Some sites may have had both some land acquisition and displacement occur before 2012 and some other land acquisition and displacement occur after 2012 (and/or be proposed to occur). Such sites will be audited against 2.5A and 2.5B for the respective processes. The scores will be calculated and reported separately for each process.

Refer to the Figure 2.5 below for how entities with historical resettlements would proceed through the chapter, and how/when determinations of ‘not relevant’ can be made.

Additionally, where land acquisitions / resettlements are the responsibility of the government, entities are to be audited against the requirements of Chapter 2.5 that apply to their particular situation (i.e., 2.5A or 2.5B); however, where entities can provide robust evidence that good faith efforts were made to collaborate constructively with the government vis-a-vis IRMA requirements but failed, the auditors will take this into consideration in their evaluation. For more details, see ‘Responsibilities Under Government-Managed Resettlement’ below.

FIGURE 2.5. How to determine applicability of the Sub-Chapters included in this Chapter.



For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

RESPONSIBILITIES UNDER GOVERNMENT-MANAGED RESETTLEMENT

Where land acquisitions / resettlements that were or are the responsibility of the government have been identified as per 2.5.1.1, Entities are to be audited against the requirements of Chapter 2.5 that apply to their particular situation. For government-managed land acquisitions / resettlements that took place **after 2012**, or are proposed, the requirements in Sub-Chapter 2.5A apply.

Where historical land acquisition occurred **before 2012** and was the responsibility of the government, the ENTITY is required to ensure that:

- 1) A mapping process is carried out by competent professionals, in accordance with requirement 2.5B.2.1;
- 2) An impact assessment is conducted by competent professionals, in accordance with requirement 2.5B.2.2; and
- 3) To the extent possible, it collaborates with the government and its relevant agencies (if and where necessary and possible) to: incorporate affected people into a Displacement Remediation

Plan (DRP) in accordance with the requirements of Section 2.5B.4; foster meaningful stakeholder engagement as per Section 2.5B.6; monitor and evaluate the implementation of the DRP, as well as review and improve its effectiveness, as per Sections 2.5B.7 and 2.5B.8; and share relevant information as per Section 2.5B.9.

For all points in 3) where the ENTITY can provide robust evidence that good faith efforts were made to collaborate constructively with the government but failed, the auditors may give score exemptions on these relevant Sections.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are three (3) **critical requirements** in this Chapter (all in Sub-Chapter 2.5A).

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Entire Sub-Chapter 2.5B for Remediating Historical Land Acquisition, Displacement, and Resettlement:

This was only a suggestion in the 2018 IRMA Standard for Responsible Mining V1.0, and only mentioned in the 'Scope of application' section and not actually transposed in any auditable requirements. This is an important issue that should not be left unattended, and the IRMA Standard attempts to reflect international best practices for exploration, mining, and processing companies to do so.

These requirements are signaled with an 'eye icon' to ensure that IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not 'optional' (unlike IRMA+).

IRMA Requirements

2.5.1 Land Acquisition Review

2.5.1.1 A review process is conducted by competent professionals to:

- a. Identify and document all applicable laws and regulations in the country of operation that are related to land acquisition and resettlement,⁴⁰⁶ as well as circumstances of any land acquisition that already occurred in the project/operation's area of influence;
- b. This review includes, to the extent possible, records of formal and informal land ownership⁴⁰⁷, land use, and land occupancy on any lands acquired by/for the project/operation by the ENTITY, prior owner/s, or government in the case of government-led land acquisition;
- c. This review determines, to the extent possible, whether there was any physical or economic displacement resulting from land acquisition and/or any other potential project-related displacement⁴⁰⁸, considering both formal and informal owners, as well as occupants and land users, if any; and
- d. This review determines, to the extent possible, if there was any physical or economic displacement of Indigenous Peoples.

SUB-CHAPTER 2.5A

For Managing Proposed or Recent (after 2012) Land Acquisition, Displacement, and Resettlement

2.5A.2 Risk and Impact Assessment

2.5A.2.1 If there is the potential that land acquisition by/for the project/operation, or the level of direct or indirect impacts from the project/operation, could result in physical or economic displacement (hereafter referred to as 'displacement') of people, a risk and impact assessment is carried out by competent professionals, as early in the project planning as possible, as follows:

- It evaluates the potential direct and indirect risks and impacts related to the displacement of people;
- It includes identification and systematic evaluation of project design alternatives to avoid or minimize the displacement of people **if that is the most protective option for people;**
- It identifies and analyzes the social, cultural, human rights, conflict, environmental, and economic risks and impacts to displaced people and host communities for each alternative
- It pays particular attention to potential impacts on different genders, ages, ethnicities, and any potentially underserved and/or marginalized people⁴⁰⁹;
- It takes into account occupants or land users without formal land claims affected by voluntary transactions, considering both direct and indirect forms of physical and economic displacement;**
- It identifies measures to prevent and mitigate risks and impacts and estimates the costs of implementing the measures;
- It uses a credible methodology, and the methodology used is documented; and**
- It is made and maintained publicly accessible, as early in the resettlement planning process as possible, and details on how it can be accessed are proactively shared with potentially affected rights-holders and stakeholders and their advisors.

2.5A.2.2 IRMA+

The risk and impact assessment includes consideration of impacts associated with temporary displacement associated with the exploration stages.

2.5A.3 Baseline Data



2.5A.3.1 Where displacement is deemed unavoidable, prior to any displacement, and prior to any survey and census activities (see 2.5A.3.2):

- a. Clear compensation eligibility criteria and a cut-off date for eligibility are established;
- b. Information regarding the eligibility criteria and the cut-off date is documented; and
- c. This information (a. and b.) is proactively and preemptively communicated to the rights-holders and stakeholders affected by the project/operation;



2.5A.3.2 Where displacement is deemed unavoidable, prior to any displacement, and after the information required in 2.5A.3.1 has been communicated to affected rights-holders and stakeholders, competent professionals carry out the following actions:

- a. A household-level socioeconomic census to collect appropriate baseline data on the current livelihoods, standards of living, and socio-cultural practices of people who will be physically or economically displaced by the project/operation;
- b. A land and asset survey to: 1) establish an inventory of affected lands and other assets, along with their location, status, and condition; 2) determine owners or users of the assets; 3) determine eligibility for compensation; and 4) establish a cut-off date for compensation claims; and
- c. These censuses and surveys follow credible methodologies, and are documented.

2.5A.4 Resettlement and Livelihood Restoration Plan

- 2.5A.4.1** In the case of **physical displacement**, a Resettlement Action Plan (RAP) (or equivalent) is developed by competent professionals with land acquisition/resettlement expertise. If the project involves **economic displacement** only, then a Livelihood Restoration Plan (LRP) (or equivalent) is developed by competent professionals. In either case, these plans:
- Include a gap analysis of the country of operation's laws and international standards pertaining to compensation and restoration for displacement and outline how any gaps will be filled;
 - Document the socioeconomic baseline results for the area affected by land acquisition/displacement that describes the current livelihoods, standards of living, and socio-cultural practices of affected people;
 - Describe how affected people will be involved in an ongoing process of consultation (including access to grievance mechanisms) throughout the resettlement/livelihood restoration planning, implementation and monitoring phases, including how consultations will ensure the inclusion of potentially underserved and/or marginalized people⁴¹⁰;
 - Describe the strategies to be undertaken **to mitigate the negative impacts of displacement and improve, or at least restore, livelihoods and standards of living of displaced people**, paying particular attention to the needs of potentially underserved and/or marginalized people and the potential for compensation or livelihoods support to create or exacerbate conflicts within or between communities;
 - Describe how livelihood restoration measures draw on consultations with affected people concerning their preferences, **as well as a demonstrated understanding of local markets and feasible economic opportunities**⁴¹¹;
 - Describe how the ENTITY has incorporated climate adaptation considerations into all components of RAP / LRP planning;**
 - Describe the methods used for valuing land and other assets;
 - Establish the compensation framework⁴¹² in a transparent, consistent, and equitable manner;
 - Include both input- and outcome-related indicators**⁴¹³ (including gender-disaggregated indicators where appropriate), linked to adequate baseline data, to enable monitoring and evaluation of the effectiveness of measures over time in achieving the objectives of the RAP/LRP to improve, or at least restore, affected people's livelihoods and standards of living;
 - Assign implementation of measures to responsible staff with adequate skills and expertise;**
 - Assign responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping**⁴¹⁴;
 - Has clearly-defined timelines and implementation schedules in place that specify the expected outcomes for the affected people;
 - Maintains estimates of human resources and budget required; and**
 - Include financing plans, to ensure that funding is available for the effective implementation of the plans.**



2.5A.4.2 To integrate gender progressive approaches in the development of compensation and entitlement measures as appropriate to the context, the plans also include:

- Measures to address gender inequality in terms of access to and control of resources or assets;
- Measures to ensure gender responsive livelihood restoration approaches; and
- Adequate female representation on community-based resettlement, compensation, or grievance evaluation committees, if relevant.

2.5A.5 Specific Measures Related to Physical Displacement



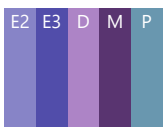
2.5A.5.1 In all cases where people are physically displaced, the ENTITY has a system in place to:

- Provide relocation assistance that is suited to the needs of each group of displaced people and is sufficient for them to improve or at least restore their standard of living at an alternative location;
- Ensure that locations where displaced people are resettled offer improved, or at least equal, living conditions, and take into consideration displaced people's preferences with respect to relocating in pre-existing communities and groups; and
- Respect and seek to preserve and/or reestablish existing social and cultural institutions of the displaced people and any host communities.



2.5A.5.2 In cases where physically displaced people have formal legal rights to the land or assets they occupy or use, or do not have formal legal rights but have a claim to land that is recognized or recognizable under the country of operation's law, the ENTITY has a system in place to:

- Offer the choice of replacement land of at least equal value and characteristics, security of tenure, and advantages of location;
- Offer the choice of replacement residential structures of at least equal value and characteristics. If original residential structures do not meet a minimum standard for dignified housing, the ENTITY provides replacement housing that meets these standards; and
- As an alternative, and if cash compensation is appropriate and/or preferred by the affected person, offer compensation that is sufficient to replace lost land and residential structures at full replacement cost in local markets.



2.5A.5.3 In cases where physically displaced people have no recognizable legal right or claim to the land or assets that they occupy or use under the country of operation's law, the ENTITY has a system in place to:

- Provide them with options for adequate housing with security of tenure;
- Compensate for the loss of assets other than land at full replacement cost, provided that the people had been occupying the affected land, and the affected assets had been established, **prior** to the cut-off date for eligibility; and
- Ensure those people are included in the collaborative development, implementation, monitoring and evaluation of the RAP.

2.5A.6 Specific Measures Related to Economic Displacement

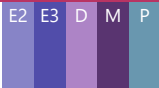
- 2.5A.6.1** In cases where project/operation-related land acquisition or restrictions on land use result in economic displacement in the form of displaced business operations or commercial structures, regardless of whether the affected people are physically displaced, the ENTITY has a system in place to:
- Compensate business owners for the cost of rebuilding affected non-moveable commercial structures, for re-establishing commercial activities elsewhere, for lost net income during the period of transition, and for the costs of the transfer and reinstallation of any moveable business-relevant equipment, goods, or structures;
 - Compensate renters of commercial structures for lost net income during the period of transition, for the costs of the transfer and reinstallation of any moveable business-relevant equipment or goods, and provide assistance to establish a new, equivalent commercial lease with secure tenure (i.e., 12 months lease); and
 - Compensate employees of affected businesses for lost income.

- 2.5A.6.2** To compensate economically displaced people, the ENTITY has a system in place to:
- In cases where they have formal legal rights to the land or assets they use or depend on, or do not have formal legal rights but have a claim to land that is recognized or recognizable under the country of operation's law, compensate them with replacement land of equal or greater value appropriate to their livelihood;
 - As an alternative, and if cash compensation is appropriate and/or preferred by the affected person, offer cash compensation for land/improvements to the land at full replacement cost; and
 - In cases where economically displaced people have no recognizable legal right or claim to the land or assets that use or depend on, compensate them for lost assets other than land⁴¹⁵ at full replacement cost.

- 2.5A.6.3** In cases where economically displaced people's livelihoods are wage-based or dependent upon access to natural resources and where project/operation-related restrictions on access or other impacts adversely affect livelihoods or income levels, the ENTITY has a system in place to:
- Prioritize the provision of continued access to affected resources;
 - Where access to affected resources is not possible, provide access to alternative resources with at least equivalent livelihood-earning potential and accessibility; and
 - Where circumstances prevent the ENTITY from providing land or similar resources, provide alternative income earning opportunities to restore livelihoods that are feasible and agreed to by affected people.

2.5A.7 Resettlement and Livelihood Restoration Agreements**2.5A.7.1 Critical Requirement**

The ENTITY can demonstrate that, if proposed activities require the displacement of Indigenous Peoples (identified as per 1.2.1.1. and 1.3.2.3) from their lands, or economically displace them from pursuing their traditional livelihoods, it proceeds with the resettlement and proposed activities only if, and after, it has obtained the free, prior and informed consent of affected Indigenous Peoples.



2.5A.7.2 Critical Requirement

The ENTITY can demonstrate that:

- a. It never carried out, and does not plan to carry out, forced evictions or illegal expropriation, defined as the permanent or temporary removal against their will of people from their homes and/or land which they occupy;
- b. It takes possession of acquired land and related assets only after full compensation has been made available;
- c. It takes possession of acquired land and related assets only after replacement housing/lands/assets and moving allowances have been provided to the displaced people, where applicable; and
- d. **It prioritizes the avoidance of temporary transitional resettlement.**



2.5A.7.3 In accordance with Chapter 1.2, prior to negotiating with affected people, the ENTITY provides them, or facilitates their access to, resources necessary to participate in an informed manner. This includes:

- a. Copies of the RAP/LRP (based on results of consultations outlined in Section 2.5A.8);
- b. Details on what to expect at various stages of the resettlement or livelihood restoration process⁴¹⁶;
- c. **Details on the input- and outcome-related indicators (including gender-disaggregated indicators where appropriate) used to evaluate the effectiveness of measures over time;** and
- d. Access to independent legal experts or other advisors to ensure that affected people understand the content of any proposed agreement and associated information.



2.5A.7.4 **Where temporary transitional resettlement cannot be avoided, the ENTITY:**

- a. **Documents and shares with affected people a clear explanation for why temporary transitional resettlement is the only feasible option;**
- b. **Ensures that affected people have been consulted on the implications of transitional temporary relocation;**
- c. **Offers to affected people the option for independent legal or professional advice;**
- d. **Ensures that the transitional temporary resettlement only occurs if, and after, affected people have formally agreed to it;**
- e. **Ensures that transitional temporary residential structures and replacement lands meet all the applicable requirements of this Chapter⁴¹⁷;**
- f. **Ensures that transitional temporary resettlement is time-bound and the timeline has been agreed upon with affected people; and**
- g. **Ensures that affected people are duly compensated for the multiple disruptions to their lives.**



2.5A.7.5 In the case of voluntary displacement (willing buyer-seller transactions where there is no recourse to expropriation), the ENTITY has a system in place to ensure that:

- a. All land transactions are documented;
- b. Affected people are paid a fair market price, using up-to-date and credible data;
- c. Landowners (sellers) have sufficient information about project timelines and the various options available to them, including the voluntary nature of the sale, to make an informed decision;
- d. Decisions are made free of coercion and on a timeline conducive to informed decision-making and consultation with family members/legal experts as necessary;
- e. If any shortcomings are identified, the ENTITY undertakes reasonable remediation measures to address, to the extent possible⁴¹⁸; and
- f. Informal land occupants are identified and considered in a way that is consistent with the contents of this chapter relating to involuntarily displaced people as well as the Chapter 1.3 on Human Rights Due Diligence.



2.5A.7.6 In cases where affected people reject compensation offers that meet the requirements of this Chapter and where subsequent arbitration efforts fail and, as a result, legal expropriation or other legal procedures are initiated, the ENTITY has a system in place to explore opportunities to collaborate with the responsible government agency, and, if and when permitted by the agency, to play an active role in, and make good faith efforts to, ensuring that people are only removed from their land as follows⁴¹⁹:

- a. Affected people are provided fair compensation for their lands and any eligible assets on those lands;⁴²⁰
- b. Affected people are provided with clear and timely information on the procedures for and timing of proposed evictions
- c. Affected people are given adequate and reasonable notice prior to the scheduled date of eviction;
- d. Government officials or their representatives, and any relevant local authorities, are present during the removal;
- e. Removals are not carried out in in particularly bad weather or at night unless the affected people consent to these conditions;
- f. Information is provided about legal remedies and where possible, legal aid to people who are in need of it to seek redress from the courts;
- g. All people carrying out the removal are identified and trained on human rights and the appropriate use of force;
- h. Procedures outlining appropriate measures to take in case of conflicts or violent opposition to the removals are established, and appropriate personnel trained on them; and
- i. Special considerations are made for potentially underserved and/or marginalized people in all of the above (a. to i.), to the greatest extent possible.

2.5A.8 Meaningful Engagement with Stakeholders



- 2.5A.8.1** In accordance with Chapter 1.2, the ENTITY proactively shares relevant information and conducts consultations with potentially affected people, including host communities, to inform:
- The assessment of displacement and resettlement risks and impacts, required in 2.5A.2, including the consideration of alternative project designs to avoid or minimize resettlement;
 - The development, implementation, monitoring and evaluation, and review of the RAP and/or LRP, as per 2.5A.4, 2.5A.5, 2.5A.6, 2.5A.7, 2.5A.9, and 2.5A.10, including to soliciting input on resettlement and livelihood restoration options; and
 - Consultations and collaborative decision-making take place in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people.



- 2.5A.8.2** In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that potentially affected people, including host communities:
- If necessary, are provided with resources for capacity building and training to enable meaningful stakeholder engagement⁴²¹;
 - Are actively and explicitly offered access to independent legal or other expert advice of their own choosing, from the earliest stages of project design, and throughout monitoring and evaluation of the resettlement process; and
 - Are offered opportunities to receive funding to enable them to select and consult with such independent advisors, including from government agencies and/or non-governmental organizations.



- 2.5A.8.3** Affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to displacement and resettlement, as follows:
- A grievance mechanism through which affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, can raise, and seek resolution or remedy for, complaints and grievances specifically related to displacement and resettlement, are in place;
 - This grievance mechanism is rights-compatible⁴²²;
 - Affected rights-holders and stakeholders have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms⁴²³;
 - If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to displacement and resettlement, the Entity fully meets all requirements in Chapter 1.6; and
 - If a separate mechanism is created to handle only complaints and grievances related to displacement and resettlement, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.

2.5A.9 Monitoring and Evaluation

2.5A.9.1 To monitor and evaluate the effectiveness and appropriateness of the RAP and/or LRP, at least annually, or more frequently if requested by affected people, the ENTITY:

- Tracks and documents its performance, over successive time periods, against the indicators defined in 2.5A.4.1.i;
- Tracks and documents how the measures developed and implemented as per 2.5A.4, 2.5A.5, 2.5A.6, and 2.5A.7 are effectively mitigating the negative impacts of displacement and improving, or at least restoring, livelihoods and standards of living of displaced people; and
- Disaggregates the data according to gender-specific indicators, if and where applicable.

2.5A.9.2 The monitoring and evaluation process:

- Encourages and facilitates joint tracking or joint fact-finding with affected and displaced people, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2⁴²⁴;
- Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected people; and
- Includes safeguards to protect the security and privacy of collected personal data or characteristics of people⁴²⁵.

2.5A.10 Continuous Improvement and Completion

2.5A.10.1 Critical Requirement

At least annually, or more frequently if requested by affected people, and until the provisions of the RAP/LRP and the objectives of this Sub-Chapter have all been met, the ENTITY collaborates with affected people to review:

- The monitoring and evaluation results, informed by internal and external feedback, as per Section 2.5A.9;
- Any displacement-related grievances and the functioning of the relevant grievance mechanism/s required in 2.5A.8.3 (see also Section 1.6.4); and
- The ENTITY's effectiveness in mitigating the negative impacts of displacement and improving, or at least restoring, livelihoods and standards of living of displaced people, informed by the monitoring and evaluation required in 2.5A.9.1 and 2.5A.9.2.

2.5A.10.2 If the monitoring and evaluation process required in 2.5A.9, and/or the review process required in 2.5A.10.1, and/or credible independent sources of information demonstrate that the ENTITY fails to effectively mitigate the negative impacts of displacement and to improve, or at least restore, livelihoods and standards of living of displaced people, the ENTITY:

- Develops and implements time-bound corrective measures to update, as required, its risk and impact assessment in accordance with Section 2.5A.2, and baseline data in accordance with Section 2.5A.3;
- Develops and implements time-bound corrective measures to update, as required, its RAP and LRP in accordance with Sections 2.5A.4, 2.5A.5, 2.5A.6, and 2.5A.7; and
- Develops and implements time-bound corrective measures to update, as required, its monitoring and evaluation processes in accordance with Section 2.5A.9.



2.5A.10.3 When the monitoring and evaluation process, and the review process, determine that its RAP/LRP has been successfully and fully implemented:

- a. A completion audit is commissioned, and undertaken by competent professionals, to determine if the objectives of the RAP/LRP have been met;
- b. The completion audit includes a review of the mitigation measures implemented by the ENTITY and a comparison of implementation outcomes against the requirements and success criteria of this RAP/LRP;
- c. It clearly demonstrates that the objectives of the RAP/LRP have been successfully met (and therefore the monitoring process can be ceased); and
- d. If the completion audit determines that the objectives of the RAP and/or LRP have not been met, a corrective action plan is developed and implemented by competent professionals, in accordance with all relevant requirements of this Sub-Chapter (resulting in a second completion audit being commissioned and undertaken when all the objectives of the RAP and/or LRP have been met).

2.5A.11 Information-Sharing and Public Reporting



2.5A.11.1 In accordance with Chapter 1.2, the ENTITY proactively shares with affected people and their advisors, and makes and maintains publicly accessible:

- a. Any RAP and LRP, in full text, including annexes and amendments;
- b. An annual report on progress made on the implementation of the RAP/LRP; and
- c. Key findings, and summary versions, of the RAP/LRP completion audit/s.

SUB-CHAPTER 2.5B

For Remediating Historical (before 2012) Land Acquisition, Displacement, and Resettlement

**2.5B.2 Mapping and Impact Assessment**

2.5B.2.1 If land acquisition⁴²⁶ or direct impacts from the operation resulted in physical or economic displacement of people before 2012 (hereafter referred to as 'historical displacement'), as identified in 2.5.1.1,⁴²⁷ a mapping process is carried out by competent professionals to identify, to the extent possible:

- a. The names and current locations of the people displaced and their host communities (hereafter referred to as 'historically-affected people');
- b. The social, cultural, and economic impacts of displacement on those historically-affected people, paying particular attention to impacts on women, children, the poor, and other potentially underserved and/or marginalized people; and
- c. Impacts on the human rights of historically-affected people that occurred because of the displacement process (before, during, or after land acquisition/resettlement occurred).

2.5B.2.2 Based on the information gathered, an impact assessment is conducted by competent professionals to determine what resettlement/livelihood restoration efforts were undertaken, if any, including:

- a. If historically-affected people physically displaced received replacement lands/assets of equal or greater value or full replacement value for any lost lands or assets and, if lands provided, if security of tenure was ensured;
- b. If the livelihoods of historically-affected people economically displaced were restored (or, if restoration was not possible, alternative means of income earning provided) and if standards of living were improved, or at least restored, compared to pre-displacement levels;
- c. Any other compensation paid, or assistance given to historically-affected people during or after the land acquisition process;
- d. Whether historically-affected people were engaged with or involved in the planning of these restoration efforts;
- e. Whether land acquisition, displacement, and/or any subsequent resettlement or livelihood restoration activities led to any human rights impacts on historically-affected people that have not yet been remediated; and
- f. This impact assessment is made and maintained publicly accessible, from the earliest stages of the remediation process, and details on how it can be accessed are proactively shared with historically-affected people and their advisors.



2.5B.3 Baseline Data



2.5B.3.1 Where historical displacement has been identified, as per 2.5.1.1, prior to any survey and census activities (see 2.5A.3.2):

- a. Clear remediation eligibility criteria and a cut-off date for eligibility are established;
- b. Information regarding the eligibility criteria and the cut-off date is documented; and
- c. This information (a. and b.) is proactively and preemptively communicated to historically-affected people;



2.5B.3.2 Where historical displacement has been identified, as per 2.5.1.1, and after the information required in 2.5B.3.1 has been communicated to historically-affected people, competent professionals carry out the following actions:

- a. An inventory of lost assets;
- b. A socioeconomic census to collect appropriate baseline data to characterize those who were physically or economically displaced; and
- c. Baseline data is also collected to characterize the current livelihoods, standards of living, and socio-cultural practices, of those historically-affected people.



2.5B.4 Displacement Remediation Plan

- 2.5B.4.1** In the case of identified historical physical and/or economic displacement, a Displacement Remediation Plan (DRP) (or equivalent) that is commensurate to the scope of impacts and the identifiability/proximity of historically-affected people is developed by competent professionals. This plan:
- Describes how historically-affected people, including different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, will be involved in an ongoing process of consultation (including access to grievance mechanisms) concerning the development, implementation, and monitoring and evaluation of the plan;
 - Describes the strategies to be undertaken to **remediate unremediated negative impacts** of historical displacement,⁴²⁸ paying particular attention to the needs of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people;
 - Includes both input- and outcome-related indicators⁴²⁹ (including gender-disaggregated indicators where appropriate), linked to adequate baseline data, to enable monitoring and evaluation of the effectiveness of measures over time in achieving the objectives of the DRP to remediate negative impacts on historically-displaced people that remain unremediated;
 - Includes, if relevant, measures to compensate for physical and economic historical displacement that align with Sections 2.5A.5 and 2.5A.6 to the extent possible;
 - Describes, if relevant, the measures and methodology used to determine compensation equivalent to full replacement value for land and other assets, to the extent possible;
 - Establishes, if relevant, a displacement remediation framework⁴³⁰ in a transparent, consistent, and equitable manner;
 - Assigns implementation of measures to responsible staff with adequate skills and expertise,;
 - Assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁴³¹;
 - Has a clearly-defined timeline and implementation schedule in place that specify the expected outcomes for the historically-affected people;
 - Maintains estimates of human resources and budget required; and
 - Includes a financing plan in place, to ensure that funding is available for the effective implementation of the plan.
- 2.5B.4.2** To integrate gender progressive approaches in the development of remediation measures as appropriate to the context, the plan also includes:
- Measures to address gender inequality in terms of access to and control of resources or assets;
 - Measures to ensure gender responsive livelihood restoration approaches; and
 - Adequate female representation on community-based remediation or grievance evaluation committees, if relevant.



2.5B.5 Displacement Remediation Agreements

2.5B.5.1 If a historical land acquisition process resulted in the displacement of Indigenous Peoples (identified as per 1.2.1.1. and 1.3.2.3) from their lands, or economically displaced them from pursuing their traditional livelihoods, the ENTITY establishes mutually agreed processes for Indigenous Peoples to raise concerns related to past and present impacts or concerns related to displacement and to determine provisions for the mitigation and remediation of past and ongoing impacts in a manner that is acceptable to Indigenous Peoples, in accordance with Chapter 2.2⁴³².

2.5B.5.2 In accordance with Chapter 1.2, prior to negotiating specific remediation activities with historically-affected people, the ENTITY provides them, or facilitates their access to, resources necessary to participate in an informed manner. This includes:

- Copies of the DRP (based on results of consultations outlined in Section 2.5B.6);
- Details on what to expect at various stages of the remediation process⁴³³;
- Details on the input- and outcome-related indicators (including gender-disaggregated indicators where appropriate) used to evaluate the effectiveness of measures over time; and
- Access to independent legal experts or other advisors to ensure that affected people understand the content of any proposed agreement and associated information.



2.5B.6 Meaningful Engagement with Stakeholders

2.5B.6.1 In accordance with Chapter 1.2, the ENTITY proactively shares relevant information and conducts consultations with historically-affected people, to the extent possible, to inform:

- The mapping and assessment of historical displacement and resettlement impacts, required in 2.5B.2;
- The development, implementation, monitoring and evaluation, and review of the Displacement Remediation Plan (DRP), as per 2.5B.4, 2.5B.7, and 2.5B.8; and
- Consultations and collaborative decision-making take place in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people.

2.5B.6.2 In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that historically-affected people, if relevant and requested by them:

- If necessary, are provided with resources for capacity building and training to enable meaningful stakeholder engagement⁴³⁴;
- Are actively and explicitly offered access to independent legal or other expert advice of their own choosing, from the earliest stages of the review and mapping processes, and throughout monitoring and evaluation of the DRP; and
- Are offered opportunities to receive funding to enable them to select and consult with such independent advisors, including from government agencies and/or non-governmental organizations.



2.5B.6.3 Historically-affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to the DRP, as follows:

- a. A grievance mechanism through which affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, can raise, and seek resolution or remedy for, complaints and grievances specifically related to the DRP, are in place;
- b. This grievance mechanism is rights-compatible⁴³⁵;
- c. Affected rights-holders and stakeholders have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms⁴³⁶;
- d. If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to the DRP, the Entity fully meets all requirements in Chapter 1.6; and
- e. If a separate mechanism is created to handle only complaints and grievances related to the DRP, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.



2.5B.7 Monitoring and Evaluation



2.5B.7.1 To monitor and evaluate the effectiveness and appropriateness of the DRP, at least annually, the ENTITY:

- a. Tracks and documents its performance, over successive time periods, against the indicators defined in 2.5B.4.1.c;
- b. Tracks and documents how the measures developed and implemented as per 2.5B.4 are effectively remediating unremediated negative impacts of historical displacement, and to the extent possible improving, or at least restoring, livelihoods and standards of living of historically-displaced people; and
- c. Disaggregates the data according to gender-specific indicators, if and where applicable.



2.5B.7.2 The monitoring and evaluation process:

- a. Encourages and facilitates joint tracking or joint fact-finding with historically-displaced people, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2⁴³⁷;
- b. Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with historically-displaced people; and
- c. Includes safeguards to protect the security and privacy of collected personal data or characteristics of people.⁴³⁸



2.5B.8 Continuous Improvement and Completion



2.5B.8.1 At least annually, or more frequently if requested by historically-displaced people, and until the provisions of the DRP and the objectives of this Sub-Chapter have all been met, the ENTITY collaborates with historically-displaced people (if desired by them) to review:

- The monitoring and evaluation results, informed by internal and external feedback, as per Section 2.5B.7;
- Any historical displacement-related grievances and the functioning of the relevant grievance mechanism/s required in 2.5B.6.3 (see also Section 1.6.4); and
- The ENTITY's effectiveness in remediating unremediated negative impacts of historical displacement, and to the extent possible improving, or at least restoring, livelihoods and standards of living of historically-displaced people, informed by the monitoring and evaluation required in 2.5B.7.1 and 2.5B.7.2.



2.5B.8.2 If the monitoring and evaluation process required in 2.5B.7, and/or the review process required in 2.5B.8.1, and/or credible independent sources of information demonstrate that the ENTITY fails to effectively remediate unremediated negative impacts of historical displacement, and to the extent possible to improve, or at least restore, livelihoods and standards of living of historically-displaced people, the ENTITY:

- Develops and implements time-bound corrective measures to update, as required, its impact assessment in accordance with Section 2.5B.2, and baseline data in accordance with Section 2.5B.3;
- Develops and implements time-bound corrective measures to update, as required, its DRP in accordance with Sections 2.5B.4 and 2.5B.5; and
- Develops and implements time-bound corrective measures to update, as required, its monitoring and evaluation processes in accordance with Section 2.5B.7.



2.5B.8.3 When the monitoring and evaluation process, and the review process, determine that the DRP has been successfully and fully implemented:

- A completion audit is commissioned, and undertaken by competent professionals, to determine if the objectives of the DRP have been met;
- The completion audit includes a review of the remediation measures implemented by the ENTITY and a comparison of implementation outcomes against the requirements and success criteria of this DRP;
- It clearly demonstrates that the objectives of the DRP have been successfully met (and therefore the monitoring process can be ceased); and
- If the completion audit determines that the objectives of the DRP have not been met, a corrective action plan is developed and implemented by competent professionals, in accordance with all relevant requirements of this Sub-Chapter (resulting in a second completion audit being commissioned and undertaken when all the objectives of DRP have been met).



2.5B.9 Information-Sharing and Public Reporting

2.5B.9.1 In accordance with Chapter 1.2, the ENTITY proactively shares with historically-affected people and their advisors, and makes and maintains publicly accessible:

- The DRP, in full text, including annexes and amendments.
- An annual report on progress made on the implementation of the DRP; and
- The DRP completion audit/s.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

This chapter draws primarily on the International Finance Corporation's (IFC) Performance Standard 5 (PS5) – Land Acquisition and Involuntary Resettlement, which applies to involuntary physical and/or economic displacement resulting when an ENTITY acquires land rights or land use rights in a country of operation legal context where the ENTITY would ultimately have recourse to expropriation or other compulsory procedures. However, recognizing that the IFC PS were most recently updated in 2012, this chapter goes beyond the requirements of PS5 to reflect a more up-to-date conception of international best practice in resettlement, as captured by other standards on which this chapter draws, referenced throughout.

³⁹³ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. p. 6.

³⁹⁴ IRMA Standard for Responsible Mining 1.0, Guidance Document (v.1.2). See note for requirement 2.4.6.6. Available at: <https://responsiblemining.net/resources/#full-documentation-and-guidance>

³⁹⁵ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN74. Available at: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>

³⁹⁶ International Finance Corporation (IFC). 2012. Performance Standard 5: Land Acquisition and Involuntary Resettlement. Footnote 2. Available here: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>

³⁹⁷ According to the International Finance Corporation, "This occurs in cases of (i) lawful expropriation or temporary or permanent restrictions on land use and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail." (IFC. Performance Standard 5: Land Acquisition and Involuntary Resettlement. Para. 1.). While the IFC refers to 'involuntary resettlement' the IRMA Standard refers instead to involuntary displacement (as a result of land acquisition) in recognition that resettlement - particularly historically - is a process by which displaced households are physically moved to another location which may or may not have occurred following displacement.

³⁹⁸ World Bank. 2001. Operational Manual. OP 4.12 – Involuntary Resettlement. <https://pdfdocuments.azureedge.net/1572.pdf>

³⁹⁹ Sridarran et al. 2018. "Acceptance to be the Host of a Resettlement Programme: A literature review," Procedia Engineering. 212:962-969. <https://www.sciencedirect.com/science/article/pii/S1877705818301474>

⁴⁰⁰ IFC Performance Standard 5. Para. 3

⁴⁰¹ European Bank for Reconstruction and Development. 2014. Performance Requirement 5. Land Acquisition, Involuntary Resettlement and Economic Displacement. p. 30. www.ebrd.com/news/publications/policies/environmental-and-social-policy-esp.html

⁴⁰² See Kothari, M. 2007. "Basic Principles and Guidelines on Development-based Evictions and Displacement". A/HRC/4/18. www.ohchr.org/Documents/Issues/Housing/Guidelines_en.pdf

⁴⁰³ It is important to note that displacement can be the result of permanent land acquisition or temporary land access leases (i.e., easements) for a limited period of time (i.e., during construction).

⁴⁰⁴ Entities with multiple phases of land acquisition, i.e., 'proposed' land acquisition for an expansion but also historical land acquisition associated with the primary operations must conduct due diligence and proceed per Chapter 2.5B for historical land acquisition, while the new (post-2012) land acquisition will be subject to the Sections of Chapter 2.5A.

⁴⁰⁵ A land acquisition process is considered to have 'occurred' prior to 2012 if both the planning and implementation (i.e. physical displacement of people and formal acquisition of the land) occur before that date. Similarly, land acquisition processes are

considered to have occurred between 2012 and 2024 if both the planning and the implementation occurred after 2012 and before 2024. This current version (V2.0) of the IRMA standard will apply to all entities with resettlements that have not, as of the release of the standard, been planned or implemented.

⁴⁰⁶ This is recommended by EBRD 'Resettlement Guidance and Good Practice' (2017), p. 21. <https://www.ebrd.com/news/2017/ebird-launches-new-resettlement-guidance-and-good-practice-publication.html>

⁴⁰⁷ IRMA considers that informal land occupiers or users displaced from lands or otherwise impacted as a result of 'voluntary' (i.e., "willing buyer-seller") land transactions on behalf of the landowner fall into the category of 'involuntary displacement', even if there is no inherent underlying recourse to expropriation to make the transaction by definition 'involuntary'.

⁴⁰⁸ I.e., due to impacts on natural resources utilized by communities, exposure to noise, vibration, etc

⁴⁰⁹ Which stakeholders must be included and what may constitute '~~underserved and/or marginalized people~~' requiring additional focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those with existing forms of vulnerability (including insecure or non-existent land tenure, inadequate housing, debt, high-risk or informal livelihoods) as well as those whose may experience heightened impacts from resettlement such as women, children, the elderly, those with disabilities, those lacking land titles, those lacking the capacity to understand contractual matters, etc. Additional guidance will be provided in the IRMA Guidance Document.

⁴¹⁰ Which stakeholders must be included and what may constitute '~~underserved and/or marginalized people~~' requiring additional focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those with existing forms of vulnerability (including insecure or non-existent land tenure, inadequate housing, debt, high-risk or informal livelihoods) as well as those whose may experience heightened impacts from resettlement such as women, children, the elderly, those with disabilities, those lacking land titles, those lacking the capacity to understand contractual matters, etc. Additional guidance will be provided in the IRMA Guidance Document.

⁴¹¹ Note that IRMA Chapter 2.4-Obtaining Support and Delivering Benefits addresses processes that will provide additional benefits to communities through projects or initiatives such as education, training, infrastructure, economic development opportunities, etc. Community members affected by displacement and/or resettlement would have the opportunity to participate in the planning process for community-wide benefits. Entities are encouraged to consider synergies between community development programming and livelihood restoration efforts; however, for the purposes of this chapter, entities are only obligated to restore and, ideally (potentially but not mandatorily through linkages with broader community development programming), improve livelihoods that are directly affected by land acquisition and displacement.

⁴¹² I.e., entitlements and rates of compensation for all categories of affected people, including host communities.

⁴¹³ Examples of input indicators include number of improved seed varieties provided, number of livelihoods trainings offered, percentage of affected households signing up for financial management training, etcetera. Conversely, examples of outcome indicators can include affected people's perceptions of their standards of living vis-à-vis pre-displacement levels, changes in educational attendance and achievement versus pre-displacement levels, reestablishment of functioning socio-cultural networks and cooperatives, etc.

⁴¹⁴ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁴¹⁵ I.e., productive structures, crops/trees/grasses, and other improvements to lands.

⁴¹⁶ I.e., when an offer will be made to them, how long they will have to respond, how to access the grievance mechanism if they wish to appeal property or asset valuations, legal procedures to be followed if negotiations fail.

⁴¹⁷ Including: adequate housing, respect for social networks and stakeholder preferences, access to basic amenities, adequate to support livelihoods including continued access to natural resources, etc.

⁴¹⁸ Acknowledging that procedural issues cannot be address retroactively; however, if the ENTITY were to discover that affected persons were not paid fair market price, that could be rectified (to the extent that the stakeholders are identifiable).

⁴¹⁹ See: UN Committee on Economic, Social and Cultural Rights (CESCR). 1997. General Comment No. 7: The right to adequate housing (Art. 11.1): forced evictions. In particular, see Paragraph 15. Available at: www.refworld.org/docid/47a70799d.html

⁴²⁰ In guidance, IRMA will specify what constitutes 'fair compensation' and 'eligible assets' - in most legislative contexts, this would constitute market value for lands and structures rather than full replacement cost. Entities may have limited capacity to influence these forms of compensation as expropriation is an administrative process managed by the government when negotiations relating to compensation offers, terms, and conditions made by the ENTITY have failed.

⁴²¹ For more on meaningful stakeholder engagement see Chapter 1.2, and for more on strengthening capacity to engage see Section 1.2.3 of that Chapter.

⁴²² 'Rights-compatible' means ensuring that outcomes and remedies accord with internationally-recognized human rights.

⁴²³ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file grievances with the company.

⁴²⁴ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

⁴²⁵ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

⁴²⁶ By the current owner/s, and/or any previous owner/s.

⁴²⁷ If the due diligence undertaken in 2.5.1.1 reveals that no involuntary physical and/or economic displacement occurred, no further efforts are required.

⁴²⁸ Including, if relevant, how any un-remediated impacts on human rights.

⁴²⁹ Examples of input indicators include number of improved seed varieties provided, number of livelihoods trainings offered, percentage of affected households signing up for financial management training, etcetera. Conversely, examples of outcome indicators can include affected people's perceptions of their standards of living vis-à-vis pre-displacement levels, changes in educational attendance and achievement versus pre-displacement levels, reestablishment of functioning socio-cultural networks and cooperatives, etc.

⁴³⁰ I.e., entitlements and rates of compensation for all categories of affected people, including host communities.

⁴³¹ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁴³² Refer to Chapter 2.2, requirement 2.2.4.1, regarding developing a mutually agreed process to remediate for past impacts.

⁴³³ I.e., timelines for various components including payment of compensation or implementation of remediation programming, how to access the grievance mechanism, etc.

⁴³⁴ For more on meaningful stakeholder engagement see Chapter 1.2, and for more on strengthening capacity to engage see Section 1.2.3 of that Chapter.

⁴³⁵ 'Rights-compatible' means ensuring that outcomes and remedies accord with internationally-recognized human rights.

⁴³⁶ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file grievances with the company.

⁴³⁷ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

⁴³⁸ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.



Chapter 2.6

Emergency Preparedness, Response, and Recovery

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Changed title to add 'and Recovery'.
- Additional clarification and guidance provided in endnotes.
- Marked the requirement related to non-mine-waste facilities "optional", since the corresponding identification and management requirements in Chapter 4.2 are proposed to be marked optional too (2.6.2.3).
- Integrated preparedness and response to spill and leaks, which was previously included under Chapter 4.1-Waste and Materials Management.
- Substantial structural changes to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback Received and Proposed Decision
2.5-01	(2.5.7 - Public Liability Accident Insurance) Question: Should IRMA add requirements that the liability insurance needs to be in an amount sufficient to cover the costs related to the worst-case scenario for the failure of an operation's critical facilities (i.e., sufficient compensate affected peoples and communities, and restore livelihoods/economies and the environment)?	Feedback Received: 8 responses received (4 mining, 1 NGO, 1 finance, 1 consultant, 1 audit firm). 4 respondents (3 mining, 1 audit firm) are not in favor, 3 respondents (1 mining, 1 finance, 1 consultant) are questioning the feasibility, and 1 respondent (NGO) supports the principle but suggests a more realistic alternative (to require a minimum liability coverage, e.g. USD\$1 billion, unless evidence can be provided of a lesser site-specific worst-case liability limit). Proposed Decision: No change at this time. IRMA will consider the option of adding an optional requirement for a liability coverage for the worst-case failure scenario in a future update of the Standard, to allow for willing leading companies to be assessed against this.
2.5-02	(2.5.7 - Public Liability Accident Insurance) Question: It has been suggested to IRMA that there might be other financial instruments that could be put in place others that would enable a company to cover the costs related to a major catastrophic incident. Do you know of any other financial instruments that have been used to cover the cost of major accidents/incidents? (Can you provide actual examples of alternative instruments being used?) Conversely, would you have any objections to expanding this requirement to include other financial instruments? If so, why?	Feedback Received: 4 responses received (2 mining, 1 Ngo, 1 consultant). No suggestions generated on other existing financial instruments. Alternatives suggested would take further research, and beyond-IRMA cross-stakeholder conversation and action to develop new ones and implement them (this could include an industry-led fund). Proposed Decision: Propose to add an "eye icon" to this requirement, to keep it under close watch, as the 2018 requirement has largely been poorly understood and audited to date.

BACKGROUND

Modern mines and mineral processing operations have the potential for accidental releases that create risks for nearby communities and the environment. In some cases, the results can be catastrophic, such as the release of fluids and tailings from the failure of a tailings impoundment. There are also other risks associated with mines and mineral processing sites in general because these sites require the transport and use of hazardous materials such as petroleum and chemicals, and create the potential for catastrophic explosions, fires, releases of gas, transport-related spills of hazardous materials or chemicals.

In the context of climate change, extreme weather events have and will also become more frequent and more powerful. Earthquakes, storms and hurricanes, heavy rains, floods, extreme temperature, fires and mega-fires, can exacerbate the risks of catastrophic events and accidents related to the operation, in and around the mine or mineral processing site.

Operating entities have direct responsibility for minimizing risks (through prevention, mitigation, and preparedness) and developing effective plans for responding to emergencies or major accidents. Entities should work with contractors and suppliers of hazardous materials to put adequate emergency response plans in place to deal with both on-site and off-site accidents.

They also have direct responsibility for minimizing risks from tailings storage facilities and other similar potentially high-risk facilities.

It is also important for entities to coordinate and communicate with communities that could be affected by these accidents, both to protect health and safety in these communities and so that the emergency resources in the communities are available if needed.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UNEP, Awareness and Preparedness for Emergencies at Local Level (APELL)
- UNEP, Awareness and Preparedness for Emergencies and the Local Level (APELL) for Mining. Technical Report 41, 2001
- UNEP, Good Practice in Emergency Preparedness and Response, 2005
- ILO, Recommendation 183 on Safety and Health in Mines, 1995
- IFC Performance Standard 4: Community Health, Safety, and Security, 2012

OBJECTIVES OF THIS CHAPTER

To work with workers, communities and other stakeholders to plan for and be prepared to respond effectively to industrial emergency situations that may affect off-site resources or communities, and to minimize the likelihood of accidents, loss of life, injuries, and damage to property, environment, health and social well-being.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are two (2) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Public Liability Accident Insurance:

The requirement for having financial assurance, which could be in the form of an accident insurance policy/public liability accident insurance, able to cover the costs related to a major catastrophe (which include, but are not limited to: flood damage, landslides, subsidence, waste facility failures, major spills of process solutions, leaking tanks, etc.) included in the 2018 IRMA Standard V1.0 has been poorly understood and audited to date. It had been suggested to IRMA that there might be other financial instruments that could be put in place others that would enable a company to cover the costs related to a major catastrophe. Unfortunately, the standard revision process held between 2022 and 2024, including a 90-day period of public-comment and proactive engagement with subject matter experts, did not generate practical suggestions on other existing financial instruments. Alternatives suggested would take further research, and beyond-IRMA cross-stakeholder conversation and action to develop new ones and implement them (this could include an industry-led fund). It has also been suggested that the IRMA Standard should allow for any other financial instrument (existing or future) that is independently verified/verifiable, and as long as the instrument is dedicated to, or prioritizes, compensation/remediation over other aspects of loss (such as business loss).

Efforts have been made to clarify and strengthen the requirement as much as possible, this requirement (2.6.8.1) is signaled with an ‘eye icon’ to ensure that IRMA closely monitor its relevance, and its implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that this requirement is not ‘optional’ (unlike IRMA+).

IRMA Requirements

2.6.1 Identification of Key Emergency Response Stakeholders

2.6.1.1 A process is undertaken by competent professionals to identify and document key stakeholders that will be involved in emergency preparedness and response planning⁴³⁹ (hereafter referred to as “key stakeholders”) for any potential industrial accident and unwanted event⁴⁴⁰ related to the site and associated facilities, including among:

- Employees, contractors, suppliers, and workers’ health and safety representatives;
- Public sector agencies, first responders, and local authorities and institutions; and
- Rights-holders, stakeholders, individuals, businesses, and organizations that may be potentially affected by those potential industrial accidents and unwanted events⁴⁴¹.

2.6.1.2 Building on 2.6.1.1, the ENTITY consults and collaborates with key stakeholders to:

- Determine and agree on their roles and responsibilities with respect to emergency preparedness and response;
- Determine the current resources available for key stakeholders to respond to emergencies related to the site and its associated facilities, and identify any deficiency in resource or capacity in community response capabilities; and
- If deficiencies in resources or weaknesses in community response capabilities are identified, develop and document a plan to build capacity and resources necessary to facilitate effective emergency preparedness and response.

2.6.2 Assessment of Risks and Emergency Scenarios

2.6.2.1 Building on the other relevant scoping and risk and impact assessment processes⁴⁴²:

- An assessment of risk and emergency scenarios is carried out by competent professionals, in collaboration with key stakeholders, to compile a comprehensive list of foreseeable industrial accidents and foreseeable unwanted events related to the site and its associated facilities that could pose risks to individuals or communities⁴⁴³, **cultural heritage**, property, or the environment⁴⁴⁴;
- This assessment evaluates the level of risk for each potential emergency scenario based on the potential severity of consequence and probability of occurrence of each possible accident or unwanted event identified⁴⁴⁵;
- It identifies, and agrees with key stakeholders, what the key emergency scenarios are to prioritize them in the emergency preparedness and response plan (or equivalent)⁴⁴⁶;
- It identifies measures to prevent the negative consequences that could occur from all potential key emergency scenarios, and, where prevention is not possible, measures to minimize them; and
- If the prevention or mitigation measures identified in d. include emergency evacuations, the assessment identifies any facility and area where evacuation may be challenging⁴⁴⁷.



2.6.2.2 If there is any proposed or existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1):

- a. The identification and assessment of emergency scenarios take into account all those credible failure modes, including sunny-day and rainy-day failure scenarios, as appropriate;
- b. The ENTITY proactively shares with key stakeholders information about: 1) any emergency scenario related to those facilities; 2) outcomes of the facility breach analyses; 3) facility consequence classifications; and 4) the physical areas potentially affected by a failure;
- c. Proactively shares this information more widely with affected rights-holders and stakeholders; and
- d. Ensures this information is used to inform the collaborative assessment process required in 2.6.2.1.



2.6.2.3 **IRMA+**

If there are any facilities other than tailings and waste facilities⁴⁴⁸ where one or more credible failure modes have been identified (see 4.2.18.2), the ENTITY conforms with 2.6.2.2 for those facilities too.

2.6.3 Emergency Preparedness and Response Plan

2.6.3.1 Critical Requirement

Building on the assessment of risk and emergency scenarios required in 2.6.2, if potential industrial ~~accident~~ or unwanted event related to the site or its ~~associated facilities~~ that may result in adverse impacts to individuals or communities, **cultural heritage**, property, or the environment are identified, emergency preparedness and response plan/s (or equivalent) is developed and documented by competent professionals, as follows:

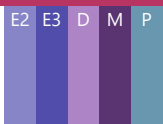
- a. The plan is developed in collaboration with the key stakeholders (identified as per 2.6.1.1);
- b. The plan includes warning stages, if appropriate, and response measures to be taken accordingly, in the event that industrial ~~accidents~~ or unwanted events occur⁴⁴⁹;
- c. It includes immediate measures to manage a disaster, save lives, protect individuals and groups that would be disproportionately affected⁴⁵⁰, provide medical assistance, supply humanitarian aid, and minimize harm to animals and the environment;
- d. It provides clear definition of roles, responsibilities and relationships of all (internal and external) stakeholders responsible for the development and/or implementation of (some or all of) the plan and associated procedures;
- e. It includes contact information for all key stakeholders and the measures to be taken to communicate with them if an industrial ~~accident~~ or unwanted event were to occur⁴⁵¹;
- f. It assigns implementation of preparedness measures and response measures to responsible staff with adequate skills and expertise, and to relevant key stakeholders;
- g. It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping;
- h. It includes an implementation schedule for preparedness measures;
- i. It maintains estimates of human resources and budget required for the implementation of both preparedness measures and response measures;
- j. It includes a financing plan in place to ensure that funding is available for the effective implementation of the preparedness measures; and
- k. The ENTITY makes and maintains ~~publicly accessible~~ the plan⁴⁵², in languages and formats that are understandable to ~~affected rights-holders and stakeholders~~, in accordance with Section 1.2.3.



2.6.3.2 To manage off-site and on-site spills, leaks, or releases of hazardous materials and hazardous wastes (identified as per Chapter 4.1):

- a. The emergency preparedness and response plan/s includes specific spill preparedness and response measures⁴⁵³;
- b. These measures are developed in collaboration with the key stakeholders (identified as per 2.6.1.1);
- c. They include instructions for evacuations, if relevant⁴⁵⁴;
- d. These measures include regular training of relevant workers, contractors, and emergency response providers, on procedures, methods and materials used for containment, clean-up, decontamination, and remediation⁴⁵⁵;
- e. They also includes regular training on appropriate personal protective equipment and clothing for workers or contractors engaged in spill response;⁴⁵⁶
- f. They also include regular training on any relevant fire-fighting measures, including: 1) Appropriate extinguishing equipment, and information about equipment that is not appropriate for a particular situation; and 2) Special protective equipment or precautions related to hazardous combustion products; and
- g. They also include regular training on relevant first-aid instructions for exposures that may occur during spill response, including: 1) Instructions on where to locate safety data sheets and other relevant information related to the chemicals of concerns; 2) Instructions for all relevant routes of exposure for relevant chemicals (inhalation, skin and eye contact, and ingestion); 3) Description of likely symptoms or effects related to exposure to relevant chemicals, including symptoms that are acute or delayed; and 4) Instructions on any immediate medical care and treatment(s).

2.6.4 Specific Training and Testing Measures



2.6.4.1 Critical Requirement

The following types of training and testing are performed and documented to test the emergency response plans required in 2.6.3:

- a. At least annually, and without delay if the ENTITY has developed or undertaken significant modifications to the plan, **tabletop discussions** that include ENTITY personnel responsible for emergency response, local emergency response personnel, and other key community stakeholders, and, if relevant, testing of early warning systems in communities⁴⁵⁷;
- b. At least every three years, and without delay if the ENTITY has developed or undertaken significant modifications to the plan, a full, on-the-ground, **emergency response simulation** with the ENTITY's personnel responsible for emergency response, local emergency response personnel, key community stakeholders, and where possible the wider affected population; and
- c. Lessons learned and identified corrective measures are documented.



2.6.4.2 At least annually, or more frequently if requested by affected rights-holders and stakeholders, the ENTITY:

- a. Undertakes public awareness-raising efforts to proactively share information with potentially affected people, in languages and formats that are culturally appropriate and easily accessible to them⁴⁵⁸, about the hazards and risks related to the site and its associated facilities, and proposed emergency response measures;
- b. Proactively shares information with local authorities and emergency services about the hazardous properties, and health and environmental effects, of the hazardous materials and hazardous wastes that may pose a risk to communities, workers or the environment if there were to be an incident or spill; and
- c. Ensures that relevant spokespeople within the ENTITY and the community receive training on emergency-response-related communications and media engagement.

2.6.5 Monitoring and Evaluation



2.6.5.1 To monitor and evaluate the effectiveness and appropriateness of its emergency preparedness measures and response measures to prevent the negative consequences that could occur from all potential key emergency scenarios, the ENTITY, at least annually:

- a. Tracks and documents its performance on ensuring preparedness measures, including regular training and testing, against its implementation schedule;
- b. Tracks and documents changes in personnel and key stakeholders and/or changes in contact information; and
- c. Includes continuous feedback from internal and external sources in the monitoring and evaluation, including from key stakeholders and affected communities, in accordance with Chapter 1.2.

2.6.6 Continuous Improvement



2.6.6.1 At least annually, but without undue delay after a significant change, the ENTITY:

- a. Reviews the monitoring and evaluation results, informed by internal and external feedback, as per Section 2.6.5;
- b. Reviews any emergency-related or disaster-related grievances (see Section 1.6.4);
- c. Reviews challenges encountered, deficiencies, and lessons learned, from: 1) tabletop discussions and emergency response simulations required in 2.6.4.1; and 2) Actual disasters, accidents or incidents that occurred at the site or other similar sites⁴⁵⁹;
- d. Updates, if necessary⁴⁶⁰, contact information for key stakeholders listed in the emergency response plan;
- e. Develops and implements time-bound corrective measures to update, if necessary⁴⁶¹, its assessment of risks and emergency scenarios in accordance with Section 2.6.2, and
- f. Develops and implements time-bound corrective measures to update, if necessary⁴⁶², its emergency preparedness and response plan in accordance with Section 2.6.3, including the specific training and testing measures required in 2.6.4.

2.6.7 Response and Recovery

2.6.7.1 The ENTITY has a system in place to ensure that, in the event of an actual emergency situation caused by an industrial accident or unwanted event related to the site or its associated facilities:

- Relevant emergency preparedness and response plan/s are implemented;
- Immediate measures are taken to manage the disaster, save lives, provide medical assistance, and supply humanitarian aid;
- Immediate measures are taken to protect individuals and groups that would be disproportionately affected⁴⁶³;
- Immediate measures are taken to minimize harm to animals and the environment.

2.6.7.2 If an actual emergency situation occurs (or has occurred), and once the critical elements of the disaster have been stabilized, the ENTITY contributes⁴⁶⁴ to long-term restoration, reconstruction and recovery effort, as follows:

- The ENTITY offers funding to affected people to select and hire competent professionals of their own choosing to serve as independent legal and/or technical advisors to assist them in long-term recovery activities;
- The ENTITY explicitly states that participation in a joint recovery effort does not preclude affected people from seeking redress, including compensation for impacts, through administrative, judicial, or other non-judicial remedies for impacts related to the disaster/crisis;
- In the case of temporary or permanent physical or economic displacement related to the disaster/crisis situation, the ENTITY undertakes measures in alignment with Chapter 2.5;
- The ENTITY offers to fund and collaborate with affected people and their advisors, and other key stakeholders⁴⁶⁵, to jointly develop and implement an action plan (or equivalent) to provide, as needed, restoration, reconstruction and recovery;
- This action plan includes a process to collaboratively assess the short-, medium-, and long-term social, environmental and local economic impacts;
- This action plan includes collaboratively-designed measures and associated objectives for restoration, reconstruction and recovery activities;
- This action plan includes collaboratively-designed performance indicators to enable measurement of progress toward those objectives (f.) over time;
- This action plan enables participation of affected people in the restoration, reconstruction and recovery activities if they so desire; and
- This action plan includes a program to monitor and evaluate the effectiveness of the measures (f.), including against the indicators for the defined measures (g.).

2.6.7.3 If an actual emergency situation occurs (or has occurred), on a schedule agreed with affected peoples and their advisors, and other key stakeholders⁴⁶⁶, the ENTITY:

- Reviews the monitoring data related to the action plan⁴⁶⁷;
- Evaluates if measures in the action plan are being effectively implemented; and
- If the measures are not effectively implemented, or are not effective, the ENTITY, collaborates with affected people and their advisors, and other key stakeholders to develop and implement corrective measures to achieve the objectives of restoration, reconstruction and recovery activities.



2.6.8 Public Liability Accident Insurance

E2 E3 D M P

2.6.8.1 The ENTITY:

- a. Has financial assurance in place **for disaster management and recovery**⁴⁶⁸ in case of potential industrial accident or unwanted event related to the site and associated facilities⁴⁶⁹;
- b. **Makes and maintains publicly accessible name of the insurer/s, the facilities covered, and the duration of this assurance;**
- c. **Makes and maintains publicly accessible the amount of this assurance, and the nature of the management and recovery measures it can cover; and**
- d. Has clause/s and/or mechanism/s in place to ensure the insurance coverage remains in force for as long as the ENTITY has legal responsibility for the site⁴⁷⁰.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

The requirements in this chapter largely follow the guidance from the United Nations Environment Programme, Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining, Technical Report No. 41 (2001).

Additional guidance is also taken from: Part III of International Labour Organization (ILO) Convention 176 on the Safety and Health in Mines, 1995; Part III and Part V of ILO Convention 174 on Prevention of Major Industrial Accidents, 1993; and the Occupational Health and Safety Assessment Series (OHSAS) 18001/2 and the Global Industry Standard on Tailings Management.⁴⁷¹

Note that emergency response plans for workers are included in Chapter 3.2—Occupational Health and Safety. If so desired, entities can combine the plan developed as part of this chapter into a single plan that covers all emergency preparedness and response plans.

⁴³⁹ The ENTITY must be able to demonstrate that it offered to include potentially interested and impacted individuals, while also being allowed to co-develop some ground rules for engagement, such as agreement to constructively engage in the planning process.

⁴⁴⁰ This includes, but is not limited to: tailings storage facility failures, natural disasters affecting the mine, mine collapse, off-site chemical transportation accidents, as well as other emergency situations, that would impact areas, people, structures, habitats, and the environment in and outside the mine/mineral processing site.

⁴⁴¹ This includes, as relevant, farmers, herders, fishermen/fisherwomen.

⁴⁴² Including the identification of key on-site potential emergency scenarios required in Chapter 3.2, if those could pose risks to individuals or communities, cultural heritage, property, or the environment.

⁴⁴³ I.e., health, safety, livelihoods, local economy.

⁴⁴⁴ “Foreseeable industrial accidents” related to the project/operation include but are not limited to potential credible failures of project/operation facilities (see Chapter 4.2). “Foreseeable unwanted events” related to the project/operation, including but not limited to those involving transport of hazardous materials (see Chapter 4.1).

⁴⁴⁵ Including, but not limited to the potential credible failure of tailings storage or mine waste storage facilities.

⁴⁴⁶ Taking into consideration those that pose the greatest risk but also the greatest concern to communities and potentially affected rights-holders and stakeholders.

⁴⁴⁷ These facilities and areas may include, but are not limited to: prisons and detention centers, elder care facilities, schools and daycare facilities.

⁴⁴⁸ Including, but not limited to: surface mines features such as pit highwalls and other associated features, underground mines shafts, tunnels and features, fluid extraction areas or facilities (e.g., for brine or groundwater pumping/dewatering), water reservoirs and other water storage facilities, access roads, non-mining and non-processing hazardous and remediated waste storage facilities.

⁴⁴⁹ Warning stages and measures could include, for example, Warning Level 1: no emergency situation is imminent, but certain indicators have been met (e.g., water level in tailings facility is above maximum operating level). Measure: Transfer some water to alternative storage pond, inspect impoundment. Alert environmental regulator and local authorities. Warning Level 2: imminent overtopping of tailings dam. Measure: stop discharging to tailings facility. Implement communications plan, set up incident command center, begin evacuation procedures and other procedures in emergency response plan.

⁴⁵⁰ Including children, older persons, or persons with disabilities. See:

https://unece.org/fileadmin/DAM/pau/age/Policy_briefs/ECE_WG1_36_PB25.pdf

<https://social.desa.un.org/issues/disability/disability-issues/disability-inclusive-disaster-risk-reduction/disability>

⁴⁵¹ If different warning stages have been established, the communication rules should be clarified for each stage.

⁴⁵² This information-sharing must include all emergency scenarios involving the stability, integrity, or safety of mine waste facilities (when such facilities exist, and if such emergency scenarios have been identified).

⁴⁵³ The plans or procedures may include different responses for large and small spills where the spill volume has a significant impact on the hazard. The plans or procedures for risks that would not affect people, animals, the environment, or structures off-site may be integrated into the OHS Emergency Response Plan (See 3.2.7.1), or may be standalone plans.

⁴⁵⁴ For facilities and areas where evacuation may be challenging, see 2.6.2.1.e.

⁴⁵⁵ Guidance: e.g., containment could include covering the drains and capping procedures, etc., and clean-up and decontamination could include techniques for neutralization, adsorbent materials, cleaning or vacuuming, etc. Remediation of soil or groundwater may be necessary.

⁴⁵⁶ Guidance: Use of personal precautions could include, for example, removing ignition sources or moving to an area with sufficient ventilation) and protective equipment and clothing may include respirators, safety glasses, gloves or other equipment to prevent skin, eyes.

⁴⁵⁷ Care must be taken to ensure that these tests are carried out in a manner that does not negatively traumatize or otherwise impact community members, e.g., by ensuring that proactive information is shared widely in the community, in a culturally appropriate manner (see Chapter 1.2, Section 1.2.3), to alert them about the nature and timing of tests, including clarity that these are just tests, not actual emergency situations.

⁴⁵⁸ In accordance with Section 1.2.3.

⁴⁵⁹ In case of a failure of a TSF or mine waste facility, this will include detailed review, root-cause analysis and independent expertise of the failure, its consequences, and the adequacy and effectiveness of the response and recovery measures.

⁴⁶⁰ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁴⁶¹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c. And based on changes in assumptions, design, operations, or any other relevant factor.

⁴⁶² This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁴⁶³ Including children, older persons, or persons with disabilities. See:

https://unece.org/fileadmin/DAM/pau/age/Policy_briefs/ECE_WG1_36_PB25.pdf

<https://social.desa.un.org/issues/disability/disability-issues/disability-inclusive-disaster-risk-reduction/disability>

⁴⁶⁴ To demonstrate conformance with this requirement, evidence of a system in place will be sufficient if no such emergency situation ever occurred.

⁴⁶⁵ Including government representatives.

⁴⁶⁶ Including government representatives.

⁴⁶⁷ See 2.6.7.2.d to i.

⁴⁶⁸ Which could be in the form of an accident insurance policy, or equivalent.

⁴⁶⁹ Unplanned accidental events may include, but are not limited to: flood damage, landslides, subsidence, waste facility failures, major spills of process solutions, leaking tanks, etc.

⁴⁷⁰ Including during closure and post-closure, and in case the site and/or associated facilities are put under 'care and maintenance'.

⁴⁷¹ United Nations Environment Programme. 2001. Awareness and Preparedness for Emergencies and the Local Level (APELL) for Mining. Technical Report 41. <https://preparecenter.org/wp-content/uploads/2021/04/Apell-mining-UNEP.pdf>
United Nations Environment Programme. 2015. Awareness and Preparedness for Emergencies and the Local Level (APELL), 2nd Edition.

International Labour Organization. C174-Prevention of Major Industrial Accidents Convention, 1993.

https://www.ilo.org/dyn/normlex/en/?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312319

Occupational Health and Safety Assessment Series (OHSAS) 18001/2. Not freely available.

Global Tailings Review. 2020. Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf



Chapter 2.7

Concurrent Reclamation, Closure, and Post-Closure**SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES**

- Emphasized the need for concurrent reclamation and explicitly included “post-closure” throughout language of Sections and Requirements.
- Updated some Section names for clarity and consistency throughout the Standard.
- Several requirements restructured to increase clarity and auditability.
- The critical requirement for a reclamation and closure plan developed prior to the commencement of mine construction activities has been combined with the requirement (former 2.6.2.1 in 2018) that outlined the content of such plan, to avoid an ENTITY “fully meeting” this critical requirement with a plan that does not meet some or all of the content-related requirements. The former 2.6.2.1 in 2018 has been largely expanded thanks to the IRMA Standard Guidance Document, and all the substantial guidance is now integrated into a series of more-detailed requirements, which does not change the workload (and actually likely reduces it as it is now clearer to audit and score).
- Clarified that implementation is assessed through the monitoring and evaluation of implementation and effectiveness.
- Clarified pathway and requirements regarding financial assurance arrangements for Entities operating in jurisdictions where the country of operation does not offer any State-managed instrument for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent), that is hosted and overseen by the State (2.7.3.1*).
- Moved clauses related to estimated cost to a new dedicated Section (now 2.7.2).
- Moved clauses related to stakeholder engagement to a new dedicated Section (now 2.7.4).
- Moved clauses related to information-sharing and public reporting to a new dedicated Section (now 2.7.7).
- Changed the approach of the long-term post-closure cost calculations requirement: from using long-term NPV calculations to a fixed 500-year time period. (this requirement had never been understood and audited well; difficulties of using NPV approaches are acknowledged by members of the Expert Working Group, and external literature). (2.7.3.3)
- Updated requirement to strengthen joint monitoring and evaluation processes, this is now harmonized throughout the Standard.
- Updated requirements to close the Plan-Do-Check-Act loop to deliver continuous improvement (through regular updates and revised processes and criteria, informed by monitoring, evaluation, and review), this is now harmonized throughout the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
2.6-01	(2.6.1.2) Question: Do you agree with the addition of this requirement? Are there other activities you would suggest be included in the list of concurrent reclamation activities that can be commenced/undertaken during the operations phase?	Feedback received: 5 responses received (3 mining, 1 NGO, 1 finance). All respondents support this requirement for activities to be implemented concurrently to operations, throughout the life of the project/operation. Several of them points out the context specificities which may impede the concurrent reclamation. Proposed Decision: Retain the requirement, now made more consistent (see 2.7.1.2), and keep the option for an ENTITY to provide a rationale “when some activities cannot practically be implemented in such a concurrent manner.”
2.6-02	(2.6.1.7) Question: Do you agree that stakeholders should be provided with the opportunity to provide input on reclamation, and reclamation and closure plans, throughout the operation’s life cycle? If so, does it make sense to tie this opportunity to when the plans are updated?	Feedback received: 8 responses received (4 mining, 4 NGO). All respondents but one support this proposition. One respondent (mining) agrees that stakeholders should be informed, but not given a space for comments. One respondent (mining) mentions that stakeholder engagement on reclamation and closure could be integrated into the overall stakeholder engagement plan. One respondent (NGO) mentions the need for all version of plans and estimated costs to be made publicly accessible. One respondent (mining) flags that minor updates are made on a regular basis, and that stakeholder input should be sought only when significant changes are made. Proposed Decision: Retain the requirement to offer space to communities and relevant stakeholders to provide input, not only on the initial versions but whenever significant updates are made. See Section 2.7.4.
2.6-03	(2.6.3.1) Question: Should IRMA leave the requirement 2.6.4.3 from the 2018 Standard unchanged (i.e., “Self-bonding or corporate guarantees shall not be used”)? In that case, if self-bonding is used, the most the ENTITY can score on this requirement would be “partially meets” (and that would only happen if the site fully meets sub-requirement b). Or are there other ways to sufficiently highlight the financial risk of not having government-supported financial assurance in place?	Feedback received: 4 responses received (3 mining, 1 NGO). The NGO respondent supports leaving the requirement from the 2018 Standard unchanged. Two mining respondents support the approach of a partial score cap. One mining respondent points out the lack of state-hosted and state-overseen financial assurance instruments in some countries such as Zimbabwe and Brazil (although IRMA understands that Brazil has been setting up a new mining fund for reclamation and closure, in response to the recent tailings dams catastrophes); making this hard if not impossible to achieve in such countries.

		Proposed Decision: Experience from the first years of independent audits against the IRMA Standard have identified the issue where there is no strong state-hosted and state-overseen financial assurance instruments (i.e. in the form of cash deposits or trust funds) in place for reclamation, closure, and post-closure. IRMA proposes to clarify this situation by separating the two situations, and providing pathways for each scenario (see 2.7.4.1). In practice, this means that when such instrument is available in a country of operation, the ENTITY must adopt and implement it; and when such instrument is not available, the ENTITY must still provide a form of financial assurance, which in this case may be based on a “weaker” mechanism like self-bonding or corporate guarantee. In this case, IRMA adds a sub-requirement to ensure the ENTITY “makes publicly accessible detailed information on the likelihood that funds would be available to the competent authority to cover the cost of reclamation, closure and/or post-closure: 1) at the end of the operation’s life; 2) if operations are suspended or unexpectedly ceased; and 3) if the ENTITY were to go bankrupt prior to the planned closure date.” Responses received to this question, as well as to 2.6-04, 2.6-05, and 2.6-06 are informing this decision.
2.6-04	(2.6.3.1) Question: Should IRMA add that that self-bonds or corporate guarantees are not used “unless there is no other option available,” and create some requirements that evaluate the credibility of any self-bond or corporate guarantee, so that stakeholders are provided with some information on the likelihood that funds would be available to cover the cost of reclamation and closure either at the end of the operation’s life or if the ENTITY were to go bankrupt prior to the planned closure date. There are existing approaches such as ‘balance sheet tests,’ which require periodic verification of compliance with financial health criteria.	Feedback received: 6 responses received (3 mining, 3 NGO). Responses are split on this question. 2 NGO and 1 mining respondents are against this proposition. The other respondents (2 mining, 1 NGO) support it. Proposed Decision: See decision on 2.6-03 above.
2.6-05	(2.6.3.1) Question: Are there realistic options for “Independently guaranteed, reliable, and readily liquid” that do not specifically require a government body to oversee financial management and reclamation execution? What	Feedback received: 5 responses received (3 mining, 2 NGO). No practical example was provided. Several respondents mentions that companies could collaborate (including through industry associations) to develop an independent surety mechanism.

	are those options and how have then been implemented to date in practical terms? Are there examples of success? challenges?	Proposed Decision: See decision on 2.6-03 above.
2.6-06	(2.6.3.2) Question: Should IRMA consider provision of guarantees by corporates of sufficient creditworthiness that have secured an independently assessed “investment grade” credit rating by one of the recognized credit ratings agencies? What are the benefits and shortcomings of this approach?	Feedback received: 8 responses received (3 mining, 3 NGO, 1 consultancy, 1 audit firm). 2 NGO respondents are against this proposition, while the third NGO respondent questions the benefits and shortcomings of it. 2 mining respondents flag the risks and weaknesses associated with this approach, while the third one fully supports the proposition. The two other respondents (consultancy and audit firm) add contextual information regarding financial assurance instruments held by banks that may face higher credit risk than multinational parent owning company for example. Proposed Decision: See decision on 2.6-03 above.
2.6-07	(2.6.4.1) Question: Sub-requirements 2.6.4.1.d and 2.6.4.1.e allow for the withholding of confidential information (similar to 2.6.4.5 in the 2018 Mining Standard). We are wondering, however, if such a caveat is necessary. Do you believe that there is any information relating to financial assurance that should be considered confidential business information? If so, we would appreciate examples, so that we can consider adding them in our guidance.	Feedback received: 4 responses received (4 mining, 1 NGO). 1 NGO and 1 mining respondent are in favor of removing such caveat. The other respondents (3 mining) are in favor of keeping such caveat, in accordance with the approach taken throughout the Standard, i.e. supporting evidence must be provided to the auditors and a rationale made public. Proposed Decision: Retain the caveat, which is consistent with the approach taken throughout the Standard. The caveat is moved to the endnotes, with additional clarification.

BACKGROUND

Globally, the industry uses a variety of terms to describe the period following the cessation of mining or mineral processing operations, including “reclamation”, “decommissioning”, “rehabilitation”, and “restoration”. As the necessity for post-reclamation activities became evident, some jurisdictions have added the terms closure and post-closure to describe activities that take place separate from and/or following those other measures. At present there is no uniformly accepted terminology, however IRMA has defined and uses the terms reclamation, closure, and post-closure for the purposes of the requirements in this Standard (see full definitions in the Glossary). In short:

Reclamation refers to the process of achieving stability, hydrologic balance, protection of water resources and converting disturbed land to a productive post-mining land use (or establishing the potential for productive use). To the extent possible, reclamation measures and activities take place in a progressive manner, i.e. concurrent with mining operations. While this **concurrent reclamation** reduces a company’s long-term liabilities, it also demonstrates to stakeholders that the company is proactive in its approach to mitigating environmental impacts, and in ensuring that closure and post-closure socio-environmental costs are not externalized to the country of operation and its taxpayers.

Closure refers to the post-reclamation activities that are required to close and secure a site to maintain compliance with environmental and health and safety regulations. It includes interim fluid and site management (sometimes referred to as ‘care and maintenance’) in addition to post-reclamation monitoring and maintenance during the period when the success of reclamation measures to achieve site-safety, stability, revegetation, and water quality as well as other reclamation objectives is measured and maintained. The closure period is finite and often no more than ten years in duration for an industrial mine. It can be shorter for mineral processing, and much shorter for an exploration site (in particular if exploration activities did not result in a mine being built and operated).

Post-closure refers to the period after the reclamation and closure activities in the plan have been completed, and long-term management activities (e.g., ongoing monitoring and maintenance, environmental monitoring, and, if necessary, water management and treatment) are occurring to ensure that a site remains stable and ecological restoration objectives continue to be achieved. This phase continues until final sign-off of site responsibility and relinquishment of post-closure financial assurance can be obtained from the regulator. Although the context and relevant issues may vary between how mining and mineral processing operations can apply post-closure best practices, they share a common rationale. In general, this will not be relevant for an exploration site (in particular if exploration activities did not result in a mine being built and operated).

A concurrent reclamation, closure, and post-closure plan provides an overall framework to guide all measures and decisions taken during the life cycle of a project or an operation. It is now widely recognized that the objectives and impacts of reclamation, closure, and post-closure must be considered from project inception. Such plan should define a vision of the end result of the process and set concrete objectives to implement that vision in a progressive manner, i.e. concurrent to the operations. At any point in time, the plan must include only techniques that rely on proven technologies. Future changes to the plan can be anticipated, but the use of entirely new technologies should not be relied upon until they have been proven.

When evaluating the adequacy of reclamation and closure plans the following should be considered:

- 1) The final post-reclamation land and other uses that are appropriate for the site;
- 2) How reclaimed lands should be stabilized, re-vegetated and ecosystem functionality restored;
- 3) The timing of reclamation processes;
- 4) Whether open pits should be backfilled with waste if it can be done in a manner that does not degrade the environment; and
- 5) How much money should be set aside to guarantee that reclamation, closure, and post-closure will be accomplished, how should that money be invested or valued in terms of discount rate, and what form of financial assurance should be required for this guarantee to be effective in

practice and to ensure that communities, rights-holders, and ecosystems are effectively protected from closure and post-closure liabilities.

Mining-related activities may also lead to a loss in future soil and land use options as a result of the physical modification of landscapes and the conversion of land uses (e.g., lands being covered in buildings or waste facilities, land deformation from dewatering or underground mining, land alteration due to excavation of pits and changes to geomorphological features) and soil erosion.⁴⁷² Soil erosion can occur during construction of roads and facilities, stripping of overburden, excavation of rocks and minerals, disposal of wastes, and even during reclamation and closure. These activities may increase erosion rate up to several hundred times greater than from undisturbed areas.⁴⁷³ There are, however, measures that can be taken to minimize soil erosion during operations, and to reclaim soils through mitigation and rehabilitation activities.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- IFC Guidance Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources, 2019 update

OBJECTIVES OF THIS CHAPTER

To protect long-term environmental and social values, throughout the life of operations, and ensure that the costs of site reclamation and closure are not borne by affected communities or the wider public.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are two (2) **critical requirements** applicable to all projects and operations in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

 ISSUES UNDER CLOSE WATCH (EYE ICON)

Financial Assurance:

There are few mining jurisdictions where the country of operation does not offer any State-managed instrument for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent), that is hosted and overseen by the State. These situations have so far been handled through exceptions to the 2018 IRMA Standard for Responsible Mining V1.0 following a decision made by the IRMA Board Assurance Subcommittee and approved by IRMA’s equally-governed multi-stakeholder Board.

Building on years of experience, growing evidence and guidance for best practice, these ‘exceptional’ circumstances are not fully addressed in the form of an auditable and assessable requirement, adapted and responsive to this challenging reality. This requirement (2.7.3.1*) is signaled with an ‘eye icon’ to ensure that IRMA closely monitor its relevance, and its implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that this requirement is not ‘optional’ (unlike IRMA+).

IRMA continues to encourage all governments to establish strong and functioning financial assurance instruments for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent), that are hosted and overseen by the State.

IRMA Requirements

2.7.1 Planning for Concurrent Reclamation, Closure, and Post-Closure



2.7.1.1 Critical Requirement

Building on the Scoping and the Impact Assessment processes required in Chapter 2.1, a concurrent reclamation, closure, and post-closure plan (or equivalent) is developed by competent professionals, as follows:

- a. This plan is appropriate to the level of project development⁴⁷⁴;
- b. It is developed at the earliest stage possible⁴⁷⁵;
- c. It includes a general statement of purpose;
- d. It includes a description of the post-closure land and facility use objectives that, to the greatest extent possible, align with affected communities' preferred post-closure land and facility uses⁴⁷⁶;
- e. It includes site location and background site characterization information⁴⁷⁷, as well as a description of the entire project/operation, including all associated facilities and individual facility features⁴⁷⁸; and
- f. It outlines the role of affected rights-holders and stakeholders in the collaborative development, implementation, and monitoring and evaluation of this concurrent reclamation, closure, and post-closure plan; and



- 2.7.1.2** This plan ensures that all reclamation and closure measures and activities required in 2.7.1.3, 2.7.1.4, and 2.7.1.5 are implemented in a **concurrent** manner. When some activities cannot practically be implemented in such a concurrent manner, a rationale is documented and integrated into the plan.



2.7.1.3 To address **water management**, this plan includes:

- a. Source and pathway characterization including modeling of geochemistry and hydrology to identify the potential release of contaminants during closure⁴⁷⁹;
- b. Source mitigation measures, clear objectives and effectiveness indicators, to prevent the degradation of water resources⁴⁸⁰; and
- c. Stormwater runoff/run-on management measures, clear objectives, and effectiveness indicators⁴⁸¹.



2.7.1.4 To address **earthwork, revegetation, and ecological restoration**, this plan includes:

- a. Earthwork measures, clear objectives and effectiveness indicators to ensure a stable landscape, including soil erosion reduction measures, permanent stabilization measures and final topography planned for the reclaimed areas;
- b. Revegetation measures, clear objectives and effectiveness indicators to ensure adequate revegetation, including: 1) quantitative revegetation standards based on analogous sites⁴⁸²; 2) topsoil salvage to the maximum extent practicable over the lifecycle of the project/operation, and topsoil storage in a manner that preserves its capability to support plant regeneration;
- c. Ecological restoration measures, clear objectives and effectiveness indicators to protect and restore ecosystem processes⁴⁸³, including: 1) plant material selection for the preferred post-closure land use, prioritizing native species as appropriate; 2) plans for control of noxious weeds and alien/non-native species; 3) a defined period, no longer than 10 years after the facility is no longer is used, when all planned revegetation tasks will be completed; and



2.7.1.5 To address **polluted lands, facilities and hazardous waste** management this plan includes:

- a. Polluted soil remediation measures, clear objectives and effectiveness indicators⁴⁸⁴;
- b. Hazardous material and hazardous waste disposal measures, clear objectives and effectiveness indicators⁴⁸⁵; and
- c. Facility and equipment decommissioning measures⁴⁸⁶ that prioritize the reuse and recycling of materials, with clear objectives and effectiveness indicators.



2.7.1.6 To address **post-closure management of facilities (including TSFs) and terrestrial resources**, this plan includes:

- a. Measures, clear objectives and effectiveness indicators to ensure post-closure monitoring and maintenance of facilities (including TSFs), including: 1) Inspection of surface stability and/or underground mine workings subsidence; 2) Monitoring and maintenance of waste and tailings facilities including effectiveness of revegetation, stormwater controls, and any cover and/or seepage capture systems;
- b. For facilities where long-term risks have not been eliminated (including water treatment, TSFs and other mine waste facilities), mechanisms for contingency and response planning and implementation; and
- c. Measures, clear objectives, and effectiveness indicators to ensure post-closure monitoring of terrestrial resources, if necessary⁴⁸⁷.



2.7.1.7 To address **post-closure water management**, and informed by Sections 4.3.3, 4.3.4, and 4.3.6⁴⁸⁸, this plan includes:

- a. Measures, clear objectives and effectiveness indicators to ensure post-closure operation, inspection and maintenance of water impact mitigation measures, including; 1) Source controls and/or capture and treatment needed to prevent degradation of ground water and surface water, including measures related to pit lake and/or underground mine water quality; 2) Post-closure water capture and treatment using treatment technology proven to be effective for similar water chemistry and under similar conditions and at a similar scale to the water that will need to be treated;
- b. Post-closure monitoring of surface waters, groundwaters, and biota, including an appropriate number of sampling and monitoring sites to detect pollution from closed facilities and detect changes in water quality or ecosystem health at compliance and off-site locations; and
- c. Post-closure water monitoring for at least 25 years⁴⁸⁹ beyond the time when active mitigation ceases. Besides this minimum period, the plan includes any additional time necessary for predicted water quality to be in conformance with IRMA Water Quality Criteria in Annex 4.3-A for at least five consecutive years.⁴⁹⁰



2.7.1.8 To ensure adequate and safety reclamation of **exploration** work, this plan⁴⁹¹ includes measures, clear objectives and effectiveness indicators to ensure that open surface features⁴⁹² are completely backfilled and regraded to original contours, or to contours that are compatible with the post-closure land use objectives (see 2.7.1.4).



2.7.1.9 To address **post-closure safety of open pits**, this plan includes measures, clear objectives and effectiveness indicators to ensure that open pits will be partially or completely backfilled:

- a. If, and whenever, a pit lake is predicted to exceed the water quality criteria required in IRMA Chapter 4.2⁴⁹³;
- b. If the ENTITY and key stakeholders have agreed that backfilling would have socioeconomic and environmental benefits; and
- c. If it is economically viable.



2.7.1.10 To address **post-closure safety of underground mines**, this plan includes measures, clear objectives, and effectiveness indicators to ensure that underground mines will be backfilled if the predicted risk of subsidence will be material and if alternative effective mitigation to address the impact of subsidence are not available/viable.



2.7.1.11 This plan includes a detailed schedule for all measures and activities indicated in the plan, including concurrent reclamation and closure activities, as follows:

- a. The schedule includes when the various reclamation and closure activities will begin, occur, and end, for each facility and for the site overall;
- b. It includes time critical items and milestones for each facility and for the site overall; and
- c. It includes any anticipated periods of temporary closure during which the interim fluid and site management plan (see 2.7.1.12) will be implemented;
- d. It includes provisions for notifying regulators of unplanned or extended temporary closures.



2.7.1.12 To address situations where operations at a mine/mineral processing site are suspended or unexpectedly ceased, an interim fluid and site management plan (or equivalent)⁴⁹⁴ is developed by competent professionals, as follows:

- a. This plan includes information on how process-water management systems, interceptor wells, seepage-collection systems and stormwater management systems⁴⁹⁵ would be operated and maintained to prevent releases and continue to meet environmental compliance obligations;
- b. It includes measures, clear objectives and effectiveness indicators to: 1) stabilize excavations and workings; 2) isolate or control toxic or hazardous materials; 3) store or remove equipment, supplies and structures; 4) maintain the site in a secure, safe and clean condition; and
- c. It includes provisions to monitor fluid and site conditions during periods of non-operation.

2.7.2 Estimated Costs



2.7.2.1 The concurrent reclamation, closure, and post-closure plan includes a detailed determination of the estimated costs of reclamation and closure, and post-closure measures and activities, as follows:

- a. These estimated costs are based on the conservative assumption that they would be carried out by a regulatory agency using a third-party contractor⁴⁹⁶;
- b. They include costs associated with water management (as per 2.7.1.3);
- c. They include costs associated with earthwork, revegetation, and ecological restoration (as per 2.7.1.4);
- d. They include costs associated with polluted lands, facilities (including TSFs) and hazardous waste management (as per 2.7.1.5);
- e. They include holding costs for interim fluid and site management (as per 2.7.1.12) that would be incurred by a regulatory agency if the ENTITY were to declare bankruptcy⁴⁹⁷;
- f. They include post-closure costs for: 1) post-closure management of facilities (including TSFs⁴⁹⁸) and terrestrial resources (as per 2.7.1.6); and 2) post-closure water management (as per 2.7.1.7); and
- g. They include other direct and indirect costs, covering: 1) Mobilization/demobilization; 2) Engineering redesign, procurement and construction management; 3) Contractor overhead and profit; 4) Agency administration; 5) Insurance and performance bond; and 6) Contingency.



2.7.2.2 The estimated costs required in 2.7.2.1:

- a. Take into account inflation, and include a multi-year cost inflation that corresponds to the number of years: 1) until the concurrent reclamation, closure, and post-closure plan and costs are next scheduled to be reviewed (see 2.6.1.6)⁴⁹⁹; and 2) necessary to complete post-closure measures and activities (2.7.3.3);
- b. Are calculated by competent professionals using a credible method⁵⁰⁰; and
- c. Are reviewed by a competent third-party, or by a competent authority⁵⁰¹.



2.7.3 Financial Assurance



2.7.3.1 Critical Requirement

If the country of operation offers financial assurance instrument/s managed by the State⁵⁰² for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent):

- The ENTITY adopts and implements it/them, from the earliest stage possible⁵⁰³, and throughout the project/operation life cycle;
- The ENTITY ensures this financial assurance is sufficient to cover the costs of interim fluid and site management, all concurrent reclamation, all closure, and all post-closure measures and activities, as estimated in the most current reclamation, closure, and post-closure plan in accordance with Section 2.7.2⁵⁰⁴;
- The ENTITY ensures this financial assurance is independently guaranteed and reliable; and
- The ENTITY ensures this financial assurance is readily liquid and accessible to the competent authority⁵⁰⁵, excluding all forms of self-bonding or corporate guarantees.

OR



2.7.3.1* Critical Requirement

If the country of operation **does not** offer any financial assurance instrument managed by the State⁵⁰⁶ for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent):

- The ENTITY has some form of financial assurance in place, from the earliest stage possible⁵⁰⁷, and throughout the project/operation life cycle;
- This financial assurance is sufficient to cover the costs of interim fluid and site management, all concurrent reclamation, all closure, and all post-closure measures and activities, as estimated in the most current reclamation, closure, and post-closure plan in accordance with Section 2.7.2⁵⁰⁸;
- This financial assurance is independently guaranteed and reliable; and
- If self-bonding or corporate guarantees are used, the ENTITY makes publicly accessible detailed information on the likelihood that funds would be available to the competent authority to cover the cost of reclamation, closure and/or post-closure: 1) at the end of the operation's life; 2) if operations are suspended or unexpectedly ceased; and 3) if the ENTITY were to go bankrupt prior to the planned closure date.



2.7.3.2 The terms of the financial assurance ensure that:

- For sites where long-term risks⁵⁰⁹ have not been eliminated (including risk related to long-term water treatment⁵¹⁰, TSFs and other mine waste facilities), calculations of financial assurance use of 500-year duration for long-term post-closure costs⁵¹¹;
- For all sites, the financial assurance instrument/s are not released until all the following have been shown to be effective and stable: 1) final water management (as per 2.7.1.3); final earthwork, revegetation, and ecological restoration (as per 2.7.1.4); and final polluted lands, facilities (including tailings storage facilities) and hazardous waste management (as per 2.7.1.5); and
- For all sites, the financial assurance instrument/s are not released (partially or in full) until public comment has been received and taken into account, in accordance with 2.7.4.3.



2.7.3.3 IRMA+

If the country of operation does not offer any financial assurance instrument managed by the State⁵¹² for reclamation, closure and post-closure, in the form of cash deposit or trust fund (or equivalent), the ENTITY has financial assurance in place, from the earliest stage possible⁵¹³, and throughout the project/operation life cycle, as required in 2.7.3.1* but in a form that is readily liquid and accessible to the competent authority, excluding all forms of self-bonding or corporate guarantees.

2.7.4 Meaningful Engagement with Stakeholders



2.7.4.1 In accordance with Chapter 1.2, and as per 2.7.1.1, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders, and other relevant stakeholders are:

- Preemptively provided with relevant and comprehensive information, in accordance with Section 1.2.3, about the development and implementation of the concurrent reclamation, closure, and post-closure plan, including the most recent version, and all previous versions of: 1) the plan; 2) the reviewed estimated costs; and 3) the results of the approved financial assurance review⁵¹⁴;
- Consulted and involved during the collaborative development and implementation of the concurrent reclamation, closure, and post-closure plan; and
- Consulted and involved during the collaborative monitoring and evaluation of the concurrent reclamation measures and activities (in accordance with Section 2.7.5).



2.7.4.2 In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders, and other relevant stakeholders:

- Can comment on the initial version of, and any significant update of, the concurrent reclamation, closure, and post-closure plan, at least 60 days prior to the formal finalization process⁵¹⁵;
- If necessary, are provided with resources for capacity building and training to enable meaningful stakeholder engagement⁵¹⁶; and
- Are provided with the opportunity to propose independent experts of their own choosing to provide input to the ENTITY on **the design and implementation of the plan**, and on the adequacy of the **completion of reclamation activities** prior to release of part or all of the financial assurance;



2.7.4.3 In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders, and other relevant stakeholders:

- Are preemptively provided with the results of all approved financial assurance reviews;
- Can comment on the adequacy of the proposed financial assurance instruments and/or arrangements, at least 60 days prior to the finalization, and to any renewal, of the financial assurance;
- Are provided with the opportunity to propose independent experts of their own choosing to review the **financial assurance** and provide input to the ENTITY on its adequacy.

2.7.5 Monitoring and Evaluation



- 2.7.5.1** To monitor and evaluate the effectiveness and appropriateness of its concurrent reclamation, closure, and post-closure plan, the ENTITY, at least annually:
- Tracks and documents its performance on water management, over successive time periods, against the objectives and effectiveness indicators defined in 2.7.1.3, and informed by stakeholder engagement as per Section 2.7.4;
 - Tracks and documents its performance on earthwork, revegetation, and ecological restoration, over successive time periods, against the objectives and effectiveness indicators defined in 2.7.1.4, and informed by stakeholder engagement as per Section 2.7.4; and
 - Tracks and documents its performance on polluted lands, facilities and hazardous waste management, over successive time periods, against the objectives and effectiveness indicators defined in 2.7.1.5, and informed by stakeholder engagement as per Section 2.7.4.



- 2.7.5.2** The monitoring and evaluation process:
- Encourages and facilitates joint tracking or joint fact-finding with affected communities, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people from affected communities, as per Chapter 1.2⁵¹⁷;
 - Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected communities; and
 - Includes safeguards to protect the security and privacy of collected personal data or characteristics of community members and stakeholders⁵¹⁸.



- 2.7.5.3** **IRMA+**
To monitor and evaluate the effectiveness and appropriateness of the soil erosion reduction measures required as per 2.7.1.4.a, competent professionals, at least annually:
- Conduct visual inspections of lands and facilities that may be subject to erosion;
 - Use credible methodologies to measure or estimate soil erosion rates; and
 - Use credible methodologies to measure or estimate soil loss.

2.7.6 Continuous Improvement



- 2.7.6.1** At least annually, but without undue delay after a significant change, the ENTITY:
- Reviews the monitoring and evaluation results, and the ENTITY's effectiveness in meeting the objectives and indicators defined in 2.7.1.3, 2.7.1.4, and 2.7.1.5;
 - Reviews any concurrent reclamation-related or closure-related grievances filed through its grievance mechanism/s, and any relevant notification submitted through its whistleblowing mechanism (see Section 1.6.4);
 - Develops and implements time-bound corrective measures to update, if necessary⁵¹⁹, its concurrent reclamation, closure, and post-closure plan in accordance with Section 2.7.1;
 - Develops and implements time-bound corrective measures to update, if necessary⁵²⁰, its estimated costs in accordance with Section 2.7.2; and
 - Develops and implements time-bound corrective measures to update, if necessary⁵²¹, its monitoring and evaluation processes in accordance with Section 2.7.5.



- 2.7.6.2** At least every five years, but without undue delay after a significant change:
- The ENTITY reviews all financial assurance instruments required in Section 2.7.3 (related to reclamation, closure, and post-closure); and
 - This review is done by competent third-party analysts, using credible accounting methods.

2.7.7 Information-Sharing and Public Reporting



- 2.7.7.1** At least annually, the ENTITY makes publicly accessible updated versions of, and maintains⁵²² publicly accessible all previous versions of:
- The concurrent reclamation, closure, and post-closure plan;
 - A concurrent reclamation progress report, for the reporting period;
 - Information on the form and terms of financial assurance in place, and whether or not it is sufficient to cover the costs required to achieve all the time-critical items and milestones for each facility and for the site overall, in their current state, as outlined in the most recent concurrent reclamation, closure, and post-closure plan (see 2.7.1.11.b)⁵²³;
 - Key findings of the monitoring and evaluation process required in Section 2.7.5, and of the review process required in 2.7.6.1; and
 - A list of the time-bound corrective measures identified as per 2.7.6.1.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁴⁷² Bridge, G. 2004. Contested terrain: mining and the environment." Annu. Rev. Environ. Resource. 28-205-259.
<https://www.annualreviews.org/doi/pdf/10.1146/annurev.energy.28.011503.163434>

⁴⁷³ Ramli, M. et al. "Analysis of soil erosion on mine area," Institute of Physics Conference Series: Materials Science and Engineering. 875:012052. <https://iopscience.iop.org/article/10.1088/1757-899X/875/1/012052/pdf>

⁴⁷⁴ Reclamation and closure plans for exploration and permitting phases may not need all of these elements. For example, if there are no constructed facilities, then demolition and disposal would not be necessary during exploration reclamation. Entities can provide evidence and a rationale to auditors as to why certain sub-requirements are not relevant in their circumstances, and the auditors will make a final determination.

⁴⁷⁵ The rehabilitation and closure plan should be developed before or during the permitting stage (for exploration, mining, and processing projects/operations), prior to the commencement of construction activities. Any ENTITY not able to align with this timing needs to provide supporting evidence demonstrating why it could not conform with this timing. If there is no satisfactory evidence, the ENTITY may not achieve “fully meets” on any of the requirements for Section 2.7.1.

⁴⁷⁶ Collaborative discussion and consultation on post-closure land use and facility use with affected communities is required as part of the Environmental and Social Impact Assessment (ESIA) process in Chapter 2.1 (see requirements 2.1.4.1.e and 2.1.4.3.e). However, if it was not done during ESIA, then to meet this requirement entities must demonstrate that these discussions occurred and were taken into consideration in developing the post-closure land use objectives if appropriate. Alignment with stakeholders’ needs and expectations may not be possible when country of operation’s laws are in place that designate/decreed the post-closure end uses.

⁴⁷⁷ Many of the IRMA chapters require elements of site characterization, so this plan should summarize that information. See Chapter 4.1, Section 4.1.1; Chapter 4.2, requirements 4.2.1.2, 4.2.1.3; Chapter 4.3, Section 4.3.1 and 4.3.2; and Chapter 4.4, Section 4.4.1.

⁴⁷⁸ This should be informed by IRMA Chapter 4.1, Section 4.1.1 and Chapter 4.2, Section 4.X.1.

⁴⁷⁹ This should be informed by IRMA Chapter 4.3 (4.3.2.5 and 4.3.3.2.a on conceptual site models).

⁴⁸⁰ This should be informed by IRMA Chapter 4.3, requirement 4.3.6.1.

⁴⁸¹ This should be informed by IRMA Chapter 4.2, Section 4.2.12 and Chapter 4.3, Section 4.3.6.1.

⁴⁸² And clear measures to be implemented if these standards and objectives are not met within a specified time.

⁴⁸³ There may already be indicators for restoration of some areas of (or possibly the entire) site if important biodiversity and/or priority ecosystem services may be or have been affected by mining-related activities. These indicators would be in the biodiversity and ecosystem services management plans in Chapter 4.4 (see Section 4.4.3).

⁴⁸⁴ If soil pollution from air emissions is predicted (Chapter 4.5), or polluted soil is identified during the ESIA process, operations (e.g., resulting from materials or waste disposal in Chapter 4.1, or as a result of accidents or spills that require emergency response activities as per Chapter 2.6), and/or decommissioning of equipment/facilities.

⁴⁸⁵ This should be informed by IRMA Chapter 4.1 (Waste and Materials Management), Sections 4.1.5 and 4.1.6.

⁴⁸⁶ E.g. decontamination, demolition, disposition, clean-up and/or disposal if facilities will not be used for other purposes).

⁴⁸⁷ E.g. to determine ongoing impacts or effectiveness of restoration efforts.

⁴⁸⁸ See Chapter 4.3 on Water Management for detailed requirements related to Section 4.3.3 (risk assessment), Section 4.3.4 (long-term water treatment), and Section 4.3.6 (Adaptive Management, in particular requirement 4.3.6.1 where source controls and other mitigations are developed to address the operational risks).

⁴⁸⁹ Minimum time requirement may depend on applicable laws or regulations. Evidence is required to demonstrate if and how a shorter or longer time period is required by such laws or regulations.

⁴⁹⁰ Alternatively, the plan may include any additional time for the predicted water quality to meet baseline or background water quality values, as per Chapter 4.3, for five consecutive years.

⁴⁹¹ For Exploration – Stage 2 projects, the ENTITY is required to demonstrate development and implementation of these measures, though not as part of a formalized concurrent reclamation, closure, and post-closure plan.

⁴⁹² Such as trenches and pits used for drilling mud, bulk sampling or geotechnical sampling.

⁴⁹³ See Chapter 4.3, requirement 4.3.3.2, 4.3.3.3, and 4.3.3.4 for prediction of water quality, and requirement 4.3.8.1 related to maintaining water quality at baseline/background or at levels protective of current and future end uses of water.

⁴⁹⁴ This can be a section of the overall reclamation and closure plan. It may also be a standalone plan, or incorporated into the operational plan (e.g. if part of an operation goes on care and maintenance while the rest of the operation continues with production).

⁴⁹⁵ Including electrical system requirements and pump operations.

⁴⁹⁶ This assumption ensures the highest bracket is factored in, in the event where the ENTITY is not able to carry out the activities (for financial, legal, or other reasons) and an external agency (or equivalent) is responsible for their implementation and monitoring.

⁴⁹⁷ These costs are calculated based on the assumption that there would be a two-year period before final reclamation activities would begin.

⁴⁹⁸ See also Chapter 4.2, Section 4.2.11 for additional tailings-facility-specific requirement on estimated costs for reclamation, closure, and post-closure.

⁴⁹⁹ For example, if the next scheduled review of the reclamation and closure plan (and costs) is not for five years (i.e., the maximum allowed in 2.6.1.6), then the costs in current plan reflect the current cost plus five years x rate of inflation. This is to ensure that the financial assurance at any time during those five years is sufficient to cover the full costs of reclamation and closure (taking into account inflation).

Alternatively, if financial assurance is held by a regulatory body, and they require increases in the amount of financial assurance to account for inflation, then the multi-year cost inflation is not necessary in the plan itself.

⁵⁰⁰ I.e., a credible engineering cost estimate method.

⁵⁰¹ E.g., relevant regulatory agency or administrative body.

⁵⁰² This could be available at a national/federal or at subnational level. If this is mandated and required by law/regulation, the ENTITY is required to adopt and implement it anyway, as per Chapter 1.1. Note that such instrument may be in place for mining, but not for mineral processing; in this case, refer to requirement 2.7.3.2.

⁵⁰³ For proposed projects, financial assurance is in place before ground disturbance begins. If an operation did not have financial assurance arrangements in place before ground disturbance began, it needs to provide supporting evidence demonstrating why it could not.

⁵⁰⁴ The quality of cost estimating is an essential factor to ensure the adequacy of the financial guarantee that will be provided to the regulatory body. To fully meet this sub-requirement, the Entity must at least substantially meet all requirements in Section 2.7.2.

⁵⁰⁵ The intent of this requirement is to ensure that funds will be available, irrespective of the ENTITY's finances at the time of closure, or in the event of bankruptcy that occurs during operations.

⁵⁰⁶ See 2.7.3.1.

⁵⁰⁷ For proposed projects, financial assurance is in place before ground disturbance begins. If an operation did not have financial assurance arrangements in place before ground disturbance began, it needs to provide supporting evidence demonstrating why it could not.

⁵⁰⁸ The quality of cost estimating is an essential factor to ensure the adequacy of the financial guarantee that will be provided to the regulatory body. To fully meet this sub-requirement, the Entity must at least substantially meet all requirements in Section 2.7.2.

⁵⁰⁹ I.e. risks that extend beyond mine closure.

⁵¹⁰ See 4.3.3.4.

⁵¹¹ IRMA acknowledges that few jurisdictions have clear requirements for this in regulation, and only a few more in guidance. Usually, it comes back to precedence as to how regulatory agencies decided to respond when they were confronted with long-term costs for the first time. In the USA, EPA RCRA and Superfund cleanup costs are estimated out for 30 years (representing a low bar). In Alaska, Montana, New Mexico (including in copper regulations) and other US states 100 years has become the norm, same for the US Forest Service, and the US Bureau of Land Management that also use 100 years, but in some cases it has gone out 500 years. The 500-year approach comes very near to achieving the intent of the requirement as in the Standard V1.0 and first public iteration of the draft V2.0 (that instead relied on long-term net present value (NPV) calculations).

⁵¹² See 2.7.3.1.

⁵¹³ For proposed projects, financial assurance is in place before ground disturbance begins. If an operation did not have financial assurance arrangements in place before ground disturbance began, it needs to provide supporting evidence demonstrating why it could not.

⁵¹⁴ Confidential business information may be excluded or redacted from the publicly accessible documentation as necessary, but in accordance with Requirement 1.2.3.1.

⁵¹⁵ If not otherwise provided for through a regulatory process. The intent being to ensure that, as the construction phase could not start before the initial plan is finalized, communities and relevant stakeholders are "preemptively" given the opportunity to comment, at least 60 days before construction could theoretically start. Implications for finalizing any update of the plan may vary depending on the jurisdiction.

⁵¹⁶ For more on meaningful stakeholder engagement see Chapter 1.2, in particular Sections 1.2.2 through 1.2.5.

⁵¹⁷ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

⁵¹⁸ Especially of rights-holders at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

⁵¹⁹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to b. Including when major process water system changes occur that would affect the interim actions necessary to prevent fluid releases (see 2.7.1.11).

⁵²⁰ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to b.

⁵²¹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to b.

⁵²² All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

⁵²³ This may exclude information that is confidential business information. In this case, only the confidential information is redacted, a rationale was made publicly accessible, and supporting evidence is provided to the auditors.



Principle 3

Social Responsibility

Chapter 3.1

Fair Labor and Terms of Work

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- In alignment with changes to Chapter 1.1, we are providing more specificity concerning the range of requirements that Entities must ensure their suppliers and / or contractors are meeting. A number of requirements in Chapter 3.1 now specify that entities are required to ensure, through controls, oversight, and / or contractual clauses as appropriate, that contracting firms also adhere to the IRMA requirements. NOTE: where it has been deemed beyond the ENTITY purview to enforce an IRMA requirement amongst contractors and / or suppliers, there is nevertheless an expectation that contractors / suppliers will meet country of operation's laws / requirements as they relate to the particular topic, per Chapter 1.1. This information is now also included in the Chapter introduction "Scope of Application" (see below).
- Currently Chapter 3.1 only requires Entities to ensure suppliers are aligned with requirements relating to child labor (Section 3.1.6) and forced labor / trafficking in persons (Section 3.1.7). We are proposing an IRMA+ requirement (3.1.10.7) that Entities ensure contractors offer the same leave-related benefits to their workers as the ENTITY provides to its own employees. We are also proposing an IRMA+ requirement (3.1.11.3) which asks Entities to use controls, oversight and/or contractual clauses with all of its suppliers to ensure they conform with requirements 3.1.11.1 and 3.1.11.2 (relating to decent and healthy working conditions for all suppliers' workers).
- Simplified language surrounding workers, contractors, and suppliers in alignment with International Labour Organization (ILO) categorizations - see Figure 3.1 below (also Figure 1.1 in Chapter 1.1). Throughout the Standard, IRMA will reference 'workers' as encompassing of both employees and contractors, unless a distinction is necessary. See revised definition of 'worker' in the IRMA Glossary.
- Proposed to mark 'critical' the policy requirements related to anti-discrimination and disciplinary actions, for consistency, given the fundamental human rights pertaining.
- Separated out the primary child / forced / trafficked labor requirements into multiple separate requirements each (one asking that the ENTITY do a risk assessment for contractors / suppliers, a second asking that the ENTITY conduct an enhanced human rights due diligence where a high risk is identified, and then several stating what the ENTITY should do when actual cases of child / forced labor are identified amongst employees, contractors, and suppliers. See requirements 3.1.6.3-3.1.6.5 and 3.1.7.3-3.1.7.5 respectively). This was done for two reasons:
 - Previously the language of these requirements stated that Entities only had to develop procedures to monitor contractors and suppliers if the assessment identified high risk levels for child / forced labor; this was incongruent with language in Chapter 1.1 that specifies that Entities have to develop systems to monitor contractor / supplier compliance with *all* relevant IRMA requirements (which include requirements on child and forced labor).
 - The previous organization of the requirements conflated two separate issues (development of monitoring mechanisms and what to do where actual cases of child / forced labor were identified). The proposed changes are more logical from an auditing perspective and allow for clearer delineation of responsibilities based on in which type of organization (ENTITY, contracting firm, supplier) cases are identified.

- Edited critical requirement 3.1.9.2 relating to the grievance and whistleblower mechanisms to reflect changes to requirements from Chapter 1.6 (former Chapter 1.4) where 1.4.1.1 and 1.4.2.1 are now combined (see 1.6.1.1).
- Separated out employee grievances and contractor grievances, and also separated whistleblowing-related requirements (that should be available to all workers indistinctly as noted by commenters). The whistleblower requirement (3.1.9.6) now cross-references the more detailed whistleblower section in Chapter 1.6 (see 1.6.2).
- Added a new sub-requirement (3.1.9.1.e) that requires the ENTITY to explain the process for handling grievances that involve allegations of impacts on human rights.
- Divided previous Section 3.1.1 (Respect for Freedom of Association and Collective Bargaining) into two separate Sections addressing freedom of association and collective bargaining respectively.
- Strengthened language around accessibility and disabled workers (text and endnotes), and proposed one optional requirement dedicated to accessibility of the workplace (3.1.3.3)
- Used 'housing arrangements' instead of 'accommodations' in 3.1.10.6 to avoid confusion with legal term of 'reasonable accommodations' for disabled workers.
- Major structural re-organization to improve chapter flow and increase consistency within and across chapters.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
3.1-01	(Background – employees and contractors) Background: Throughout Chapter 3.1, reference is made to 'workers' as a general category, with equivalent obligations relating to contractors being derived implicitly in Chapter 1.1 (requirement 1.1.3.1), which obligates Entities to ensure that contractors meet IRMA requirements that are relevant to them. In some of the requirements below, we specifically mention contractors. Where contractors are mentioned, it is the ENTITY's responsibility to carry out an action (e.g., ensuring that contractors are informed of the ENTITY's policy, or undertaking and assessment of risks related to contractors, etc.). Where contractors are not explicitly mentioned, then as per Chapter 1.1 it would be expected that contractors themselves have systems in place to meet the IRMA requirements. For example, a contractor that has its own direct employees who are working at a mine/mineral processing site (or a broker that hires out contracted workers to the ENTITY) would be expected to be paying fair wages and benefits. The ENTITY's responsibility in such cases would be carrying out some monitoring to make sure that is happening. Question: Are there any requirements in this chapter that are not currently the ENTITY's responsibility that you believe should be (for example, should the ENTITY have a grievance mechanism for contractors, or should it be the responsibility of the contractor to provide such a mechanism for its subcontractors/employees who are working at the project/operation)? Conversely, are there any requirements in Chapter 3.1 that you believe should not be applied to or expected of contractors?	Feedback generally asked for more clarity and consistency in the use of these terms throughout the standard and indicated that there were some requirements that it was not feasible to enforce / monitor amongst both contractors and suppliers. Proposed Decision: To improve auditability, more specificity concerning employees, contracted workers, contractors and suppliers has been added to Chapter 3.1. IRMA has proposed adjusting the definition of workers, suppliers, and contractors per ILO guidance. See Figure 3.1, as well as the revised definition of "workers" in the IRMA Glossary. We have also added specific sub-requirements in cases where the ENTITY is expected to, in alignment with Chapter 1.1, carry out a specific action to ensure supplier and / or contractor compliance with a particular IRMA requirement. These include: 3.1.2.2.c, 3.1.3.2.c, 3.1.3.2.c, 3.1.4.2.c, 3.1.5.2.c, 3.1.6.1.d, 3.1.6.4, 3.1.7.1.h, 3.1.7.2.a, 3.1.7.4, 3.1.8.2, 3.1.9.5, 3.1.10.1.c, 3.1.10.5, 3.1.10.7 (optional), 3.1.11.1.e, 3.1.11.2.f, 3.1.11.3 (suppliers, optional).
3.1-02	(3.1.2.1 – gender-based discrimination) Other standards have included requirements aimed at preventing gender-based discrimination, such as not requiring women to undergo pregnancy or virginity tests as a condition of employment.⁵²⁴ IRMA currently proposes to include this as guidance notes for 3.1.2.1 above, i.e., as something that auditors	Commenters expressed general support for the proposed changes, with some additional examples of discriminatory practices to mention in guidance. Proposed Decision: No change to normative requirements, but examples suggested by reviewers will be considered when developing guidance.

	should investigate as something that may be indicative of discriminatory practices. Are there other similar discriminatory recruitment/hiring practices you have experienced or seen that we should be including in this guidance?	
3.1-03	(3.1.5.1 – grievance management) Working group feedback suggested that an independent third-party should be involved in the assessment of more grievances to ensure that resolutions are unbiased, impartial, and fair to all parties involved. Is this considered best practice and, if so: 1. Under what conditions should this be required (i.e., is it applicable to only the most serious grievances or to all grievances)? 2. At what point in the grievance process should an independent third-party be brought in? 3. Who should make the determination of an independent third-party should become involved?	Feedback was very split on this question - some said that third party review was not necessary because there are enough checks and balances already built into IRMA on this topic, including stakeholder review of grievance processes; others said that regular review as part of the regular grievance resolution process would delay timely response to grievances; others said that review of the process could be done externally every 2-3 years; others still said that only human rights grievances or grievances where there is a potential conflict of interest with ENTITY personnel responsible for reviewing the grievance should be reviewed. Proposed Decision: We are proposing a new sub-requirement for 3.1.9.1.c that requires the ENTITY to explain the process for handling grievances that involve allegations of impacts on human rights, including the potential for adjudication by an independent, third-party mediator or mechanism. This is in accordance with IRMA Chapter 1.3 (requirements 1.3.4.3.a and 1.3.4.7) and Chapter 1.6 (requirement 1.6.1.1.c).
3.1-04	(3.1.7.1 – child labor) ILO 138 allows for 'light work' for children 2 years beneath the legal working age in the country (14 or 15, depending on the country) so 12- to 13-year-olds in some, and 13- to 14-year-olds in others. Other standards take differing positions on this. For example, the RBI/RMI standard prohibits labor under the age of 15 "unless the exceptions recognized by the ILO apply".⁵²⁵ However, the Towards Sustainable Mining (TSM) 'Preventing Child and Forced Labour Protocol' states that while there are exceptions contained in ILO 138 that allow for workers under the age of 15 in some circumstances, such exceptions are not applicable to mining.⁵²⁶ Can you think of any situations in which provisions should be made for "light work" by children under the age of 15 (according to the ILO-approved age scheme indicated above) in the context of mining Entities?	Some feedback supported light work but only under very strict conditions (upon prompting by the consultation question). Other feedback felt it was not necessary to permit work for children under 15. No feedback explicitly asked for this to be included. Proposed Decision: No changes proposed, i.e. permit non-hazardous work between 15 and 18 years, no work for anyone under the age of 15.
3.1-05	(3.1.8.3 – forced labor) Background: We are proposing to remove reference to ENTITY obligation to shift to other	Feedback on this conflated two separate questions:

	suppliers where remedy to forced or trafficked labor in the supply chain is not possible. The motivation for this was to encourage operations to take action to reduce forced and trafficked labor and improve the lives of those who have been harmed, as some for remedy should always be possible, rather than simply shifting suppliers. The language is open enough that either the ENTITY could carry out remediation, or the contractor/supplier could do it (but the ENTITY would need to ensure, through monitoring or other methods, that it is being done). Question: Do you agree that Entities should take responsibility for remediation of identified cases of child labor or forced labor amongst their contractors and suppliers, either through their own actions or by applying leverage/pressure on contractors and suppliers to provide remediation? Or are there cases where Entities should immediately shift to other contractors/suppliers? Should IRMA provide a timeline by which Entities (and their contractors/suppliers) have to remediate child/forced labor per the above sub-requirements?	1. The question of whether Entities should 'leverage' to influence suppliers / contractors to reduce child / forced labor or whether they should simply cancel the contract - the general consensus on this was that an ENTITY should try to leverage, but ultimately shift away if not successful. Most supported establishment of a timeline, but said it should be flexible and depend on the situation. Some argued it was not feasible to 'leverage' (and monitoring remediation of) suppliers and that it was better to shift away. Several mentioned respecting existing contractual obligations. 2. The question of who is responsible for remediation (i.e. taking direct action) in the case of specific identified child / forced laborers (per previous requirement 3.1.7.5 for child labor, 3.1.8.3 for forced labor). Almost all feedback said that the ENTITY had a certain amount of responsibility for on-site workers (i.e. removing the worker immediately from their job, helping to provide shelter if required, etc.) but that longer-term re-integration should be the government's responsibility or, in the case of contractors, the contractor's responsibility. Proposed Decision: Incorporate changes into 3.1.6 (child labor) and 3.1.7 (forced labor / trafficking of persons) to delineate expected ENTITY actions depending on whether identified cases of child labor / trafficking of persons are amongst employees / contractors or suppliers. Also, in the case of suppliers where the ENTITY cannot directly remove workers from their positions or offer any remediation, and where it is not possible to use leverage to achieve a change in practices or appropriate remediation within a reasonable time frame, then the Entity is expected to end its association with the contractor or supplier (see requirements 3.1.6.4, 3.1.6.5, 3.1.7.4 and 3.1.7.5. We also propose to specify in guidance that Entities should leverage government programming for child labor / trafficking of persons remediation to the extent possible.
3.1-06	(3.1.9.3 – benefits and other compensation) Background: Based on research pertaining to parental leave policies across six major mining companies, the following types of leave were identified that are not currently included in the IRMA standard: • Paid leave for domestic violence (10 days) • Paid parental leave at full duration/benefits for parents	Feedback generally supported the inclusion of these benefits for full-time, permanent workers / employees, although some indicated that this was not yet a global norm. Proposed Decision: Based on stakeholder input, we are proposing to add a paid gender-neutral parental leave period, as well as paid bereavement leave for death of immediate family members (see 3.1.10.3).

	experiencing stillbirth or death of the child. • Paid parental leave applicable to either natural births or adoption. Question: Should IRMA require that Entities provide these forms of leave to <u>workers</u>? If so, should this be provided to all <u>workers</u>, or only to certain categories (i.e., full time permanent, core services, etc.).	Throughout Chapter 3.1, we have outlined three separate 'categories' of ENTITY obligations vis-a-vis enforcing and monitoring compliance with IRMA requirements amongst 1) <u>suppliers</u>, 2) <u>contractors</u>, and 3) <u>employees</u> (See also the response to Consultation Question 3.1-01, above). We are proposing that the leave benefits in 3.1.10.3 would only need to be provided to the ENTITY <u>employees</u>; the ENTITY would not be responsible for ensuring that <u>contractors</u> and <u>suppliers</u> also provided this to their <u>employees</u>.
3.1-07	(3.1.9.3 – benefits and other compensation) Should IRMA strive to set a higher standard for paid medical leave (in 3.1.9.3.c) or be more specific about minimum number of weeks/months of paid medical leave and a lower limit to the wage replacement rate? Given the wide variation in paid medical leave (see, for example, https://www.worldpolicycenter.org/sites/default/files/WORLD Report - Personal Medical Leave OECD Country Approaches 0.pdf) any thoughts on acceptable standards would be welcome.	Feedback on this indicated that what IRMA had currently proposed was sufficient. Proposed Decision: No proposed changes.
3.1-08	(3.1.9.4 – injuries and illnesses of contractors) Further to CONSULTATION QUESTION 3.1-1 above pertaining to contractor obligations in general, what would be the appropriate expectations for <u>contractors</u> who suffer injury or illness when engaged in work at a mining or mineral processing operation? Should the ENTITY that owns/operates the site be accountable for providing compensation (if not covered by government programs), or is it the employer of the contractor (or labor broker) who should provide that compensation? And/or in the case of self-employed independent <u>contractors</u>, would there be no compensation guaranteed at all?	Feedback suggests that in many countries longer-term leave (for injury / illness) is the responsibility of the government. Also, in many countries, is it the contractor's obligations to provide this (although not all agreed - one person mentioned that the purpose of <u>contractors</u> was that such benefits did not need to be provided). Overall, the consensus seemed to be that the ENTITY should enforce the provision of <u>workers</u> leave / long-term injury / illness compensation per country of operation's laws amongst <u>contractors</u>, but not be directly responsible for providing (except for direct <u>employees</u>). Proposed Decision: Requirement 3.1.10.4 states that it is the ENTITY's responsibility to provide compensation / provide leave for work-related injuries and illnesses for its own <u>employees</u>. Requirement 3.1.10.5 requires that, in the case of a contractor suffering injury or illness, the ENTITY ensures <u>contractors</u> are providing this.
3.1-09	Background: According to an International Labour Organization (ILO) fact sheet on rest periods, "Different forms of rest and annual leave are important for a <u>workers</u> physical and mental well-being. If structured properly, they can all have a positive impact on occupational health and safety as well as improve productivity in the workplace."⁵²⁷ The ILO fact sheet also says that "in practice, coffee and tea breaks can be given for 10 – 30 minutes and are organized in the middle of each	Feedback said that breaks should be flexible to accommodate the nature of the <u>workers</u>' role and that they should be paid breaks. Nevertheless, feedback from industry suggested that more frequent, shorter breaks were necessary to mandate for biological reasons. Feedback unanimously said these breaks should be paid. Proposed Decision: Mandate at least two 15-minute and one 30-minute break per every 6 hours worked or whatever required in country of operation's laws

half of the work shift. Meal breaks are organized around the middle of the full shift and the last from 30 minutes to 2 hours.” Finally, the fact sheet says that “rest breaks can be included as working time and thus paid, as in Argentina, or they can be unpaid.” Neither the Responsible Steel nor RJC standards provide details on the length of breaks. Responsible Steel requires a policy that “all <u>workers</u> are provided with appropriate time off for meals and breaks,” and RJC requires that if not covered by law, <u>employees</u> are provided with “at least one uninterrupted work break of reasonable duration if they work longer than six hours.”⁵²⁸ Question: Would it be reasonable for IRMA to specify minimum break times as one of the following: • Option 1. Two coffee/tea breaks of at least 15 minutes duration, and a meal break of at least 30 minutes for each six hours worked? • Option 2. One (1) hour of total break time per six hours worked (apportioned as appropriate for the work being undertaken)? Should these breaks be considered paid working time? If they are not paid, will that result in breaks not being taken (thus creating risks to worker health and safety)?	(whichever is higher) or a CBA. Incorporate these changes into 3.1.11.1.

BACKGROUND

Responsible employers provide fair wages and respectful workplaces. However, historically, a portion of the labor force has been the subject of mistreatment such as child and forced labor, discrimination, inadequate wages, and lack of respect for workers' rights.

In 1919, the International Labour Organization (ILO) was formed to protect workers' rights. Since that time, several internationally recognized human rights of workers have been enumerated and incorporated into laws world-wide. These include the UN *International Bill of Human Rights*, and the ILO *Declaration on Fundamental Principles and Rights at Work* and eight core ILO conventions that cover: freedom of association and the right to collective bargaining; the elimination of all forms of forced or compulsory labor; the abolition of child labor; and the elimination of discrimination in respect of employment and occupation. In addition to acknowledging the need to safeguard the human rights of workers, companies are increasingly recognizing the need to provide working hours and wages that promote a high quality of life for workers and their families.

The fundamental principles and rights of workers have been incorporated into various voluntary standards to protect labor rights and ensure fair working conditions (e.g., International Finance Corporation Performance Standard 2; Social Accountability International SA8000; Global Reporting Initiative). Within any responsible labor standard and verification system, there is an inextricable link between the role of workers and the practice of freedom of association. Workers with first-hand knowledge of environmental, human rights and labor practices must have the right to participate in the verification process without fear of employer retribution. This can be best guaranteed by workers having the right to freely establish or join trade unions of their own choosing without employer interference and through protections provided in collective bargaining agreements.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UN International Bill of Human Rights
- UN Guiding Principles on Business and Human Rights
- ILO Declaration on Fundamental Principles and Rights at Work
- ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, 2023
- ILO Convention C001 on Hours of Work (Industry)
- ILO Convention C014 on Weekly Rest (Industry)
- ILO Convention C100 on Equal Remuneration
- ILO Convention C132 on Holidays and Pay
- ILO Convention C183 on Maternity Protection
- ILO Recommendation R115 on Workers' Housing, 1961
- ILO Convention C156 on Workers with Family Responsibilities, 1981
- UN Convention on the Elimination of All Forms of Discrimination Against Women, 1979
- UN Convention on the Rights of Persons with Disabilities, 2006
- UN Global Compact Guide for Business on the Rights of Persons with Disabilities, 2017
- IFC Performance Standard 2: Labor and Working Conditions, 2012
- ILO Recommendation R130 on Examination of Grievances Recommendation, 1967
- ITUC Legal guide for setting up an operational-level grievance mechanism for the world of work in the context of business and human rights, 2022
- EBRD Performance Requirement 2: Labour and working conditions – Guidance note on employee grievance mechanisms, 2023

OBJECTIVE OF THIS CHAPTER

To maintain or enhance the social and economic wellbeing of workers and respect internationally recognized workers' rights.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations.

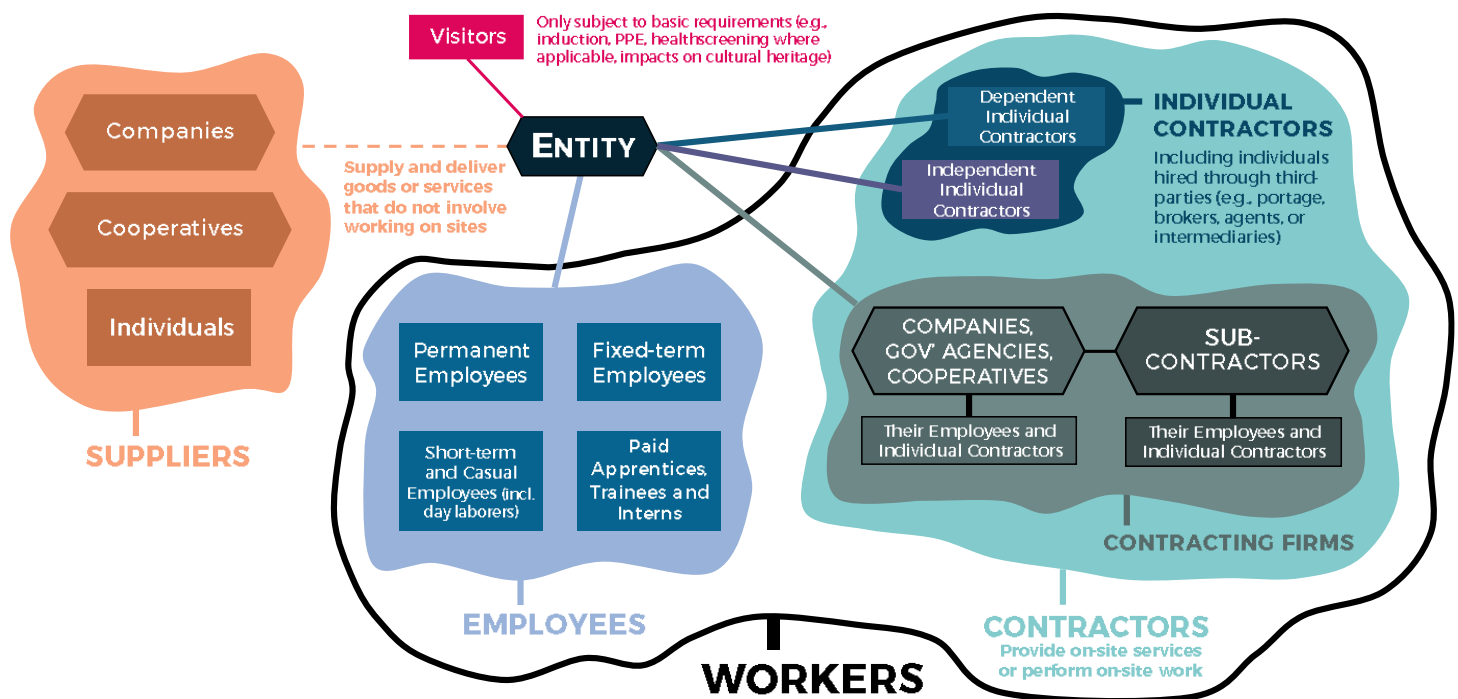
Entities are required to ensure, through controls, oversight, and/or contractual clauses as appropriate, that contracting firms also adhere to many of the IRMA Requirements. Where it has been deemed beyond the ENTITY purview to enforce an IRMA requirement amongst contractors and/or suppliers, there is nevertheless an expectation that contractors/suppliers will meet the country of operation's laws and regulations that relate to the particular topic, per Chapter 1.1.

The requirements to which Entities must also hold contracting firms and suppliers, respectively (see Figure 3.1 below for clarification on the terminology), are explicitly integrated into requirements or subrequirements (ensuring that if an ENTITY fully meets the expectations related to its own employees, but not the ones related to contractors, it cannot 'fully meet' the requirement; similarly for the 'substantially meets' rating).

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

FIGURE 3.1. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors



Adapted from ILO ICSE-18A: Status in Employment according to type of authority (2018, Resolution concerning statistics on work relationships)

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are six (6) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are three (3) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

3.1.1 Freedom of Association

3.1.1.1 The ENTITY has a formal policy in place that commits to:

- Respect the right of all workers to freedom of association;
- Remain neutral in any legitimate unionizing or worker-organizing effort;
- Not produce or distribute material that disparages legitimate trade unions; and
- Not establish or support a “company union” (or equivalent) that has the effect of undermining legitimate worker representation.

3.1.1.2 Critical Requirement

To effectively respect the right of all workers to freedom of association, the ENTITY:

- Proactively informs all **employees** of their right to freedom of association under national labor and employment law (if relevant), including freedom to join (or refrain from joining) a workers’ organization of their own choosing without any negative consequences or retaliation from the ENTITY;
- Proactively informs all **contractors**⁵²⁹ of their right to freedom of association under national labor and employment law (if relevant), including freedom to join (or refrain from joining) a workers’ organization of their own choosing without any negative consequences or retaliation from the ENTITY;
- Provides workers’ representatives with access to facilities needed to carry out their functions in the workplace, including provision of access to designated non-work areas during organizing efforts for the purposes of communicating with workers, and provision of accommodations for workers’ representatives at sites, where relevant⁵³⁰; and
- Where national law substantially restricts workers’ organizations, the ENTITY allows workers to develop alternative mechanisms to express their grievances and protect their rights regarding working conditions and terms of employment, and does not attempt to influence or control these mechanisms.

3.1.2 Collective Bargaining

3.1.2.1 The ENTITY has a formal policy in place that commits to:

- Respect the right of all workers to collective bargaining;
- Respect the terms and agreements of Collective Bargaining Agreements (CBA), and not use short-term contracts or other measures to undermine a CBA or avoid or reduce obligations to **employees** under applicable labor and social security laws and regulations⁵³¹;
- Not hire replacement workers in order to prevent, undermine or break up a legal strike, support a lockout, or avoid negotiating in good faith⁵³²; and
- Not impose sanctions on **employees**, workers’ representatives or workers’ organizations participating in a legal strike⁵³³.

3.1.2.2 Critical Requirement

To effectively respect the right of all workers to collective bargaining, the ENTITY:

- During induction: 1) proactively informs all workers of their right to collective bargaining under national labor and employment law (if relevant), and of their rights under any applicable CBA (if relevant); and 2) provides all workers with a copy of any applicable CBA and the contact information for the appropriate trade union (or workers' organization) representative, if relevant⁵³⁴;
- Negotiates in good faith with employees, workers' representatives and workers' organizations and provides them with information needed for meaningful negotiation in a timely manner⁵³⁵; and
- Ensures that contracting firms also conform with 3.1.2.1, 3.1.1.2.a and 3.1.1.2.b, using controls, oversight, and/or contractual clauses as appropriate.

3.1.3 Non-Discrimination and Equal Opportunity

3.1.3.1 The ENTITY has a formal non-discrimination and equal opportunity policy (or equivalent) in place that commits to:

- Zero tolerance towards discrimination in the workplace;
- Never base employment decisions on personal characteristics that are unrelated to inherent job requirements⁵³⁶, **nor on the need for a reasonable accommodation**; and
- Always base employment relationships on the principles of equal opportunity, fair treatment, **equal pay for equal work**⁵³⁷, and non-discrimination.⁵³⁸

3.1.3.2 The ENTITY ensures that:

- The policy required in 3.1.3.1 is communicated to all workers and available to them on an ongoing basis, in appropriate local language(s) and formats⁵³⁹;
- All workers, including managers and supervisors, are trained on the policy required in 3.1.3.1, as appropriate to their role⁵⁴⁰; and
- Contracting firms also conform with 3.1.3.1, 3.1.3.2.a and 3.1.3.2.b, using controls, oversight, and/or contractual clauses as appropriate.

3.1.3.3 IRMA+

To promote an accessible working environment, the ENTITY⁵⁴¹:

- Offers to provide reasonable accommodations for employees with disabilities in the workplace, if needed. Information on this is made available to all employees and is part of any induction training of new employees;
- Systematically identify physical requirements for each role in job descriptions, and proactively reviews work duties to identify potential reasonable accommodations to maximize **accessibility** to employees with disabilities; and
- Assesses, in collaboration with employees with disabilities, existing barriers of premises, websites, IT system, and emergency preparedness and response procedures, and implements an **accessibility plan** (or equivalent) for gradual elimination of the current barriers.

3.1.4 Anti-Harassment

3.1.4.1 The ENTITY has a formal anti-harassment policy (or equivalent) that:

- Commits to zero tolerance towards all forms of bullying and harassment, intimidation, coercion, and workplace violence;
- Applies to all employees, contractors, visitors, and business partners, regardless of their seniority levels;
- Prohibits all forms of bullying and harassment based on sex, gender identity, and pregnancy, particularly towards female workers; and
- Prohibits all forms of bullying and harassment based on other personal characteristics⁵⁴².

3.1.4.2 Critical Requirement
The ENTITY ensures that:

- The policy required in 3.1.4.1 is communicated to all workers and available to them on an ongoing basis, in appropriate local language(s) and formats⁵⁴³;
- All workers, including managers and supervisors, are trained on the policy required in 3.1.4.1, as appropriate to their role⁵⁴⁴; and
- Contracting firms also conform with 3.1.4.1, 3.1.4.2.a and 3.1.4.2.b, using controls, oversight, and/or contractual clauses as appropriate.

3.1.5 Disciplinary Actions

3.1.5.1 The ENTITY:

- Has a formal disciplinary policy in place that commits to not use corporal punishment, harsh or degrading treatment, sexual or physical harassment, mental, physical or verbal abuse, coercion, or intimidation during disciplinary actions⁵⁴⁵;
- Has disciplinary procedures in place that provide specifics pertaining to the disciplinary actions associated with each type of infraction; and
- These procedures (b.) detail the process that will be followed in the event of a disciplinary action⁵⁴⁶.

3.1.5.2 The ENTITY ensures that:

- The policy required in 3.1.5.1 is communicated to all workers and available to them on an ongoing basis, in appropriate local language(s) and formats⁵⁴⁷;
- All managers and supervisors receive mandatory training on, and understand, the policy and procedures required in 3.1.5.1;
- Records of all disciplinary actions taken are kept; and
- Contracting firms also conform with 3.1.5.1 using controls, oversight, and/or contractual clauses as appropriate.

3.1.6 Child Labor

3.1.6.1 The ENTITY has a formal policy in place that commits to:

- Avoid and prevent child labor;
- Not hire, or use through contracting, children under the age of 18⁵⁴⁸ to do hazardous work⁵⁴⁹, or any other work defined as a worst form of child labor by ILO Convention 182 (Worst Forms of Child Labor) and ILO Recommendation 190 (Worst Forms of Child Labor);⁵⁵⁰
- Not hire or use children under the age of 15, or under the minimum age outlined in national law, whichever is higher, to do any work (hazardous or otherwise); and
- Expect from contractors and suppliers to adhere to this policy.⁵⁵¹

3.1.6.2 Critical Requirement

To effectively avoid and prevent child labor:

- The ENTITY ensures that the policy required in 3.1.6.1 is proactively communicated to all workers, contracting firms, and suppliers, and is available to them on an ongoing basis, in appropriate local language(s) and formats⁵⁵²;
- The ENTITY documents the ages of all workers hired or contracted to perform work at the site and associated facilities;
- An assessment⁵⁵³ of the risk of child labor amongst contractors and suppliers is carried out and documented by competent professionals, and updated on a regular basis; and
- The ENTITY has a system in place to ensure that, whenever the risk assessment required in c. indicates a high risk of child labor amongst contractors or suppliers in the site's chain of activities, an enhanced human rights due diligence process is conducted by competent professionals to determine if children below the minimum age (for hazardous or non-hazardous work) are being employed by contractors and/or suppliers.

3.1.6.3 If any cases of child labor amongst **employees** are identified through the documentation required in 3.1.6.2.b, the ENTITY:

- Takes immediate measures to safely remove these children from their work;
- Develops and implements remediation procedures to provide these children with support in their transition to legal work or schooling, taking into consideration their welfare of the child and the financial situation of their child's families; and
- Designs and implements internal corrective measures to address presence of child labor within the ENTITY.

3.1.6.4 If any cases of child labor amongst **contractors** are identified through the enhanced human rights due diligence required in 3.1.6.2.d, the ENTITY:

- Takes immediate measures to safely remove these children from their work;
- Develops and implements remediation procedures to provide these children with support in their transition to legal work or schooling, taking into consideration their welfare of the child and the financial situation of their child's families; and
- Works with the contracting firm to design and implement corrective measures to address presence of child labor within the organization and ends the association with the contracting organization if the presence of child labor within the contracting firm is not addressed within a reasonable time frame.



3.1.6.5 If any cases of child labor amongst **suppliers** are identified through the enhanced human rights due diligence required in 3.1.6.2.d, the ENTITY:

- a. Reports the cases to the appropriate authorities;
- b. Works with the supplier, to the extent possible, to safely remove these children from their work, and to design and implement corrective measures to address presence of child labor within the organization; and
- c. Ends the business relationship with the supplier if these efforts are not feasible or not successful⁵⁵⁴.



3.1.6.6 When a child between 15 and 18 years is **legally** performing **non-hazardous** work on-site, the ENTITY ensures that:

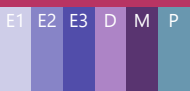
- a. The risks and impacts on the child's physical or mental health are assessed by competent professionals, and **measures to minimize the risks and actual impacts are developed and implemented;**
- b. The national labor authority or, if that is not possible, the ENTITY itself, conducts regular monitoring of the child's health, working conditions, and working hours; and
- c. **Any problematic situation involving the child is resolved immediately, including through work stoppage to ensure the child's safety, if necessary.**

3.1.7 Forced Labor and Trafficking of People



3.1.7.1 The ENTITY has a formal policy in place that commits to:

- a. Avoid and prevent forced labor and the trafficking of people;
- b. **Not require from workers to pay fees or deposits associated with their recruitment or employment;**
- c. **Not charge workers with fees for food, clothing, transportation, health checks, documentation, or supplies as part of their recruitment; and**
- d. **Issue written contracts to workers, in appropriate local language(s)⁵⁵⁵, for review prior to employment⁵⁵⁶;**
- e. **Allow workers to terminate their employment without penalty if reasonable notice is given per the worker's contract;**
- f. **Not retain or restrict access to official identity papers and personal documentation originals provided by employees as part of the employment process;**
- g. **Not unreasonably restrict the movement of workers or their access to basic liberties; and**
- h. **Contractors and suppliers are also expected to adhere to the policy⁵⁵⁷.**



3.1.7.2 Critical Requirement

To effectively avoid and prevent forced labor and the trafficking of people:

- a. The ENTITY ensures that the policy required in 3.1.7.1 is proactively communicated to all workers, contracting firms, and suppliers, and is available to them on an ongoing basis, in appropriate local language(s) and formats⁵⁵⁸;
- b. The ENTITY ensures that personnel directly involved in recruitment processes and human resources management are trained on the policy required in 3.1.7.1, as appropriate to their role⁵⁵⁹;
- c. An assessment⁵⁶⁰ of the risk of forced labor and the trafficking of people amongst contractors and suppliers is carried out and documented by competent professionals, and updated on a regular basis; and
- d. The Entity has a system in place to ensure that, whenever the risk assessment required in c. indicates a high risk of forced labor or trafficking of persons amongst contractors or suppliers in the site's chain of activities, an enhanced human rights due diligence process is conducted by competent professionals to determine if forced labor or trafficked people are being used/employed by contractors and/or suppliers.



3.1.7.3 If any cases of forced labor or the trafficking of people amongst **employees** are identified, including through whistleblowing notifications and investigations, the ENTITY:

- a. Takes immediate measures to safely remove these individuals from their work;
- b. Provides or facilitates access to, as appropriate to the situation: shelter and accommodation, medical and health-care services and counseling, mental health and psychosocial support, legal assistance; financial assistance; and repatriation assistance or reintegration into the labor market;⁵⁶¹ and
- c. Designs and implements internal corrective measures to address presence of forced labor or the trafficking of people within the ENTITY.



3.1.7.4 If any cases of forced labor or the trafficking of people amongst **contractors** are identified through the enhanced human rights due diligence required in 3.1.7.2.d, the ENTITY:

- a. Takes immediate measures to safely remove these individuals from their work;
- b. Provides or facilitates access to, as appropriate to the situation: shelter and accommodation, medical and health-care services and counseling, mental health and psychosocial support, legal assistance; financial assistance; and repatriation assistance or reintegration into the labor market; and
- c. Works with the contracting firm to design and implement corrective measures to address presence of forced labor or trafficked persons within the organization and ends the association with the contracting organization if the presence of forced labor or trafficked persons within the contracting firm is not addressed within a reasonable time frame.



3.1.7.5 If any cases of forced labor or the trafficking of people amongst **suppliers** are identified through the enhanced human rights due diligence required in 3.1.7.2.d, the ENTITY:

- a. Reports the cases to the appropriate authorities;
- b. Works with the supplier, to the extent possible, to safely remove these individuals from their work, and to design and implement corrective measures to address presence of forced labor or trafficked persons within the organization; and
- c. Ends the business relationship with the supplier if these efforts are not feasible or not successful.⁵⁶²

3.1.8 Retrenchment



3.1.8.1 The Entity has a system in place to ensure that, prior to implementing any collective dismissals/staff retrenchment⁵⁶³:

- a. An analysis of alternatives to retrenchment is carried out and documented by competent professionals;
- b. This analysis (a.) is informed by consultations with: 1) Employees and their organizations; 2) Contracting firms, and **contractors** and their representatives, where **contractors** are affected; and 3) Where appropriate, representatives of affected communities and/or the government;
- c. If the analysis required in b. does not identify viable alternatives to retrenchment, a retrenchment plan (or equivalent) is developed and documented by competent professionals.



3.1.8.2 The Entity has a system in place to ensure that, retrenchment plans (developed as per 3.1.8.1.c):

- a. Include measures to reduce the adverse impacts of retrenchment on **workers**;
- b. Outline a clear timeline and budget for each stage of retrenchment;
- c. Incorporate the principle of non-discrimination by developing objective, fair, and transparent criteria by which **workers** will be chosen for retrenchment;
- d. Are implemented in a manner that ensures that all **employees** subject to retrenchment receive notice of dismissal and severance payments mandated by law and CBA (where applicable);
- e. They also receive outstanding back pay, social security benefits, and pension contributions and benefits upon or before termination of the working relationship, or in accordance with a timeline agreed through a collective bargaining agreement, and receive payments directly, or through an appropriate institution that provides certain benefits to **workers**⁵⁶⁴. Where payments are made to such institutions for the benefit of **workers**, the **workers** are provided with evidence of such payments; and
- f. Where **contractors** are affected, the ENTITY ensures that contracting firms also conform with 3.1.8.2.d and 3.1.8.2.e, using controls, oversight, and/or contractual clauses as appropriate

3.1.9 Worker Grievance and Whistleblowing Mechanisms⁵⁶⁵**3.1.9.1 The ENTITY:**

- a. Has an operational-level **employee** grievance mechanism in place that allows all **employees**, and their organizations where they exist, to raise, and seek resolution or remedy⁵⁶⁶ for, complaints and grievances (hereafter referred to collectively as “grievances”) related to the workplace, working conditions, and/or the ENTITY’s activities;
- b. This grievance mechanism provides for the involvement of an appropriate level of management in the oversight of grievances;
- c. It clearly defines how grievances and communications with employees filing grievances are recorded, acknowledged, investigated, monitored, and equitably resolved or remedied, including with indicative timeframes for each stage of the procedure;
- d. It clearly defines differentiated gender-sensitive procedures specifically designed to provide timely, appropriate, and effective remedies for female and nonbinary complainants, particularly where they are survivors of discrimination and/or sexual- and gender-based violence; and
- e. It clearly defines the procedure for handling grievances that involve allegations of impacts on human rights, including the potential for adjudication by an independent, third-party mediator or mechanism, when dialogue does not lead to agreed remedies⁵⁶⁷.

3.1.9.2 Critical Requirement

This employee grievance mechanism:

- a. Clearly defines how complainants can file grievances anonymously, and/or confidentially;
- b. **Explicitly states that** participation in an operational level grievance mechanism does not preclude a complainant from seeking redress through administrative, judicial, or other non-judicial remedies, and that no remedy provided by an operational-level grievance mechanism requires or implies that complainants waive their right to seek recourse for the same grievance through other available mechanisms;
- c. **Clearly lists options for recourse if a complainant does not find the resolution of their grievance satisfactory and/or if the mechanism is deemed inadequate or inappropriate for handling grievances, especially relating to human rights abuses;**
- d. Ensures that **complainants are not the subject of retaliation or retribution⁵⁶⁸;**
- e. **Ensures that complainants can use the mechanism without prejudice to applicable employment and social rights as well as to any applicable collective agreements;** and
- f. Ensures that **workers’** representatives can be present at any proceedings or discussions relating to a grievance, if requested by the aggrieved employee.

E2 E3 D M P

3.1.9.3 The ENTITY:

- a. Proactively informs all **employees** of the existence and functioning of the employee grievance mechanism at the time of recruitment/hiring and/or induction;
- b. Ensures grievance procedures are easily accessible to them on an ongoing basis, in appropriate local language(s) and formats⁵⁶⁹;
- c. Ensures that, periodically, **employees** are provided with clearly-communicated opportunities to provide input on how to make the employee grievance mechanism more trusted and accessible; and
- d. Ensures that, at least quarterly, **employees** receive feedback on how their input was considered.

E2 E3 D M P

3.1.9.4 The ENTITY:

- a. Ensures that relevant personnel directly involved in the implementation and management of the operational-level employee grievance mechanism are trained on, and understand, the proper procedures for handling grievances or concerns expressed through the employee grievance mechanism, including that there will be no retaliation against any individual or group utilizing this mechanism;
- b. Has a clear procedure to identify potential conflicts of interest⁵⁷⁰ in grievance management and how these conflicts will be addressed; and
- c. Maintains a record of all concerns submitted through the employee grievance mechanism⁵⁷¹, communications with involved parties, final resolutions, and the ENTITY's actions taken to respond to and/or resolve the issue.

E2 E3 D M P

3.1.9.5 The ENTITY ensures that:

- a. Contracting firms also conform with 3.1.9.1 and 3.1.9.2 (having an operational-level grievance mechanism in place for their **employees**) using controls, oversight, and/or contractual clauses as appropriate or, if contracting firms are unable to, it establishes a means to receive grievances directly from **contractors**;
- b. Contracting firms also conform with 3.1.9.3 (information about, and opportunities to input on, the grievance mechanism) using controls, oversight, and/or contractual clauses as appropriate or, if the ENTITY has established a means to receive grievances directly from **contractors**, it extends the provisions of 3.1.9.3 also to **contractors**; and
- c. Contracting firms also conform with 3.1.9.4 (grievance management and record-keeping) and using controls, oversight, and/or contractual clauses as appropriate or, if the ENTITY has established a means to receive grievances directly from **contractors**, it extends the provisions of 3.1.9.4 also to **contractors**.

E2 E3 D M P

3.1.9.6 The ENTITY:

- a. Proactively informs all **workers** of the whistleblowing mechanism required in 1.6.2⁵⁷²;
- b. Ensures whistleblowing procedures are easily accessible to all **workers** on an ongoing basis, in appropriate local language(s) and formats⁵⁷³; and
- c. Has a system in place to ensure that, periodically, all **workers** are provided with clearly-communicated opportunities to provide input on how to make the whistleblowing mechanism required in 1.6.2 more trusted and accessible, and they receive feedback on how their input was considered.

3.1.10 Wages, Benefits, and Other Compensation

3.1.10.1 The ENTITY can demonstrate that wages are paid to employees as follows:

- a. When employees are covered by a negotiated collective bargaining agreement (CBA), wages are paid according to the terms of the agreement. If any employees are not covered by a CBA, then living wage applicable to the context of the site and of those employees is determined and/or calculated by competent professionals using a credible methodology⁵⁷⁴, and wages paid to those employees who are not covered by a CBA meet or exceed the higher of applicable legal minimum wage(s)⁵⁷⁵ or the living wage;
- b. All overtime hours worked by employees are paid at a rate defined in a CBA, where relevant, or the higher of either the overtime rate outlined in national law or a rate that is at least 125% of the regular hourly wage; and
- c. The ENTITY ensures that contracting firms conform with the sub-requirements a. and b. above through controls, oversight, and/or contractual clauses as appropriate.

3.1.10.2 The ENTITY ensures that:

- a. All employees are provided with written and understandable information, in appropriate local language(s) and formats⁵⁷⁶, about wages (overtime rates, deductions and bonuses) and benefits before they enter employment, and for the pay period each time they are paid;
- b. Wages are paid in a manner that is reasonable for employees and individual contractors⁵⁷⁷, at least monthly, and without unreasonable delay;
- c. Deductions from wages are not made for disciplinary purposes unless: 1) permitted by a law of the country of operation that guarantees the procedural fairness of the disciplinary action and/or 2) permitted in a freely negotiated CBA or arbitration award; and
- d. Wages, benefits, and deductions of employees and individual contractors are recorded and documented⁵⁷⁸.

3.1.10.3 If not provided in a CBA, the ENTITY provides all employees the following benefits, at a minimum:

- a. An annual paid holiday of at least three working weeks per year, after achieving one year of service⁵⁷⁹;
- b. A paid gender-neutral parental leave period of no less than 18 weeks for the primary caregiver, and no less than one week for secondary caregiver, at full pay, as well as paid bereavement leave for death of immediate family members of at least two days; and
- c. Paid personal medical leave with a sufficient wage replacement rate to prevent poverty and ensure essential needs can be met during leave-taking.



3.1.10.4 In countries where workers' compensation is not provided through government schemes⁵⁸⁰ or a CBA or health insurance or other relevant compensation schemes covering occupational health matters, employees are provided with compensation for work-related injuries and illnesses as follows:

- a. The ENTITY compensates employees for work-related injuries or illnesses at a rate that, at minimum, covers medical expenses and wages during the recovery and rehabilitation period;
- b. The ENTITY covers the cost of employee rehabilitation and any reasonable accommodations, if relevant, to facilitate an expeditious return to work;
- c. If an employee is not able to return to work due to the severity of a work-related injury or illness⁵⁸¹, the ENTITY compensates for lost earnings until the employee qualifies for an adequate pension⁵⁸²;
- d. If a work-related illness manifests⁵⁸³ after an employee has retired, the ENTITY, at minimum, compensates the employee for the related medical expenses;
- e. Where an employee dies as a result of a work-related injury or illness, the ENTITY: 1) Covers the cost of funeral expenses and transportation of the employee's body; 2) Provides compensation to the family of the deceased employee that is equal to or greater than three months of the employee's salary; and 3) Offers to pay for counseling or other forms of psychological support for family members.



3.1.10.5 The ENTITY ensures that contracting firms conform with the following requirements through controls, oversight, and/or contractual clauses as appropriate:

- a. 3.1.10.2 (wages);
- b. 3.1.10.5 (benefits); and
- c. 3.1.10.6 (compensation for work-related injuries and illnesses).



3.1.10.6 If the ENTITY provides housing arrangements for workers that are not free, it has systems in place to ensure they meet the following requirements:

- a. Rental arrangements, including any fees for accommodations or services, are discussed during recruitment and are clearly specified in employment contracts (or contractual clauses with contractors);
- b. Rental arrangements, including any fees for accommodations or services never lead to a worker becoming indebted to the employer
- c. Rental rates do not exceed local norms/market conditions;
- d. Employees are not required to sign up for rental of accommodations that exceed their period of employment (or the period of contract applicable to the contractors' employees);
- e. Workers are provided with a reasonable period of time to vacate the premises when their contract of employment is terminated; and
- f. There are no fees or penalties for leaving accommodations early.⁵⁸⁴



3.1.10.7 **IRMA+**

The ENTITY ensures that contracting firms conform with requirement 3.1.10.3 related to paid holiday, parental leave, bereavement leave, and medical leave, through controls, oversight, and/or contractual clauses as appropriate.

3.1.11 Working Hours

3.1.11.1 The ENTITY ensures that:

- For all its employees and individual contractors, regular working hours do not exceed 8 hours per day, or 48 hours per week⁵⁸⁵;
- Where employees (and contractors whose working hours are under the ENTITY's direct control) work in shifts, the 8-hour day and 48-hour week is not exceeded unless the average number of regular hours worked over a 3-week period does not exceed 8 hours per day and 48 hours per week;
- Employees and individual contractors are provided with appropriate paid time off for meals and breaks, i.e. unless otherwise provided for under a CBA, this means at least two 15-minute and one 30-minute break per 6 hours worked;
- Employees and individual contractors are provided with reasonable accommodations of the timing of breaks to allow for workers' religious practices;
- Contracting firms conform with a. to d. for all their employees, through controls, oversight, and/or contractual clauses as appropriate

3.1.11.2 The ENTITY ensures that:

- All employees are provided with at least 24 consecutive hours off in every 7-day period, unless a freely negotiated CBA is in force that allows variances to this rest period;
- Overtime hours are allowed for employees as long as they are always consensual and limited to 12 hours per week unless a freely negotiated CBA is in force that allows variances to this overtime limit⁵⁸⁶;
- If no negotiated CBA is in force to allow such variances, exceptions to a. and b. only occur if a process is in place, carried out in collaboration with workers' health and safety representatives, to assess, mitigate, and monitor the potential impacts of the alternative rest schedule and/or overtime limit on the safety, health and wellbeing of employees.⁵⁸⁷ If impacts to worker safety, health or wellbeing are occurring, the 24 consecutive hours off in every 7-day period and/or the 12-hour-maximum overtime per week rule, is reinstated until another assessment can be undertaken;
- Hours worked, regular and overtime, by employees and individual contractors are recorded and documented;
- Hours taken for annual, medical, and parental leave, by employees and individual contractors are recorded and documented; and
- Contracting firms conform with d. and e. for all their employees, through controls, oversight, and/or contractual clauses as appropriate.

3.1.11.3 IRMA+

The ENTITY develops and implements controls, oversight and/or contractual clauses to ensure that all its **suppliers** also conform with requirements 3.1.11.1 and 3.1.11.2 in order to prevent risks of modern slavery⁵⁸⁸ and to ensure decent and healthy working conditions for all workers among its suppliers' workforces.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

- ⁵²⁴ E.g., Responsible Business Alliance. 2021. Environmental, Social and Governance (ESG) Standard for Mineral Supply Chains. Requirement VI-3. https://www.responsiblemineralsinitiative.org/media/docs/standards/RMI_RMAP%20ESG%20Standard%20for%20Mineral%20Supply%20Chains_June32021_FINAL.pdf
- ⁵²⁵ Responsible Business Association. 2021. Environmental, Social & Governance (ESG) Standard for Mineral Supply Chains. Requirement VII.3. https://www.responsiblemineralsinitiative.org/media/docs/standards/RMI_RMAP%20ESG%20Standard%20for%20Mineral%20Supply%20Chains_June32021_FINAL.pdf
- ⁵²⁶ Towards Sustainable Mining (TSM) 'Preventing Child and Forced Labour Protocol', Mining Association of Canada (June 2019), p.3. Available at: https://mining.ca/wp-content/uploads/dlm_uploads/2023/04/Preventing-Child-and-Forced-Labour-Protocol-English.pdf
- ⁵²⁷ International Labor Organization (ILO). (No date). Fact Sheet: Rest Periods. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_491374.pdf
- ⁵²⁸ ResponsibleSteel. 2022. ResponsibleSteel International Standard. V.2.0. Requirement 6.9.1.c. <https://www.responsiblesteel.org/standard/>
- Responsible Jewellery Council. 2019. Code of Practices. Requirement 16.5. <https://www.responsiblejewellery.com/wp-content/uploads/RJC-COP-2019-V1.2-Standards.pdf>
- ⁵²⁹ An ENTITY can proactively inform contractors' workers through posters, training, as part of mandatory induction etc...
- ⁵³⁰ For example, at remotely located sites.
- ⁵³¹ Short-term contracts can be used under certain circumstances, i.e., for fixed-term service providers (i.e., a consultant or specialist contracted to meet a specific, time-constrained need), or to meet temporary business needs. However, the use of successive short-term contracts (without benefits) for the same person/role or for extended periods of time to cover ongoing, routine tasks necessary for the organization to operate may indicate that there is an intent to avoid labor obligations and will be investigated as such by auditors.
- ⁵³² The ENTITY may, however, hire replacement workers to ensure that critical maintenance, health and safety, and environmental control measures are maintained during a legal strike.
- ⁵³³ Nothing in this requirement shall remove the right of an ENTITY to seek enforcement action when workers, workers' representatives or workers' organizations are operating in contravention to laws or regulations.
- ⁵³⁴ If the ENTITY has another process in place that meets the intent of this requirement - e.g., allowing unions to speak to all new recruits during induction - then this can fulfil the requirement to 'provide contact information for unions'.
- ⁵³⁵ The frequency of engagement should be agreed by the ENTITY and workers' representatives.
- ⁵³⁶ "Employment decisions" include: recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.
- "Personal characteristics unrelated to inherent job requirements" may include: gender, race, nationality, ethnicity, social class, religion or belief, disability, HIV status, age, sexual orientation, marital status, parental status, worker status (e.g., local vs. migrant workers, temporary versus permanent workers), political affiliation, union membership, or veteran status.
- Regarding workers with disabilities, see also UN Global Compact Guide for Business on the Rights of Persons with Disabilities, 2027. <https://unglobalcompact.org/library/5381>
- ⁵³⁷ Equal pay for equal work refers to the right of women and men to receive equal remuneration for work of equal value - this means men and women working in identical or similar jobs should receive the same pay, as well as when working in different jobs that can be shown to be of equal value in terms of required skills, qualifications, working conditions, level of responsibility, and effort required by the job (see Equal Pay International Coalition web site, "Equal pay for work of equal value," <https://www.equalpayinternationalcoalition.org/equal-pay/>).
- ⁵³⁸ The only acceptable exceptions with respect to hiring and recruitment are: 1) targets or quotas mandated by law; or 2) ENTITY targets for the employment of local residents, Indigenous Peoples, or individuals who have been historically disadvantaged including disabled persons, if there are explicit goals and justification for such targets.
- ⁵³⁹ For visually-impaired, blind, and deafblind, workers who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.
- ⁵⁴⁰ All workers can receive basic training during mandatory induction, while supervisors and managers should receive more advanced training (for contractors' supervisors and managers, this could take place through joint training with the ENTITY's staff).
- ⁵⁴¹ See also UN Global Compact Guide for Business on the Rights of Persons with Disabilities (2017) <https://unglobalcompact.org/library/5381>.

⁵⁴² Personal characteristics may include: gender, race, nationality, ethnicity, social class, religion or belief, disability, HIV status, age, sexual orientation, marital status, parental status, worker status (e.g., local vs. migrant ~~workers~~, temporary versus permanent ~~workers~~), political affiliation, union membership, or veteran status.

⁵⁴³ For visually-impaired, blind, and deafblind, ~~workers~~ who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.

⁵⁴⁴ All ~~workers~~ can receive basic training during mandatory induction, while supervisors and managers should receive more advanced training (for contractors' supervisors and managers, this could take place through joint training with the ENTITY's staff).

⁵⁴⁵ If the anti-harassment policy required in Section 3.1.4 or another policy includes references to not using the listed behaviors during disciplinary actions, then a separate policy would not be necessary.

⁵⁴⁶ Including timelines for resolution, appeals process, proper documentation, etc.

⁵⁴⁷ For visually-impaired, blind, and deafblind, ~~workers~~ who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.

⁵⁴⁸ Age 18 is the dividing line between childhood and adulthood according to the major ILO child labor conventions (Nos. 138 and 182), and the United Nations Convention on the Rights of the Child (CRC). Although many cultural traditions and personal characteristics could argue for a higher or lower age, in first crafting and then in ratifying these Conventions the international community has determined that people under 18 are children and have the right to special protection. (International Labor Organization. 2011. Children in Hazardous Work: what we know, what we need to know. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_155428.pdf

⁵⁴⁹ E.g., working at heights or in confined spaces, or where there is exposure to hazardous substances. Examples of hazardous work activities include work (i) with exposure to physical, psychological, or sexual abuse; (ii) underground, underwater, working at heights, or in confined spaces; (iii) with dangerous machinery, equipment, or tools, or involving handling of heavy loads; (iv) in unhealthy environments exposing the worker to hazardous substances, agents, processes, temperatures, noise, or vibration damaging to health; or (v) under difficult conditions such as long hours, late night, or confinement by employer. (Source: IFC. 2012. Performance Standard 2: Labor and Working Conditions. Footnote 12. Available at: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>)

⁵⁵⁰ International Labour Organization (ILO). C182, Works Forms of Child Labour Convention, 1999 (No. 182). Available at, https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312528:NO

⁵⁵¹ For ~~suppliers~~, a Supplier Code of Conduct or equivalent would be a common piece of relevant evidence to demonstrate the policy, procedure and protocols are in place.

⁵⁵² For visually-impaired, blind, and deafblind, ~~workers~~ who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.

⁵⁵³ This can be a stand-alone assessment or it could be conducted as part of the human rights risk assessment, per requirement 1.3.2.1. If the project/operation is located in or sourcing minerals from a conflict-affected and high-risk area, child labor should be one of the issues assessed in the ~~conflict risk assessment~~. If child labor is identified as a risk, the due diligence outlined in Chapter 1.5 applies.

⁵⁵⁴ See also in Chapter 1.4, Section 1.4.8 on Suspension and Termination of Business Relationships.

⁵⁵⁵ For visually-impaired, blind, and deafblind, ~~employees~~ who are Braille readers, the ENTITY should provide braille copies.

⁵⁵⁶ Guidance notes: foreign ~~workers~~ must be provided with a copy of their contract prior to leaving their country of origin, and no substitutions or changes to the content of the contract can be made upon arrival in the receiving country. An exception to this is if changes are required to meet local laws and result in equal or more favourable terms for the employee. A similar approach is utilized in the Responsible Minerals Initiative's 'Environmental, Social & Governance (ESG) Standard for Mineral Supply Chains' (June 2021).

⁵⁵⁷ For ~~suppliers~~, a Supplier Code of Conduct or equivalent would be a common piece of relevant evidence to demonstrate the policy, procedure and protocols are in place.

⁵⁵⁸ For visually-impaired, blind, and deafblind, ~~workers~~ who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.

⁵⁵⁹ All ~~workers~~ can receive basic training during mandatory induction, while supervisors and managers should receive more advanced training (for contractors' supervisors and managers, this could take place through joint training with the ENTITY's staff).

⁵⁶⁰ This can be a stand-alone assessment or it could be conducted as part of the human rights risk assessment, per requirement 1.3.2.1. If the project/operation is operating in or sourcing minerals from a conflict-affected and high-risk area, forced labor should be one of the issues assessed in the ~~conflict risk assessment~~. If forced labor is identified as a risk, the due diligence outlined in Chapter 1.5 applies.

⁵⁶¹ Adapted from the International Organization for Migration (IOM) "Remediation Guidelines for Victims of Exploitation in Extended Mineral Chains" (2018), available at https://publications.iom.int/system/files/pdf/remediation_guidelines.pdf and the ILO "Combating forced Labor: A Handbook for Employers & Business" (2015), available at: https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_101171.pdf

⁵⁶² See also in Chapter 1.4, Section 1.4.8 on Suspension and Termination of Business Relationships.

⁵⁶³ Including planned retrenchment strategies ahead of the closure and post-closure phases of operations.

⁵⁶⁴ E.g., pension or health funds.

⁵⁶⁵ Most of the requirements related to a whistleblowing mechanism (accessible to all stakeholders, including employees and contractors), are included in Chapter 1.6.

⁵⁶⁶ The Entity's duty to remediate all its impacts on workers' rights and/or their fundamental human rights is covered in Chapter 1.3.

⁵⁶⁷ This is in accordance with IRMA Chapter 1.3, which requires that any identified human rights impacts be managed by developing "timely ... mitigation strategies and remediation in collaboration with affected rights-holders. If mutually acceptable remedies cannot be found through dialogue, the ENTITY attempts to reach agreement through an independent, third-party mediator or another means mutually acceptable to affected rights-holders." (See Chapter 1.3, requirement 1.3.4.3).

⁵⁶⁸ Retaliation can take the form of termination of employment, demotion, unfair/discriminatory/unequal assignment of work-related tasks seen as undesirable, withholding of benefits or rejection of valid requests for leave, etc. Ways to ensure this include maintaining confidentiality or anonymity (as per a.).

⁵⁶⁹ For visually-impaired, blind, and deafblind, workers who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.

⁵⁷⁰ In this context, potential conflicts of interest may occur when the personal interests or relations of the persons handling a grievance – family, friendships, financial, or social factors – could compromise their judgment, decisions, or actions vis-à-vis the grievance.

⁵⁷¹ Recording of whistleblowing notifications, and actions in response, are included in Chapter 1.6.

⁵⁷² For employees: at the time of recruitment/hiring and/or induction; and for contractors: by using controls, oversight, and/or contractual clauses as appropriate.

⁵⁷³ For visually-impaired, blind, and deafblind, workers who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.

⁵⁷⁴ The determination of whether the wages paid to an ENTITY's workers constitute a 'living wage' within the specific country context must draw on internationally established best practice and/or external reports or expertise concerning determination of a living wage. The Anker Methodology is the most prominent approach to calculating living wage (see <https://ankerresearchinstitute.org> and "The Anker Methodology for Estimating a Living wage: <https://globallivingwage.org/about/anker-methodology/>); however, any methodology that meets the definition of a credible methodology will be accepted.

⁵⁷⁵ In some jurisdictions there are different minimum wage levels set for different types of workers.

⁵⁷⁶ For visually-impaired, blind, and deafblind, workers who are Braille readers, the ENTITY should provide braille copies. Guidance: This can be done at the time of recruitment, hiring or during induction trainings.

⁵⁷⁷ E.g., bank transfer, cash, or check, ensuring the manner is reasonable for the employees.

⁵⁷⁸ We will add guidance notes stating that auditors need to check that benefits such as social security, pension and other contributions required by national law are being paid, and that the ENTITY is paying legally mandated deductions from workers' wages to the government as required by national laws. (As per Chapter 1.1, companies are required to comply with country of operation's laws).

⁵⁷⁹ A worker whose length of service in any year is less than that required for the full entitlement shall be entitled in respect of that year to a holiday with pay proportionate to his or her length of service during that year. (Based on ILO C132 – Holidays with Pay Convention (Revised), 1970 (No. 132).

http://www.ilo.org/dyn/normlex/en/?p=NORMLEXPUB:12100::NO:12100:P12100_ILO_CODE:C132:NO

⁵⁸⁰ Many, but not all countries have workers' compensation schemes. For example, a 2002 report found that 136 countries had worker compensation programs, meaning that approximately 60 did not. (Eleson, R. 2002. International Workers' Compensation. Prepared for the Indiana Compensation Rating Bureau. <http://compclues.icrb.net/file/29dbcff9-2752-4fed-bfdc-422c8c403483>)

⁵⁸¹ If an occupational illness manifests after an employee has retired, the ENTITY or its corporate owner must still compensate the employee for related medical expenses, unless the ENTITY or its corporate owner can establish that the illness was not connected to the employee's employment at the site.

⁵⁸² If the government does not provide for an "adequate pension," the ENTITY would be expected to supplement the government pension so that an employee was receiving equivalent to 2/3 or more of the salary they would otherwise receive; if no government pension program exists, the ENTITY would be expected to pay compensation equivalent to 2/3 or more of the salary the employee would otherwise normally receive if healthy and working. Normally, this requirement can be met by providing the appropriate public or private disability insurance coverage.

⁵⁸³ This is not applicable if the Entity can establish that the illness was not connected to the employee's work at the site or its associated facilities.

⁵⁸⁴ For example, if a worker voluntarily terminates their employment before their contract is up.

⁵⁸⁵ The work referenced in this requirement includes any off-site work performed by employees and individual contractors.

⁵⁸⁶ Overtime hours must be paid in accordance with 3.1.10.1.

⁵⁸⁷ In collaboration with worker's health and safety representatives, measures to prevent and/or minimize the impacts are developed and implemented, and monitoring is conducted to determine the effectiveness of the impact mitigation.

⁵⁸⁸ The ILO, WalkFree, and International Organization for Migration published a report in 2021 estimating that approximately 50 million people are in a situation of modern slavery (consisting of both forced labor and forced marriage) on any given day. See https://cdn.walkfree.org/content/uploads/2022/09/12142341/GEMS-2022_Report_EN_V8.pdf

Chapter 3.2

Occupational Safety, Health and Wellbeing

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Chapter title updated to include “Wellbeing”, see note in the Background.
- Added a Scoping requirement (3.2.2), which is in line with ISO 45001:2018, and adds consistency across the Standard.
- Moved the list of principal hazards to an annex (Annex 3.2-B), and updated the list with risks specific to mineral processing.
- Proposed to mark ‘critical’ the requirements for an on-site emergency preparedness and response plan, and for its regular testing. Failure to conform with those is likely to result in immediate harm or disproportionate exposure to risks, and would be consistent with the ‘criticality’ of off-site emergency measures included in the dedicated Chapter 2.6.
- Clarified scope of the Stop Work Authority to ensure all conditions or behaviors that could cause serious harm are included, regardless of the ‘imminent’ nature of the danger (3.2.7.5.a)
- Re-organized all requirements related to performance review and continuous improvement under one new dedicated Section (3.2.15 – Continuous Improvement), to increase clarity and consistency across the Standard.
- Added ‘high potential incidents’ (HPI) in the list of OSH metric to be publicly reported in 3.2.16.1, and as a result, added a requirement to determine which near miss incidents are HPI in 3.2.12.3.d.
- Added reporting sub-requirements related to occupational diseases (3.2.16.1.g to i).
- Added one optional requirement (IRMA+) related to an annual report on workplace accessibility, in line with the 2021 GRI updated guide on Disability in sustainability reporting (3.2.16.2).
- Substantial structural changes, to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Decision
3.2-01	(3.2.2.1, Annex 3.2-A Potential Workplace Hazards) Question: Are there major potential hazards that have been missed in Annex 3.2-A or that you believe are not applicable to mining and/or mineral processing operations? Sub-requirement 3.2.2.1.a.iii is NEW. External factors can exacerbate hazards. In particular, climate-related events such as high heat waves, or unusually large precipitation events can lead to an increase in heat-related illnesses, flooding-related safety issues, or increase in vector-borne disease, etc. Sub-requirement 3.2.2.1.b replaces 3.2.2.3 from the 2018 Mining Standard which said “The operating company shall pay particular attention to identifying and assessing hazards to <u>workers</u> who may be especially susceptible or vulnerable to particular hazards.” Instead of using the phrase ‘pay particular attention’ we are clear that susceptible <u>workers</u>, if any, needs to identified in relation to each hazard.	Feedback received: Comments suggested that Annex 3.2-A was mining focused and not inclusive of major potential hazards related to mineral processors, particularly downstream metallurgical and chemical processing operations. Comments also pointed out that transport of mined and/or processed material may include railway transport, and IRMA subsequently identified conveyor and marine transport as also not being explicitly included in Annex 3.2-A. Other comments suggested hazards including climate, lack of quality PPE, and worker capabilities that were intended to be inclusive in the proposed IRMA requirements in 3.2.2.1. Proposed Decision: The applicability to those suggested hazards to the existing requirements will be clarified in the Guidance document.
3.2-02	(3.2.3.3 – Minimum set of procedures for common OHS hazards) Question: Do you agree with this approach? If so, do you agree with the categories of hazards listed, or would you suggest other types of hazards that should always have procedures or controls (if relevant at the operation)?	Feedback received: Responses were unanimous as to agreement with the approach and categories. Proposed Decision: No change
3.2-03	(3.2.3.8 – Reporting and investigation of health and safety issues) Question: Is it common to have a procedure related to the reporting and investigation of health and safety issues in the workplace? If not, do you believe this is something that would be useful or not? Are there any elements you would add or remove from such a procedure?	Feedback received: Responses were unanimous as to agreement that reporting and investigation of health and safety issues in the workplace is both common and useful. One commenter recommended that a risk matrix be added as a requirement. Proposed Decision: The recommendation above will be addressed in the Guidance document.
3.2-04	(3.2.4.4 – First aid) Question: In 3.2.4.4.a, we are suggesting that all <u>workers</u> have at least basic training in first aid. Should there also always be others on site who have a higher level or depth of first aid training or certification (e.g., supervisors)? Also, mine sites and mineral processing operations can be extremely large complexes. Do you have a suggestion for what might be an adequate number of on-site employees/workers with certified first aid on site at all times?	Feedback received: Responses were split between yes and no and answers not consistent within sectors. Examples point that, for example, in US, required by MSHA, but not by OSHA. Also may be some confusion between EMT (emergency medical technician) level responder and basic first aid (incl. Cardiopulmonary Resuscitation, CPR), which are vastly different. Many mines/processors require at least one or two to be on-site at all times. The approach is also highly size-dependent. Additional research shows that several

		mining countries require a fixed number per shift and per total number of <u>workers</u>. Proposed Decision: Proposed to add a normative minimum number of <u>workers</u> with a certified training in first aid, based on review of existing regulations across relevant jurisdictions. See 3.2.9.4.
3.2-05	(3.2.4.6 – Housing) Question: There are many more specific requirements that could be added based on the ILO and IFC/EBRD guidance. Do you have suggestions for additional or different requirements that should be viewed as the most material when it comes to worker accommodations?	Feedback received: Comments suggested addressing fatigue, privacy from employers, site security controls and personnel, and fire equipment and emergency procedures and alarm systems as additional or different requirements. A general objective of current Section 3.2.10 is to ensure that housing arrangements provided to <u>workers</u> are restful and provide respite from the fatigue of work activities. Fire equipment and emergency procedures and alarm systems are inferred in 3.2.10.1.e. “Appropriate protection against... fire ...” Privacy was already covered in 3.2.4.6.c.v (see the new 3.2.10.1 and the accompanying footnote). Proposed Decision: The IRMA v2 Guidance document will clarify the requirements regarding fatigue and noise. Security is covered through a new explicit reference to “the right to liberty and security of person” in 3.2.10.3.
3.2-06	(3.2.5.2 – Monitoring and surveillance) Question: Is the selection of factors to be monitored and surveilled solely based on the outcomes of the risk assessment? Or should IRMA be requiring separate assessments (e.g., an exposure assessment or baseline monitoring) to help inform the monitoring program? For example, the ESG Standard developed by the RBA/RMI requires documentation of temperature exposure hazards, which presumably requires some monitoring of the workplace, and an “ergonomic assessment of workplace jobs, tasks and activities.”	Feedback received: Responses were overall in favor of specific separate exposure level assessments and/or gathering of baseline data where needed to inform the risk assessment, i.e., knowing how close certain hazards are to health-based or regulatory limits will help to better understand the level of risk. Proposed Decision: Assessment of exposure levels was already covered in the risk assessment. This is now further clarified in 3.2.4.2.a.
3.2-07	(3.2.5.2 – Monitoring and surveillance) Question: Should we be separating out workplace environmental monitoring from health surveillance activities, and adding more specific expectations for both? For example: 1) Environmental monitoring in the workplace (e.g., sampling for chemicals/toxins in air, measuring noise levels, monitoring temperatures in the workplace, evaluating ergonomics); and 2) Worker health testing and surveillance (e.g., routine physical examinations, chest x-rays,	Feedback received: Responses were overall not in favor of separating out workplace environmental monitoring from health surveillance activities. Proposed Decision: No substantial changes were made to the content (see now 3.2.11.2).

	pulmonary function tests (PFT), testing blood, hair for chemicals, etc.)?	
3.2-08	(3.2.5.2 – Monitoring and surveillance) Question: If certain known hazards are identified during the ENTITY's hazard identification process (e.g., known carcinogens or hazardous substances, or potential that certain noise decibel levels will be exceeded) should the IRMA Standard outline specific monitoring and/or health surveillance actions to be taken? For example, OSHA in the United States has developed guidance related to a number of known hazards. Or, if normative requirements are not added, should IRMA add some guidance on what might be appropriate monitoring and health surveillance actions?	Feedback received: Responses were split as to whether the IRMA Standard should outline specific monitoring and/or health surveillance actions to be taken. Response from trade unions signaled that the "enormous diversity of workplaces covered by the Standard together with the enormous number of hazards makes this a very difficult task". Proposed Decision: 3.2.11.2 now mentions that 'all the significant hazards identified' need to have some form of monitoring and surveillance in place, but no specific monitoring or surveillance actions were added to the requirement. Further clarification will be provided in the Guidance document.
3.2-09	(3.2.6.2 – Counseling and psychological support) Question: Do you support the addition of sub-requirement 3.2.6.2.b? Do you agree that some form of counseling or psychological support be provided even if accidents don't result in fatalities? Should all employees (not just those who experienced or witnessed the accident) be eligible for counseling or support?	Feedback received: All comments supported the addition of sub-requirement 3.2.6.2.b (now 3.2.12.3.b, and integrated in 3.1.10.4.e) as well as the other questions posed. Proposed Decision: No change.
3.2-10	(3.2.6.2 – Categories of incidents) Question: Should IRMA include requirements for entities to investigate and report on high-potential incidents instead of near miss incidents? Or in addition to near miss incidents? Or not at all? Please provide a rationale for your opinion.]	Feedback received: Responses were split between high potential incidents (HPI) and near miss incidents (NMI), with some suggesting they were synonymous and it depended on regional preferences. However, there was general support for the need to investigate all incidents. Proposed Decision: Added a definition in the glossary to clarify that "An HPI is a near-miss incident that could have ended in someone getting seriously hurt or killed, but for some reason that was avoided." Also added to the Glossary. Because HPI is a subset of NMI, we are proposing that all near misses be investigated. We have also added in 3.2.12.3 that for all near miss incidents there needs to be a determination of whether or not the NMI is also an HPI, because reporting of both NMI and HPI is now required in 3.2.16.1 (see response to Consultation Question 3.2-12).
3.2-11	(3.2.7.3 – Retraining) Question: What is an appropriate periodicity for retraining workers, and would the retraining programs cover the same information as the initial training?	Feedback received: Responses ranged from not supporting retraining, using OSHA MSHA requirements (e.g. annual retraining), and one to three years. Proposed Decision: No changes were made to this requirement. Further clarification will be provided in the Guidance document.

3.2-12	(3.2.8.3 – OHS statistics) Question: Are there any other health and safety statistics that may be relevant to publicly report?	Feedback received: Comments identified number of management safety interactions, number of High Potential Incidents (HPIs), % of actions resulting in closure, % requirements in compliance as leading indicators of health and safety. Proposed Decision: Added HPIs in the list of metrics in 3.2.16.1.

BACKGROUND

Occupational safety and health (OSH) impacts related to the mining and mineral processing industries may include physical injuries, musculoskeletal disorders, noise-induced hearing loss, hand-arm vibration syndrome, skin cancer, dermatitis, heat exhaustion, hypothermia, eye disorders from radiation exposure, asphyxiation, pneumonia, respiratory disorders and lung diseases such as silicosis, damage to internal organs and other effects related to chemical/metal exposures, decreased mental health and well-being, and others.⁵⁸⁹

Some key hazards related to mining include but are not limited to: exposure to dust, rocks falls, ground subsidence, vehicle collisions, equipment failures, explosions, release of noxious gases, failure of mine infrastructure or facility⁵⁹⁰, while key hazards related to mineral processing include, but are not limited to: exposure to dust, hazardous waste, chemicals in liquid or gaseous form, exposure to high-temperatures and molten or caustic materials, conveyors and pulleys, equipment maintenance, failure of ventilation systems, drowning, falls and vehicle collisions.

Due to the many hazards and potential impacts associated with mining and mineral processing, a strong focus on OSH must be present at responsible mines.

In 1995, *Convention 176 on Safety and Health in Mines* was adopted by the International Labour Organization (ILO).⁵⁹¹ The convention set out international standards for OSH at mine sites including the need for: safety and health inspections, accident reporting and investigations, hazard assessment and management, and workers' rights to participate in workplace health and safety decisions, be adequately trained in their tasks, be informed of occupational hazards, and to remove themselves from dangerous workplace situations. The *ILO Code of Practice for Safety and Health in the Non-Ferrous Metals Industries*, published in 2003, recommends a similar approach for mineral processing.

In 2022, the right to a safe and healthy working environment was added to the ILO's list of fundamental principles and rights at work, thus elevating the universal importance of health and safety protections in the workplace.⁵⁹²

Around the same time, the concept of 'wellbeing' (or well-being, or welfare) in the workplace was gaining traction as international best practice. In 2020, ISSA Vision Zero released a set of proactive leading indicators that included the concept of worker 'wellbeing' alongside those of 'health' and 'safety' in the workplace. As is commonly known, the concept of 'safety' at work is focused on sustaining injury-free workplaces, while the concept of 'health' is aimed at promoting the working conditions conducive to the physical health and working capacity of workers. While the concept of health often includes prevention of adverse psychological conditions, the concept of wellbeing goes farther than this to incorporate healthy psychosocial working conditions to sustain individuals' positive mental health and ability to work productively and creatively, and the active prevention of ill health and poor psychosocial working conditions.

This is in line with the modern ILO approach, which recognizes that "health promotion in the workplace is effective when health promotion activities protect and improve the health and well-being of people at work"⁵⁹³. The fundamental principles of this approach are found in the Occupational Safety and Health Convention (No. 155) and its accompanying Recommendation (No. 164) as well as in the Occupational Health Services Convention (No. 161) and its accompanying Recommendation (No. 171).

This chapter uses the acronym OSH to refer to all three components (safety, health, and wellbeing), and actively incorporates the concept of wellbeing as an integral component of health in several of its requirements.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UN International Bill of Human Rights
- UN Guiding Principles on Business and Human Rights
- ILO Declaration on Fundamental Principles and Rights at Work
- ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, 2023
- ILO Convention C176 on Safety and Health in Mines, 1995
- ILO Convention C155 on Occupational Safety and Health
- ILO Convention C161 on Occupational Health Services
- ILO Convention C148 on Working Environment
- ILO Recommendation R115 on Workers' Housing, 1961
- ILO Code of Practice for Safety and Health in the Non-Ferrous Metals Industries, 2003
- IFC Performance Standard 2: Labor and Working Conditions, 2012
- IFC Environmental, Health, and Safety Guidelines for Base Metal Smelting and Refining, 2007
- IFC and EBRD, Workers' accommodations: Processes and standards - A guidance note by IFC and the EBRD, 2009
- ISO 45001:2018 Occupational Health and Safety
- International Social Security Association (ISSA), Vision Zero, 2017
- UN Convention on the Rights of Persons with Disabilities, 2006

OBJECTIVES OF THIS CHAPTER

To identify and avoid or mitigate occupational safety and health hazards, maintain working environments that protect workers' health and working capacity, and promote workplace safety, health and wellbeing.

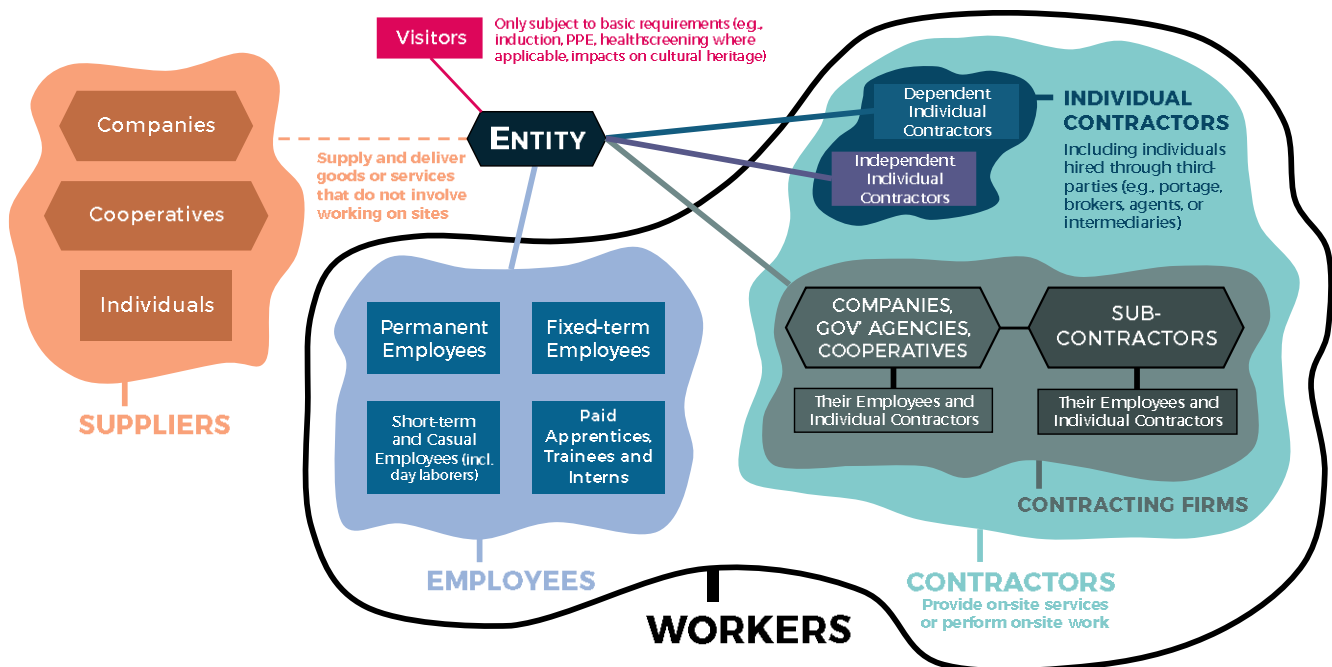
SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. Requirement 3.2.7.4 is only relevant for underground mining operations.

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

FIGURE 3.2. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors



Adapted from ILO ICSE-18-A: Status in Employment according to type of authority (2018, Resolution concerning statistics on work relationships)

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are four (4) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are two (2) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

3.2.1 Formalized Policy

3.2.1.1 The ENTITY has a formal policy in place that:

- Commits to provide safe and healthy working conditions, to promote occupational wellbeing, to consultation and participation of workers, and, where they exist, workers' representatives, to eliminate hazards, to reduce occupational safety and health (OSH) risks, and to continuously improve the effectiveness of its OSH management systems;
- Is approved at the top management level of the ENTITY;
- Is publicly accessible;
- Is proactively communicated to all employees and all contractors; and
- The ENTITY has allocated financial and staffing resources to implement this policy at the level of the project/operation.

3.2.1.2 At least one member of the ENTITY's top management level is accountable for the implementation of this policy at the level of the project/operation, through:

- OSH objectives and key performance indicators and/or targets that are distinct for the three aspects individually (safety, health, and wellbeing);
- These objectives and key performance indicators and/or targets are related to both lagging and leading indicators; and
- They include distinct indicators and/or targets for employees and contractors (if relevant).

3.2.1.3 IRMA+

The ENTITY has a system in place to:

- Select new OSH supervisors and managers, including at the top management level of the ENTITY, based on their intrinsic motivation for or proven record in safety, health, and wellbeing management and promotion;
- Measure and document how often new OSH supervisors and managers, including at the top management level of the ENTITY, are selected in accordance with 3.2.1.3.a; and
- Track and document the percentage of new OSH supervisors and managers, including at the top management level of the ENTITY, who showed a proven record in actively promoting OSH among those who came into office during the last 12 months.

3.2.2 Scoping

- 3.2.2.1** A scoping process (or equivalent) is carried out and documented by competent professionals to:
- Define the scope of OSH risks and impacts to be considered;
 - Define the boundaries and applicability of the ENTITY's OSH management system;
 - This process determines and considers external and internal issues that are relevant to the site and its associated facilities, and that affect the ENTITY's ability to achieve the intended outcome(s) of its OSH management system;
 - This process determines and considers: 1) the other interested parties, in addition to workers, that are relevant to the OSH management system; 2) the relevant needs and expectations of workers and other interested parties; and 3) which of these needs and expectations are, or could become, legal requirements; and
 - This process considers all the planned or performed work-related activities.

3.2.3 Meaningful Consultation and Participation of Workers

- 3.2.3.1** The ENTITY has a system in place to enable and facilitate consultation and participation of workers in the development, planning, implementation, monitoring and evaluation, and continuous improvement of the OSH management system. This system ensures that the ENTITY:
- Collaborates with worker's representatives to jointly identify and assess obstacles or barriers to meaningful participation of workers⁵⁹⁴;
 - Collaborates with worker's representatives to jointly develop and implement measures to remove those obstacles and barriers and to minimize those that cannot be removed⁵⁹⁵; and
 - Collaborates with worker's representatives to jointly develop and implement specific measures to involve non-managerial workers, and their representatives, in all consultation and participation mechanisms and training.
- 3.2.3.2** The consultation and participation system required in 3.2.3.1 identifies, in collaboration with workers and their representatives:
- Which laws and regulations are applicable to communications and information-sharing with workers and their representatives, and how to comply with those;
 - How, when and in what formats relevant information will be communicated to workers to ensure that communications and information-sharing with workers and their representatives occur not only in compliance (see a.) but in a manner that is deemed meaningful and usable by workers, including to workers who present sensory disabilities and/or sensory impairment⁵⁹⁶;
 - Also in a manner that is culturally appropriate and easily accessible to workers⁵⁹⁷; and
 - Also in a manner that is deemed timely by workers.⁵⁹⁸ When information cannot be shared in a timely manner, the ENTITY systematically provides workers with a documented justification or explanation for the delay.



- 3.2.3.3** The ENTITY has a joint health and safety committee (or equivalent) that includes workers' health and safety representatives and ENTITY's management:
- It is mandated to facilitate dialogue and worker participation in matters relating to OSH, and to conduct joint inspections and investigations;
 - The workers' representatives on the joint committee are selected by workers⁵⁹⁹;
 - The workers' representatives on the joint committee make up 50% or more of the total number of members on the joint health and safety committee; and
 - The workers' representatives on the joint committee include representatives of non-managerial workers, to the extent possible⁶⁰⁰.



- 3.2.3.4** The workers' health and safety representatives on the committee are provided with the opportunity to:
- Participate in inspections and investigations conducted at the workplace by the ENTITY and by the competent authority;
 - Participate in the design and implementation of workplace monitoring and worker health surveillance programs;
 - Monitor and investigate health and safety matters, and receive timely notice of accidents and dangerous occurrences; and
 - Access the following data and documentation: hazard identification, risk assessments, risk management plans, procedures, training materials, monitoring data, health surveillance results,⁶⁰¹ inspection reports, and reports related to unwanted events⁶⁰² including those submitted to regulatory authorities.



- 3.2.3.5** To enable the effective participation of the workers' representatives in the joint committee, the ENTITY ensures that they:
- Receive free training, relevant to their prerogatives;
 - Have access to resources, and recourse to advisers and independent experts, as necessary, to participate effectively; and
 - Are entitled to take time from regular work duties, with pay, to carry out committee related responsibilities.

3.2.4 Hazard Identification and Risk Assessment

- 3.2.4.1** A process is carried out by competent professionals to identify, and document in a hazard register (or equivalent), the hazards that are, or may be, associated with the site and associated facilities,⁶⁰³ including:
- Safety, chemical, biological, physical, ergonomic, and psychosocial hazards, informed by a comprehensive review of the Potential Workplace Hazards listed in [Annex 3.2-A](#);
 - Hazards associated with the design of the workplace, organization of work,⁶⁰⁴ routine and nonroutine tasks, and foreseeable emergency scenarios;
 - External factors with the potential to exacerbate a hazard or affect the ENTITY's management of hazards⁶⁰⁵;
 - This process identifies, and documents in the hazard register, the categories of people, including employees, contractors, suppliers, visitors, who may be harmed by each hazard;
 - It also identifies, and documents in the hazard register, any individuals or sub-categories who may be particularly susceptible to the hazard⁶⁰⁶; and
 - It is carried out in collaboration with workers' health and safety representatives and relevant workers⁶⁰⁷.
- 3.2.4.2** Building on the hazard identification required in 3.2.4.1, a risk assessment is carried out and documented by competent professionals, in collaboration with workers' health and safety representatives and relevant workers⁶⁰⁸, to:
- Determine the exposure levels, potential severity of consequences, and probability of occurrence, of all hazards identified as per 3.2.4.1;
 - Identify any existing controls for the identified hazards, and identify **high-risk hazards** (or equivalent) for which additional controls will be prioritized, including those that have caused or have a reasonable potential to cause a life-altering or fatal injury or disease⁶⁰⁹;
 - Identify key potential emergency scenarios including, but not limited to, those related to all potential accidents that have a moderate or high severity or probability of occurrence⁶¹⁰;
 - This process documents any assumptions made in relation to the number of people at risk, the probability, and severity of consequences for each hazard that inform the level of risk assigned to each hazard;
 - It documents any criteria used to determine the high-risk activities or conditions for which additional controls will be prioritized; and
 - It documents any criteria used to determine the reasonably-foreseeable key potential emergency scenarios.

3.2.5 Management Plan and Procedures

3.2.5.1 They ENTITY consults with workers' health and safety representatives and relevant workers to develop controls for high-risk hazards in a manner that aligns with the widely accepted hierarchy of controls, through:

- The process of selecting controls is documented;
- The hierarchy of controls has been considered in proper sequence, beginning with serious consideration of the most effective strategies, even if they are the most expensive⁶¹¹; and
- A rationale for rejecting higher hierarchy controls is systematically provided⁶¹².

3.2.5.2 Building on 3.2.4, an OSH risk management plan (or equivalent) is developed and documented by competent professionals to manage high-risk hazards. The plan:

- Outlines specific controls to address the high-risk hazards identified through the assessment process, and these controls have been selected in collaboration with workers' health and safety representatives and relevant workers as per 3.2.3.1;
- Includes performance indicators of effectiveness for each control⁶¹³; and
- Includes specific measures to be taken if the controls are not working within established performance indicators.

3.2.5.3 Besides the OSH high-risk hazards identified and included in the OSH risk management plan required in 3.2.5.2, the plan at least includes and addresses:

- All unique OSH risks to the specific individuals or sub-categories (see 3.2.4.1.e⁶¹⁴) who may be particularly susceptible to hazards identified in the risk assessment required in 3.2.4.2;
- All OSH risks associated with the hazards listed in Annex 3.2-B, that are applicable to the site and associated facilities; and
- If any of the OSH risks mentioned in a. and b. are not covered in the OSH risk management plan, the ENTITY can demonstrate that documented procedures or measures are in place and implemented to address them.

3.2.5.4 To ensure effective implementation of the OSH risk management plan, the ENTITY:

- Assigns implementation of measures to responsible staff with adequate skills and expertise;
- Assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁶¹⁵;
- Has clearly-defined timelines and an implementation schedule in place that specifies the expected outcomes;
- Maintains estimates of human resources and budget required; and
- Has a financing plan in place to ensure that funding is available for the effective implementation of the plan.



3.2.5.5 To protect and promote health and wellbeing in the workplace, the ENTITY collaborates with workers and workers' health and safety representatives to:

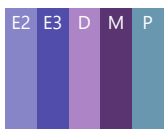
- Review psychosocial hazards and identify those that are priority concerns for workers;
- Develop and implement programs to support the mental health of workers; and
- Develop and implement programs to encourage and promote overall health and wellbeing in the workplace.

3.2.6 Infectious Diseases



3.2.6.1 If the risk assessment required in 3.2.4.2 indicates a significant risk of worker exposure to **HIV/AIDS**, the ENTITY:

- Provides free, voluntary and confidential HIV testing and counseling for all workers;
- Provides HIV/AIDS treatment for employees where not covered by public or private insurance schemes at an affordable rate; and
- Provides contractors with access to education and other preventative programs, and works with contracting firms to identify ways for contractors to access affordable HIV/AIDS treatment.



3.2.6.2 If the risk assessment required in 3.2.4.2 indicates a significant risk of worker exposure to **tuberculosis**, the ENTITY provides free and voluntary testing for workers/employees where it is not reasonably likely to be provided by public or private health programs at an affordable rate.



3.2.6.3 If the risk assessment required in 3.2.4.2 indicates a significant risk of worker exposure to **malaria**, the ENTITY:

- Has a vector control plan (or equivalent);
- Takes action to prevent the site and associated facilities from becoming breeding environments for malaria-carrying mosquitoes; and
- Provides protection from infection by malaria-carrying mosquitoes at the site and associated facilities, and any housing provided to workers by the ENTITY.



3.2.6.4 If the risk assessment required in 3.2.4.2 indicates a significant risk of worker exposure any **emerging infectious disease** (including **SARS-CoV-2 (COVID-19)**), the ENTITY:

- Provides training at no cost for workers on preventive measures to reduce the risk of infection and spread of the disease;
- Provides health screening to workers and visitors, testing to workers;
- Provides, if available, a voluntary vaccination program at no cost to workers;
- Cleans and disinfects the working environment based on best international guidance, and provides suitable personal protective equipment to workers and visitors at no cost;
- Modifies shift patterns and changeover times to minimize close contact between workers and/or contractors;
- Provides for isolation and/or medical treatment of workers where infection is suspected or confirmed; and
- Suspends non-essential activities, or all activities, if necessary.

3.2.7 On-Site Emergency Preparedness and Response⁶¹⁶**3.2.7.1 Critical Requirement**

To address the key on-site emergency scenarios identified in the risk assessment process as per 3.2.4.2.c:

- Emergency preparedness and response plans (or equivalent) are developed and documented by competent professionals, in collaboration with workers' health and safety representatives and relevant workers;
- These plans include mechanisms to alert workers about emergency situations, and response measures, including evacuation plans if relevant, to be taken for all key emergency scenarios identified;
- These plans provide clear definition of roles, responsibilities and relationships of all employees and contractors responsible for the development and/or implementation of some or all of the plan and associated procedures; and
- These plans are accessible to all workers in languages and formats that are comprehensible to them.

3.2.7.2 Critical Requirement

The following types of training and testing are performed and documented to test emergency response plans:

- At least annually, and without delay if the ENTITY has developed or undertaken significant modifications to the plan, **table-top discussions** that include ENTITY personnel responsible for emergency response, relevant workers' health and safety representatives, and local emergency response personnel if relevant, and testing of alert mechanisms;
- At least every three years, and without delay if the ENTITY has developed or undertaken significant modifications to the plan, a full, on-the-ground, **emergency response simulation** with the ENTITY's personnel responsible for emergency response, relevant workers' health and safety representatives, workers, and local emergency response personnel if relevant; and
- Lessons learned and identified corrective measures are documented.

3.2.7.3 As part of the emergency preparedness and response plans, ENTITY also ensures that:

- The workplace is equipped with emergency response equipment in sufficient quantities and in working condition to respond appropriately to foreseeable emergencies;
- All emergency response equipment is inspected on an annual basis; and
- Relevant first responders receive training in first aid, fire-fighting, and handling of hazardous chemicals and materials, as relevant⁶¹⁷.

3.2.7.4 If the site and/or associated facilities involve underground work, the ENTITY implements a system to identify and track at any time the most-probable locations of all individuals who are underground.



3.2.7.5 A Stop Work Authority (SWA) procedure (or equivalent) is developed and implemented, in collaboration with workers' representatives⁶¹⁸. The SWA procedure:

- a. Ensures that all employees and contractors are provided with the right, the responsibility, and the authority to either refuse to undertake or to stop work if they believe that conditions or behaviors could reasonably cause serious physical harm, chronic health effects, or damage to the facility, community, environment, and cannot be promptly resolved through routine mechanisms;
- b. Ensures that the authority to stop work with reasonable justification may be exercised by employees or contractors without fear of reprisal by the ENTITY or their employers;
- c. Ensures that retaliation by other workers will not be tolerated⁶¹⁹;
- d. Outlines the conditions whereby workers may initiate a stop work action;
- e. Outlines who needs to be notified of the stop work action;
- f. Outlines the investigation process to determine validity of the stop work action (see 3.2.7.6);
- g. Outlines a process for coming to agreement on any containment or corrective measures and verifying that those measures have been implemented before work is restarted;
- h. Outlines who has authority to restart work, and any monitoring that need to occur after work has resumed to ensure that corrective measures remain effective; and
- i. Outlines follow-up steps for communicating the event to relevant workers, contractors and management, and integrating learning from the stop work event⁶²⁰.



3.2.7.6 A reporting and investigation procedure (or equivalent) is developed and implemented, in collaboration with workers' representatives, to establish the steps to be taken by workers, internal inspectors, and/or others, to inform the ENTITY of unwanted events⁶²¹ or unsafe working conditions⁶²². This procedure:

- a. Outlines the rights and responsibilities of workers, internal inspectors, and/or others to report unwanted events, ineffective controls, or unsafe working conditions;
- b. Outlines the process to be followed when reporting unwanted events or unsafe working conditions, including who to contact, how to contact them, what types of information to include, and any forms that need to be submitted as part of the process;
- c. Ensures that workers, internal inspectors, and others can use this procedure without fear of reprisal by the ENTITY, and that retaliation by other workers for reporting unwanted events will not be tolerated⁶²³;
- d. Outlines a provision that any use of stop work authority by workers or internal inspectors is investigated promptly and expected timelines for commencing investigations of other reported unwanted events or unsafe working conditions;
- e. Outlines who participates in different types of investigations⁶²⁴; and
- f. How the outcomes of investigations are communicated to workers and others.

3.2.8 OSH of Contractors⁶²⁵

3.2.8.1 A system is developed and implemented to manage the OSH of all contractors. The system includes:

- a. Clear stipulation of consequences if OSH performance of contractors does not meet the ENTITY's expectations;
- b. A clear process for communicating with, and receiving input from, contractors on OSH matters;
- c. A documented system for monitoring contractors' OSH performance, overseen by a member of the ENTITY's top management;
- d. A signed contract between the ENTITY and each contracting firm or individual contractor, that outlines how the OSH of contractors will be managed in a manner that aligns with the requirements of this Chapter.

3.2.8.2 The contract required in 3.2.8.1.d addresses⁶²⁶:

- a. The ENTITY's and contractors' rights and responsibilities⁶²⁷;
- b. The right of the ENTITY specifically to carry out inspections of work areas and work being conducted by contractors (see 3.2.3 and 3.2.11);
- c. Training those carrying out contracted work on hazards, controls and any relevant plans and procedures that apply to them, such as stop work authority, and emergency response and reporting procedures (see Sections 3.2.5 and 3.2.7);
- d. Reporting unsafe conditions and unwanted events to the ENTITY and government authorities (see 3.2.12.3);
- e. Identification of hazards associated with contracted work (see 3.2.4.1), including responsibility to notify the ENTITY if the contractor proposes to introduce new or different tools, equipment, materials, chemicals or work processes that could pose a new hazard or elevated risk to contractors and/or ENTITY personnel;
- f. Assessment of risks associated with contracted work (see 3.2.4.2);
- g. Development of controls for high-risk hazards associated with contracted work (see 3.2.5);
- h. Workplace monitoring and health surveillance and evaluation of the effectiveness of the controls (see 3.2.11.2); and
- i. Provision and oversight of the proper use of personal protection equipment (see 3.2.9.3 and 3.2.9.2.c, respectively).

3.2.9 Specific Measures to Protect Workers

3.2.9.1 The ENTITY has a system in place to communicate information to workers on matters related to OSH.⁶²⁸ This system ensures that:

- Health and safety data sheets, labels, and signage⁶²⁹ in the workplace are in formats and languages that are understandable to the workers;
- Health and safety data sheets, labels, and signage in the workplace are maintained in legible/understandable condition, and kept up to date; and
- Workers can provide input on matters related to OSH, and their input will be considered and responded to.

3.2.9.2 The ENTITY ensures that every shift has competent supervision⁶³⁰ that:

- Is at a level commensurate with the risks and the competence of workers⁶³¹;
- Provides oversight and enforcement of adherence to relevant procedures and controls related to the tasks being carried out; and
- Ensures consistent and correct usage of personal protective equipment and clothing appropriate to the working environment.

3.2.9.3 Critical Requirement

The ENTITY ensures that personal protective equipment, and working clothes and shoes:

- Are provided, at no cost, to workers when exposure to adverse conditions or adequate protection against risk of accident or injury to health cannot be ensured by other means⁶³²;
- Are fit for purpose, and the size and fit are gender-appropriate and provide adequate protection; and
- Are maintained by the ENTITY in clean and good working condition;
- Are replaced, at no cost, as necessary.

3.2.9.4 Building on the risk assessment process required in 3.2.4, the ENTITY ensures that first aid is available on site as follows:

- The minimum number of workers with up-to-date certified first aid training is: 1) one every 50 workers for low-risk work areas; 2) one every 25 workers for high-risk work areas that have timely access to medical and ambulance services; and 3) one every 10 workers for high-risk work areas that do not have such timely access to medical and ambulance services⁶³³;
- Workers have unrestricted access to first aid and rapid response equipment appropriate to the work area⁶³⁴; and
- In areas where chemicals are stored, handled, and used, safety data sheets and instructions on first aid for all potential exposure routes⁶³⁵ are available (see also 3.2.9.1).

3.2.9.5 The ENTITY ensures that workplaces include:

- Safe, potable water that is readily accessible to workers;
- Clean toilet, washing and locker facilities commensurate with the number and gender of workers, and that accommodate LGBTIQA+ workers;
- Sanitary facilities for eating and storing food;
- Primary and emergency power supply and lighting, and adequate ventilation, in particular for confined spaces and underground workings;
- Fire safety equipment and alarms; and
- Clearly marked, unlocked and unblocked evacuation routes and emergency exits, including, for any underground workplace, two exits that are each connected to separate means of egress to the surface where practicable.

3.2.10 Workers' Housing

3.2.10.1 If any housing is provided to workers by the ENTITY⁶³⁶, it ensures that any of such housing provides:

- Safe and potable water in the dwelling in quantities sufficient to provide for all personal and household uses;
- Adequate sanitary and washing facilities, ventilation, cooking and storage facilities;
- Adequate natural and artificial lighting;
- Adequate sewage and garbage disposal systems;
- Appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals and insects; and
- A reasonable degree of privacy both between individuals within the household, and for the members of the household against undue disturbance by external factors⁶³⁷.

3.2.10.2 If any housing is provided by the ENTITY to single workers or workers separated from their families, the ENTITY ensures that any of such housing provides:

- A separate bed for each worker, and beds are not arranged in tiers of more than two;
- Adequate safety, including sleeping rooms, and toilet and bathroom facilities, that are separated by gender and can accommodate the needs of LGBTIQA+ workers; and
- Common dining rooms, canteens, and recreation rooms that are located away from the sleeping areas, and, where not otherwise readily accessible and available in a nearby community, health facilities.

3.2.10.3 The ENTITY also ensures that, during time spent in housing provided by the ENTITY, workers are able to enjoy their fundamental human rights, including:

- The right to liberty and security of person;
- The freedom of movement; and
- The freedom of association.

3.2.11 Inspections, Workplace Monitoring and Health Surveillance



3.2.11.1 The ENTITY, and workers' health and safety representatives if they so choose⁶³⁸, have a joint inspection program (or equivalent) in place that:

- a. Ensures joint inspections of the working environment are conducted to identify any hazards to which workers may be exposed, and to evaluate the effectiveness of OSH controls and protective measures;
- b. Includes a plan that outlines the frequency of inspections for different work areas/tasks/equipment, ensuring coverage of the entire site and all high-risk hazards each year;
- c. Empowers those carrying out inspections to use stop work authority if a hazard is uncovered that poses a threat to the health or safety of any person(s); and
- d. Documents, in an inspection report⁶³⁹, any observed unsafe conditions and actions, recommended containment and/or corrective measures, and their priority levels⁶⁴⁰.



3.2.11.2 A workplace monitoring and health surveillance program is in place to measure exposures to all the significant hazards identified, and to evaluate the effectiveness of the OSH controls being implemented to protect health and safety as follows:

- a. Workplace monitoring and worker health surveillance are designed and conducted by certified industrial hygienists or other competent professionals;
- b. Workers' health and safety representatives have the opportunity to suggest improvements to the design of, and to participate in the implementation of, workplace monitoring and worker health surveillance programs;
- c. Health surveillance is carried out in a manner that protects the right to confidentiality of medical information, and is not used in a manner prejudicial to workers' interests;
- d. Samples collected for workplace monitoring and health surveillance purposes are analyzed in an ISO/IEC-17025-certified or nationally-accredited laboratory, if available in the country of operation;
- e. Sample results are documented, and compared against national occupational exposure limits (OELs) and/or biological exposure indices (BEIs), if they exist,⁶⁴¹ or OELs/BEIs developed by the American Conference of Governmental Industrial Hygienists (ACGIH);⁶⁴² and
- f. Whenever an OEL/BEI is exceeded: 1) Affected people⁶⁴³ are informed immediately, and provided with instructions on the appropriate measures to take⁶⁴⁴; 2) any supervisors and management not present at the affected location are informed as soon as possible; and 3) controls are reviewed and revised in a timely manner to ensure that future exposure levels remain within safe limits.

3.2.12 Response to Unsafe Working Conditions and Unwanted OSH Events



3.2.12.1 The ENTITY can demonstrate that, if unsafe working conditions are observed and reported by workers including managers and supervisors, inspectors or others, they are investigated in a timely manner, in accordance with the procedure required in 3.2.7.6.



3.2.12.2 Whenever an investigation verifies that there is an imminent and serious threat to human health, the ENTITY ensures that

- a. In cases where an area is affected, all workers are evacuated immediately;
- b. Workers re-entering the affected area to reinstate safe working conditions are protected from harm;
- c. Working conditions in the affected area are verified as safe before general workers and contractors are allowed to enter; and
- d. In cases where machinery or equipment is the cause of unsafe working conditions, use of the machinery or equipment ceases immediately, the equipment or machinery is fixed or replaced by an appropriate trained specialist, and the equipment or machinery is verified as safe before being put into service.



3.2.12.3 Whenever a near miss incident, accident, injury, illness or fatality occurs in the workplace, the ENTITY ensures that:

- a. Workers who have suffered an injury or illness are provided with first aid, and, if necessary, with prompt transportation from the workplace to appropriate medical facilities;
- b. Affected workers, including those present at the time of an accident, are offered counseling or other forms of psychological support;
- c. The events are reported to the joint health and safety committee and accountable member of the ENTITY's top management, and, if required, to the competent authority;
- d. The events are investigated as per requirement 3.2.7.6, and include a root cause analysis and a determination of whether any near miss incidents are also high-potential incidents (HPI);
- e. Corrective action plans are developed and implemented; and
- f. The circumstances surrounding the event, the investigation, the corrective action plans and the outcomes are documented, and the outcomes are communicated to workers in accordance with 3.2.7.6.

3.2.13 Education and Training



3.2.13.1 The ENTITY ensures that workers are informed of their rights⁶⁴⁵ to:

- a. Know and be informed of workplace hazards that may affect their safety or health;
- b. Collectively select safety and health representatives;
- c. Report accidents, dangerous occurrences and hazards to the ENTITY and to the competent authority;
- d. Either refuse to undertake or to stop work if they believe that conditions or behaviors pose an imminent and serious danger to the health or safety of themselves or others, or serious risk of harm to the environment, in accordance with the SWA procedure required in 3.2.7.5;
- e. Request and obtain inspections and investigations by the ENTITY and the competent authority where there is cause for concern on safety and health grounds; and
- f. Obtain personal data and information held by the ENTITY or the competent authority that is relevant to their safety or health⁶⁴⁶.

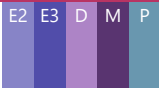


3.2.13.2 The ENTITY ensures that, in all cases, workers attempting to exercise in good faith any of the rights referred to in 3.2.13.1 are protected from reprisals or retaliation of any sort.



3.2.13.3 The ENTITY has an OSH training program in place, as follows:

- a. All workers receive an initial general training before they are allowed to commence their work⁶⁴⁷;
- b. All workers receive specific task training under supervision for a required period before they are deemed qualified to undertake the work without immediate supervision, and retraining takes place periodically;
- c. Effectiveness of training is assessed, and worker competency for conducting work safely is verified using a variety of techniques⁶⁴⁸;
- d. Records of worker attendance and competency evaluations are maintained;
- e. Trainings are conducted by competent professionals, and in formats and languages that are understandable and appropriate to the workers trained⁶⁴⁹; and
- f. Trainings are free for all employees and contractors.



3.2.13.4 Critical Requirement

The content of the training program required in 3.2.13.3 ensures that workers are trained on:

- a. The range of specific health and safety hazards associated with specific job/tasks, as identified through the hazard identification and risk assessment process required in 3.2.4;
- b. How to perform routine and non-routine tasks in a manner that avoids placing themselves or others at risk;
- c. Control measures that have been developed to prevent and respond to high-risk hazards relevant to specific jobs/tasks;
- d. Procedures that have been developed that are specific to their work area/job/tasks⁶⁵⁰;
- e. The proper use and fitting of personal protective equipment;
- f. How to identify workplace hazards, and how to exercise their stop work authority in accordance with the SWA procedure required in 3.2.7.5;
- g. Any off-site emergency response plans developed as per Chapter 2.6 that are relevant to them;
- h. The reporting and investigation procedure required in 3.2.7.6; and
- i. How to access first aid and medical assistance.



3.2.13.5 The ENTITY ensures that all visitors and suppliers accessing the site and associated facilities:

- a. Receive an OSH briefing;
- b. Are provided with clean personal protective equipment, at no cost, that is relevant to the areas of the site or associated facilities that they will be entering; and
- c. Receive instruction on proper use and fitting of personal protective equipment and the ENTITY's expectations for when and where the equipment must be used.

3.2.14 Record-Keeping and Data Management



3.2.14.1 The ENTITY maintains the following records:

- a. Workplace monitoring results⁶⁵¹, for at least 40 years or the period specified in the relevant regulations (if they exist) whichever is the highest;
- b. Health surveillance results⁶⁵², for at least 40 years or the period specified in the relevant regulations (if they exist) whichever is the highest; and
- c. All data on unwanted events collected by the company⁶⁵³ and all reports on unwanted events submitted to competent authorities, for at least 5 years after any given event.



3.2.14.2 The ENTITY has a data management system in place to enable worker health data⁶⁵⁴ to be readily located and retrieved. The system:

- a. Is overseen by a responsible custodian;
- b. Securely stores data that are protected by medical confidentiality; and
- c. Retains data on workers for at least 40 years or the period specified in the relevant regulations (if they exist) whichever is the highest⁶⁵⁵.

3.2.15 Continuous Improvement



3.2.15.1 On an ongoing basis, the ENTITY:

- Reviews inspections reports, workplace monitoring and health surveillance information, occurrences of stop work actions, hazards, accidents, near-miss incidents, injuries and fatalities.
- If the review indicates significant failure and/or performance indicators/targets related to control measures not being met, the ENTITY collaborates with workers to carry out a root cause analysis, develop corrective measures and modify controls;
- Then revises the management plan and/or relevant procedures and training materials, accordingly; and
- Then includes the information in the annual occupational health and safety management review (see 3.2.15.2).



3.2.15.2 On an annual basis, the member of the ENTITY's top management accountable for the OSH management system:

- Reviews the site's OSH record for the year⁶⁵⁶ against the ENTITY's OSH objectives and key performance indicators and/or targets required in 3.2.1.2;
- If the ENTITY's OSH objectives and/or key performance indicators/targets required in 3.2.1.2 are not being achieved, it develops and documents changes to relevant policies, procedures, and systems, to improve performance, and shares this information with top management and the joint health and safety committee; and
- It ensures those changes are implemented in a timely manner.



3.2.15.3 To continuously improve the effectiveness and appropriateness of its OSH management systems, the ENTITY:

- At least **annually**, but without undue delay after a significant change, reviews the hazard identification and OSH risk assessments, and updates them, if necessary, in accordance with Section 3.2.4;
- At least **every two years**, but without undue delay after a significant change, reviews the on-site emergency preparedness and response plans, and updates them, if necessary, in accordance with Section 3.2.7; and
- Regularly** reviews the OSH training program and updates it in accordance with Section 3.2.13, when there are changes to procedures, risk assessments or management plans, or if evaluations of the ENTITY's performance suggest areas that need attention.



3.2.15.4 To continuously improve the effectiveness and appropriateness of its measures to protect and promote health and wellbeing in the workplace, at least annually, but without undue delay after a significant change, the ENTITY:

- Reviews the programs to support the mental health of workers, developed and implemented as per 3.2.5.5.b;
- Reviews the programs to encourage and promote overall health and wellbeing in the workplace, developed and implemented as per 3.2.5.5.c; and
- Updates these programs and/or the identification of psychosocial hazards, if necessary⁶⁵⁷, in collaboration with workers and workers' health and safety representatives.

3.2.16 Information-Sharing and Public Reporting

3.2.16.1 At least annually, and with due regard for workers' safety and data privacy, the ENTITY makes publicly accessible updated versions of, and maintains⁶⁵⁸ publicly accessible all previous versions of, the following information, for the last reporting period:

- a. Number of near-miss incidents, in total and disaggregated by employees and contractors;
- b. Number of high-potential incidents (HPI), in total and disaggregated by employees and contractors;
- c. Number of accidents, in total and disaggregated by employees and contractors;
- d. Number of injuries, in total and disaggregated by employees and contractors;
- e. Number of lost-time injuries, in total and disaggregated by employees and contractors;
- f. Number of fatalities, in total and disaggregated by employees and contractors;
- g. Number of incidents of occupational disease, in total and disaggregated by employees and contractors;
- h. Number of incidents of occupational disease that led to lost time, in total and disaggregated by employees and contractors; and
- i. Number of incidents of occupational disease that led to fatalities, in total and disaggregated by employees and contractors.

3.2.16.2 IRMA+

At least annually, and with due regard for workers' safety and data privacy, the ENTITY makes publicly accessible updated versions of, and maintains⁶⁵⁹ publicly accessible all previous versions of a report on workplace accessibility that includes:

- a. Total number of workers that have acquired a disability, disaggregated by employees and contractors;
- b. Policies and specific measures related to employment and decent work of workers with disabilities⁶⁶⁰; and
- c. Strategies and specific measures aimed at improving the accessibility of the ENTITY's site, facilities, products, services, and communications for workers with disabilities⁶⁶¹.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

- ⁵⁸⁹ ICMM. 2009. Good Practice Guidance on Occupational Health Risk Assessment. https://www.icmm.com/website/publications/pdfs/health-and-safety/161212_health-and-safety_health-risk-assessment_2nd-edition.pdf
- ⁵⁹⁰ ICMM website: “Preventing Fatalities.” <https://www.icmm.com/en-gb/health-and-safety/safety/preventing-fatalities>
- ⁵⁹¹ International Labour Organization. 1995. Safety and Health in Mines Convention, 1995 (No. 176). www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_ILO_CODE:C176
- ⁵⁹² ILO now recognizes the Occupational Safety and Health Convention, 1981 (No. 155) and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) as fundamental Conventions. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_874743.pdf
- ⁵⁹³ ILO, Workplace Health Promotion and Well-being. <https://www.ilo.org/workplace-health-promotion-and-well-being>
- ⁵⁹⁴ Worker representation can be a mechanism for consultation and participation.
- ⁵⁹⁵ “It is recognized that the provision of training at no cost to workers and the provision of training during working hours, where possible, can remove significant barriers to worker participation.” (ISO 45001:2018).
- ⁵⁹⁶ These dimensions must be collaboratively defined as per 1.2.3.1, and regularly reviewed and updated as per 1.2.7.1.
- ⁵⁹⁷ As these will depend largely on a specific context, stakeholders will help define what is considered culturally appropriate and easily accessible. These dimensions must be collaboratively defined as per 1.2.3.1, and regularly reviewed and updated as per 1.2.7.1.
- ⁵⁹⁸ “in a timely manner” will likely vary based on the ENTITY’s resources and procedures (e.g., some companies may have due diligence procedures in place for releasing data publicly) and also the size/nature of the request. Generally, however, requests should be fulfilled within 1 to 3 months, although for particularly large requests or requests made to companies with limited capacity to fulfill information requests, some flexibility may be needed. Also, some companies have stringent quality assurance procedures that must be followed in order to share data publicly, and so may require more time to prepare materials for release. (See also 1.2.3.2 for requests that are not responded to in what seems like a “timely manner”). This dimension must be collaboratively defined as per 1.2.3.1, and regularly reviewed and updated as per 1.2.7.1.
- ⁵⁹⁹ This could include representatives selected by workers’ organizations, or through elections by workers, or a combination of the two. It does not include workers appointed by the ENTITY.
- ⁶⁰⁰ See 3.2.4.1.c.
- ⁶⁰¹ This would exclude any data protected for medical confidentiality reasons.
- ⁶⁰² I.e., excessive exposures, losses of control or accidents that lead to harm.(including but not limited to injuries, diseases, fatalities).
- ⁶⁰³ The site and associated facilities include: processes, facilities, equipment, materials, procedures, infrastructure, systems, and services.
- ⁶⁰⁴ For more context, see: Organization of Work Taxonomy. <https://www.cdc.gov/niosh/topics/workorg/taxonomy.html>
- ⁶⁰⁵ External factors could include political, economic, social, technological, environmental or legal (PESTEL) influences.
- ⁶⁰⁶ E.g., pregnant women, breastfeeding mothers; children, older persons; Indigenous workers; LGBTIQA+ persons; persons with different health status including HIV-positive persons or suffering from other infectious diseases; persons with different physical characteristics, ethnicities, disabilities; etc. See “Consideration of vulnerable populations in risk assessment.” <https://www.canada.ca/en/health-canada/services/chemical-substances/fact-sheets/consideration-vulnerable-populations-risk-assessment.html>
- ⁶⁰⁷ Workers and contractors who are most likely to be exposed or susceptible to particular hazards should be consulted during the risk assessment of those hazards, and in the development of controls.
- ⁶⁰⁸ *ibid*
- ⁶⁰⁹ The risk assessment must therefore clearly identify the high-risk work areas, i.e. work areas where workers are exposed to such high-risk hazards (as opposed to low-risk work areas).
- ⁶¹⁰ These scenarios will feed into the emergency preparedness and response plans required in 3.2.5.
- ⁶¹¹ United Steelworkers. 2022. Bargaining for Stop Work Authority To Prevent Injuries and Save Lives. <https://m.usw.org/act/activism/health-safety-and-environment/resources/bargaining-for-stop-work-authority-to-prevent-injuries-and-save-lives>
- ⁶¹² New Zealand Ministry of Business, Innovation and Employment. 2013. Guidance for a Hazardous Management System. <https://www.worksafe.govt.nz/assets/dmsassets/zero/188WKS-2-excavations-hazard-management-system-for-mines.pdf>
- ⁶¹³ Appropriate performance criteria or indicators must include those required by country of operation’s law (e.g., maximum concentrations of certain chemicals in air), and, as relevant, those associated with external standards (e.g., IRMA references the ACGIH for occupational exposures), and any indicators agreed with workers.

⁶¹⁴ E.g., pregnant women, breastfeeding mothers; children, older persons; Indigenous ~~workers~~; LGBTIQA+ persons; persons with different health status including HIV-positive persons or suffering from other infectious diseases; persons with different physical characteristics, ethnicities, disabilities, etc. See “Consideration of vulnerable populations in risk assessment.” <https://www.canada.ca/en/health-canada/services/chemical-substances/fact-sheets/consideration-vulnerable-populations-risk-assessment.html>

⁶¹⁵ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁶¹⁶ Off-site emergency preparedness, response, and recovery is fully addressed in Chapter 2.6.

⁶¹⁷ See also requirements related to spill preparedness and response in Chapter 2.6.

⁶¹⁸ The importance of the SWA has been highlighted by several labor unions. See United Steelworkers (USW), Bargaining for Stop Work Authority to Prevent Injuries and Save Lives, 2022 (<https://m.usw.org/get-involved/health-safety-and-environment/bargaining-for-stop-work-authority-to-prevent-injuries-and-save-lives/>); IndustriALL Global Union, The right to refuse, 2020 (<https://www.industriall-union.org/right-to-refuse>).

⁶¹⁹ Retaliation could include penalizing, dismissing, disciplining, suspending or threatening to do any of these things to a worker.

⁶²⁰ E.g., into risk assessment updates, management plans or procedures, or training materials.

⁶²¹ I.e., excessive exposures, losses of control or accidents that lead to harm.(including but not limited to injuries, diseases, fatalities).

⁶²² E.g., uncontrolled hazards, risk-prone behavior.

⁶²³ Retaliation could include penalizing, dismissing, disciplining, suspending or threatening to do any of these things to a worker.

⁶²⁴ E.g., accidents, near miss incidents or observations of hazards in the workplace, etc.

⁶²⁵ The systems and contracts required in this Section can be either stand-alone or integrated into the systems required for contractor oversight and compliance required in Chapter 1.1, Section 1.1.3; as long as they meet all the requirements/sub-requirements of this Section.

⁶²⁶ These are minimum requirements. Some companies create dedicated manuals for their contractors related to health and safety. See, for example, Freeport-McMoran. 2022. Contract Health, Safety and Environmental Manual. <https://www.fcx.com/sites/fcx/files/documents/suppliers/csm.pdf>

⁶²⁷ Management of contractors carrying out work may be done by either the ENTITY or the contracting firm, or carried out in a collaborative manner. But the responsibilities must be clearly delineated. Some companies create manuals for their contractors related to health and safety. See, for example, Freeport-McMoran. 2022. Contract Health, Safety and Environmental Manual. <https://www.fcx.com/sites/fcx/files/documents/suppliers/csm.pdf>

⁶²⁸ See also Chapter 1.2, requirement 1.2.4.1, relating to communications with stakeholders, which should also apply to ~~workers~~ (e.g., that communications be timely, and culturally appropriate).

⁶²⁹ E.g., warning signs, exits, evacuation routes.

⁶³⁰ Competent supervision means that supervisors have appropriate qualification and training, or have gained sufficient knowledge, skills and experience to oversee OSH, including identification of hazards, implementation of preventive measures, monitoring of the status of OSH in operations for which they are responsible, and implementation of corrective action in the event of non-compliance with requirements.

⁶³¹ The competence of ~~workers~~ is determined as part of the training program (see 3.2.13.3 and 3.2.13.4).

⁶³² Example of guidance: inventories should be such that PPE is always immediately available to ~~workers~~ and visitors when required - this could be checked by assessing the inventory and interviews with ~~workers~~. Adverse conditions include extremes of temperature, exposure to chemicals, etc.

⁶³³ Identification of low-risk and high-risk areas is required in 3.2.4.2. These figures are in line with recommendations of Safe Work Australia for high risk workplaces. See ‘First Aid in the Workplace Code of Practice’, 2012 <https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-first-aid-in-workplace-v1.pdf> . For reference, the recommendation in the UK is one trained first aider per 50 ~~workers~~, regulation in Québec requires one every 100 ~~workers~~ but one every 5 in forestry.

⁶³⁴ Example of guidance rapid response equipment may include eye wash stations and showers in areas where chemical handling could lead to contact with the eyes and skin). Document regular inspections, tests and refills of first aid equipment and supplies.

⁶³⁵ E.g., inhalation, ingestion, eye or skin contact.

⁶³⁶ See Chapter 3.1 for more requirements related to rental fees for housing that are not provided for free (requirement 3.1.10.6)

⁶³⁷ Including protection against any illegal surveillance conducted by the ENTITY.

⁶³⁸ As per requirement 3.2.3.4, ~~workers~~’ health and safety representatives must be given the opportunity to participate in these inspections.

⁶³⁹ Note that these inspections reports are reviewed by the ENTITY and inform continuous improvement of the health management system. See Section 3.2.15.

⁶⁴⁰ E.g., immediate action, short-term action or long-term action.

⁶⁴¹ Some countries have developed occupational hygiene standards for workplaces. The International Labour Organization website provides links to agencies responsible for establishing exposure limits in various countries. www.ilo.org/safework/info/publications/WCMS_151534/lang--en/index.htm

⁶⁴² The American Conference of Governmental Industrial Hygienists is a member-based organization composed of independent knowledgeable experts that advances occupational and environmental health. ACGIH develops Threshold Limit Values (TLVs) (akin to OELs) and BELs through a committee process that involves review of peer-reviewed literature and public input. www.acgih.org/

⁶⁴³ I.e., employees and contractors, including supervisors and managers; but also any visitor involved in an unwanted OSH event.

⁶⁴⁴ E.g., evacuation, machinery stoppages, etc.

⁶⁴⁵ Rights may be outlined in the country of operation's laws, and/or outlined in a collective bargaining agreement, and/or established by the joint health and safety committee.

⁶⁴⁶ This includes personal information and data related to accidents, incidents, inspections, investigations and remedial actions, workplace monitoring, health surveillance and medical examinations.

⁶⁴⁷ Although this is a time-dependent subrequirement (i.e., training needs to occur before the workers begin working), the ENTITY may be scored on its performance in the previous three years only. So, for example, if there are workers who have been with an operation for six years who were not trained prior to commencing work, but a program has since been implemented to train all new workers before they begin work, then a site could fully meet this expectation (if the workers who were not trained at the appropriate time did eventually receive training upon commencement of the program). Training of contractors' employees may be organized by contracting firms, but the Entity will need to demonstrate that those OSH training programs also conform with this requirement.

⁶⁴⁸ Such as training comprehension evaluation, observation of workers performing tasks correctly and safely, and incorporating results of workplace evaluations and incident tracking to assess effectiveness of training.

⁶⁴⁹ By comprehensible it is meant that all procedures, signs and instructions for using equipment and machinery, material safety data sheets, emergency response evacuation routes and instructions, first aid equipment, and control measures to address unsafe conditions must be in local language(s) and formats appropriate to any disability or impairment. Example of guidance training and retraining in appropriate language(s) for the workforce should include at least basic first aid and refer to proper use and fitting of PPE, safe use of equipment and vehicles, working in confined spaces, working at height (preventing falls, preventing falling objects), instructions on proper handling of hazardous materials, and emergency response instructions. All new employees should receive induction training covering any activities that require training before commencing work.

⁶⁵⁰ E.g., some may need training on chemical safety, or fire safety, or working at heights, etc.

⁶⁵¹ E.g., air quality, noise levels, temperatures, etc.

⁶⁵² E.g., physical and biological assessments and testing.

⁶⁵³ I.e., injuries, diseases, fatalities, accidents, and near-miss incidents.

⁶⁵⁴ Including medical records (health insurance claims, first aid records made onsite), and exposure records and any health surveillance results.

⁶⁵⁵ The intention is not that the data should be destroyed after 40 years. Rather, where possible it should be retained indefinitely as the data may be important for future medical research or legal purposes. If a company is sold, provisions should be made for successor custodianship, i.e., transfer of records to the successor company. If a company ceases to operate, it is good practice (and may be mandatory in some jurisdictions) to notify current employees of their right to access their records before the company goes out of business. The regulation in South Africa requires 40 years data retention for mine workers, the UK requires 40 years for workers under the Control of Substances Hazardous to Health Regulations (COSHH), the USA require 30 years in general, Australia requires 30 years in general and 40 years for asbestos risk; by comparison Brazil only requires 20 year, and Chile and Mexico only 15 years.

⁶⁵⁶ Including unwanted events, monitoring and inspection results, worker grievances, and the information gathered and developed as per 3.2.15.1.

⁶⁵⁷ This will be informed by the review processes required in this Section.

⁶⁵⁸ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

⁶⁵⁹ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

⁶⁶⁰ This may cover aspects such as recruitment, retention, promotion, remuneration, adaptation of jobs and equipment, reasonable accommodation, training, or health and safety. (GRI (2021) Disability in sustainability reporting: Updated Guide).

⁶⁶¹ This may include making reasonable accommodations in the workplace, providing training programs and assistance to develop skills of employees with disabilities, providing resources to access program-related information, and the accessibility of the organization's website. (GRI (2021) Disability in sustainability reporting: Updated Guide).

CHAPTER ANNEXES

ANNEX 3.2-A: Potential Workplace Hazards

Hazard Type	Examples	Sources of information
Safety	Unsafe conditions in the workplace that can cause injury, illness and death. Safety hazards are associated with many types of work, including: - Blasting (e.g., post-blast gases, falls of ground, damage to ground support, lack of barricades, lack of visibility) - Confined spaces (e.g., poor ventilation, exposure to toxic gases and dust, unguarded machinery, live wires, heat stress, excessive noise, potential for inrush or being crushed when working underground, or in or around tanks, vessels, pits, tunnels, pipelines, equipment house) - Driving (e.g., distractions, seasonal factors, ergonomic considerations, poor technique, blind spots) - Electrical (e.g., frayed cords, missing ground pins, improper wiring) - Explosives/explosions (e.g., improper storage, inadvertent ignition, lack of inventory management/quality degradation) - Fatigue (e.g., from sleep deprivation, shift work, overtime, seasonal production pushes) - Fires (e.g., spontaneous combustion, improper storage of flammable, combustible or explosive materials) - Machinery (e.g., lack of or improper lockout or guarding of machinery and moving machinery parts; guards removed or moving parts that a worker can accidentally touch; jammed materials); lack of worker training and experience) - Materials Handling (e.g., slings, cranes, hoists, forklifts – all come with their own safety hazards, but issues include poor maintenance of equipment, poor technique, improper signaling, blind spots, improper loads, improperly-secured loads, volume of traffic or obstacles) - Mobile equipment (e.g., lack of maintenance, lack of tire safety, brake failures, being struck or crushed due to lack of visibility or poor traffic management, falling off equipment, driving into an unguarded open hole) - Non-routine tasks (e.g., stuck conveyance, crusher bearing changes, kinked hoist rope, rehabilitation after sizable ground fall, retrieving undetonated explosives) - Pressurized vessels (e.g., poisonings, suffocations, fires, and explosions from leaks or ruptures) - Slips, trips and falls (e.g., from poor housekeeping such as spills on floors, tripping hazards such as blocked aisles or cords across the floor, uneven ground, poor footwear, inappropriate pace of walking; falling into operating machinery, water or other liquid, onto a hazardous substance or object, through an opening – see also working from heights, below) - Tools (e.g., poor maintenance, poor technique, lack of or inappropriate personal protective equipment while using, wrong tool for the task) - Working at heights (e.g., falling from ladders, platforms, scaffolds, raised work areas, cliff edges)	[1], [2], [3], [4], [5], [6], [8], [9], [12]
Chemical	Unsafe conditions that may occur when a worker is exposed to a chemical preparation in the workplace in any form (solid, liquid or gas).	[7], [8]

Hazard Type	Examples	Sources of information
	Chemical hazards include: Exposure to toxic processing chemicals, paints, adhesives, acid mists, organic vapors and solvents, toxic gases, soluble oil (e.g., due to lack of training in handling, transport, lack of or improper use/fitting of personal protective equipment, lack of proper labeling, signage, usage instructions)	
Physical	Factors within the environment that threaten physical safety and can harm the body.	[2], [3], [4], [7], [8], [9], [10], [11], [13]
	Physical hazards include: - Air quality (e.g., in adequate ventilation, excessive dust, diesel exhaust, dust, welding fumes and other metallic particulates, asbestos, synthetic mineral fibers, toxic, metals) - Ground instability (e.g., fall of rock/ground, rock outbursts, too steep excavations, unstable slopes, excessively high bench heights, adverse geology, elevated water table) - Ground subsidence (e.g., due to removal of solid or fluids from underground) - Inrush/inundation (e.g., failures of levies or dam structures, inrush from mine workings, surface water bodies, seams, faults, boreholes) - Noise, vibration or blast concussion (e.g., constant loud noise, too many blasts, working in too close of proximity to blast areas) - Radiation: including ionizing, non-ionizing (EMFs), microwaves, radiowaves, etc. - Temperature extremes – hot and cold - Unsecured mine openings - Water (e.g., excessive accumulation in open pits or floors, runoff of water or water-saturated materials, hazards around ponds, drowning, musculoskeletal disorder injuries from hidden hazards in accumulated water)	
Ergonomic	Occur when the type of work, body positions and working conditions put strain on the body. Short- term exposure may result in “sore muscles” the next day or in the days following exposure, but long-term exposure can result in serious long-term illnesses and musculoskeletal disorders.	[2], [7], [13]
	Ergonomic hazards include: - Manual lifting (frequent lifting, lifting heavy objects) - Poor posture - Improperly configured workstations (e.g., presence of obstacles, unstable surfaces) - Repeating the same movements over and over - Awkward movements, especially if they are repetitive - Being in the same position for long periods of time - Having to use too much force, especially frequently - Poorly lit areas	
Psychosocial	Aspects of the work environment and the way that work is organized that are associated with a negative impact on mental health and/or physical injury or illness	[1], [4], [12]
	Psychosocial hazards include: Working alone, working long hours, physically demanding work, work in remote areas, performing hazardous tasks	

Hazard Type	Examples	Sources of information
	- Poor physical environment (e.g., unpleasant conditions cause by noise, odors, temperatures, working with poorly maintained or uncomfortable personal protective equipment) - Stress (e.g., caused by harassment, bullying, violence, inadequate training, lack of support to do work safely, or stress external to work, etc.) - Lifestyle (e.g., drug or alcohol use/abuse) - Trauma (e.g., from witnessing fatalities or being involved in work-related accidents)	
Biological	Bacteria, viruses, fungi, other microorganisms, insects, plants and animals and their associated toxins. They have the ability to adversely affect human health in a variety of ways, ranging from relatively mild, allergic reactions to serious medical conditions—even death. Some organisms, including various types of mold and Legionella bacteria, are found readily in the natural and built environment.	[1], [2]
	Biological hazards include: - Infectious diseases - Insect-borne or rodent-borne diseases or bites - Microbiological agents (bacteria, mold) - Foodborne illnesses	

List of Sources:

[1] Canadian Centre for Occupational Health and Safety. “Hazards” (includes chemical, ergonomic, health, physical, psychosocial, safety, with examples and fact sheets on each hazard type). <https://www.ccohs.ca/topics/hazards/>

[2] U.S. Occupational Health and Safety Administration. Safety and Health Topics. <https://www.osha.gov/topics/text-index>

Biological agents: <https://www.osha.gov/biological-agents>

Confined Spaces: <https://www.osha.gov/confined-spaces>

Ergonomics: <https://www.osha.gov/ergonomics>

Pressure vessels: <https://www.osha.gov/pressure-vessels>

Toxic metals: <https://www.osha.gov/toxic-metals>

[3] NIOSH Mine and Mine Works Charts. “Number and percentage of nonfatal lost-time injuries by accident class, 2021. <https://wwwn.cdc.gov/niosh-mining/MMWC/Injuries/Count>

[4] Workplace Safety North web site. “Mining surface – Top Risks.”

Risk categories overview:

https://www.workplacesafetynorth.ca/industries/mininghttps://www.workplacesafetynorth.ca/sites/default/files/uploads/Mining-surface-risk-categories_FullListRanked_Overview-2016-MLTSD.pdf

Risk categories detailed: https://www.workplacesafetynorth.ca/sites/default/files/uploads/Mining-surface-risk-categories_FullListRanked_Detailed-2016-MLTSD.pdf

[5] International Council on Mining and Metals (ICMM). 2015. Health and Safety Critical Control Management. “Table 2. Typical Mining- and Metals-Related Material Unwanted Events Based on Historical Analysis.” p. 11. https://www.icmm.com/website/publications/pdfs/health-and-safety/2015/guidance_ccm-good-practice.pdf?cb=39952

[6] ICMM. 2022. Safety Performance: Benchmarking Progress of ICMM Company Members in 2021. <https://www.icmm.com/en-gb/research/health-safety/benchmarking-2021-safety-data>

[7] U.S. National Mining Association. CORESafety Handbook. pp. 23, 61. <https://nma.org/wp-content/uploads/2016/09/CORESafety-Handbook.pdf>

[8] New Zealand Government. Worksafe. 2013. Guidance for a Hazard Management System for Mines.

<https://worksafe.govt.nz/dmsdocument/188-guidance-for-a-hazard-management-system-for-mines>

[9] Government of Ontario web site: Hazards in the Mining Sector:

Ground control, water management, remote control equipment, explosives, mobile equipment, occupational illness and diseases: <https://www.ontario.ca/page/hazards-mining-sector#section-2>

Non-routine hazardous tasks in mines: <https://www.ontario.ca/page/non-routine-hazardous-tasks-mines>

Post-Blast examinations: <https://www.ontario.ca/page/post-blast-examinations-mines>

[10] Best Practices for Assessing Ground Control Hazards in the Workplace.

<https://www.workplacesafetynorth.ca/sites/default/files/resources/WSN-Best-Practices-for-Assessing-Ground-Control-Hazards-in-the-Workplace.pdf>

[11] Testing undiluted exhaust in underground mines. <https://www.ontario.ca/page/testing-undiluted-exhaust-underground-mines>

[12] SafeWork Australia. Psychosocial hazards. <https://www.safeworkaustralia.gov.au/safety-topic/managing-health-and-safety/mental-health/psychosocial-hazards/traumatic-events-or-materials>

[13] Institution of Occupational Safety and Health (IOSH). Website.

Chemical hazards: <https://iosh.com/health-and-safety-professionals/improve-your-knowledge/occupational-health-toolkit/chemical-hazards/>

Musculoskeletal disorders: <https://iosh.com/health-and-safety-professionals/improve-your-knowledge/occupational-health-toolkit/musculoskeletal-disorders/>

Noise: <https://iosh.com/health-and-safety-professionals/improve-your-knowledge/occupational-health-toolkit/noise/>

Vibration: <https://iosh.com/health-and-safety-professionals/improve-your-knowledge/occupational-health-toolkit/vibration/>

Psychosocial hazards: <https://iosh.com/health-and-safety-professionals/improve-your-knowledge/occupational-health-toolkit/psychosocial-hazards-including-stress/>

ANNEX 3.2-B: Principal Hazards Associated with Mineral Exploration, Mining and Mineral Processing

Hazard Type	Relevance
Ground control and physical stability ⁶⁶²	Exploration, Mining
Electricity	Exploration, Mining, Mineral Processing
Chemicals and hazardous materials ⁶⁶³	Exploration, Mining, Mineral Processing
Gases, including process and waste gases, and dust ⁶⁶⁴	Exploration, Mining, Mineral Processing
Explosives ⁶⁶⁵	Mining
Mobile (powered) equipment/vehicles	Exploration, Mining, Mineral Processing
Equipment, including hand tools, and machinery	Exploration, Mining, Mineral Processing
Pressurized systems or vessels	Exploration, Mining, Mineral Processing
Confined spaces	Mining, Mineral Processing
Inundation and inrush of water or other substances	Exploration, Mining, Mineral Processing
Working at heights	Exploration, Mining, Mineral Processing
Materials handling ⁶⁶⁶	Exploration, Mining, Mineral Processing
Radiation ⁶⁶⁷	Exploration, Mining, Mineral Processing
Furnaces ⁶⁶⁸	Mineral Processing
Handling molten metal, dross or slag ⁶⁶⁹	Mineral Processing
Specific OSH hazards associated with the processing of Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Magnesium, Manganese, Mercury, Nickel, Platinum and PGMs, Selenium, Tin, and Zinc ⁶⁷⁰	Mineral Processing
Recycling of minerals ⁶⁷¹	Mineral Processing

⁶⁶² Management of physical stability is addressed in proposed Chapter 4.2. There may be some overlap, as some of the controls/mitigation measures applied there may help to protect worker health and safety. However, Section 3.2.5 entails much more work/task-specific measures to control hazards.

⁶⁶³ These are required to be identified and characterized in Chapter 4.1.

⁶⁶⁴ These are requirement to be identified in Chapter 4.3.

⁶⁶⁵ These are required to be identified in Chapter 4.1.

⁶⁶⁶ Procedures may have been developed for some materials handling in Chapter 4.1.

⁶⁶⁷ IFC (2007) "Environmental, Health, and Safety Guidelines for Base Metal Smelting and Refining".
<https://www.ifc.org/content/dam/ifc/doc/2000/2007-metal-smelting-refining-ehs-guidelines-en.pdf>

⁶⁶⁸ ILO (2003) "Safety and health in the non-ferrous metals industries. ILO code of practice."
<https://www.ilo.org/media/270786/download>

⁶⁶⁹ ibid

⁶⁷⁰ ibid

⁶⁷¹ ibid

Chapter 3.3

Community Health and Safety

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Created a table to list all categories of potential sources of risks and impacts to community health and safety, to simplify understanding and assessment of requirements (see Annex 3.3-A). This table includes sources suggested during the public-comment period such as: vehicles used by commuting workers; zoonotic spillovers and emergence of infectious diseases; project/operation-induced destruction of, loss of access to, plants, environmental resources, or animal products, used for medicines/treatments; and project-induced impacts on mental health;
- Proposed to mark 'optional' (IRMA+) the newly added monitoring and evaluation requirements related to exposure level monitoring and health surveillance program where risks or impacts to health from exposure to airborne emissions in the project's/operation's area of influence are identified (3.3.4.3).
- Clarified expectations related to public sharing of information.
- Substantial structural changes to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

No consultation question for this chapter

BACKGROUND

Responsibly operated mines and mineral processing facilities can play an important part in improving public health, but poor management of impacts can expose local populations to additional health and safety risks.

Both the identification of potential site-related health and safety impacts, as well as the mitigation of those impacts will be most successfully achieved when undertaken in partnership with local stakeholders such as local community representatives, government officials, health service providers, public health officials, and community development workers, as well as mine workers who live in communities.⁶⁷²

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UN International Bill of Human Rights
- UN Guiding Principles on Business and Human Rights
- IFC Performance Standard 4: Community Health, Safety, and Security, 2012
- UNDP Social and Environmental Standards, Standard 3: Community Health, Safety and Security, 2021

OBJECTIVE OF THIS CHAPTER

To protect and improve the health and safety of individuals, families, and communities affected throughout the mineral development life cycle.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are two (2) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

3.3.1 Scoping and Baseline Data

3.3.1.1 Critical Requirement

Building on relevant baseline data, a scoping process (or equivalent) is undertaken and documented by competent professionals, at the level of the site, to identify all the sources of risks and impacts to community health and safety from the project/operation and associated facilities, as follows:

- The process includes a comprehensive review of all the potential sources of risks and impacts listed in [Annex 3.3-A](#), to determine those that are applicable and likely to occur at the different stages of the proposed project/modification life cycle, from exploration and pre-construction through concurrent reclamation, decommissioning, closure, and post-closure, where applicable;
- It identifies whether those identified risks and impacts are likely to occur under normal operating conditions and/or from potential operational accidents and unwanted event⁶⁷³;
- It identifies whether past unremediated impacts are still occurring; and
- It is informed by consultations with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, ethnicities, disabilities, and any potentially underserved and/or marginalized people⁶⁷⁴, and by consultations with other relevant stakeholders⁶⁷⁵.

3.3.1.2

If baseline data on social-economic conditions were not previously collected at an appropriate level of detail to allow the assessment of the risks to community health and safety, additional baseline data are collected and documented by competent professionals to estimate, to the extent possible, the baseline conditions prior to development of the project/operation.

3.3.2 Risk and Impact Assessment

3.3.2.1 Building on the scoping requirement 3.3.1, and on any additional baseline data collected as per 3.3.1.2, a risk and impact assessment (or equivalent) is carried out and documented by competent professionals, as follows: in collaboration with affected people and relevant stakeholders.⁶⁷⁶ This risk and impact assessment⁶⁷⁷:

- It evaluates the nature, level and duration of risk posed to, and the nature, magnitude and duration of potential impact, and any unremediated past impact, on community health and safety;
- It includes differential risks and impacts on different groups of stakeholders and rights-holders⁶⁷⁸; and
- It identifies the risks and impacts that are of greatest concern or significance to affected people.
- It is carried out in collaboration with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, ethnicities, disabilities, and any potentially underserved and/or marginalized people⁶⁷⁹, and with other relevant stakeholders⁶⁸⁰.

3.3.3 Management Plan

3.3.3.1 Building on 3.3.2, a community health and safety management plan (or equivalent) is developed and documented by competent professionals, as follows:

- The development of the plan is informed by consultations with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, ethnicities, disabilities, and any potentially underserved and/or marginalized people;
- It outlines specific measures that strictly align with the mitigation hierarchy to prioritize avoidance or prevention of impacts on community health and safety⁶⁸¹;
- It includes appropriate qualitative and quantitative performance indicators⁶⁸² (including gender-disaggregated indicators where appropriate), that have been agreed upon with affected rights-holders and stakeholders, to enable evaluation of the effectiveness of mitigation measures over time;
- It assigns implementation of measures to responsible staff with adequate skills and expertise;
- It assigned responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁶⁸³;
- It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for the affected communities;
- It maintains estimates of human resources and budget required; and
- It includes a financing plan in place to ensure that funding is available for the effective implementation of the plan.

3.3.3.2 If the risk and impact assessment required in 3.3.2, or any other credible information, indicates a significant risk of community exposure to any infectious disease such as SARS-CoV-2 (Covid-19), HIV/AIDS, tuberculosis, malaria or other, due to transmission between the ENTITY's workers and members of affected communities:

- Business practices and targeted initiatives are developed by competent professionals in accordance with Annex 3.3-B, and incorporated into the community health and safety management plan;
- The Entity supports the creation and funding of initiatives, in partnership with public health agencies, workers' organizations and other relevant stakeholders, to educate affected communities, and groups potentially disproportionately exposed to risks and impacts⁶⁸⁴, on the infectious disease and modes of prevention, and to support efforts to achieve universal access to testing, vaccinations and treatment for affected community members and dependents of workers;
- The Entity proactively offers to share best practices on the prevention and treatment of these diseases with civil society organizations and policymakers that are active in the area of influence;
- The Entity makes and maintains publicly accessible information about its efforts to prevent and address infectious diseases.

3.3.4 Monitoring and Evaluation

3.3.4.1 To monitor and evaluate the effectiveness and appropriateness of its community health and safety management plan, at least annually, the ENTITY:

- Tracks and documents its performance, over successive time periods, against the indicators defined and validated in 3.3.3.1;
- Tracks and documents how the measures developed and implemented as per 3.3.3 are effectively preventing actual impacts to community health and safety, and where prevention is not possible or not immediately possible, providing timely and adequate remediation to affected people; and
- Disaggregates the data according to gender-indicators where appropriate.

3.3.4.2 The monitoring and evaluation process:

- Encourages and facilitates joint tracking or joint fact-finding with affected communities, in a manner that is inclusive of different genders, ages, ethnicities, disabilities, and any potentially underserved and/or marginalized people, as per Chapter 1.2;⁶⁸⁵
- Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected communities; and
- Includes safeguards to protect the security and privacy of collected personal data or characteristics of people.⁶⁸⁶

3.3.4.3 **IRMA+**

If significant risks or impacts to health from exposure to airborne emissions in the sites' area of influence are identified, the ENTITY collaborates with affected communities and relevant stakeholders, to develop and implement a program to monitor exposure levels and perform health surveillance of affected people, as follows:

- Exposure monitoring and health surveillance are designed and conducted by a specialist in community health, or other competent professional, selected in collaboration with community representatives;
- Health surveillance is carried out in a manner that protects the right to confidentiality of medical information, and is not used in a manner prejudicial to interests of the community member/s;
- Samples collected for monitoring and health surveillance purposes are analyzed in an ISO/IEC 17025-certified or nationally-accredited laboratory, to the extent available in the country of operation;
- Sample results are compared against national or international standards;
- If a sample present levels that exceed national or international standards, the affected community member/s are informed immediately, and mitigation measures are reviewed and revised in a timely manner to ensure that future exposure levels remain within safe limits; and
- This monitoring program is reviewed and regularly updated, if necessary, in accordance with 3.3.5.1.

3.3.5 Continuous Improvement

- 3.3.5.1** At least annually, but without undue delay after a significant change, the ENTITY collaborates with affected communities to:
- Review the monitoring and evaluation results, informed by internal and external feedback, as per Section 3.3.4;
 - Review any community health-and-safety-related grievances (see Section 1.6.4);
 - Review the ENTITY's effectiveness in preventing and remediating actual community health and safety impacts as per 3.3.3, informed by the monitoring and evaluation required in 3.3.4.1 and 3.3.4.2;
 - Develop and implement time-bound corrective measures to update, if necessary⁶⁸⁷, the scoping and any additional baseline data, in accordance with Sections 3.3.1;
 - Develop and implement time-bound corrective measures to update, if necessary⁶⁸⁸, the risk and impact assessment, in accordance with Sections 3.3.2;
 - Develop and implement time-bound corrective measures to update, if necessary⁶⁸⁹, its community health and safety management plan in accordance with Section 3.3.3; and
 - Develop and implement time-bound corrective measures to update, if necessary⁶⁹⁰, its monitoring and evaluation processes in accordance with Section 3.3.4.

3.3.6 Information-Sharing and Public Reporting

- 3.3.6.1** At least annually, and with due regard for people's safety, data privacy, and for security concerns, the ENTITY makes publicly accessible updated versions of, and maintains⁶⁹¹ publicly accessible all previous versions of:
- Its assessment of risks and impacts on community health and safety, including an explanation of the assessment methodology and a list of the risks and impacts identified (see Section 3.3.2);
 - The qualitative and quantitative indicators used to monitor and evaluate the effectiveness and appropriateness of its community health and safety management plan (defined and validated in 3.3.3.1);
 - Key findings of the monitoring and evaluation process required in 3.3.4, and of the review process required in 3.3.5.1; and
 - A list of the time-bound corrective measures identified as per 3.3.5.1.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

Infectious diseases such as HIV/AIDS, tuberculosis, malaria or other emerging infectious diseases (e.g., Ebola virus disease, sexually transmitted diseases, etc.) may present risks for some projects/operations and communities. If significant risks related to infectious or communicable diseases are identified during the community health and safety risk and impact assessment process, then companies are expected to take steps to mitigate and monitor their impacts. This chapter highlights HIV/AIDS, TB and malaria in particular, because the mining industry has significant exposure to those diseases in some parts of the world, and best practices have been established by mining companies to minimize their impact in relation to those diseases.⁶⁹² Recent experience with Ebola virus in Liberia has demonstrated that mining operations can also play a key role in combatting other infectious diseases that threaten their workers and communities.⁶⁹³

⁶⁹² ICMM. Good Practice Guidance on Health Impact Assessment. p. 32. <https://www.icmm.com/en-gb/guidance/health-safety/2010/guidance-hia>

⁶⁹³ For example, failure of structural elements such as tailings dams, impoundments, waste rock dumps (see also proposed Chapter 4.2).

It is possible that as part of a mine's waste management approach a scoping assessment may have been undertaken to identify risks to community safety from tailings dams, impoundments, waste rock dumps and other waste facilities. If such a scoping exercise was done, and risks to community health or safety were identified, then these risks should have been (or should be) further assessed to determine the significance of the risks to community health and safety. This may have been (or may be) done as part of the Community Health and Safety Risk and Impact Assessment in section 3.3.2 or another assessment such as an ESIA (see IRMA Chapter 2.1).

⁶⁹⁴ See definition in the Glossary. In this case, underserved and/or marginalized people may include health-compromised individuals and workers who live in affected communities. A review of government statistics on various diseases may help to reveal other relevant populations.

⁶⁹⁵ Relevant stakeholders would include representatives from public health or medical providers in the site's area of influence, government health agencies.

⁶⁹⁶ Relevant stakeholders would include representatives from affected communities or affected individuals within the project/operation's area of influence (including women, men, children or their representatives, representatives/advocates for underserved and/or marginalized people such as ethnic minorities, the elderly, health-compromised individuals), public health or medical providers from affected communities, government health agencies, and workers who live in affected communities. A review of government statistics on various diseases may help to reveal other relevant populations.

⁶⁹⁷ Some or all of these risks and impacts may have been assessed as part of the ESIA (IRMA Chapter 2.1), or as part of a mine waste risk assessment (IRMA Chapter 4.1), and risks to human health and safety related to impacts on priority ecosystem services may have been assessed as part of a scoping exercise as per Chapter 4.4. If the full range of risks to community health and safety were assessed elsewhere, there is no need to duplicate efforts.

⁶⁹⁸ Considering gender, age, ethnicity, disability, or any other factor of factor of disproportionate exposure or susceptibility to risks/impacts in the site's area of influence.

⁶⁹⁹ See definition in the Glossary. In this case, underserved and/or marginalized people may include health-compromised individuals and workers who live in affected communities. A review of government statistics on various diseases may help to reveal other relevant populations.

⁶⁸⁰ Relevant stakeholders would include representatives from public health or medical providers in the site's area of influence, government health agencies.

⁶⁸¹ If avoidance/prevention of all impacts is not possible, the plan then includes actions to minimize them. Where residual impacts remain, the plan then includes actions to restore, and as a last resort compensate for past and/or potential impacts.

⁶⁸² Appropriate performance criteria and indicators must include those required by the country of operation's law (e.g., regulator maximum concentrations of certain chemicals in air or water), and, as relevant, those associated with external standard (e.g., IRMA water quality criteria), those agreed with stakeholders, or indicators that are tied to an identified baseline (e.g., levels of lead in hair samples before a mineral processing facility begins operating).

⁶⁸³ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁶⁸⁴ What may constitute these groups requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement in particular, special attention should be paid to

demographics with existing vulnerabilities to health-related risks, considering those with pre-existing illnesses, those with lack of access to health care, those located closer to disease vectors, etc.

⁶⁸⁵ This is especially relevant for contexts where the Entity and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the Entity's' own tracking of the effectiveness of its response to it.

⁶⁸⁶ Especially of people at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

⁶⁸⁷ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c. Including if there have been changes to the operation (e.g., expansions, changes in practices, etc.) or operating environment that have created new risks that need to be mitigated, or exacerbated existing ones.

⁶⁸⁸ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c. Including if there have been changes to the operation (e.g., expansions, changes in practices, etc.) or operating environment that have created new risks that need to be mitigated, or exacerbated existing ones.

⁶⁸⁹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁶⁹⁰ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁶⁹¹ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

⁶⁹² International Council on Mining and Metals. 2008. Good Practice Guidance on HIV/AIDS, Tuberculosis and Malaria.

<https://www.icmm.com/en-gb/guidance/health-safety/2008/guidance-hiv-aids-tb-and-malaria>

⁶⁹³ US Geological Survey. 2015. Fact Sheet: The Ebola Virus Disease Outbreak and the Mineral Sectors of Guinea, Liberia, and Sierra Leone. <https://pubs.usgs.gov/fs/2015/3033/pdf/fs2015-3033.pdf>

CHAPTER ANNEXES

ANNEX 3.3-A: Potential sources of risks to, and adverse impacts on, community health and safety

Potential sources of risks and impacts to be considered

- Equipment or vehicles on public roads, including those used by commuting workers;
- Stationary, mobile, or fugitive sources of airborne emissions from operations, including fumes, vapor, and dust;⁶⁹⁴
- Stationary or mobile sources of noise or vibration;⁶⁹⁵
- Transport of hazardous materials and hazardous wastes;⁶⁹⁶
- Hazardous materials and hazardous wastes that may be released to water and/or land as a result of mining-related activities;⁶⁹⁷
- Water-borne, water-based, water-related, and vector-borne diseases, communicable and sexually transmitted diseases (e.g., HIV/AIDs, tuberculosis, malaria, Ebola virus disease or others), zoonotic spillovers, and emergence of infectious diseases, that could occur or spread as a result of the project/operation;
- Project/operation-induced in-migration of workers, potential for increased violence and sexual- and gender-based violence, changes in community demographics and changes in community dynamics;
- Project/operation-induced changes in availability or capacity of community services (e.g., medical and public-health, emergency response, police), and infrastructure (e.g., potable water and sewage, energy, communications, transportation).
- Project/operation-induced destruction of, loss of access to, plants, environmental resources, or animal products, used for medicines/treatments;
- Project-induced impacts on mental health;
- Project/operation-related changes in access to land, water or ecosystem services;⁶⁹⁸ and
- Use of security personnel (private and/or public) at the site or associated facilities.

⁶⁹⁴ See Chapter 4.5 for more requirements related to air quality and dust management. Potential impacts on ecosystem services should have been identified as part of the scoping process.

⁶⁹⁵ See Chapter 3.7 for more requirements related to noise and vibration. Potential impacts on ecosystem services should have been identified as part of the scoping process.

⁶⁹⁶ See Chapter 4.1 for more requirements related to hazardous materials. Potential impacts on ecosystem services should have been identified as part of the scoping process.

⁶⁹⁷ See Chapter 4.1 for more requirements related to hazardous materials. Potential impacts on ecosystem services should have been identified as part of the scoping process.

⁶⁹⁸ See Chapters 4.3, 4.4, and 4.5 for more requirements related to water, soil, and biodiversity and ecosystem services. Potential impacts on ecosystem services should have been identified as part of the scoping processes.

Mining-related impacts on ecosystems services that could pose a risk to communities include, for example, land use changes or the loss of natural buffer areas such as wetlands, mangroves, and upland forests. These systems often mitigate the effects of natural hazards such as flooding, landslides, and fire, and if lost or damaged may result in increased vulnerability and community safety-related risks and impacts. Also, the diminution or degradation of freshwater may result in health-related risks and impacts. (IFC. 2012. Performance Standard 2. Para. 8).

ANNEX 3.3-B: Minimum Requirements for Prevention and Mitigation Strategies Related to HIV/AIDS, Tuberculosis, and Malaria

The following prevention and mitigation strategies are applied, as appropriate:

- In relation to **HIV/AIDS**, at minimum:
 1. Provide free, voluntary and confidential HIV testing and counseling for all mine workers and employees;
 2. Provide HIV/AIDS treatment for workers and employees where it cannot reasonably be assumed that this will be provided in an effective manner by public or private insurance schemes at an affordable rate;
 3. Provide access for contractors to education and other preventative programs, and work with the operating company's or facility's contracting companies or others to identify ways for contract workers to access affordable treatment; and
 4. Work with public health authorities, communities, workers' organizations and other stakeholders towards ensuring universal access to treatment for dependents of mine workers/employees and affected community members.
- In relation to **tuberculosis**, at minimum:
 - Provide free and voluntary testing for mine workers/employees where it is not reasonably likely to be provided by public or private health programs at an affordable rate; and
- In relation to **malaria**, at minimum:
 1. Develop a vector control plan (or equivalent);
 2. Ensure that company facilities are not breeding environments for malaria-carrying mosquitoes; and
 3. Provide protection from infection by malaria-carrying mosquitoes in company facilities and any company-provided housing.

Chapter 3.4

Security Forces

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Chapter renamed 'Security Forces' since security arrangements are only a sub-part of this Chapter.
- Increased clarity and details for requirements related to selection and vetting, and training, in line with the International Code of Conduct for Private Security Providers, and the 2023 DCAF-ICRC Security and Human Rights Toolkit.
- Added requirements to clarify the content and nature of the monitoring and evaluation and continuous improvement corrective measures/updates (Sections 3.4.9 and 3.4.10)
- Added requirements to clarify the content of the annual reporting on security management (Section 3.4.11).
- Added one optional IRMA+ requirement to collaborate with other relevant stakeholders (i.e. other than affected people) including civil society, human rights experts, security providers, representatives of the country of operation's government, and other companies to share lessons learned and address challenges in the management of security risks and impacts (3.4.7.4).
- Substantial structural changes to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Decision
1.4-02	(3.5.6.3 – specific grievance mechanism; repat from Chapter 1.4 (now 1.6)) Background: Chapter 1.4 - 'Complaints and Grievance Mechanism and Access to Remedy' includes a range of requirements surrounding the existence of an accessible and effective operational-level grievance mechanism. It is not possible to score well on Chapter 1.4 if the mechanism does not have certain quality-related characteristics. Other chapters (i.e., human rights, gender, resettlement, security, ASM) also have requirements relating to the existence of a grievance mechanism; however, the requirements in each of those chapters ask only that a mechanism is in place that allows grievances to be filed and addressed, but they do not speak to the overall quality of that mechanism. This is an approach proposed by IRMA to avoid too much repetition across chapters. However, this creates a situation in which an ENTITY could theoretically score 'fully meets' on the grievance-related requirement in an individual chapter (which in most cases only asks that stakeholders have "access to" a grievance mechanism), even if the grievance mechanism as a whole is not an effective one (as reflected in the overall score for Chapter 1.4). Question: Should an ENTITY's score on grievance-related requirements within individual non-grievance-specific chapters be restrained or linked to the overall score that the ENTITY gets on the grievance chapter (Chapter 1.4) as a whole? For example, if a site scores 80% on Chapter 1.4, the most the site could receive for a grievance requirement in the other chapters would be a 'substantially meets,' but if a site scores 100% on Chapter 1.4 then, assuming the mechanism can handle grievances specific to the other chapters, they could possibly get a 'fully meets' rating on those grievance requirements.	Feedback received: Feedback largely supported putting a 'cap' on the ENTITY's score on grievance-related mechanisms in other chapters based on its performance on Chapter 1.6 (former 1.4). Decision: The Scoring system is adjusted to ensure that an ENTITY's potential score on the grievance-related requirement in an individual chapter (which simply requires the existence of a grievance mechanism capable of receiving grievances relating to the particular issue, or in Chapter 2.2 that mechanism/s are specifically designed with, and for, Indigenous Peoples) is limited by their score on Chapter 1.6 (former 1.4) on Grievances (which addresses not just the existence but also the quality of a grievance mechanism). This means that, although an ENTITY may have otherwise received 'fully meets' on a grievance mechanism requirement in an issue-specific chapter, if the ENTITY does not receive a full score on Chapter 1.6 as a whole, then their score on the issue-specific grievance requirement cannot be higher than 'partially meets'. If the ENTITY has developed separate issue-specific grievance mechanism/s, it will be assessed separately against all relevant requirements of Chapter 1.6.

BACKGROUND

Security risks to mining and mineral processing operations may result from political, economic, civil, or social factors. The role of private and public security forces used in relation to such operations should be to maintain the rule of law, including safeguarding human rights; provide security to workers, equipment, and facilities; and protect the site or transportation routes from interference with legitimate extraction and trade.

Security arrangements for mining and mineral processing operations that are founded on a substantial understanding of the context, consultation with stakeholders, and adherence to international best practice can help an ENTITY reduce the potential for violent conflicts with communities or workers, contribute to peace and stability in the regions where it operates, and demonstrate respect for the human rights of stakeholders affected by their operations.

This chapter draws on the Voluntary Principles on Security and Human Rights (“Voluntary Principles”), which provides a widely recognized framework for risk assessment and management of security providers that is respectful of human rights.⁶⁹⁹ Entities are encouraged to become corporate participants in the Voluntary Principles initiative, to learn from and share knowledge with other companies and participants regarding best practices related to security and human rights.⁷⁰⁰

The International Code of Conduct for Private Security Providers and the recently published DCAF-ICRC Security and Human Rights Toolkit provide additional content, guidance and recommendations, that are highly relevant to mining and mineral processing activities.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- The International Bill of Human Rights (including the 1966 International Covenant on Civil and Political Rights (ICESCR) and International Covenant on Economic, Social and Cultural Rights (ICCPR))
- United Nations Guiding Principles for Business and Human Rights, 2011
- The Voluntary Principles on Security and Human Rights, 2000 (latest version 2023)
- The Voluntary Principles on Security and Human Rights Implementation Guidance Tools, 2021
- ICoCA International Code of Conduct for Private Security Providers, 2010
- DCAF-ICRC Security and Human Rights Toolkit, 2023
- UN Basic Principles on the Use of Force and Firearms by Law Enforcement Official, 1990
- UN Code of Conduct for Law Enforcement Officials, 1979
- IFC Performance Standard 4: Community Health, Safety, and Security, 2012

OBJECTIVE OF THIS CHAPTER

To manage private and public security in a manner that protects workers, communities, operations, assets, and products without infringing on human rights.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are two (2) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

3.4.1 Formalized Policy

3.4.1.1 The ENTITY has a formal policy in place that:

- Commits to integrate the respect of all internationally recognized human rights⁷⁰¹ in its efforts to maintain the security of the site, associated facilities and transport routes⁷⁰²;
- Commits to avoid hiring security personnel and using private or public security forces that have been credibly implicated in the infringement of human rights, breaches of international humanitarian law or the excessive use of force⁷⁰³;
- Sets clear expectations for how employees, contractors, and other relevant parties⁷⁰⁴ linked to the site and its associated facilities shall respect these commitments (a. and b.); and
- Is approved at the top management level of the ENTITY;
- Is proactively communicated to employees, contractors, and other relevant parties⁷⁰⁵ linked to the site and its associated facilities;
- Is publicly accessible; and
- The ENTITY has allocated financial and staffing resources to implement this policy at the level of the site.

3.4.2 Risk and Impact Assessment

3.4.2.1 A risk and impact assessment (or equivalent) is carried out and documented by competent professionals to identify and assess potential adverse human rights, social, or safety impacts (hereafter referred to as 'risks') and actual adverse impacts that may arise from the site's security context and the ENTITY's security management and arrangements, as follows:

- This assessment follows a credible methodology, and the methodology used is documented⁷⁰⁶;
- This assessment includes an analysis of the political and security context in the country of operation⁷⁰⁷;
- It is informed by credible information obtained from a range of perspectives, including affected rights-holders and stakeholders, as well as other relevant stakeholders such as Rights Defenders, and expert advice⁷⁰⁸;
- It assesses risks and impacts associated with the site's security context and the ENTITY's management and use of private security personnel and the use or deployment of public security forces⁷⁰⁹ (hereafter referred to collectively as 'security-related risks and impacts' on affected people and communities⁷¹⁰, including differential risks and impacts on different categories of stakeholders and rights-holders⁷¹¹;
- It assesses security-related risks and impacts on workers and visitors, including differential risks and impacts of different categories of workers⁷¹²; and
- It assesses security-related risks and impacts on the site and its associated facilities⁷¹³.

3.4.2.2 If the suspected or confirmed presence of conflicts or high risks in the site's area of influence has been identified as per Chapter 1.3, the risk and impact assessment integrates the findings and recommendations of the Heightened Risk and Impact Assessment required in Chapter 1.5.

3.4.3 Management Plan and Procedures

- 3.4.3.1** Building on 3.4.2 and other relevant sources of information⁷¹⁴, a security management plan (or equivalent) is developed and documented by competent professionals, to prevent, mitigate and remedy all identified risks and impacts related to the site's security context and the ENTITY's management and use of private security personnel and public security forces, as follows:
- This plan outlines specific measures, that strictly align with the mitigation hierarchy, to prevent and, where prevention is not possible or not immediately possible, to mitigate and remedy all the potential risks and actual adverse impacts identified;
 - Where it is necessary to prioritize measures to address actual and potential adverse impacts, it first seeks to prevent and mitigate those that are most severe or where delayed response would make them irremediable⁷¹⁵;
 - It includes qualitative and quantitative performance indicators (including gender-disaggregated indicators and other categories of disaggregated indicators where appropriate),⁷¹⁶ linked to adequate baseline data, to enable monitoring and evaluation of the effectiveness of measures over time;
 - It assigns implementation of measures to responsible staff with adequate skills and expertise;
 - It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁷¹⁷;
 - It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for affected rights-holders and stakeholders;
 - It maintains estimates of human resources and budget required; and
 - It includes a financing plan in place to ensure that funding is available for the effective implementation of the plan.

- 3.4.3.2** If the risk and impact assessment required in 3.4.2, or any other credible information, reveals the potential for conflicts, or actual conflicts between the ENTITY's private security personnel and affected communities or workers, the security management plan also includes:
- Specific mitigation strategies to address potential and/or actual conflicts, developed in collaboration with communities and/or workers;
 - Inclusive collaboration with communities and/or workers to take into consideration the needs of different genders, ages, and ethnicities, and any potentially underserved and/or marginalized people, in accordance with Chapter 1.2; and⁷¹⁸
 - If specific risks or impacts to human rights are identified in the assessment, mitigation strategies conform with the relevant requirements of Chapter 1.3⁷¹⁹.

3.4.3.3 Critical Requirement

The ENTITY has procedures in place regarding the use of force and firearms that require that the private security personnel used/deployed for the security of the site, associated facilities, and transport routes⁷²⁰:

- Take all reasonable steps to exercise restraint and utilize non-violent means before resorting to the use of force;
- If force is used, it does not exceed what is strictly necessary, it is proportionate to the threat and appropriate to the situation, and it is systematically investigated and reported; and
- Are unarmed unless the risk analysis prescribes such a need, and firearms are only used for the purpose of self-defense or the defense of others if there is an imminent threat of death or serious injury.

3.4.3.4 Affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, have access to a grievance mechanism to raise, and seek resolution or remedy for, complaints and grievances specifically related to the ENTITY's security management and arrangements, as follows:

- A grievance mechanism through which affected rights-holders and stakeholders, including Rights Defenders and civil society organizations, can raise, and seek resolution or remedy for, complaints and grievances specifically related to the ENTITY's security management and arrangements, is in place⁷²¹;
- This grievance mechanism is rights-compatible⁷²²;
- Affected rights-holders and stakeholders have been informed about the existence and functioning of this grievance mechanism, as well as of other relevant mechanisms⁷²³;
- If the operational-level grievance mechanism developed as per Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) is used as the mechanism to receive complaints and grievance specifically related to the ENTITY's security management and arrangements, the Entity fully meets all requirements in Chapter 1.6; and
- If a separate mechanism is created to handle only complaints and grievances related to human rights, it is established and managed in a manner that fully meets all requirements in Chapter 1.6.

3.4.4 Selection and Vetting of Security Personnel**3.4.4.1 The ENTITY has a system in place for the selection and vetting of private security personnel⁷²⁴, to ensure that the ENTITY:**

- Develops a selection protocol (for employees) that lays out clear terms on exclusion criteria⁷²⁵, and develops a request for proposals (for private security providers) that lays out clear terms on exclusion criteria⁷²⁶, award criteria, needed personnel and required weapons and equipment, and that requires each applicant to provide background information;
- Evaluates applications and bids according to the requirements laid out in the selection protocol or request for proposals, and conducts comprehensive due diligence⁷²⁷ on the selected individuals and provider/s; and
- Ensure the selected private security providers have effective vetting programs in place too, and encourages them to sign a formal declaration that none of their employees have been implicated in abuses of human rights and/or violations of international humanitarian law and/or the use of excessive force.



3.4.4.2 The ENTITY has a system in place for the vetting of **public security forces** used/deployed to provide security to the site, associated facilities and/or transport routes to ensure that the ENTITY, to the extent possible⁷²⁸.

- a. Maintains communication and working relationships, commensurate with the level risks and impacts associated with public security forces, with different echelons of public security forces and actively seek opportunities to discuss vetting procedures;
- b. In collaboration with the relevant government authorities, identifies which institutions should be consulted in order to conduct background checks;
- c. Uses multiple sources to obtain relevant information⁷²⁹; and
- d. Establishes procedures to help ensure that individuals who have been convicted of, or credibly implicated in, the infringement of human rights, breaches of international humanitarian law, or the use of excessive force, **do not provide security services for the ENTITY.**

3.4.5 Arrangements with Private and Public Security Forces



3.4.5.1 If **private security** is used to provide security to the site, associated facilities, and/or transport routes, the ENTITY has signed contract/s with each private security provider that:

- a. Sets out the following agreed-on principles: 1) Private security must act consistently with the law and international guidelines; 2) Private security must respect the Entity's procedures regarding the use of force and firearms required in 3.4.3.3; 3) Allegations of human rights abuses will be investigated and monitored; 4) Only preventative and defensive services are to be provided; 5) Individuals implicated in human rights abuses are not permitted to provide security services to the Entity; and 6) Private security must investigate and report to the ENTITY incidents where physical force is used;
- b. Delineates respective duties and obligations with respect to the provision of security in and around the site and associated facilities and, if relevant, along transport routes, **and with respect to the reporting of any security-related incidents;**
- c. Requires the private security provider to ensure its personnel are trained to respect the rights of the workers and local community members, and outlines the content and frequency or the required training;
- d. **Stipulates how the ENTITY monitors the conduct of **private security** personnel and holds them accountable;**
- e. **Stipulates termination of relationship between the ENTITY and the **private security** provider where there is credible evidence of unlawful or abusive behavior by the latter; and**
- f. **Stipulates how the ENTITY engages with national judicial authorities for crimes or human rights violations by **private security** personnel.**



3.4.5.2 If **public security forces** are used/deployed to provide security to the site, associated facilities, and/or transport routes, the ENTITY makes a good faith effort to sign a Memorandum of Understanding or similar agreement⁷³⁰ with each public security provider/agency that includes similar provisions to those in 3.4.5.1.

3.4.6 Training of Security Personnel



3.4.6.1 The entity ensures that initial training prior to deployment, and refresher courses:

- a. Are mandatory for all private security personnel⁷³¹;
- b. Include information related to ethical conduct, and respect for the rights of workers, Indigenous rights-holders (if applicable), and affected communities, with specific reference to groups and individuals disproportionately affected by human rights violations⁷³²;
- c. **Include first-aid provision, conflict management and dealing with incidents and disturbances⁷³³, and**
- d. Include the ENTITY's procedures on the appropriate use of force and firearms required in 3.4.3.3.



3.4.6.2 If **public security forces** have been, or are to be, used/deployed to provide security to the site, associated facilities, and/or transport routes, the ENTITY has a system to:

- a. Determine whether public security personnel are provided with effective training on, and have accurate understanding of, all the topics listed in 3.4.6.1;
- b. Where gaps in training and/or understanding are identified, the ENTITY offers to facilitate⁷³⁴ initial training and refresher courses for public security personnel that are (or will be) used/deployed to provide security to the site, associated facilities, and/or transport routes; and
- c. **Support any existing relevant training programs, and any current or potential future technical assistance programs being offered by donors/home country governments⁷³⁵ if applicable.**

3.4.7 Response to Security Incidents

3.4.7.1 Critical Requirement

The ENTITY has a system in place to investigate and respond to security incidents, as follows:

- Investigation of, and response to, security incidents occur in accordance with all relevant terms of the security arrangements required in 3.4.5;
- The ENTITY documents and investigates all use of force and security incidents, including those involving impacts on human rights or the inappropriate use of force⁷³⁶;
- The ENTITY takes appropriate measures to prevent⁷³⁷, and where prevention is not possible or not immediately possible, mitigate and provide remediation for human rights impacts (as per Chapter 1.3),⁷³⁸ injuries, or fatalities caused by private security personnel and/or public security forces (in accordance with Section 3.4.3); and
- The ENTITY takes appropriate measures, including disciplinary measures, to prevent and deter abusive or unlawful acts by security personnel, and acts that contravene the ENTITY's security arrangements and procedures on the use of force and firearms and/or its human rights policies and other relevant policies.

3.4.7.2 If an actual security incident occurs (or has occurred), the ENTITY:

- Documents and investigate the incident, and take the appropriate measures required in 3.4.7.1;
- Provides medical assistance to all injured people, including offenders, and ensures the safety of victims and those filing security-related allegations;
- Reports the incident, including any credible allegations of human rights abuses by private or public security providers, to competent authorities and national human rights institutions; and
- Cooperates in any investigations or proceedings led by relevant authorities or human rights institutions.

3.4.7.3 Besides the measures required in 3.4.7.2 for all security incidents, in the event of security-related incidents that result in injuries, fatalities, or alleged human rights impacts, the ENTITY:

- Provides the people affected⁷³⁹ with information on the incidents and on any investigations that are underway;
- Collaborates with the people affected, and their advisors if applicable, to develop and agree on qualitative and quantitative indicators to track the effectiveness of responses; and
- Collaborates with the people affected, and their advisors if applicable, to conduct lessons-learned exercises, and develop and implement strategies to prevent the recurrence of similar incidents.

3.4.7.4 IRMA+

Besides the collaboration required in 3.4.7.3.c, the ENTITY seeks to collaborate with other relevant stakeholders including civil society, human rights experts, security providers, representatives of the country of operation's government, and other companies to share lessons learned and address challenges in the management of security risks and impacts.

3.4.8 Meaningful Engagement with Stakeholders

3.4.8.1 The ENTITY engages with affected rights-holders and stakeholders on security issues as follows:

- Engagement occur in a manner that is inclusive of different genders, ages, and ethnicities and any potentially underserved and/or marginalized people;
- Stakeholders, including country of operation's government/authorities and affected rights-holders and stakeholders, are consulted about the impact of the ENTITY's security management and arrangements on those stakeholders;
- The consultations occur at a frequency commensurate with the risks associated with the site's security context and the ENTITY's security management and arrangements, as identified per 3.4.2 and updated per 3.4.10⁷⁴⁰; and
- The policy required in 3.4.1 is proactively shared with relevant stakeholders⁷⁴¹; and
- Affected rights-holders and stakeholders are regularly offered a briefing on the ENTITY's procedures on the use of force and firearms required in 3.4.3.3.

3.4.9 Monitoring and Evaluation

3.4.9.1 To monitor and evaluate the effectiveness and appropriateness of its security management and arrangements, at least annually, the ENTITY:

- Tracks and documents its performance, over successive time periods, against the indicators defined in 3.4.3.1 in 3.4.7.3;
- Tracks and documents how the measures developed and implemented as per 3.4.3, 3.4.4, 3.4.5, 3.4.6, and 3.4.7 are effectively preventing actual security incidents and adverse impacts, and where prevention was not possible or immediately possible, providing timely and adequate remediation to victims and affected people; and
- Disaggregates the data according to gender-indicators where appropriate.

3.4.9.2 The monitoring and evaluation process:

- Encourages and facilitates joint tracking or joint fact-finding with affected communities and workers, in a manner that is inclusive of different genders, ages, and ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2⁷⁴²;
- Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected communities and workers; and
- Includes safeguards to protect the security and privacy of collected personal data or characteristics of people⁷⁴³.

3.4.10 Continuous Improvement

- 3.4.10.1** At least annually, but without undue delay after a significant change, the ENTITY:
- Reviews the monitoring and evaluation results, informed by internal and external feedback, as per Section 3.4.9;
 - Reviews any security-related grievances and the functioning of the relevant grievance mechanism/s required in 3.4.3.4 (see also Section 1.6.4);
 - Reviews its effectiveness in preventing, responding to, and remediating, actual security incidents, including those involving impacts on human rights or the inappropriate use of force, informed by the monitoring and evaluation required in 3.4.9.1 and 3.4.9.2;
 - Develops and implements time-bound corrective measures to update, if necessary⁷⁴⁴, the risk and impact assessment in accordance with Section 3.4.2;
 - Develops and implements time-bound corrective measures to update, if necessary⁷⁴⁵, the security management plan and procedures in accordance with Sections 3.4.3 to 3.4.8; and
 - Develops and implements time-bound corrective measures to update, if necessary⁷⁴⁶, its monitoring and evaluation processes in accordance with Section 3.4.9.

3.4.11 Information-Sharing and Public Reporting

- 3.4.11.1** At least annually, and with due regard for rights-holders safety, data privacy, and for security concerns, the ENTITY makes publicly accessible updated versions of, and maintains⁷⁴⁷ publicly accessible all previous versions of⁷⁴⁸:
- Key findings of the monitoring and evaluation process required in 3.4.9, and of the review process required in 3.4.10.1;
 - A summary of the measures developed and implemented as per 3.4.3, 3.4.4, 3.4.5, 3.4.6, and 3.4.7, and the extent to which they effectively prevented actual security incidents and adverse impacts, and where prevention was not possible or immediately possible, provided timely and adequate remediation to victims and affected people; and
 - A list of the time-bound corrective measures identified as per 3.4.10.1.
- 3.4.11.2** If public security forces are providing security for any aspect of the operation, the ENTITY encourages the country of operation's government/authorities to make (or allow the ENTITY to make) details⁷⁴⁹ about their security arrangements transparent and accessible to the public, subject to any overriding safety and security concerns⁷⁵⁰.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁶⁹⁹ Voluntary Principles on Security and Human Rights. 2014. www.voluntaryprinciples.org

⁷⁰⁰ *ibid.* “Voluntary Principles Initiative – Guidance on Certain Roles and Responsibilities of Companies.” <https://www.voluntaryprinciples.org/wp-content/uploads/2019/12/RolesResponsibilities-Companies.pdf>

⁷⁰¹ Including not violating the rights of individuals while exercising their right to freedom of association or their right to strike.

⁷⁰² See also Chapter 1.3.

⁷⁰³ These commitments may be made in a broader Human Rights Policy (see Chapter 1.3), or another relevant policy.

⁷⁰⁴ This may include, as relevant, joint venture partners’ staff and contractors responsible for operation/management, organizations or public agencies visiting the site, as well as country of operations’ government and authorities responsible for the use/deployment of public security forces, if applicable.

⁷⁰⁵ This may include, as relevant, joint venture partners’ staff and contractors responsible for operation/management, organizations or public agencies visiting the site.

⁷⁰⁶ Risk assessments typically include: establishment of scope; identification of sources of risk; identification of risks; assessment of risks; development of risk treatment and mitigation measures; and communications, monitoring and assessment, and revision. The assessment of security risks may be integrated in existing risk assessment processes.

⁷⁰⁷ E.g., the human rights records of the government and specific public and private security forces, adherence to the rule of law, potential for corruption, national labour laws, private security regulation, and track record and ESG performance of local private security providers.

⁷⁰⁸ Special effort should be made to include women, children or their representatives, and other groups who may be particularly vulnerable to impacts from security arrangements (e.g., this might include artisanal and small-scale miners, human rights defenders, or youth). Other relevant local stakeholders may include local government or community leaders, civil society organizations or other companies operating in the area. Expert advice may come from governments, multi-stakeholder initiatives, human rights institutions, civil society, or academics with local knowledge and expertise.

⁷⁰⁹ Including the risks related to the presence and equipping of security forces (e.g., risks associated with equipment transfers such as misappropriation or diversion of security equipment; and increased risk of the use of force or violence associated with firearms or other equipment).

⁷¹⁰ E.g., conflict risks between security forces and communities during social protest, etc.

⁷¹¹ Considering gender, age, ethnicity, disability, potentially underserved and/or marginalized people, or any other factor of factor of disproportionate exposure or susceptibility to risks/impacts in the project’s/operation’s area of influence (such as Rights Defenders and Indigenous rights-holders). See also Chapter 2.3 and requirements for an Intersectional Gender Impact Assessment.

⁷¹² Especially women workers, and LGBTIQA+ workers. See also Chapter 2.3 and requirements for an Intersectional Gender Impact Assessment.

⁷¹³ E.g., protecting assets and goods from being vandalized or stolen.

⁷¹⁴ Other sources of information may include data from monitoring and evaluation, discussions with or grievances filed by stakeholders or workers, internal reviews of particular issues that relate to the security context and/or human rights, etc.

⁷¹⁵ Once the most severe and most likely adverse impacts are addressed within a reasonable time, the ENTITY will address less severe and less likely adverse impacts.

⁷¹⁶ Other disaggregation may be by age, ethnicity, disability, vulnerability status, proximity to the operation, etc.

⁷¹⁷ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁷¹⁸ Which stakeholders must be included and what may constitute ‘underserved and/or marginalized people’ requiring additional focus depends on the context. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, particular attention should be paid to those with existing forms of vulnerability to security-related incidents such as women, girls, those located close to risk factors such as workers’ camps or major transportation routes.

⁷¹⁹ IRMA Standard, Chapter 1.3—Human Rights Due Diligence. See specifically Section 1.3.4.

⁷²⁰ The requirements in this Section align with provisions 30 and 31 of the ICACA [Code of Conduct for Private Security Providers](https://icoca.ch/the-code/). Available at: <https://icoca.ch/the-code/>

⁷²¹ The operational-level grievance mechanism developed as per IRMA Chapter 1.6 (Complaints and Grievance Mechanism and Access to Remedy) may be used as the mechanism to receive all types of complaints, including those related to the ENTITY’s security management and arrangements, or a separate mechanism may be created to handle only those complaints and grievances. If a separate mechanism is developed, it shall be done in a manner that is consistent with Chapter 1.6 (see subrequirements d. and e.). Also, there may be other mechanisms that are not operated by the company through which stakeholders or rights-holders can seek

recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file security-related grievances with the company.

⁷²² 'Rights-compatible' means ensuring that outcomes and remedies accord with internationally-recognized human rights.

⁷²³ There may be other mechanisms that are not operated by the ENTITY through which stakeholders or rights-holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who file grievances with the company.

⁷²⁴ Hired as employees and contracted through private security providers. These expectations are aligned with the Voluntary Principles on Security and Human Rights, and the DCAF-ICRC Security and Human Rights Toolkit,

⁷²⁵ This should include exclusion of individuals who have been convicted of, or credibly implicated in, the infringement of human rights, breaches of international humanitarian law or the use of excessive force.

⁷²⁶ This should include exclusion of businesses and individuals who have been convicted of, or credibly implicated in, the infringement of human rights, breaches of international humanitarian law or the use of excessive force.

⁷²⁷ Whether conducted internally or by a third party outfit, companies should investigate the following factors during the private security due diligence process: – History of respect for/violations of human rights law and international humanitarian law – Personal and business reputation – Management style and ethics of key executives – Litigation and criminal offence history – Training provided by the company to its employees on human rights and humanitarian law – Business licenses – Equipment licenses (particularly as these relate to weapons and firearms) – Procedures on use of force and firearms (see Annex H) – Undisclosed or misrepresented assets, losses, and projections – Operational history – Compliance with labour, health, safety and environmental regulations – Conflicts of interest – Corporate culture – Other liabilities and risks (VP Implementation Guidance Tool. pp. 52, 53).

⁷²⁸ These expectations are aligned with the Voluntary Principles on Security and Human Rights, and the DCAF-ICRC Security and Human Rights Toolkit,

⁷²⁹ Sources include: When legally authorized, check police records for any criminal records or warrants; public security personnel records, if it is legal and possible to do so; investigate the historical conduct of public security forces in the region, focusing on any allegations of misconduct or abuse; In some countries, security companies that specialize in political risk advice, investigations and security consultancy are capable of and legally allowed to conduct thorough background investigations that are beyond the scope of those conducted by a company security department. For other possible sources see: DCAF-ICRC Security and Human Rights Toolkit, pp. 73 and 74.

⁷³⁰ If it is not possible to agree on a full MoU, the ENTITY may develop specific agreements with public security providers and/or the country of operation's government/authorities around key areas of concern such as training, equipment transfers or the working relationship between the ENTITY and public security forces.

⁷³¹ Whether employees of the ENTITY or contractors.

⁷³² Training content should cover: international humanitarian law (IHL), gender-related topics including prevention of sexual abuse and sexual- and gender-based violence, exploitation and harassment, anti-bribery and anti-corruption measures, and respect for the local population and culture, including Indigenous Peoples.

⁷³³ E.g. public disorder, lawful and unlawful protests, strikes, labour disputes and evictions, ensuring these duties and responsibilities do not conflict with the mandate of public security forces.

⁷³⁴ Facilitating may include partnering with other stakeholders and organizations, and content and regularity of the training is agreed with the relevant authorities.

⁷³⁵ E.g. cooperation on security sector reform

⁷³⁶ As required in critical requirement 3.4.3.3.

⁷³⁷ Prevention may be achieved through early alert system and pro-active monitoring.

⁷³⁸ IRMA Standard, Chapter 1.3—Human Rights Due Diligence. (See specifically Section 1.3.4).

⁷³⁹ Which could be community members and/or workers.

⁷⁴⁰ Depending on the circumstances, there may not be a need for regular consultations (e.g., the commodity being mined is not high value so the level of security at the site is low, security guards are not armed, and there is no nearby community), whereas in situation where there are more obvious risks to communities from security arrangements frequent consultation may be necessary (e.g. fragile human rights situation, whether the ENTITY operates in a conflict-affected or high-risk area, as well as possible link to international humanitarian law (IHL) violation).

⁷⁴¹ Relevant stakeholders could include women, children or their representatives, and other groups who may be particularly/disproportionately affected by adverse impacts from, and infringements of human rights by, security arrangements (e.g., this might include ASM operators, rights defenders, and youth). Other relevant local stakeholders may include local government or community leaders; civil society organizations; and other companies operating in the area.

⁷⁴² This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

⁷⁴³ Especially of people at heightened risk of vulnerability and marginalization, including children, or any other sensitive data.

⁷⁴⁴ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c. Including if there have been changes to the operation (e.g., expansions, changes in practices, etc.) or operating environment that have created new risks that need to be mitigated, or exacerbated existing ones.

⁷⁴⁵ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁷⁴⁶ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁷⁴⁷ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

⁷⁴⁸ This reporting could be part of the reporting on human rights due diligence required in Chapter 1.3.

⁷⁴⁹ Such as the purpose and nature of the actions taken by public security forces in relation to the site, its associated facilities, and/or transportation routes.

⁷⁵⁰ As explained in the Voluntary Principles Implementation Guidance Tool, information that could create security and safety concerns or human rights risks would include specific troop movements, supply schedules, company personnel movements, locations of valuable or hazardous equipment, etc.). ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. p. 47. https://www.voluntaryprinciples.org/wp-content/uploads/2021/11/Implementation-Guidance-Tools_English.pdf

Chapter 3.5

Artisanal and Small-Scale Mining (ASM)

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Moved Section on **Commercial relationships with ASM** to Chapter 1.4–Upstream and Downstream Sustainability Due Diligence. This is more consistent and ensures Chapter 3.5 can be marked non-applicable entirely when no ASM activities occur in the project/operation’s area of influence (even though the ENTITY may be sourcing minerals from ASM that takes place elsewhere).
- Removed the requirement related to conflict-affected and high-risk areas, as this is redundant. Commercial relationships with ASM are now integrated into Chapter 1.4 that has a clear and dedicated linkage with Chapter 1.5 on CAHRAs (including requirements and clauses to assess/ascertain applicability of the CAHRA Chapter).
- Added on optional IRMA+ requirement to extend support and knowledge-transfer activities with ASM operations.
- Added two requirements to close the Plan-Do-Check-Act continuous improvement loop, and add consistency with the rest of the Standard (Section 3.5.4 and 3.5.5).
- Substantial structural changes to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

No consultation question for this chapter

BACKGROUND

In 2013, it was estimated that there were between 20 and 30 million men, women and children involved in artisanal and small-scale mining (ASM) worldwide, and that the ASM sector was responsible for 15 to 20 percent of the production of global minerals and metals.⁷⁵¹ As of 2024, those engaged directly and indirectly in the ASM's labor value chain make up more than 225 million people working across Latin and South America, Africa, and Asia. Studies estimate that women account for between 18 percent and 50 percent of the 45 million people who work directly in ASM.⁷⁵²

While there is no single definition of ASM, it is generally understood to encompass a range of activities, including prospecting, exploration, extraction, processing and transportation, of minerals, that use more simplified and labor-intensive technologies and practices than industrial or large-scale mining (LSM).

The ASM sector is complex and diverse. It includes individuals or families mining to earn or supplement their livings, as well as small-scale commercial operations that employ numerous workers. Much of ASM is informal, including entities operating in contravention to laws, or in the absence of an appropriate legal framework, although some ASM operators do have permits, pay taxes and abide by social and environmental regulations.⁷⁵³ In some contexts, there may be a criminal element to ASM activities, such as smuggling, tax evasion, money laundering, trafficking in illegal chemicals, or financing of conflict.⁷⁵⁴

ASM sometimes occurs in areas close to, or on, LSM concessions. ASM miners may have traditionally operated in those areas, full-time or seasonally, or in other cases miners may have arrived during LSM exploration or after the development of the large-scale mine and any associated mineral processing facilities.

Given the diversity within the ASM sector, it is understandable that interactions between LSM and ASM entities can also take on a variety of forms. To maximize the opportunities for harmonious co-existence, and prevent the risk of conflict of violent confrontation,⁷⁵⁵ companies can foster positive relationships with ASM entities and individuals, and support the development of ASM that provides positive livelihood opportunities and is protective of human rights, health, safety, and the environment.

ASM is playing a growing role in global supply chains (ranging from well-known minerals and metals such as gold, cobalt, copper, and semiprecious and precious gemstones to lesser-known materials such as salt, gravel, and quarry rock) and many national economies,⁷⁵⁶ and holds the potential to provide decent livelihoods if conducted in an organized and responsible manner, and if afforded more secure access to capital and markets. Large-scale mines that operate in the same regions as ASM, or that purchase minerals produced by ASM, have the opportunity to contribute to positive transformations in the ASM sector.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- OECD, Due Diligence Guidance for Responsible Business Conduct
- World Bank, EGPS, Achieving Sustainable and Inclusive Artisanal and Small-Scale Mining (ASM), 2024

OBJECTIVE OF THIS CHAPTER

To avoid conflict and, where possible within the scope of country of operation law, foster positive relationships between entities managing large-scale mining and mineral processing operations and artisanal and small-scale mining (ASM) entities, and support the development of ASM that provides positive livelihood opportunities and is protective of human rights, health, safety, and the environment.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. However, when the stakeholders mapping process required in Chapter 1.2 demonstrates that no ASM activities is occurring in the project/operation’s area of influence (as per 1.2.1.1), this Chapter 3.5 will not be applicable.

Requirements related to the sourcing/purchase of minerals from ASM are included in Chapter 1.4 on Upstream and Downstream Sustainability Due Diligence.

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

3.5.1 Scoping

- 3.5.1.1** Building on 1.2.1.1, a scoping process (or equivalent) is undertaken and documented by competent professionals to understand the legal, social, and environmental context in which ASM activities are occurring in the site's area of influence.

3.5.2 Meaningful Engagement with ASM Entities and Communities

3.5.2.1 Critical Requirement

The ENTITY can demonstrate that a good faith effort is made to⁷⁵⁷:

- Engage with ASM entities and communities including, where relevant, informal ASM operators and formal ASM associations, as part of ongoing stakeholder engagement efforts (see Chapter 1.2);
- Consult with informal and formal ASM entities and communities during relevant risk and impact assessments and closure planning (see Chapters 2.1 and 2.7, as well as relevant social and environmental Chapters);
- Engage with communities that are or may be affected by ASM activities or by interactions between the ENTITY and ASM activities; and
- Proactively inform ASM entities and communities that there is an operational-level grievance mechanism available to raise their concerns and resolve conflicts related to the site and its associated facilities (see Chapter 1.6).

3.5.3 Foster Positive Relationships and Opportunities

- 3.5.3.1** Building on 3.5.1, to foster positive relationships and opportunities for ASM entities and communities, a management plan (or equivalent) is developed and documented by competent professionals. This plan:

- Includes regular training for the security personnel of the site and its associated facilities in respecting the human rights of individuals and communities engaged in ASM activities, and of members of communities affected by ASM activities or by the interactions between the ENTITY and ASM activities (see also Chapter 3.4);
- Includes specific support measures to improve the safety of ASM activities;
- Includes specific support measures to mitigate the adverse environmental and social impacts of ASM activities, and to maximize their positive impacts;
- Includes relevant performance indicators to evaluate the effectiveness of the ENTITY's engagement, training, and support measures; and
- Is developed in collaboration with ASM entities and communities to the extent possible.



3.5.3.2 IRMA+

The plan also includes the following specific support and knowledge transfer measures:

- a. Sharing of geological information;
- b. Skills and knowledge transfer on responsible closure and reclamation of mining areas (see Chapter 2.7); and
- c. Financial support to carry out independent assessment of the human rights, environmental, social, and governance performance of ASM activities; and
- d. Financial support to obtain third-party certification or assurance⁷⁵⁸ on the human rights, environmental, social, and governance performance of ASM activities;

3.5.4 Monitoring and Evaluation



3.5.4.1 To monitor and evaluate the implementation and effectiveness of its engagement, training, and support activities related to ASM entities and communities, at least annually, the ENTITY:

- a. Tracks and documents the implementation progress and effectiveness of its engagement activities with ASM entities and communities, over successive time periods, against the relevant performance indicators (see 3.5.3.1);
- b. Tracks and documents the implementation progress and effectiveness of its training and support activities related to ASM entities and communities, over successive time periods, against the relevant performance indicators (see 3.5.3.1); and
- c. Disaggregates the data according to gender-specific indicators, where appropriate.

3.5.5 Continuous Improvement



3.5.5.1 At least annually, but without undue delay after a significant change, the ENTITY:

- a. Reviews the monitoring and evaluation results, and any ASM-related grievances (see Section 1.6.3);
- b. Reviews its effectiveness in supporting ASM entities and communities to improve the safety of ASM activities;
- c. Reviews its effectiveness in supporting ASM entities and communities to mitigate the adverse environmental and social impacts of ASM activities, and to maximize their positive impacts;
- d. Develops and implements time-bound corrective measures to update, if necessary⁷⁵⁹, its engagement, training, and support activities related to ASM entities and communities, in accordance with Sections 3.5.2 and 3.5.3.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁷⁵¹ Buxton, A. 2013. Responding to the Challenge of Artisanal and Small-Scale Mining: How can knowledge networks help? Institute for Environment and Development (IIED), London. p. 3. <http://pubs.iied.org/16532IIED/>

⁷⁵² Sources: World Bank. 2024. "Achieving Sustainable and Inclusive Artisanal and Small-Scale Mining (ASM): A Renewed Framework for World Bank Engagement". <https://openknowledge.worldbank.org/server/api/core/bitstreams/cab95ce4-781f-42df-9c4d-912c55834c1b/content> ; and

IISD (International Institute for Sustainable Development). 2017. "Annual General Meeting Background Paper: ASM Global Trends." Prepared by the International Institute for Environment and Development (IIED). Winnipeg: IISD. <https://www.igfmining.org/wp-content/uploads/2018/09/ASM-ReportIGF-2017-AGM-Program.pdf>

⁷⁵³ *ibid.* p. 4; Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF). 2017. IGF Guidance for Governments: Managing Artisanal and Small-Scale Mining. International Institute for Sustainable Development (IISD).p. 5. <https://www.igfmining.org/resource/guidance-for-governments-managing-artisanal-and-small-scale-mining/>

⁷⁵⁴ IGF, 2017, p. 12; and Echavarria, C. 2014. 'What is legal?' Formalising Artisanal and Small-Scale Mining in Colombia. Institute for Environment and Development (IIED), London and Alliance for Responsible Mining (ARM), Columbia. P. 23. <http://pubs.iied.org/pdfs/16565IIED.pdf>

⁷⁵⁵ Communities and Small-Scale Mining, World Bank/IFC Oil, Gas and Mining Sustainable Community Development Fund and ICMM. 2010. Working Together - How Large-Scale Mining Can Engage with Artisanal and Small-Scale Miners. p. 5. <https://www.commdev.org/publications/working-together-how-large-scale-mining-can-engage-with-artisanal-and-small-scale-miners/>

⁷⁵⁶ Freudenberger, M., Ali, S., Fella, T. and Pennes, S. 2013. Property Rights and Artisanal Mining: Clarifying and Strengthening Rights: Options for Policymakers. USAID Issue Brief. p. 1. <https://www.land-links.org/wp-content/uploads/2016/09/Property-Rights-and-Artisanal-Mining.pdf>

⁷⁵⁷ Recognizing that some outreach may be difficult in some situations that pose a material risk to the ENTITY's personnel.

⁷⁵⁸ This can include certification against the CRAFT Code, and the ARM Fairmined Standard, where applicable.

⁷⁵⁹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

Chapter 3.6

Cultural Heritage

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Scoping section updated to ensure scoping results in the identification of any formally recognized cultural heritage sites in the area of influence, and any legal requirements related to cultural heritage.
- Scoping section updated to ensure the identification process includes not only risks but also impacts.
- Assessment section updated to ensure it documents the nature of the cultural heritage that has been impacted and also includes the value and importance of the heritage feature/s, and not only the extent but also the significance of the impacts; and risks.
- Updated management plan section to also include risks
- Inclusion of a “good faith negotiation ...” sub-requirement in 3.6.3.4 to achieve alignment with EBRD 2023 Guidance
- Added 3.6.3.5 to achieve alignment with EBRD 2023 Guidance.
- Added Section 3.6.5 to align more closely with EBRD Performance Requirement 8 and the associated 2023 guidance.
- Substantial structural changes to increase clarity and auditability, and to ensure consistency throughout the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Decision
3.7-01	(Background) Question: We would be interested to hear if there are other frameworks being used by in cultural heritage practitioners if there are particularly areas of IRMA's standard that could be strengthened to better reflect current best available practices in the field of cultural heritage protection.	Feedback received: 5 responses received (3 mining, 1 NGO, 1 consultancy). Responses included suggestions to include and align with EBRD Performance Requirement 8 and the relevant 2023 Guidance, IEMA Principles (2021), and ClfA (UK Chartered Institute for Archaeologists) Standards and Guidance. Some mentioned various national and legal frameworks and references. Decision: We have proposed additions and revisions to the draft Standard that incorporate these inputs. We also proposed additional sub-requirements regarding legal/permitting process obligations, protocols, standards, guidelines etc. for cultural heritage identification, fieldwork, assessment, mitigation, and monitoring.
3.7-02	(Background) Question: Do you agree that all operating mines and mineral processing sites should have to demonstrate an understanding of whether or not their past activities have impacted cultural heritage resources, and if residual impacts exist, mitigate them?	Feedback received: 8 responses received (4 mining, 1 NGO, 1 finance, 1 consultancy) All respondents but one (1 mining) agreed that this should be considered and addressed, and that this is already established current best practice. 1 consultancy flagged the need to allow for exception when a site can demonstrate that assessing past impacts is impossible. 1 mining respondent suggested to exclude past impacts that happened under the ownership of any previous owner/s (which is not in line with international recommendation and guidance). 1 mining respondent raised the issue of situations where mitigation/restoration measures that were taken decades ago could have been agreed upon by affected people (and/or in line with best practice at the time), and no longer be in line with current best practice; and asking what would be required from the ENTITY under these circumstances. Decision: Keep requirements related to past unremediated impacts. We have also provided guidance regarding historical mitigation that would now be deemed as outdated and may have resulted in unanticipated residual impacts, including were such mitigation was deemed national and/or international good or best practice at the time.
3.7-03	(3.7.3.3) Question: Do you agree that it is reasonable for mitigation actions to be evaluated for effectiveness? If you agree that the lack of monitoring-related requirements is a gap that should be filled in the IRMA Standard, can you suggest examples of best practices in the monitoring or surveillance of cultural heritage mitigation activities?	Feedback received: 5 responses received (4 mining, 1 consultancy). Responses were mixed, though overall in favor: 2 mining and 1 consultancy agreed. 1 mining suggested to defer to legal requirements. 1 mining did not think that monitoring and evaluation was needed by default (though could be required in specific cases). Decision: Based on global best practice as well as the potential of operational and external risks and impacts, the implementation of monitoring, evaluation and corrective measures remains a key component of continued operational performance that needs to be retained in the IRMA Standard.

BACKGROUND

Cultural heritage is the legacy of physical structures, landscapes, and artifacts, as well as intangible attributes of a group or society, such as language, activities, or knowledge that has cultural, scientific, spiritual, or religious value.⁷⁶⁰ This includes natural areas with cultural, spiritual, or religious value such as sacred groves, sacred bodies of water and waterways, sacred trees, and sacred rocks.

Over time, mining, mineral processing, and other forms of industrial development can both generate, and result in, profound and irreversible damage to cultural heritage. Most obviously, mining activities can destroy or damage tangible cultural heritage, such as historical buildings or sites of spiritual significance. Damage to intangible cultural heritage may also occur, for example, as a result of inappropriate visitation of sites or the inappropriate use of traditional knowledge.⁷⁶¹

Increasingly, exploration, mining, and mineral processing companies are recognizing the importance of protecting, and where possible promoting, cultural heritage to respect the rights of communities, and strengthen relationships with them, wherever they operate.⁷⁶²

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- IFC Performance Standard 8: Cultural Heritage, 2012
- IFC Guidance Note 8: Cultural Heritage, 2012
- EBRD Performance Requirement 8: Cultural Heritage, 2023
- EBRD Guidance Note PR8, 2023
- Institute of Environmental Management and Assessment (IEMA) Principles of Cultural Heritage Impact Assessment, 2021
- UK Chartered Institute for Archaeologists (CIfA) Standards and Guidance

OBJECTIVES OF THIS CHAPTER

To protect and respect the cultural heritage of communities and Indigenous Peoples.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are two (2) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is no (0) optional IRMA+ requirement in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

3.6.1 Scoping and Baseline Data



3.6.1.1 At operational sites, a screening process (or equivalent) is undertaken and documented by competent professionals to identify and understand the cultural heritage context of the operation, as follows⁷⁶³:

- a. This process identifies whether any replicable, non-replicable, or critical cultural heritage, including any formally recognized cultural heritage sites⁷⁶⁴, exists in the site's area of influence;
- b. It identifies any legal requirements⁷⁶⁵ related to the forms of cultural heritage identified;
- c. It determines whether there have been any past impacts⁷⁶⁶ on cultural heritage related to the site and its associated facilities⁷⁶⁷;
- d. It identifies any Indigenous Peoples and/or others who may have rights associated with cultural heritage (hereafter collectively referred to as 'rights-holders');
- e. It identifies other stakeholders who may have an interest in cultural heritage; and
- f. It includes consultations with relevant rights-holders and stakeholders⁷⁶⁸, to inform the identification of cultural heritage and determination of past impacts (a. and c.).



3.6.1.2 When new activities or changes in the project/operations are proposed, a scoping process (or equivalent) is undertaken and documented by competent professionals to identify and understand how they may affect the cultural heritage context of the project/operation, as follows⁷⁶⁹:

- a. This process identifies whether any replicable, non-replicable, or critical cultural heritage, including any formally recognized cultural heritage sites⁷⁷⁰, that had not been identified before, exists in the site's area of influence⁷⁷¹;
- b. It identifies any legal requirements⁷⁷² related to the forms of those cultural heritage identified;
- c. It identifies whether there are potential risks or impacts⁷⁷³ to cultural heritage identified in 3.6.1.1 and 3.6.1.2.a posed by proposed mining-related activities⁷⁷⁴;
- d. It identifies any Indigenous Peoples and/or others who may have rights associated with the potentially affected cultural heritage (hereafter collectively referred to as 'rights-holders');
- e. It identifies other stakeholders who may have an interest in the potentially affected cultural heritage; and
- f. Includes consultations with relevant rights-holders and stakeholders⁷⁷⁵, to inform the identification of cultural heritage and determination of potential risks and impacts (a. and c.).

3.6.2 Damage Assessment of Past Impacts



- 3.6.2.1** At operational sites, if past impacts⁷⁷⁶ on cultural heritage are identified (as per 3.6.1.1), a damage assessment⁷⁷⁷ (or equivalent) is carried out and documented by competent professionals, as follows:
- This damage assessment documents the nature of the cultural heritage that has been impacted⁷⁷⁸, the value⁷⁷⁹ and importance⁷⁸⁰ of the heritage feature/s, and the location of the impacts;
 - It documents the extent and significance of the **past** impacts;
 - It documents the extent and significance of any **ongoing** risks and residual impacts;
 - It documents any past activities taken to mitigate or remedy the impacts on cultural heritage⁷⁸¹, including if past mitigation or remediation efforts were agreed by affected Indigenous Peoples if relevant;
 - It includes consultations with relevant rights-holders and stakeholders⁷⁸² to inform the identification of past impacts and the nature of the cultural heritage that was impacted;
 - It determines whether past mitigation or remediation measures were in conformance with the measures related to replicable, non-replicable or critical cultural heritage found in [Annex 3.6-A](#), and/or, if relevant, with the measures for cultural heritage in protected areas found in [Annex 3.6-B](#); and
 - If past mitigation or remediation measures were not in conformance, then it outlines additional mitigation or remediation measures⁷⁸³, developed in collaboration with affected rights-holders and stakeholders.

3.6.3 Risk and Impact Assessment of Proposed Activities



- 3.6.3.1** If proposed activities may result in new or additional risks or impacts on cultural heritage (as identified per 3.6.1.2), a risk and impact assessment (or equivalent) is carried out and documented by competent professionals, as follows:
- This risk and impact assessment evaluates the likelihood and magnitude of the potential impacts on replicable, non-replicable or critical cultural heritage identified in 3.6.1.1 and 3.6.1.2⁷⁸⁴;
 - It includes direct, indirect, and cumulative impacts; and
 - It includes collaboration with affected rights-holders and stakeholders to identify acceptable mitigation measures that are consistent with the measures related to replicable, non-replicable and critical cultural heritage found in [Annex 3.7-A](#), and the measures for cultural heritage in protected areas found in [Annex 3.7-B](#), as relevant.

3.6.4 Management Plan

- 3.6.4.1** Building on 3.6.1, 3.6.2, and 3.6.3, a cultural heritage management plan (or equivalent) is developed and documented by competent professionals to protect cultural heritage by mitigating risks and impacts, as follows:
- This plan outlines specific measures to mitigate **or remedy past**, and/or mitigate potential risk and impacts⁷⁸⁵ on cultural heritage, in a manner that is consistent with the measures related to replicable, non-replicable and critical cultural heritage found in [Annex 3.7-A](#), and the measures for cultural heritage in protected areas found in [Annex 3.7-B](#), as relevant;
 - It **identifies success indicators tied to** relevant baseline data⁷⁸⁶, to enable evaluation of the effectiveness of mitigation activities over time;
 - It identifies the role of **affected rights-holders and stakeholders** in the collaborative development, implementation, **and monitoring and evaluation** of the plan;
 - It assigns implementation of measures to responsible staff with adequate skills and expertise;
 - It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁷⁸⁷;
 - It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for **affected rights-holders and stakeholders**;
 - It maintains estimates of human resources and budget required; and
 - It includes a financing plan to ensure that funding is available for the effective implementation of the plan.

- 3.6.4.2** The plan required in 3.6.4.1 (and any additional procedure/s in place) ensures that:
- Mitigation measures for replicable, non-replicable, and critical cultural heritage **are consistent with the best practices listed in [Annex 3.6-A](#)**, as relevant;
 - If actual or potential impacts and risks are associated with cultural heritage in a protected area, **mitigation measures are aligned with the requirements in [Annex 3.6-B](#)**;
 - Chance finds are managed, including, at minimum, through a requirement that **employees and contractors** do not further disturb any chance find until an evaluation by competent professionals is made and mitigation measures **consistent with [Annex 3.6-A](#) and [Annex 3.6-B](#) of this Chapter** are developed, as relevant;
 - Relevant **employees and contractors** receive training on cultural heritage site recognition and care, and on the ENTITY's plans and procedures related to cultural heritage management;
 - Potential risks and impacts to cultural heritage from **visitors** to the site and its **associated facilities** are mitigated and managed; and
 - Continued access to cultural sites is allowed, subject to: 1) Consultations with relevant **Indigenous Peoples** and affected communities; and 2) Any overriding health, safety, and security considerations.



- 3.6.4.3** The plan required in 3.6.4.1 (and any additional procedure/s in place) also ensures that, when the project intends to make commercial use of cultural heritage that is **not** Indigenous Peoples' cultural heritage⁷⁸⁸, such use only takes place:
- After the affected custodians and/or communities of such cultural heritage have been informed of their rights under the country of operation's law, the scope and nature of proposed commercial development, and the potential consequences of such development;
 - After good faith negotiations have included meaningful consultation with the affected custodians and/or communities, and their participation has been documented; and
 - After the negotiations have resulted in a mutual agreement on the fair and equitable sharing of benefits.

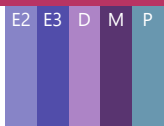
3.6.5 Specific Measures for Cultural Heritage of Indigenous Peoples



3.6.5.1 Critical Requirement

When cultural heritage of Indigenous Peoples exists in the site's area of influence:

- Proposed mining-related activities that may impact Indigenous Peoples' critical cultural heritage proceed only with the free, prior and informed consent of the affected Indigenous Peoples, in accordance with relevant requirements of Chapter 2.2⁷⁸⁹;
- Mitigation strategies for past impacts and new impacts and risks on Indigenous Peoples' cultural heritage are agreed by Indigenous Peoples prior to their implementation, in accordance with relevant requirements of Chapter 2.2; and
- Procedures are developed to allow for the public sharing of information related to Indigenous Peoples' cultural heritage, subject to agreement with affected Indigenous Peoples.



3.6.5.2 Critical Requirement

When the project intends to make commercial use of cultural heritage of Indigenous Peoples, the ENTITY has a system in place to ensure, and can demonstrate, that this only takes place:

- After the Indigenous Peoples have been informed of their rights under the country of operation's law, the scope and nature of proposed commercial development, and the potential consequences of such development; and
- If, and only if, the ENTITY has obtained the free, prior and informed consent of the Indigenous Peoples through an FPIC process (or processes) in accordance with relevant requirements of Chapter 2.2⁷⁹⁰, and after the negotiations have resulted in a mutual agreement on the fair and equitable sharing of benefits.

3.6.6 Monitoring and Evaluation

- 3.6.6.1** To monitor and evaluate the effectiveness and appropriateness of its measures to mitigate all significant risks and impacts on cultural heritage, the ENTITY collaborates with affected rights-holders and stakeholders, and custodians of cultural heritage to, at least annually:
- Track and document the ENTITY's performance on mitigating or remediating **past** impacts, and mitigating **current potential** risks and impacts to cultural heritage, over successive time periods, against the success indicators required in 3.6.4.1;
 - Encourage and facilitate joint monitoring and joint tracking with affected rights-holders and stakeholders, and custodians of cultural heritage, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2⁷⁹¹; and
 - Include continuous feedback from internal and external sources, including from joint monitoring and joint tracking with rights-holders and stakeholders, and custodians of cultural heritage.

3.6.7 Continuous Improvement

- 3.6.7.1** At least annually, but without undue delay after a significant change, the ENTITY collaborates with affected rights-holders and stakeholders, and custodians of cultural heritage to:
- Review the monitoring and evaluation results, informed by internal and external feedback, as per Section 3.6.6;
 - Review any cultural heritage-related grievances (see also Section 1.6.4);
 - Review the ENTITY's effectiveness in mitigating or remediating **past** impacts, and mitigating **current potential** risks and impacts on cultural heritage, informed by the monitoring and evaluation required in 3.6.6.1;
 - Develop and implement time-bound corrective measures to update, if necessary⁷⁹², the scoping and baseline data collection process in accordance with Section 3.6.1;
 - Develop and implement time-bound corrective measures to update, if necessary⁷⁹³, the damage assessment (if relevant) and the risk and impact assessment in accordance with Sections 3.6.2 and 3.6.3;
 - Develop and implement time-bound corrective measures to update, if necessary⁷⁹⁴, its monitoring and evaluation processes in accordance with Section 3.6.6.

3.6.8 Information-Sharing and Public Reporting

- 3.6.8.1** The ENTITY makes and maintains publicly accessible, and proactively shares with affected rights-holders and stakeholders:
- Summary versions and key findings of cultural heritage scoping, **damage assessment**, and risk and impact assessment processes;
 - Summary versions and key findings of cultural heritage management plan, including specific measures for cultural heritage of Indigenous Peoples (if applicable), **and an annual update on the progress made to implement the plan; and**
 - Information on the cultural heritage features within the project/operation's area of influence and any significant new understanding is proactively shared with stakeholders and the general public⁷⁹⁵ to raise awareness about, and appreciation of, the value of these features.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

While this chapter applies to both Indigenous and non-Indigenous cultural heritage, it does not specify requirements applicable to Indigenous and Community Conserved Areas (ICCAs) designated as such by Indigenous Peoples or local communities. These are areas governed and/or managed by the people or community in a manner that conserves nature and/or cultural values.⁷⁹⁶ Such areas may be considered by Indigenous Peoples as a part of their cultural heritage and, as such, could be raised during the cultural heritage scoping process and addressed in Chapter 3.6, and/or addressed during the free, prior and informed consent process in Chapter 2.2.

⁷⁶⁰ Adapted from: Daes, E. 1995. Protection of the heritage of Indigenous people. Final report of the Special Rapporteur, Mrs. Erica-Irene Daes, in conformity with Subcommission resolution 1993/44 and decision 1994/105 of the Commission on Human Rights. E/CN.4/Sub.2/1995/26. June 21, 1995; and IFC. 2012. IFC's Guidance Notes: Performance Standards on Environmental and Social Sustainability. Guidance Note 7, p. 17.

⁷⁶¹ E.g., some Indigenous heritage sites may be gendered—safe for one sex but dangerous to the other; Indigenous Peoples' knowledge regarding the existence, location and significance of sites is often not public; and in some cases, if knowledge of sacred sites is transferred inappropriately it may be dangerous to both the giver and receiver. (O'Faircheallaigh, C. 2008. Negotiating Cultural Heritage? Aboriginal-Mining Company Agreements in Australia. p. 7)

⁷⁶² E.g., see Anglo American. 2009. The Anglo Social Way: Management System Standards. p. 12. https://www.angloamerican.com/development/approach-and-policies/human-rights/~/_media/Files/A/Anglo-American-Plc/siteware/docs/aa_social_way.pdf; and also: Rio Tinto. 2011. Why Cultural Heritage Matters. https://cdn-rio.dataweavers.io/-/_media/content/documents/sustainability/corporate-policies/rt-why-cultural-heritage-matters.pdf?rev=cf46a63414e84401aa1642ae6b7fe181

⁷⁶³ Some or all of this may already have been done as part of an ESIA.

⁷⁶⁴ For example, UNESCO World Heritage Sites; areas on a state Party's official Tentative List for World Heritage Site Inscription; UNESCO Global Geoparks; National Heritage Sites; formally recognised Historic Districts, Monuments and Memorials, Cultural Landscapes, and Archaeological Sites; International Union for Conservation of Nature (IUCN) protected area management categories I-III, Core areas of UNESCO biosphere reserves, and legally protected areas designated to protect cultural heritage (including areas proposed by host governments for such designation, or a legally defined protected area buffer zone), etc.

⁷⁶⁵ This could include, but is not limited to, legal approval/permitting requirements and legislated protocols, standards and guidelines for cultural heritage identification, fieldwork/surveys, assessment, mitigation, and monitoring, amongst others.

⁷⁶⁶ Including direct, indirect and cumulative impacts.

⁷⁶⁷ Including from previous owner/s. Cognizance should be taken of historically appropriate assessment and implementation of mitigation measures for cultural heritage, which were deemed as national and/or international good or best practice at the time, but nonetheless resulted in unanticipated residual impacts.

⁷⁶⁸ Besides the rights-holders and stakeholders identified as per d. and e., this could include international, national and local regulators/administrators, curators and archivists; custodians, tradition bearers, and knowledgeable individuals within the affected communities; scientific/research institutions; academic experts; and religious leaders (EBRD, 2023). Such consultation should include consideration of how the stakeholder/s are connected to the cultural heritage feature.

⁷⁶⁹ Some or all of this may be part of an ongoing ESIA.

⁷⁷⁰ For example, UNESCO World Heritage Sites; areas on a state Party's official Tentative List for World Heritage Site Inscription; UNESCO Global Geoparks; National Heritage Sites; formally recognised Historic Districts, Monuments and Memorials, Cultural Landscapes, and Archaeological Sites; International Union for Conservation of Nature (IUCN) protected area management categories I-III, Core areas of UNESCO biosphere reserves, and legally protected areas designated to protect cultural heritage (including areas proposed by host governments for such designation, or a legally defined protected area buffer zone), etc.

⁷⁷¹ This may already have been done at sites where changes are being proposed to current operations.

⁷⁷² This could include, but is not limited to, legal approval/permitting requirements and legislated protocols, standards and guidelines for cultural heritage identification, fieldwork, assessment, mitigation, and monitoring, amongst others.

⁷⁷³ Including direct, indirect and cumulative impacts.

⁷⁷⁴ If screening does not identify any risks or potential impacts to cultural heritage, then further assessment is not needed.

Note that screening may take place as part of the ESIA in IRMA Chapter 1.2, or as part of the biodiversity, ecosystem services and protected areas screening in IRMA Chapter 4.4.

Screening should include a determination of whether or not the proposed project is in an area currently or traditionally occupied or used by Indigenous Peoples, where cultural heritage of other communities may be affected, where there may be Indigenous Peoples living in voluntary isolation, or where nearby areas have been legally protected to preserve cultural heritage.

⁷⁷⁵ Besides the rights-holders and stakeholders identified as per d. and e., this could include international, national and local regulators/administrators, curators and archivists; custodians, tradition bearers, and knowledgeable individuals within the affected communities; scientific/research institutions; academic experts; and religious leaders (EBRD, 2023).

⁷⁷⁶ Including direct, indirect, and cumulative impacts.

⁷⁷⁷ For example, see: Welch, J., Cowell, S., Ryan, S., Whiting, D., & Cantley, G. 2023. "Cultural Resource Damage Assessment," *Advances in Archaeological Practice*, 11(2), 111-125. <https://www.cambridge.org/core/journals/advances-in-archaeological-practice/article/cultural-resource-damage-assessment/5256E58A791028468B0660B5A35679EC>

⁷⁷⁸ I.e., was it replicable, non-replicable or critical cultural heritage, and was it tangible or intangible.

⁷⁷⁹ Values are typically expressed as low, medium, high (and sometimes very high). These can be equated to local, national and international value, with factors to be taken into account including legal status/designation/protection, rarity, condition, preservation of townscape/landscape integrity, and views of affected stakeholders, amongst other criteria (EBRD, 2023).

⁷⁸⁰ The importance is the level of protection that the cultural heritage feature is currently afforded or that it merits in cultural heritage legislation (i.e., the protection it should be afforded through legislation and/or planning policy, for example) (IEMA, 2021).

⁷⁸¹ This should include documentation of which historical mitigation measures were deemed national and/or international good or best practice at the time.

⁷⁸² Besides the rights-holders and stakeholders identified as per 3.6.1.1.d. and 3.6.1.1.e., this could include international, national and local regulators/administrators, curators and archivists; custodians, tradition bearers, and knowledgeable individuals within the affected communities; scientific/research institutions; academic experts; and religious leaders (EBRD, 2023). Such consultation should include consideration of how the stakeholder/s are connected to the cultural heritage feature.

⁷⁸³ Mitigation measures should be aligned with current good and best practices. For example, see <https://www.archaeologists.net/codes/cifa>

⁷⁸⁴ This may already have been done at sites where changes are being proposed to current operations.

⁷⁸⁵ Mitigation measures should be aligned with current good and best practices. For example, see <https://www.archaeologists.net/codes/cifa>

⁷⁸⁶ Baseline data should be collected by competent professionals, ideally as part of Chapter 2.1 (see 2.1.5.1 and 2.1.11.3.b).

⁷⁸⁷ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁷⁸⁸ For cultural heritage of Indigenous Peoples, see Section 3.6.5.

⁷⁸⁹ Note that, because of the requirement that FPIC be free from external manipulation, coercion and intimidation, an FPIC process cannot be undertaken -and consent cannot be deemed given- in situations where Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or Initial Contact may be affected (see also Section 2.2.6). This requirement being a critical requirement, failure to meet it will not only prevent the ENTITY to achieve IRMA 100, but also to achieve any Achievement Level higher than IRMA Transparency. Additionally, any attempt to initiate or make contact with those Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or Initial Contact who may be affected by mining-related activities would constitute intentional contribution to serious human rights abuses. According to IRMA Policy on Association, approved by the IRMA Board in October 2023, such endeavor would represent grounds for IRMA to exclude an operating company or its corporate owner from participating, or terminate a relationship with a company that has a participating IRMA mine. In the current version of the policy, the decision of whether or not to deny or withdraw IRMA achievement recognition, and any terms and conditions that might allow a company to re-associate with IRMA, has to be made by the IRMA Board. IRMA welcomes comments on its policy, available at: <https://responsiblemining.net/wpcontent/uploads/2023/12/IRMA-Policy-on-Association-v2023-01.pdf>.

⁷⁹⁰ Note that, because of the requirement that FPIC be free from external manipulation, coercion and intimidation, an FPIC process cannot be undertaken -and consent cannot be deemed given- in situations where Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or Initial Contact may be affected (see also Section 2.2.6). This requirement being a critical requirement, failure to meet it will not only prevent the ENTITY to achieve IRMA 100, but also to achieve any Achievement Level higher than IRMA Transparency. Additionally, any attempt to initiate or make contact with those Uncontacted Indigenous Peoples or Indigenous Peoples Living in Voluntary Isolation or Initial Contact who may be affected by mining-related activities would constitute intentional contribution to serious human rights abuses. According to IRMA Policy on Association, approved by the IRMA Board in October 2023, such endeavor would represent grounds for IRMA to exclude an operating company or its corporate owner from participating, or terminate a relationship with a company that has a participating IRMA mine. In the current version of the policy, the decision of whether or not to deny or withdraw IRMA achievement recognition, and any terms and conditions that might allow a company to re-associate with IRMA, has to be made by the IRMA Board. IRMA welcomes comments on its policy, available at: <https://responsiblemining.net/wpcontent/uploads/2023/12/IRMA-Policy-on-Association-v2023-01.pdf>.

⁷⁹¹ This is especially relevant for contexts where the Entity and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the Entity's own tracking of the effectiveness of its response to it.

⁷⁹² Including if new information on increased or additional risks to cultural heritage becomes available during the life cycle of the project/operation, or if monitoring indicates that mitigation measures are not being effective; and whenever there are proposed changes to activities, significant changes to the physical footprint, a new significant impact or risk, or changes in the operational,

environmental, or social context that may create new risks to cultural heritage or change the nature or degree of an existing impact. This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁷⁹³ Including if new information on increased or additional risks to cultural heritage becomes available during the life cycle of the project/operation, or if monitoring indicates that mitigation measures are not being effective; and whenever there are proposed changes to activities, significant changes to the physical footprint, a new significant impact or risk, or changes in the operational, environmental, or social context that may create new risks to cultural heritage or change the nature or degree of an existing impact. This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁷⁹⁴ Including if new information on increased or additional risks to cultural heritage becomes available during the life cycle of the project/operation, or if monitoring indicates that mitigation measures are not being effective; and whenever there are proposed changes to activities, significant changes to the physical footprint, a new significant impact or risk, or changes in the operational, environmental, or social context that may create new risks to cultural heritage or change the nature or degree of an existing impact. This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁷⁹⁵ This could be undertaken via scientific publications, popular articles, radio and TV programmes, social media, presentations, community meetings, brochures, or other appropriate forms of communication.

⁷⁹⁶ ICCA Consortium website: “Three defining characteristics for ICCAs.” <https://www.iccaconsortium.org/index.php/discover/>

CHAPTER ANNEXES

ANNEX 3.6-A: Best Practice Mitigation Measures Based on the Nature of the Cultural Heritage

TYPE OF CULTURAL HERITAGE	BEST PRACTICE MITIGATION MEASURES
Replicable Cultural Heritage that is not considered Critical Cultural Heritage Replicable cultural heritage is defined as tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures. Archeological or historical sites may be considered replicable where the particular eras and cultural values they represent are well represented by other sites and/or structures.	- The mitigation hierarchy is applied as follows: - Mitigation measures, as a priority, favor avoidance. - Where avoidance is not feasible, adverse impacts and risks are minimized and in situ restoration measures that ensure maintenance of the value and functionality of the cultural heritage, including maintaining or restoring any ecosystem processes needed to support it, are implemented; - Where restoration in situ is not possible, the functionality of the cultural heritage, and any ecosystem processes needed to support it, is restored in a different location; - Where restoring the functionality of the cultural heritage in a different location is demonstrably not feasible, a justification for that determination is provided based on a competent expert's review of the circumstances.⁷⁹⁷ Only then may historical and archeological artifacts and structures be permanently removed. - If removal occurs, and affected communities have been using the tangible cultural heritage for long-standing cultural purposes, they are compensated for loss of that tangible cultural heritage. Compensation is only paid to affected communities that have been using tangible cultural heritage for long standing cultural purposes. It is not given for removal of archeological material from cultural horizons that pre-date the current affected communities or for other cultural heritage that has not been used within the living memory of the community. Compensation is also not given for loss of intangible cultural heritage. - All mitigation work involving replicable cultural heritage is carried out by competent professionals. - All mitigation work is conducted using the best available techniques - All mitigation, documentation and field-based studies use internationally recognized practices for the protection of cultural heritage.
Non-replicable Cultural Heritage Non-replicable cultural heritage is cultural heritage that (i) is unique or relatively unique for the period it represents, or (ii) unique or relatively unique in linking several periods in the same site.	- No tangible nonreplicable cultural heritage is removed unless all of the following conditions are met: - There are no technically or financially feasible alternatives to removal; - The overall benefits of the project conclusively outweigh the anticipated cultural heritage loss from removal; - Any removal of cultural heritage uses best available techniques that are peer reviewed by external experts before being implemented.⁷⁹⁸ - All mitigation work involving non-replicable cultural heritage is carried out by competent professionals. - All mitigation, documentation and field-based studies use internationally recognized practices for the protection of cultural heritage.
Critical Cultural Heritage Critical cultural heritage consists of: (i) the internationally recognized heritage of communities who use, or have used	- Critical cultural heritage is not removed, significantly altered or damaged except in exceptional circumstances when impacts on critical cultural heritage are unavoidable and all of the following conditions are met: - The assessment and mitigation measures to protect cultural heritage are carried out by competent professionals, and external experts are also

within living memory the cultural heritage for long-standing cultural purposes, (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation; or (iii) natural areas with cultural and/or spiritual value such as sacred groves, sacred bodies of water and waterways, sacred trees, and sacred rocks.	retained to assist in the assessment and selection of protection of internationally recognized practices to protect of cultural heritage;⁷⁹⁹ and ii. Collaboration occurs with affected communities to negotiate measures to protect critical cultural heritage and provide equitable outcomes for affected communities, and document the mutually accepted negotiation process and outcomes. 2. Where impacts may occur to the critical cultural heritage of <u>Indigenous Peoples</u> the critical cultural heritage is not removed, significantly altered or damaged without their free, prior and informed consent (See IRMA Chapter 2.2).
Commercial Use of Intangible Cultural Heritage Intangible cultural heritage⁸⁰⁰ includes knowledge, innovations and/or practices, including oral expressions of folklore, performing arts, rituals, festivals, that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.	1. When an ENTITY proposes to use the intangible cultural heritage, including knowledge, innovations or practices of local communities for commercial purposes, the ENTITY informs these communities of their rights under national and international law, of the scope and nature of the proposed commercial development, and of the potential consequences of such development. 2. The ENTITY does not proceed with such commercialization unless it: i. Collaborates with affected communities using a good faith negotiation process that results in a documented outcome; and ii. Provides for fair and equitable sharing of benefits from commercialization of such knowledge, innovation, or practice, consistent with local customs and traditions. iii. When an ENTITY proposes to use <u>Indigenous Peoples'</u> cultural heritage for commercial uses, negotiation shall take place through the free, prior and informed consent process outlined in IRMA Chapter 2.2, unless otherwise agreed by the <u>Indigenous Peoples</u>.

ANNEX 3.6-B: Best Practice Mitigation Measures if Cultural Heritage is in a Protected Area

LOCATION OF CULTURAL HERITAGE	BEST PRACTICE MITIGATION MEASURES
Cultural heritage is in: - World Heritage Sites, and areas on a state Party's official Tentative List for World Heritage Site Inscription; - International Union for Conservation of Nature (IUCN) protected area management categories I-III; and - Core areas of UNESCO biosphere reserves.	- If these protected areas were designated to protect cultural heritage, then no proposed mining-related activities may adversely affect the cultural heritage values being protected. - Where operations existed in the location prior to the designation to protect cultural heritage: - Develop a management plan (or equivalent) and implement mitigation measures agreed by relevant management authorities (i.e., agencies or bodies responsible for protected area governance and management) to ensure that activities during the remaining life cycle do not permanently and materially damage the integrity of the cultural values for which the area was designated or recognized; and - Collaborate with relevant management authorities to integrate the operation's management strategies into the protected area's management plan, and the protected area management plan objectives and actions are integrated into the operation's management strategies.
Cultural heritage is in: A legally protected area designated to protect cultural heritage (including areas proposed by host governments for such designation, or a legally defined protected area buffer zone)	- All mining-related activities comply with the protected area's management plan. - If proposed activities are legally permitted, collaborate with protected area management authorities (i.e., agencies or bodies responsible for protected area governance and management) and rights-holders, and consult with other key stakeholders, on the proposed mining-related activities, and on proposed mitigation measures and additional programs to promote and/or enhance the conservation aims and cultural heritage values in the area. - Collaborate with management authorities to integrate the agreed mitigation measures into the protected area's management plan. - Implement mitigation measures agreed by management authorities and rights-holders. - Implement additional programs, as appropriate and agreed by management authorities and rights-holders, to promote and enhance the conservation aims and cultural heritage values of the protected area.

⁷⁹⁷ Added from IFC. 2012. Performance Standard 8 Cultural Heritage. Guidance Note 8. p. 6.

<https://www.ifc.org/content/dam/ifc/doc/2010/2012-ifc-performance-standards-guidance-note-en.pdf>

⁷⁹⁸ Added from IFC PS8, Guidance Note 22.

⁷⁹⁹ For example, the best available technique proposed by competent professionals hired by the ENTITY could undergo a peer review by international external experts, or technical experts selected by stakeholders, to ensure that no better, feasible techniques are available.

⁸⁰⁰ Safeguarding of intangible cultural heritage depends on ensuring its viability among today's generation and its continued transmission to future generations. Threats to transmission of this element of living heritage include changes that reduce intergenerational contacts, such as migration, urbanisation and changes in education and employment (EBRD, 2023).

Examples of the domains/types of intangible cultural heritage can be found at

<https://www.ebrd.com/documents/environment/guidance-note-performance-requirements-8-cultural-heritage.pdf>

Chapter 3.7

Noise and Vibration

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Moved expectations related to information-sharing to response to grievance (3.7.4.1).
- Grouped all maximum acceptable noise and vibration levels to a normative Annex which is referred to in Section 3.7.3.
- Created a section and requirement dedicated to a Monitoring Program (3.7.2).
- Risks and impacts on wildlife are now integrated into the scoping processes required in Chapter 4.4 on Biodiversity, Ecosystem Services, and Protected and Conserved Areas. This is more consistent, and coherent with the fact that the Chapter on Noise and Vibration mainly focuses on risks and impacts on people and structures (and now moved under Principle 3 on Social Responsibility)
- Minor structural changes to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
4.4-01	(General) Question: Currently, we do not have a requirement for noise monitoring. Do entities typically carry out regular or even periodic monitoring of noise levels, e.g., at site boundaries, or is monitoring more typically only done in response to complaints or other indications that there may be noise-related issues?	Feedback received: 6 responses received (4 mining, 1 purchaser, 1 consultant). General support that monitoring should occur IF impacts have been identified. Proposed Decision: Based on input on this consultation question, which was overall supportive of a noise monitoring requirement, we are proposing to add a monitoring requirement. We had already included requirements to measure noise/vibration levels and compare them to specific maximum allowable noise/vibration limits. The addition of a specific monitoring requirement allows us to move those limits into a table, and simply require that monitoring results be compared to the values in those tables. The outcome of that comparison will determine if additional monitoring and mitigation is required. (See proposed new requirement 3.7.2.1).
4.4-02	(4.4.1.1 - Scoping) Background: In the 2018 Mining Standard, existing operations were not expected to carry out noise scoping unless there was a change to the operation that could increase noise levels. If there was a noise-related complaint at the existing site, however, the operation would be required to take action as per the requirements in the rest of the chapter. We are proposing here that all sites (proposed projects and existing operations) demonstrate that they have carried out a scoping of potential noise and vibration impacts. The rationale is that without such evidence, it is difficult for entities to know if there may be impacts that are being overlooked. Also, the 2018 Mining Standard (and this proposed updated version of the Standard) expects that noise-related impacts on human and wildlife receptors would be considered as part of the Environmental and Social Impact Assessment (ESIA) process in Chapter 2.1 and if significant impacts are identified then mitigation options are developed as per the ESIA process. Therefore, in many cases, scoping of potential noise/vibration-related impacts will already have been done. However, for projects or operations that either have not/did not go through ESIA or did not do a comprehensive assessment of the range of potential impacts during	Feedback received: 7 responses received (4 mining, 1 NGO, 1 purchaser, 1 consultant). Results are split on whether or not to require scoping. Four (4, cross-stakeholders) support, two (2 mining) do not support requiring scoping for existing operations unless there is a trigger. A rationale from one in support is that "An existing operation could be impacting receptors through noise/vibrations without them knowing." Proposed Decision: We are proposing to leave the requirement as is, which means that it will be assessed at both new projects and at existing operations. However, we are proposing that at existing operations, if noise scoping was not covered in an ESIA, entities could demonstrate that they have met the intent of this requirement by producing evidence that they have conducted consultations with affected communities that included specifically asking community members about any issues with noise/vibrations, and consultations with wildlife experts (e.g., could be government representatives, local/regional wildlife biologists, academics) to understand if there may be impacts on wildlife of which the ENTITY was unaware. If only grievances (or lack of grievances) are produced as

	the ESIA, then it seems reasonable that these issues be scoped as a standalone exercise so that all entities are held to the same expectations. Question: Do you agree with this new approach requiring that all sites demonstrate that they have scoped noise issues? Or should a scoping only be triggered at existing operations if there is a complaint or a change in potential noise sources?	evidence, then existing sites would not meet this requirement, because the intent is that there needs to be proactive effort to fully understand if there may be impacts or not.
4.4-03	(4.4.2.2 – Blasting-induced impacts) Question: As with the 2018 Mining Standard, the blasting measures are only required if there are human receptors who may be affected by the noise or vibrations from blasting. While wildlife may be affected by blasting, it is not clear if the measures outlined in 4.4.2.4 would even prevent impacts on them. If there are special mitigation measures that can reduce blasting-related impacts on wildlife (for example, maybe cessation of blasting during particularly sensitive calving times, etc.) then it is our presumption that those specific actions would be incorporated into the management plan (requirement 4.4.2.1). Do you agree with this approach?	Feedback received: 5 responses received (3 mining, 1 purchaser, 1 consultant). General support that blasting impacts on wildlife should be mitigated, and included in management plan Proposed Decision: Risks and impacts on wildlife are now integrated into the scoping processes required in Chapter 4.4 on Biodiversity, Ecosystem Services, and Protected and Conserved Areas. This is more consistent, and coherent with the fact that the Chapter on Noise and Vibration mainly focuses on risks and impacts on people and structures (and now moved under Principle 3 on Social Responsibility)

BACKGROUND

Mineral exploration and development, mining, and mineral processing, can all create significant noise and/or vibration. Noise and vibration may result from airborne and ground-based geophysics, drilling, blasting during construction or at open pit and underground mines, ore stockpiling, screening, and crushing, handling and movement of materials on-site, emission treatment processes, fans and filtration systems, electrical substations and cooling towers, truck or rail traffic bringing consumables to the site and shipping final products from the site.

Studies have shown that there are direct links between noise and health. Problems related to noise include stress-related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity for humans,⁸⁰¹ but there are also noise-related impacts on wildlife (covered in Chapter 4.4).⁸⁰² Studies have also demonstrated that vibrations, such as those created by blasting, can sometimes be felt in nearby communities, and even cause damage to buildings or the contents of buildings, such as items on walls or shelves.⁸⁰³

Many noises and vibrations can be moderated or partially managed by employing mitigation measures to reduce a noise or vibration at its source, or by eliminating or minimizing the pathways for transmission of noise and screening sensitive receptors. Measures include installing new low noise/vibration equipment or retrofitting existing equipment, using acoustic enclosures and sound-absorbing materials to limit transmission and constructing berms and planting trees to screen sensitive receptors from noise.

Vibration impacts from blasting can be mitigated, for example, by controlling charge weight diameter and charge coupling within boreholes or controlling the direction or sequence of blast initiation.⁸⁰⁴

Planning and timing of activities and communications with affected rights-holders and stakeholders are also important management measures. However, effective control may be challenging when a project or operation is located near communities and/or structures of high social, cultural, religious or spiritual values.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- ILO Convention C148 - Working Environment (Air Pollution, Noise and Vibration), 1977
- IFC General Environmental, Health, and Safety Guidelines, 2007

OBJECTIVES/INTENT OF THIS CHAPTER

To preserve the health and wellbeing of nearby noise receptors and the amenity of properties and community values, and to protect offsite structures and cultural sites from vibration impacts.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. Note that worker-related noise or vibration issues are covered under Chapter 3.2—Occupational Health and Safety.⁸⁰⁵

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is no (0) critical requirement in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is no (0) optional IRMA+ requirement in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

3.7.1 Scoping and Baseline Data



- 3.7.1.1** A scoping process (or equivalent) is carried out and documented by competent professionals, as follows:
- It determines if there may be significant noise and/or vibration impacts on human receptors⁸⁰⁶ or structures from mining-related activities and/or associated facilities;
 - It builds on relevant existing baseline data;
 - Is informed by consultations with affected rights-holders and stakeholders; and
 - It is updated without undue delay after a significant change that may result in a new source of noise or vibration or an increase in existing noise or vibration levels.



- 3.7.1.1** If the scoping process identifies that human receptors or structures may be significantly affected by noise and/or vibration from mining-related activities or associated facilities, baseline ambient noise and vibration levels in potentially-affected and affected areas⁸⁰⁷ are gathered and documented by competent professionals.

3.7.2 Monitoring Program



- 3.7.2.1** When the scoping required in 3.7.1, or other credible information including grievance filed, indicate that there are human receptors or structures that may be significantly affected by noise or vibration from mining-related activities, a monitoring program is developed and implemented by competent professionals to monitor noise and/or vibration levels (as relevant), as follows:
- The monitoring program uses credible methods at relevant location/s and with appropriate equipment⁸⁰⁸;
 - If levels exceed those in Annex 3.7, the ENTITY develops and implements corrective measures, remediation measures if relevant, and updates management plan accordingly, and continues to monitor noise/vibration; and
 - If levels do not exceed those in Annex 3.7, or when exceedance has been corrected⁸⁰⁹, monitoring may be discontinued⁸¹⁰.

3.7.3 Management Plan



- 3.7.3.1** If the scoping required in 3.7.1, and/or results from the monitoring program required in 3.7.2, and/or any other credible information⁸¹¹, indicate that there are human receptors or structures that may be significantly affected by noise or vibration from mining-related activities, a noise and vibration management plan (or equivalent) is developed and documented by competent professionals, as follows:
- The plan is informed by consultations with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people;
 - It outlines specific measures that strictly align with the mitigation hierarchy to avoid and, where not possible, minimize and remediate or compensate adverse impacts related to noise and vibration;
 - It includes appropriate qualitative and quantitative performance indicators⁸¹² (including gender-disaggregated indicators where appropriate), that have been agreed upon with affected rights-holders and stakeholders, to enable evaluation of the effectiveness of mitigation measures over time;
 - It assigns implementation of measures to responsible staff with adequate skills and expertise;
 - It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁸¹³;
 - It includes clearly-defined timelines and an implementation schedule that specifies the expected outcomes for the affected people;
 - It maintains estimates of human resources and budget required; and
 - It includes a financing plan in place to ensure that funding is available for the effective implementation of the plan.

3.7.4 Response to Grievances



- 3.7.4.1** If the ENTITY receives a credible, supported grievance that noise or vibration is adversely impacting human receptors or structures, the ENTITY:
- Initiates monitoring in accordance with 3.7.2 to determine noise and/or vibration levels at the receptor or other appropriate monitoring location;
 - It proactively shares relevant data and information, including the monitoring results, with the complainant/s and any affected rights-holders and stakeholders;
 - If there are exceedances of the limits in Annex 3.7, it develops, in collaboration with affected rights-holders and stakeholders, mitigation strategies or other specific measures to resolve the grievance; and
 - It collaborates with affected rights-holders and stakeholders to monitor, evaluate, and review, the effectiveness of these mitigation strategies or measures in resolving the grievance, and to develop, if necessary, corrective measures.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁸⁰¹ For example, see various documents on US EPA Noise Pollution Clearinghouse website: www.nonoise.org/epa.htm; Also, see various publications on World Health Organization website: www.euro.who.int/en/health-topics/environment-and-health/noise/publications

⁸⁰² U.S. National Parks Service. 2014. Annotated Bibliography – Impacts of Noise on Wildlife. <https://www.nhsec.nh.gov/projects/2014-04/documents/150420pastoriza.pdf>

⁸⁰³ See, for example: Victoria (Australia) State Government. Ground Vibration and Airblast Limits for Blasting in Mines and Quarries. <http://earthresources.vic.gov.au/earth-resources-regulation/licensing-and-approvals/minerals/guidelines-and-codes-of-practice/ground-vibration-and-airblast-limits-for-blasting-in-mines-and-quarries>; and U.S. Office of Surface Mining Reclamation and Enforcement: <https://www.osmre.gov/programs/regulating-active-coal-mines/blasting>; and the Pennsylvania Department of Environmental Protection Blasting Research page: <https://www.dep.pa.gov/Business/Land/Mining/BureauofDistrictMining/SurfaceBlasting/Training/Pages/Blasting-Research-Papers.aspx>

⁸⁰⁴ See e.g., Controlling the Adverse Effects of Blasting. OSMRE Presentation, available at: <https://www.osmre.gov/resources/blasting/docs/WYBlasterCertModules/8AdverseEffectsBlasting.pdf>

⁸⁰⁵ The structural vibration issues in this chapter (4.4) relate to buildings and structures. Chapter 3.2 includes job related vibration such as caused by sitting on a vibrating seat (such as operating heavy machinery) or hand vibration while working on a vibrating machine with one's hands. See e.g., <http://www.ohsrep.org.au/hazards/vibration/effects-of-vibration>; and https://www.ccohs.ca/oshanswers/phys_agents/vibration/vibration_effects.html

⁸⁰⁶ If there is the potential that wildlife may be affected by noise or vibration, scoping and mitigation are undertaken in Chapter 4.4.

⁸⁰⁷ Including at the location(s) of human receptors and structures that are closest to the noise/vibration sources, and also at locations of other relevant human receptors and structures. Relevant receptors should include the closest receptors to where exploration, mining or processing activities will take place, but also any others that have the potential to be affected by noise or vibrations. Topography and meteorology (e.g., prevailing wind directions, temperature inversions) should be considered, when evaluating which receptors might be relevant. (Australian Department of Industry, Innovation and Science. Leading Practice Sustainable Development Program: 3.0 Noise. <https://www.industry.gov.au/sites/default/files/2019-04/lpsdp-airborne-contaminants-noise-and-vibration-handbook-english.pdf>)

⁸⁰⁸ The selection of locations for monitoring noise/vibration levels should be based on the identification of sensitive receptors, so that noise can be monitored in the appropriate locations. Noise monitoring methods would be expected to follow a credible methodology, such as that outlined in the IFC Environmental Health and Safety Guidelines which outline monitoring periods, as well as type and positioning of monitoring equipment.

⁸⁰⁹ And that it is demonstrated that levels are now within the acceptable range (see Annex 3.7).

⁸¹⁰ If, after monitoring is discontinued, there is a new scoping exercise as a result of project modification that identifies new potentially significant impacts, or there is a new noise-related complaint, then the ENTITY would be expected to start/re-start monitoring.

⁸¹¹ Other credible information could come from affected communities, local governments, academics, etc. and could include complaints, research studies, etc.

⁸¹² Appropriate performance criteria and indicators must include those required by the country of operation's law (e.g., regulator maximum concentrations of certain chemicals in air or water), and, as relevant, those associated with external standard (e.g., IRMA water quality criteria), those agreed with stakeholders, or indicators that are tied to an identified baseline (e.g., levels of lead in hair samples before a mineral processing facility begins operating).

⁸¹³ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

CHAPTER ANNEXES

ANNEX 3.7: Maximum Acceptable Noise and Vibration Levels per Receptor Type

Receptor Type	Maximum Acceptable Noise Levels	Noise monitoring location/s	Maximum Acceptable Vibration Levels	Vibration monitoring location/s
Residential (includes homes, educational, medical and religious facilities)	DAY: Maximum one-hour LAeq (dBA) of 55 dBA during the hours of 07:00 to 22:00 (i.e., day) NIGHT: maximum one-hour LAeq (dBA) of 45 dBA during the hours of 22:00 to 07:00	At minimum, at the nearest off-site receptors and/or locations related to complaints. Locations are outdoors.	1) A maximum level for air blast overpressure of 115 dB (Lin Peak) is exceeded for no more than 5 % of blasts over a 12-month period, and never exceeds 120 dB (Lin Peak) for any blast. 2) Ground vibration (peak particle velocity) neither exceeds 5 mm/second on 9 out of 10 consecutive blasts, nor exceeds 10 mm/second at any time; and 3) Blasting only occurs during the hours of 09:00 to 17:00 on traditionally normal working days.	At minimum, at the nearest off-site receptor and/or locations related to complaints. 1) Locations for air blast measurements are between 3.5 and 30 meters away from buildings. 2) At least the longest dimension of the foundations of a building or structure away from such building or structure.
	Exceptions 1) The hours during which elevated noise levels are allowed may be adjusted if the ENTITY can justify that alternative hours are necessary and/or appropriate because of local, cultural, or social norms. 2) If baseline ambient noise levels exceed 55 dBA (day) and/or 45 dBA (night), then noise does not exceed 3 dB above baseline as measured at relevant off-site noise receptors. 3) During periods of blasting, the dBA levels may be exceeded, as long as the other vibration requirements are met.		Exceptions Blasting outside of the hours of 09:00 to 17:00 on traditionally normal working days may be allowed if: 1) Alternative hours are necessary and/or appropriate because of local, cultural, or social norms; and/or 2) Potentially affected human receptors have given voluntary approval for the expanded blasting hours.	
Commercial and Industrial	DAY AND NIGHT: noise levels measured at the monitoring location/s do not exceed 70 dBA.	At the project/operation boundary, or nearest industrial or commercial receptor	Same as above	Same as above

Sources:

Maximum noise levels are from: IFC. 2007. General Environmental, Health and Safety Guidelines. 1.7. Noise Management.
<https://www.ifc.org/content/dam/ifc/doc/2000/2007-general-ehs-guidelines-noise-en.pdf>

Maximum air blast overpressure and ground vibration levels are from: Australian and New Zealand Environmental Council. 2007.
 "Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration."
<https://www.environment.nsw.gov.au/resources/noise/anzecblasting.pdf>



Principle 4

Environmental Responsibility



Chapter 4.1

Waste and Materials Management

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- The following revised ordering of the requirements in Chapter 4.1 is proposed to reflect the consistent structure for Principal 4 chapters. Using a consistent ordering will make the chapters more auditable and easier to follow for companies. See the Chapter 4.1 flowchart.
 - Scoping
 - Characterization
 - Risk and impact assessment
 - Management Plans
 - Monitoring and evaluation
 - Continuous improvement
 - Information-sharing and public reporting.
- The definitions of hazardous materials and hazardous wastes have been revised slightly from the October 2023 draft to make the distinctions more obvious.
 - Hazardous Materials. Usable materials and chemicals that are transported to or from a mine site (e.g., inputs and outputs) with properties or characteristics that make them a physical, health or environmental hazard.
 - Hazardous Wastes. Wastes that are stored at or transported from a mine site with properties or characteristics that make them a physical, health or environmental hazard.
- The lists of potentially hazardous materials have been modified and grouped based on whether the materials are transported to and used at the site (non-feedstock), transported to the site for use as feedstock, or extracted/produced at the site as part of mining or mineral processing. The lists of potentially hazardous wastes are those that are produced at the site and are distinguished based on whether they are produced directly from mining and mineral processing or not directly from mining and mineral processing.
- The new section on spill preparedness and response has been moved and integrated back into Chapter 2.6 on Emergency Preparedness and Response.
- Added two IRMA+ optional requirements related to the management of non-hazardous wastes (i.e., 4.1.3.2 and 4.1.5.6).
- Added an IRMA+ optional requirement to maximize circular uses of non-hazardous materials (4.1.6.4).
- Moved to Chapter 2.6-Emergency Preparedness and Response the requirement (4.1.9.3 in first draft) to share with authorities and emergency services relevant information on the hazardous properties and health and environmental effects of potentially hazardous wastes and materials.
- Replaced the access to information requirement with a public sharing one, consistent with the rest of the Standard.



RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Decision
4.1-01	(Background) Question: Can you suggest other materials or wastes that you believe should be included in the list above, or recommend that any of the materials or wastes in the list be removed? Please provide your rationale for suggested inclusions/exclusions.	Feedback received (4): 2 mining think the list is comprehensive; 1 consultant doesn't like removal of the requirement for a waste management policy (formerly 4.1.1); and 1 consultant wonders if the management of mine-impacted waters would be better in Chapter 4.2 (responded that sources are identified and characterized in 4.1). Proposed decision: See slightly expanded and modified lists.
4.1-02	(4.1.1.2) Question: Do you agree with this approach? Is it reasonable to expect that if supplier information is not sufficient that mineral processors do a thorough analysis of all feed materials in order to fully understand the range and concentrations of potential contaminants that may be emitted to air or present in effluent? If not, then how else can the mineral processor demonstrate to auditors that they fully understand the range of containments that may be released (and that have adequate controls in place to address them)?	Feedback received (9): 5 say approach is reasonable (to have mineral processor determine COPCs if not supplied by company providing feedstock). But a list of required chemicals is needed and the frequency of analysis. Question also about availability of certified labs in some jurisdictions. Proposed decision: Retain expectations as proposed (see 4.1.2.4.b, and endnotes). We propose to require that the determination of COPCs align with the list of parameters in the IRMA Water Quality Criteria, as relevant. We will consider adding guidance on situations where processors could provide an explanation to limit the list of required analytes.
4.1-03	(4.1.2, waste mitigation hierarchy) Question: Do you think energy recovery from waste is still considered an acceptable practice in terms of human health, safety or environment? Should IRMA include it in the list of waste mitigation hierarchy options?	Feedback received (5): (2 mining, 1 auditor, 1 consultant, 1 purchaser). Most agree to keep it in with limitations; 1 purchaser says take it out. Proposed decision: We have clarified in an endnote for 4.1.5.1 that energy recovery is only acceptable if the Entity can demonstrate that energy recovery will result in a net positive environmental impact. Note that in 4.1.5.1.c Entities are already required to evaluate the potential human health, safety, biodiversity and environmental impacts of energy recovery and any other mitigation hierarchy option other than prevention of waste generation. We can add further guidance, such as the need for energy recovery to have proper facilities and occupational health and safety measures.
4.1-04	(4.1.2, waste mitigation hierarchy) Question: Should IRMA go further to integrate concepts of circularity into this chapter? For example, rewarding (i.e., give higher ratings to) entities that demonstrate a higher proportion of waste products that are being recycled/re-used/remined than those who clearly are not prioritizing those circularity-type strategies? We'd be interested in your input on this suggestion, or other suggestions for how IRMA might integrate	Feedback received (8): 2 say operations demonstrating circularity should be given higher scores (1 consultant + 1 mining), others less clear on opinion but most say circularity should be promoted. 1 mining: be sure to distinguish between waste management and hazardous waste management; want circularity at a more strategic level. 1 mining says it should be the main focus of this chapter. Proposed decision: Most civil society respondents raised the risk of potential greenwashing associated with extractive industries using the term "circularity"; and prefer waste reduction. IRMA notes that this is not only limited to waste



	circularly concepts into this chapter or others in the Standard (see also Chapter 2.1, where we are proposing additional circularity requirements - Note for 2.1.3.3, and CONSULTATION QUESTION 2.1-4).	reduction, as it could include remining, but on the other hand the opportunities for remining are not equal across sites and commodities. The greenwashing risks associated with “circularity” in the extractive sector have been signaled multiple times to IRMA during additional engagement calls with specialized NGOs. We propose to limit the use of the term ‘circularity’ to materials management (and not wastes). We have also proposed an IRMA+ optional requirement (4.1.6.4) to assess opportunities for and align (if possible) the management of non-hazardous materials with circular uses.
4.1-05	(4.1.2.3, non-hazardous materials) Question: Currently, while we have some limited requirements for non-hazardous wastes, we have not included requirements related to non-hazardous materials, such as materials used in construction of buildings. Do you agree with this approach, or do you think IRMA should include requirements for non-hazardous materials? If you believe there should be requirements, what would you suggest would be appropriate expectations regarding non-hazardous materials? And are there particular types of non-hazardous materials that warrant a greater focus than others?	Feedback received (11): Most agree that what is in the revised Standard is adequate. Most only mentioned non-hazardous wastes rather than non-hazardous materials. 1 mining respondent has begun a process to divert hazardous & non-hazardous wastes/materials for productive use. Some confusion about definition of non-hazardous in the US regarding mine wastes (Bevill Exclusion). Proposed decision: We have proposed an IRMA+ optional requirement (4.1.6.4) to assess opportunities for and align (if possible) the management of non-hazardous materials with circular uses. (Note that potentially-hazardous materials could end up being considered non-hazardous if characterization process in 4.1.2 indicated the absence of hazard).
4.1-06	(4.1.2.3, non-hazardous waste) Question: Regarding non-hazardous wastes, would it be reasonable to limit this requirement to the non-hazardous wastes that are most likely to have associated environmental and health risks (e.g., wastes like garbage dumps/landfills and sewage). Or should all non-hazardous wastes be evaluated? Also, are there additional requirements for non-hazardous wastes that should be added? For example, currently we do not require procedures or management plans for non-hazardous waste facilities, based on the assumption that any significant risks and subsequent mitigation measures (e.g., to control seepage or air emissions) would be incorporated into the plans in those chapters	Feedback received (7): Most agree with IRMA’s proposed approach to limit to those with likely risks. 2 mining: apply <u>mitigation hierarchy</u> to all wastes. Proposed decision: We propose to address the management of non-hazardous wastes in two optional requirements. IRMA+ requirement 4.1.3.2 is an optional risk assessment of these types of wastes, and IRMA+ requirement 4.1.5.5 is a management plan to reduce the generation of non-hazardous wastes, and to prevent, mitigate, and remediate all risks to, and impacts on, human health or safety, biodiversity, or the environment from non-hazardous wastes.
4.1-07	(4.1.4.1) Question: Do you agree with the current approach in 4.1.3.1 (and 4.1.4.1) of including some specific elements, even though they overlap with other chapters? Or should we try to integrate the relevant requirements from	Feedback received (6): all but two (1 consultant + 1 mining, who want requirements integrated) agree that repeating an element is acceptable in some cases, but double counting should obviously be avoided. Proposed decision: We have proposed to include reference to risk assessments from other chapters in 4.1.3.1, but for

	this chapter into the chapters on OHS, water, or other relevant chapters?	other elements point to relevant requirements in other chapters in footnotes or in guidance to avoid double counting.
4.1-08	(4.1.5.1) Question: Currently, in engineering controls in 4.1.5.1.b, we are only including leachate/runoff collection system. Can you recommend other controls that should be implemented for on-site hazardous waste facilities?	Feedback received (4): 1 mining: no additions; 1 mining + 1 consultant: don't include specifics/put examples in guidance; 1 consultant: treatment for underground equipment repair area. Proposed decision: We will not list specific engineering controls in the requirement (now 4.1.5.2), but instead will put examples in guidance.
4.1-09	(4.1.6.3, riverine, lake, marine disposal) Question: Should IRMA consider expanding this requirement to include all hazardous wastes? Or all wastes (even if they are non-hazardous), since dumping of wastes into water bodies is not best practice for any type of waste?	Feedback received (9): 5 agree to expand exclusion to all wastes (hazardous or non-hazardous); 1 NGO says shouldn't dispose wastes unless can demonstrate lower risk than on-land disposal; two mining say OK to dispose in natural waters if permitted or if based on positive comprehensive assessment. Proposed decision: To maintain IRMA's commitment to best practices, we have proposed a new, optional IRMA+ requirement (4.1.4.3) that no wastes be disposed in rivers, lakes or <u>marine environments</u> (to complement the critical requirement to not dispose any waste from mining and mineral processing into such environments, now 4.1.4.1).
4.1-10	(4.1.6.3, riverine, lake, marine disposal) Question: Should IRMA consider adding a remediation step to enable sites that are no longer using these practices but did so in the past to at least partially, or possibly even substantially, meet this requirement? Remediation for damage that has been done might include, for example, waste removal and ecosystem restoration, and/or some sort of offset to create an equivalent ecosystem or ecosystem services elsewhere, or providing other forms of compensation. This is the approach taken in Chapter 4.6 for historic soil pollution.	Feedback received (9): 8 say yes, add a remediation step so ENTITY can gain partial/substantial credit; 1 mining says determine on a case-by-case basis. Proposed decision: Based on the responses to this consultation question and the level of effort involved, we are proposing to include a pathway for sites with past waste disposal into water bodies to meet this requirement (see 4.1.4.2 on remediation action plan). Note that any remediation action plan would also require monitoring and evaluation (as per Section 4.1.9), and continuous improvement (as per 4.1.10).
4.1-11	(4.1.8.1, inspections) Question: We are proposing annual inspections, but do you think that these types of inspections should occur at a much higher frequency (e.g., weekly, monthly)?	Feedback received (8): Several say inspection frequency depends on climate or the particular element requiring inspection; 1 mining says make them more frequent. 1 mining says can't be prescriptive - relate to risk. Proposed decision: Because these requirements pertain to inspection of facilities, storage and conveyance structures, and equipment used in relation to <u>hazardous</u> materials and <u>hazardous</u> wastes, we propose to adjust the frequency of inspections in requirements 4.1.9.1 and 4.1.9.2 from annual to monthly, and add more context to guidance.



4.1-12	(4.1.8.1, inspections) Question: There will be cases when entities send hazardous wastes to third-party disposal facilities. If those facilities are poorly managed, then it is possible that the ENTITY would be contributing to impacts on human health or safety, or impacts on the environment or communities. Should there be either an up-front due diligence requirement to ensure that any third-party disposal facilities are well managed, adhere to certain standards, etc., and/or should there be any ongoing monitoring of those facilities by the ENTITY?	Feedback received (8): Most agree with an up-front due diligence requirement but not ongoing monitoring of the third-party disposal facilities. 1 mining say best practice is to audit off-site facilities at least every 3 yrs - but just request the audit report. Ongoing inspections could be quite costly due to multiple facilities, lack of auditors, lack of qualifications of ENTITY, etc. 1 mining recommends adding a requirement for upfront due diligence for any third-party hazardous waste disposal. 1 mining say should be due diligence and ongoing monitoring b/c is a key corporate risk. Proposed decision: We have proposed to add a requirement (4.1.5.4) for up-front due diligence including evidence that facilities are licensed and in good standing, and requesting an audit (or equivalent) of the third-party disposal facility every 3 years.

BACKGROUND

Mineral exploration projects, mines and mineral processing operations use various materials and create wastes and products and by-products that, if poorly managed, create risks to human health, safety and the environment. The range of materials and wastes with hazardous characteristics varies significantly from one site to the next, based on the commodity, throughput, processing method, and other factors.

Materials brought to a site that may have hazardous properties include chemicals and reagents used during construction, extraction, mineral processing, or wastewater treatment; drilling muds; explosives used in both surface and underground mining; fuels including coal and petroleum products; solvents and lubricants associated with the use and maintenance of machinery; construction fill; and cement.

Also, some materials extracted/produced as a result of exploration, mining and mineral processing operations, such as ores, brines and concentrates, may contain constituents that create ecological or human health hazards if released to the natural environment.

Wastes produced at a site that may have hazardous properties include residues from mineral processing (e.g., tailings, slag) and by-product waste streams from those processes (e.g., mercury from gold recovery/refining); waste rock; spent ores from leaching operations; laboratory wastes; used equipment and batteries; and others. Mining-related operations may also create waste as a result of mitigation or remediation activities such as water treatment residuals or spill cleanup. Additionally, both solid and liquid wastes (e.g., garbage, sewage) are produced at all mining and mineral processing sites.

There are proven technologies and practices to prevent and greatly reduce the potential for materials and wastes to impact human health, safety and the environment. This includes identification of the potential hazards, elimination of the hazards where possible, the use of appropriate design criteria and engineering controls to otherwise minimize risks, regular inspection and maintenance of facilities and equipment, and spill response plans, and appropriate training of workers who transport, handle and work with hazardous materials and wastes.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- ICMM, UNEP, UN PRI, Global Industry Standard on Tailings Management (GISTM), 2023
- Minamata Convention on Mercury, 2013
- International Cyanide Management Code For the Manufacture, Transport, and Use of Cyanide In the Production of Gold" (The Cyanide Code), 2002

OBJECTIVES OF THIS CHAPTER

To transport, handle, store, treat and dispose of materials and wastes in a manner that protects worker and community health and safety, and the environment.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

TERMINOLOGY

IRMA recognizes that in some jurisdictions the terms “hazardous materials” and “hazardous wastes” may have a regulatory definition. This Standard has not adopted any one jurisdiction’s definition, but rather, uses the term hazardous more generally, as in “creating a danger or a risk.”

Hazardous Materials

Valuable and usable materials and chemicals transported to, extracted from, or produced at a site with properties or characteristics that make them a physical, health or environmental hazard.

Hazardous Wastes

Wastes produced at a site that are derived or not derived from mining and mineral processing operations that require minimization and management and that have properties or characteristics that make them a physical, health or environmental hazard.

Examples of different categories of potentially hazardous materials and wastes are included in the following lists, which are not exhaustive.

Potentially Hazardous MATERIALS		
Transported to and used by the site (non-feedstock)	Transported to the site as mineral processing feedstock	Produced at the site directly from mining and mineral processing
1. Fuel including petroleum products, coal, etc. 2. Solvents, lubricants and anti-freeze used in equipment, machine shops and vehicles 3. Explosives supplied, or produced on site, and used in mining including, but not limited to: solid, gel, emulsion, ammonium nitrate/fuel oil mixtures, detonators, boosters and caps 4. Mineral processing reagents including chemicals used in flotation, leaching (e.g., cyanide, acids, bases) or other process (e.g., solvent extraction and electrowinning SX/EW, smelting fluxes) 5. Treatment plant chemicals 6. Construction fill 7. Cement 8. Drilling chemicals/mud 9. Instrumentation such as weighing gauges (which may contain radioactive elements/radionuclides)	1. Ore 2. Concentrate 3. Mine waste for processing 4. Soil, scrap, recycled materials.	1. Ore 2. Brine 3. Evaporate 4. Concentrate 5. Doré 6. Pregnant solutions 7. Active material, including anodes and cathodes 8. Mineral processing by-products sold as raw materials to third parties



Potentially Hazardous WASTES	
Produced at the site directly from mining and mineral processing	Produced at the site not directly from mining and mineral processing
<u>Solid</u> 1. Tailings 2. Waste rock (which may be a material considered as a construction material at some sites) 3. Overburden 4. Spent ore (from heap and dump leach operations) 5. Mineral processing wastes (e.g., slag from iron, copper, lead, zinc or other processing; red and brown muds from bauxite refining; dross from aluminum production; wastes from solvent extraction and electrowinning (SX/EW); refractory lining/bricks; spent pot linings; wet scrubber sludges, baghouse dusts and other residues from thermal processes; wastewaters from various processes, etc.). This includes mineral processing wastes sold as raw materials to third parties. <u>Liquid</u> 1. Mine-influenced water (e.g., from dewatering of underground or open pit operations, tailings supernatant, industrial stormwater, barren solutions, seepage from mine facilities, acid mine drainage, treatment plant surge pond water)	1. Laboratory waste including chemical and solid waste (e.g., assay crucibles and cupels) 2. Equipment and machine shop waste including solvents, waste oil and grease and anti-freeze 3. Used batteries, used tires, electronics, etc. 4. Used unrepairable weighing gauges if they contain radioactive elements/radionuclides 5. Construction and decommissioning wastes 6. Wastes generated during spill cleanup 7. Water treatment sludge, residue and materials (e.g., membranes) 8. Used unrepairable equipment 9. Equipment and material packaging 10. Human-generated waste including garbage and sewage produced at sites, accommodations and camps.

Each category will have different requirements for scoping, characterization, risk assessment, mitigation/management/planning, monitoring/inspection, and reporting/disclosure, as indicated in **bold** throughout the Chapter.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame.

There are five (5) **critical requirements** in this Chapter (including 1 that is only applicable to sites that use cyanide, and 2 that are only applicable if mercury is present in ore, concentrates or waste materials).

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are three (3) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

4.1.1 Scoping

4.1.1.1 Critical Requirement

A scoping process (or equivalent) is undertaken by competent professionals to identify all potentially hazardous materials and hazardous wastes associated with the site and its associated facilities, as follows:

- The process identifies all potentially hazardous materials transported to, and used at, the site or its associated facilities⁸¹⁴;
- It identifies all potentially hazardous materials and wastes extracted from, or produced at, the site or its associated facilities as a result of mining or processing activities⁸¹⁵;
- It identifies all potentially hazardous wastes produced at the site or its associated facilities that are not derived from mining or mineral processing activities;
- It includes identification and mapping of the existing or planned locations where potentially hazardous materials, hazardous wastes and, if relevant, non-hazardous wastes⁸¹⁶ are transported to, stored, used, treated and/or disposed on-site, at associated facilities, or off-site⁸¹⁷;
- It includes collaboration with relevant affected rights-holders and stakeholders to identify concerns, challenges, and opportunities related to the planned locations; and
- It includes collaboration with relevant affected rights-holders and stakeholders to identify possible risks and impacts, and actual impacts, associated with potentially hazardous materials and wastes transported to, stored on, and used at the site.

4.1.2 Characterization

4.1.2.1 For each potentially hazardous solid or semi-solid material and waste produced as a result of mining or mineral processing activities (identified in 4.1.1.1.b⁸¹⁸), a chemical characterization is carried out and documented by competent professionals, as follows:

- It uses a credible methodology, and the methodology is documented;
- It determines the potential for acid rock drainage (ARD), the potential for radioactivity, and the potential for contaminant or metals leaching (ML);
- If relevant, it includes analysis of petrology, mineralogy, and mineralization, and identification of geochemical test units⁸¹⁹ or representative ranges of chemical composition;
- It includes estimation of an appropriate number of samples for each geochemical test unit or range of material compositions, and performing comprehensive geochemical testing on all samples from each geochemical test unit, or, for solid wastes for which geochemical test units are not relevant (such as mineral sands), on samples representative of the range of compositions⁸²⁰; and
- It identifies the COPCs for each relevant material and waste⁸²¹.



- 4.1.2.2** For each potentially **hazardous liquid material and waste** produced as a result of mining or mineral processing activities (identified in 4.1.1.1.b⁸²²), a chemical characterization is carried out and documented by competent professionals, as follows:
- It uses a credible methodology, and the methodology is documented;
 - It includes estimation of an appropriate number of samples⁸²³ for each compositional range;
 - It includes full chemical characterization of the materials and wastes for constituents identified in the IRMA Water Quality Criteria (see Annex 4.3-A in Chapter 4.3); and
 - It identifies the COPCs for each relevant material and waste⁸²⁴.



- 4.1.2.3** For each potentially **hazardous waste not derived from mining or mineral processing activities** (as identified in 4.1.1.1.c), a chemical characterization is carried out and documented by competent professionals, as follows:
- It uses a credible methodology, and the methodology is documented;
 - It determines if it has characteristics or properties that make it dangerous or capable of having a harmful effect on human health or safety, biodiversity, or the environment; and
 - It documents the hazardous properties or characteristics, and the related potential health, safety, or environmental impacts.



- 4.1.2.4** For each potentially **hazardous material transported to, or used at, the site or its associated facilities**⁸²⁵ (identified in 4.1.1.1.a), a chemical characterization is carried out and documented by competent professionals, as follows:
- It uses a credible methodology, and the methodology is documented;
 - It determines if it has characteristics or properties that make it dangerous or capable of having a harmful effect on human health or safety, biodiversity, or the environment⁸²⁶;
 - If applicable, it identifies contaminants of potential concern (COPCs) in feed materials purchased for mineral processing operations⁸²⁷; and
 - It documents the hazardous properties or characteristics, and the related potential health, safety, or environmental impacts.

4.1.3 Risk and Impact Assessment



4.1.3.1 Building on 4.1.1 and 4.1.2, where COPCs or potential risks or impacts from **hazardous wastes** or **hazardous materials** are identified, a risk and impact assessment⁸²⁸ (or equivalent) is carried out and documented by competent professionals, as follows:

- It uses a credible methodology, and the methodology is documented;
- It determines Contaminants of Concern (COCs) and specific risks that will need to be mitigated and managed in accordance with Sections 4.1.5 and 4.1.6;
- It assesses the risks and impacts to human health or safety, biodiversity, or the environment from hazardous **wastes**; and
- It assesses the risks and impacts to human health or safety, biodiversity, or the environment from hazardous **materials**.



4.1.3.2 IRMA+

The identified risks on, and impacts to, human health or safety, biodiversity, or the environment, from **non-hazardous wastes**⁸²⁹ that are extracted, used or produced by the site, are also integrated in relevant risk and impact assessment processes, as per 4.1.3.1.

4.1.4 Riverine, Lake, and Marine Disposal or Storage



4.1.4.1 Critical Requirement

The ENTITY can demonstrate that it does **not** propose to, nor actually, dispose of or store wastes **produced as a result of** mining or mineral processing activities in rivers, lakes or marine environments⁸³⁰.



4.1.4.2 If riverine, lake, or marine disposal or storage of wastes produced as a result of mining or mineral processing was **previously** used at the site (but no longer occurs), by the ENTITY and/or any previous owner/s, a remediation action plan (or equivalent) is developed by competent professionals to address the damage that has been done, through:

- Determination of the nature and extent of the damage, to the greatest extent possible;
- Development and documentation of specific measures to remediate the damage and/or minimize any ongoing/continuous damage⁸³¹; and
- Development of estimated timeline and budget needed to implement the remediation action plan (or equivalent);
- Inclusion of a financing plan to ensure that funding is available for effective implementation of the remediation measures; and
- Implementation of the remediation measures.



4.1.4.3 IRMA+

The ENTITY can demonstrate that it does **not** propose to, nor actually, dispose of, or store, **any wastes** (including those **not derived from** mining or mineral processing activities) in rivers, lakes or marine environments⁸³².

4.1.5 Waste Reduction and Management



4.1.5.1 Building on 4.1.3, and in addition to the concurrent reclamation plan required in Chapter 2.7 and the management of tailings and mine waste storage facilities required in Chapter 4.2⁸³³, a hazardous waste management plan (or equivalent) is developed and documented by competent professionals, to reduce the generation of **hazardous wastes**, and to prevent, mitigate, and remediate all the risks and impacts on human health or safety, biodiversity, or the environment, from the **hazardous wastes** identified as per 4.1.3.1, as follows:

- The plan includes mitigation measures that strictly align with the waste mitigation hierarchy to prioritize measures that prevent generation of hazardous wastes⁸³⁴;
- It includes mitigation measures that align, to the extent possible, with the preferences of affected rights-holders and stakeholders regarding post-closure end-uses of affected areas⁸³⁵;
- It is informed by specific risk assessment/s to determine the level of risk to human health and safety, biodiversity, and the environment associated with all selected mitigation measures identified⁸³⁶;
- It assigns implementation of measures to responsible staff with adequate skills and expertise;
- It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁸³⁷;
- It has an implementation schedule in place;
- It specifies annual, or more frequent, reviews of the effectiveness of the measures implemented;
- It maintains estimates of human resources and budget required; and
- It includes a financing plan, to ensure that funding is available for the effective implementation of the plan.



4.1.5.2 For each identified hazardous waste, the plan required in 4.1.5.1 includes the following procedures for safe handling, transport, storage, re-use, recycling, treatment and disposal⁸³⁸, as appropriate⁸³⁹:

- Disposal container or containment materials are appropriate for the specific hazardous contents, and engineering controls are implemented to prevent the release of the hazardous wastes or their components into the workplace or the environment⁸⁴⁰;
- Appropriate protective equipment and clothing are provided to relevant workers to prevent illness or injury from exposure to hazards⁸⁴¹, and appropriate hygiene practices are implemented in relevant work areas⁸⁴²;
- Specific occupational safety and health training to relevant workers, in accordance with applicable requirements in Chapter 3.2, that includes instruction on: 1) Where to find safety data information⁸⁴³ and other relevant information related to the chemicals of concern; and 2) Appropriate methods for transporting, handling, storing,⁸⁴⁴ using and disposing of hazardous wastes⁸⁴⁵; and
- These procedures (a. to c.) are developed and documented by competent professionals.



4.1.5.3 The plan required in 4.1.5.1 also includes procedures to document and keep records of the following information about all hazardous wastes identified:

- The annual quantity of hazardous wastes generated, both solid and liquids contents;
- The storage, treatment and disposal locations, on-site and off-site;
- Waste transport, treatment, and disposal dates/periods, and shipping/transport dates; and
- If applicable, regulatory authorizations for any third-party vendors contracted/engaged by the ENTITY for transport and off-site treatment or disposal of hazardous wastes.



4.1.5.4 If the Entity has contracted/engaged any third-party vendors for transport and off-site treatment or disposal of hazardous wastes, procedures are developed and implemented to:

- Confirm that the third-party treatment or disposal facility is licensed to carry out the treatment or disposal activities, prior to any contractual arrangement;
- Confirm that the third-party treatment or disposal facility is operational and in compliance with applicable environmental and health and safety regulations, prior to any contractual arrangement; and
- Require, through contractual agreement, that at least every three years either the Entity will carry out an inspection of the facility or the facility will provide a third-party inspection report to the Entity.



4.1.5.5 **IRMA+**

A non-hazardous waste management plan (or equivalent) is developed and documented by competent professionals, in accordance with 4.1.5.1, 4.1.5.2, and 4.1.5.3, to reduce the generation of **non-hazardous wastes**, and to prevent, mitigate, and remediate all risks to, and impacts on, human health or safety, biodiversity, or the environment, from **non-hazardous wastes**, identified as per 4.1.3.2.

4.1.6 Materials Management



4.1.6.1 Building on 4.1.3, and in addition to the concurrent reclamation plan required in Chapter 2.7⁸⁴⁶, a management plan for **hazardous materials** (or equivalent) is developed and documented by competent professionals, to prevent all risks and impacts on human health or safety, biodiversity, or the environment, from the **hazardous materials** identified as per 4.1.3.1, and to mitigate and remediate those risks and impacts that cannot be prevented, as follows:

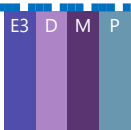
- The plan includes mitigation measures that strictly align with the mitigation hierarchy to prioritize measures that eliminate the need for hazardous materials⁸⁴⁷;
- It assigns implementation of measures to responsible staff with adequate skills and expertise;
- It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁸⁴⁸;
- It has an implementation schedule in place;
- It specifies annual, or more frequent, reviews of the effectiveness of the measures implemented;
- It maintains estimates of human resources and budget required; and
- It includes a financing plan, to ensure that funding is available for the effective implementation of the plan.



- 4.1.6.2** For each identified hazardous material, the plan includes procedures for safe transportation (to the site and associated facilities), handling, storage, re-use, recycling, treatment and disposal, as appropriate⁸⁴⁹:
- Storage container and conveyance materials are appropriate for the specific hazardous contents, and engineering controls are implemented to prevent the release of the hazardous materials into the workplace or the environment⁸⁵⁰;
 - Appropriate protective equipment and clothing are provided to relevant workers to prevent illness or injury from exposure to hazards⁸⁵¹, and appropriate hygiene practices are implemented in relevant work areas⁸⁵²;
 - Specific occupational health and safety training to relevant workers, in accordance with applicable requirements in Chapter 3.2, that includes instruction on: 1) Where to find safety data information⁸⁵³ and other relevant information related to the chemicals/materials of concern; and 2) Appropriate methods for transporting, handling, storing,⁸⁵⁴ using and disposing of hazardous materials;
 - These procedures (a. to c.) are developed and documented by competent professionals.



- 4.1.6.3** The plan includes procedures to document and keep record of the following information about all hazardous materials identified:
- The annual quantity of hazardous materials transported to the site and associated facilities⁸⁵⁵;
 - The annual quantity produced at the site and associated facilities⁸⁵⁶;
 - The annual quantity used at the site and associated facilities;
 - The annual quantity transferred off-site;
 - The storage, usage, and disposal locations, on-site and off-site;
 - Shipping/transport dates and supplier information for materials coming to the site and associated facilities; and
 - Shipping/transport dates and receiver information for any hazardous materials transported off-site⁸⁵⁷.



- 4.1.6.4** **IRMA+**
- A circularity plan for **non-hazardous materials**⁸⁵⁸ (or equivalent) is developed and documented by competent professionals, to **maximize circular uses of materials**. The plan:
- Assesses the opportunities for circular uses of all non-hazardous materials;
 - Includes time-bound measures and targets to maximize the identified opportunities; and
 - Is developed in collaboration with institutions and businesses to maximize synergies with their respective circular uses of materials.

4.1.7 Cyanide Management



4.1.7.1 Critical Requirement

If cyanide will be, or is, transported to and stored on-site in bags or bulk containers, or used as a chemical in any aspect of mining or mineral processing, and **if the site is eligible** to be certified by the International Cyanide Management Institute (ICMI):

- The site is currently certified as being in full compliance with the International Cyanide Management Code (The Cyanide Code) in accordance with the verification requirements of the ICMI;
- The ENTITY has a system in place **to proactively** share summary audit reports **with relevant stakeholders**; and
- All cyanide producers and transporters supplying the operation are certified as meeting the “Cyanide Production and Transport Practices” of the Cyanide Code.

OR



4.1.7.1* Critical Requirement

If cyanide will be, or is, transported to and stored on-site in bags or bulk containers, or used as a chemical in any aspect of mining or mineral processing, but **if the site is not eligible** to be certified by the ICMI, the site’s cyanide management practices are:

- Assessed at least every three years against the Cyanide Code’s “Gold Mining Operation Verification Protocol” by auditors meeting ICMI requirements;
- Verified as fully meeting the Cyanide Code requirements; and
- All cyanide producers and transporters supplying the operation are certified as meeting the “Cyanide Production and Transport Practices” of the Cyanide Code.

4.1.8 Mercury Management



4.1.8.1 Critical Requirement

If **mercury** is present in ore, concentrates or waste materials⁸⁵⁹, the ENTITY has a system in place to ensure that:

- a. **At least annually**, a mercury mass balance is conducted and documented by competent professionals⁸⁶⁰;
- b. Mercury recovered from mercury emission control systems or produced as a by-product⁸⁶¹ is only sold for an end-use listed in Annex A (Products) or Annex B (Processes) of the Minamata Convention on Mercury, subject to the appropriate phase-out dates⁸⁶²;
- c. Mercury recovered is not sold or given away, either directly or indirectly, to individual/s or ENTITY/ies engaged in artisanal or small-scale mining;
- d. Mercury wastes from mercury emission control systems are sent to a regulated repository that accepts mercury wastes;
- e. If mercury wastes from mercury emission control systems are stored on-site or disposed with tailings or with other materials, **prior to being permanently disposed of, mercury wastes undergo conversion and, where intended to be disposed of in above-ground facilities, conversion and solidification**;
- f. If mercury wastes from mercury emission control systems are stored on-site or disposed with tailings or with other materials, this only occurs if a risk-based evaluation of the storage or disposal of mercury waste demonstrates that the risk of long-term air or water pollution is low, and disposal occurs in fully lined facilities using synthetic liners that have a permeability of 10-9 cm/sec or less and a leachate collection system;
- g. If mercury wastes from mercury emission control systems are stored on-site or disposed with tailings or with other materials, sampling for mercury in groundwater and surface water **is integrated into the monitoring program for water in Chapter 4.3⁸⁶³**, and corresponding environmental impact monitoring⁸⁶⁴ is carried out in locations that are most likely to promote methylation⁸⁶⁵, at a frequency that is appropriate and commensurate to the risks and potential impacts.; and
- h. If mercury wastes from mercury emission control systems are stored on-site or disposed with tailings or with other materials, mercury monitoring **is included in the air monitoring program plan in Chapter 4.5**.

4.1.9 Monitoring and Evaluation



- 4.1.9.1** To monitor and evaluate the effectiveness and appropriateness of its measures to prevent, mitigate, and remediate all risks and impacts from **hazardous wastes** the ENTITY, at least monthly⁸⁶⁶:
- Inspects and documents the condition and safety of: 1) areas where hazardous wastes are handled, mixed, stored or disposed of, on-site and at associated facilities; 2) storage and conveyance structures for hazardous wastes⁸⁶⁷; and 3) secondary hazardous wastes containment systems;
 - Tests and documents the functioning of alarms and sumps for hazardous wastes; and
 - Tracks and documents the effectiveness of any mitigation measures or controls (engineered or others) meant to prevent the release of hazardous wastes into the workplace or the environment.



- 4.1.9.2** To monitor and evaluate the effectiveness and appropriateness of its measures to prevent, mitigate, and remediate all risks and impacts from **hazardous materials** the ENTITY, at least monthly⁸⁶⁸:
- Inspects and documents the condition and safety of: 1) areas where hazardous materials are handled, mixed, stored or disposed of, on-site and at associated facilities; 2) storage and conveyance structures for hazardous materials⁸⁶⁹; and 3) secondary hazardous materials containment systems;
 - Tests and documents the functioning of alarms and sumps for hazardous materials; and
 - Tracks and documents the effectiveness of any mitigation measures or controls (engineered or others) meant to prevent the release of hazardous materials into the workplace or the environment.



- 4.1.9.3** These monitoring and evaluation processes, both for hazardous wastes and hazardous materials:
- Encourage and facilitate joint monitoring with workers and their representatives, in a manner that is inclusive of different seniority levels, genders, and any potentially underserved and/or marginalized workers;
 - Encourage and facilitate joint monitoring with affected communities, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2⁸⁷⁰; and
 - If members of affected communities agree to participate in joint monitoring, the ENTITY offers to cover, in full or in part, costs related to participation in monitoring and review of the monitoring program, including for independent experts, and a mutually-acceptable agreement for covering costs is developed

4.1.10 Continuous Improvement

4.1.10.1 At least annually, but without undue delay after a significant change, the ENTITY collaborates with workers and their representatives to:

- a. Review monitoring and evaluation results, as per Section 4.1.9;
- b. Review any materials-related or waste-related grievances filed through its grievance mechanism/s required in Chapter 1.6 (Section 1.6.1), and any notification submitted through its whistleblowing mechanism required in Chapter 1.6 (Section 1.6.2);
- c. Review the effectiveness of the mitigation measures implemented as per 4.1.5 and 4.1.6 (and 4.1.7 and 4.1.8 if applicable) to prevent risks related to materials and waste, including their release into the workplace or the environment;
- d. Develop and implement time-bound corrective measures to update, if necessary⁸⁷¹, the scoping in accordance with Section 4.1.1; and characterization in accordance with Section 4.1.2;
- e. Develop and implement time-bound corrective measures to update, if necessary⁸⁷², the risk and impact assessment in accordance with Section 4.1.3;
- f. Develop and implement time-bound corrective measures to update, if necessary⁸⁷³, its management plans, in accordance with Sections 4.1.5 and 4.1.6 (and 4.1.7 and 4.1.8 if applicable); and
- g. Develop and implement time-bound corrective measures to update, if necessary⁸⁷⁴, its monitoring and evaluation processes, in accordance with Section 4.1.9.

**4.1.10.2 Critical Requirement**

The ENTITY has a system in place to ensure that, whenever the review process indicates that waste or materials management procedures or engineering controls are not being effective, and/or whenever an incident related to materials or waste happens, the following actions occur:

- a. If there is an imminent risk or actual impact to human health or safety, or biodiversity, or the environment, immediate measures are implemented to remedy the situation and, if necessary, response measures outlined in emergency response plans in Chapter 2.6 and 3.2 are implemented⁸⁷⁵;
- b. If risks to human health or safety, or biodiversity, or the environment are not imminent, remedial measures are implemented as soon as possible⁸⁷⁶; and
- c. The issues and/or incidents are documented and used to inform reviews and updates to hazardous waste management procedures (see 4.1.5), hazardous materials management procedures (see 4.1.6), and the management plans related to occupational health and safety (Chapter 3.2), emergency response (Chapter 2.6), water (Chapter 4.3), or air (Chapter 4.5), as relevant.

4.1.11 Information-Sharing and Public Reporting



4.1.11.1 At least annually, the ENTITY makes publicly accessible updated versions of, and maintains⁸⁷⁷ publicly accessible all previous versions of:

- a. Key findings of the risk and impact assessment required in 4.1.3, and all relevant Material Safety Data Sheets (MSDSs);
- b. A summary of the mitigation measures implemented to reduce and manage wastes required in 4.1.5;
- c. A summary of the mitigation measures to manage materials required in 4.1.6;
- d. If applicable, a summary of the mitigation measures to manage cyanide and mercury required in 4.1.7 and 4.1.8;
- e. Key findings of the monitoring and evaluation process required in 4.1.9 and of the review process required in 4.1.10.1;
- f. A list of the time-bound corrective measures identified as per 4.1.10.1;
- g. The total amounts of wastes generated over the reporting period, disaggregated by the amount that was: 1) Re-used and, where applicable, re-mined; 2) Recycled, and recovered for energy; and 3) Disposed of.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁸¹⁴ Both non-feedstock **and** used as feed materials for mineral processing operations⁸¹⁴ if relevant.

⁸¹⁵ Note that this could include ore, concentrates, tailings or other residues, waste rock, overburden, slag or mineral processing wastes, and mine waste materials that get re-used or re-purposed, for example as road-bed or construction fill. All wastes need to be tested to demonstrate that they are non-hazardous (unless classified as non-hazardous by legislation). There is often an assumption that waste rock is not hazardous, but this is not necessarily the case.

⁸¹⁶ This is only relevant if the Entity wishes to demonstrate that it has met the corresponding IRMA+ requirements related to non-hazardous wastes (i.e., 4.1.3.2 and 4.1.5.6)

⁸¹⁷ The locations of off-site facilities do not necessarily need to be mapped, but the locations/addresses of off-site facilities that have received or will receive hazardous wastes generated by the project/operation must be documented.

⁸¹⁸ E.g., tailings, waste rock, overburden, spent ore produced at the site.

⁸¹⁹ Geochemical test units are rock types of distinctive lithology, mineralogy, and/or alteration. The units should be as homogeneous as possible, based on information on lithology, mineralogy, alteration, and the availability of minerals to weathering. (Maest and Kuipers, 2005; GARD Guide, Sections 5.4.2 and 5.4.4 and Figure 5-5;
http://www.gardguide.com/index.php?title=Chapter_5b#5.4.4_Introduction_to_Geochemical_Characterization

⁸²⁰ Comprehensive testing would include determining ARD potential, metal/contaminant leaching potential, and an estimate of radioactivity for relevant solids materials using a gamma or scintillation counter or similar instrumentation.

⁸²¹ COPCs are identified using the results of laboratory short-term and long-term (kinetic) leach tests or results of chemical analysis of extracted brines and liquid wastes. If laboratory leachate, brine or liquid waste concentrations exceed numeric IRMA Water Quality Criteria by End-Use Tables (Annex 4.3-A), those constituents are identified as COPCs. A risk assessment will be conducted to determine final COCs (see 4.1.3.1).

⁸²² Applies to, e.g., brines, pregnant solutions, mine-influenced waters, spent brine.

⁸²³ If composition of the liquid material or waste changes over time, will need additional samples

⁸²⁴ COPCs are identified using the results of laboratory short-term and long-term (kinetic) leach tests or results of chemical analysis of extracted brines and liquid wastes. If laboratory leachate, brine or liquid waste concentrations exceed numeric IRMA Water Quality Criteria (Annex 4.3-A), those constituents are identified as COPCs. A risk assessment (4.1.3.1) will be conducted to determine final Contaminants of Concern (CoC), and these CoCs would then need to be addressed in the relevant management plans in 4.3.5.

⁸²⁵ Both non-feedstock **and** used as feed materials for mineral processing operations if relevant.

⁸²⁶ For chemicals and other materials, Material Safety Data Sheets (MSDSs), as available, will provide information; for materials such as construction fill, ores, and certain wastes (e.g., tailings), characterization could include 4.1.2.2 if stored on site and not provided by the supplier.

⁸²⁷ For materials coming from third parties to be used as feedstock for mineral processing operations, if the supplier does not disclose to the ENTITY detailed information on the principal components and contaminants that are considered likely to be routinely or periodically present in feed materials, the ENTITY will need to carry out a thorough characterization to determine this for themselves. COPCs are identified using the results of laboratory short-term and long-term (kinetic) leach tests or results of chemical analysis of extracted brines and liquid wastes. If laboratory leachate, brine or liquid waste concentrations exceed numeric IRMA Water Quality Criteria (Annex 4.3-A), those constituents are identified as COPCs. A risk assessment (4.1.3.1) will be conducted to determine final Contaminants of Concern (CoC), and these CoCs would then need to be addressed in the relevant management plans in 4.3.5.

⁸²⁸ This may be a standalone assessment or integrated in relevant risk and impact assessment processes. For example, COPCs and other potential risks related to hazardous wastes and hazardous materials may have been identified in the ESIA process in Chapter 2.1. (requirement 2.1.4.1 in ESIA Scoping requires the identification and documentation of potential significant environmental and social impacts and risks that require further assessment). If adequate documentation of potential risks related to hazardous wastes and hazardous materials, and subsequent risk assessment, were not done as part of the ESIA in Chapter 2.1, then it needs to be done as a standalone risk assessment.

If there is no standalone assessment, to fully meet this requirement the ENTITY must have a system in place to ensure that information on, and characteristics of, these wastes and materials (e.g., known hazards, volumes, storage, usage, treatment and disposal locations, transport routes, etc) is integrated into the risk assessments in the following chapters, as appropriate:

- 2.1–Environmental and Social Impact Assessment and Management;
- 2.6–Emergency Preparedness and Response;
- 2.7–Concurrent Reclamation, Closure, and Post-Closure;
- 3.2–Occupational Health, Safety, and Wellbeing;
- 3.3–Community Health and Safety;
- 4.2–Tailings Storage Facilities and Physical Stability Management;
- 4.3–Water Management;
- 4.4–Biodiversity, Ecosystem Services, and Protected and Conserved Areas; and
- 4.5–Air Quality and Dust Management.

By integrating them into those risk and impact assessments, they will be considered in the management plans, monitoring and evaluation, and continuous improvement processes (of those relevant chapters), if risk and impacts are identified.

⁸²⁹ There can still be risks from non-hazardous wastes. Even if the waste materials themselves do not contain hazardous elements, per se, the disposal method may create risks. For example, depending on the contents, garbage can lead to impacts on air quality and human health if incinerated.

⁸³⁰ This includes tailings, waste rock, overburden, spent ore from heap and dump leach operations, mineral processing wastes, and mine-influenced water. For more details, see the table on Potential Hazardous Wastes (in particular, wastes "Produced at the site directly from mining and mineral processing") in the Scope of Application section of the chapter.

Some exceptions can be allowed to 4.1.8.1 for overburden sand material at mineral sand mining, sand mining, and gemstone mining operations that extract or dredge ore/sand/gemstones from beaches, dunes or riverbeds, as follows:

1. *The overburden sand material can be returned to its original location including 'wet' location (i.e. beach or riverbed), only if all the following conditions are met:*
 - a. *separation does not involve chemical processes;*
 - b. *the returned material does not create new or additional acid rock drainage (ARD), radioactivity, contaminant or metals leaching (ML) risks compared to the baseline conditions; and*
 - c. *the site can demonstrate that it ensures safe and long-term landscape stability (see Chapter 2.6–Planning and Financing Reclamation and Closure).*
2. *For those types of mining, any ore-specific or mine waste-specific risks such as acid rock drainage (ARD), radioactivity, contaminant or metals leaching (ML) must be identified and managed as per Chapters 2.1, 4.1, 4.3, 4.4 (including disruption or damage of the environment/habitats and ecosystems that depend on them).*
3. *Cultural values of beaches, dunes or rivers must also be considered when applying Chapter 3.6–Cultural Heritage.*
4. *If extracting from, or disturbing, beaches, dunes, or riverbeds has any potential impact on Indigenous Peoples, those types of operations can only proceed with the Free, Prior, and Informed Consent of affected Indigenous Peoples (as per Chapter 2.2–Free, Prior and Informed Consent).*
5. *Any impact on climate change resulting from disruption or damage of the environment/habitats must be considered when applying Chapter 4.6–Climate Action.*

⁸³¹ This might include, for example, partial or full waste removal and ecosystem restoration.

⁸³² This includes: Laboratory waste including chemical and solid waste (e.g., assay crucibles and cupels); Equipment and machine shop waste including solvents, waste oil and grease and anti-freeze; Used batteries, used tires, electronics, etc.; Used unrepairable IRMA STANDARD V2.0 – 2nd DRAFT VERSION

weighing gauges if they contain radioactive elements/radionuclides; Construction and decommissioning wastes; Wastes generated during spill cleanup; Water treatment sludge, residue and materials (e.g., membranes); Used unrepairable equipment; Equipment and material packaging; Human-generated waste including garbage and sewage produced at sites, accommodations and camps.. See tables at the beginning of this Chapter for more details.

⁸³³ See Chapter 2.7, requirement 2.7.1.5, and Chapter 4.2, requirements 4.2.12.1 and 4.2.12.2.

⁸³⁴ See definition in the Glossary. Options must be evaluated in the following order of priority, taking into consideration the potential human health, safety and environmental impacts of each option:

1. Prevent generation of wastes;
2. Reduce the generation of wastes;
3. Re-use wastes (or re-mine);
4. Recycle wastes (or compost food/organic wastes);
5. Recover energy from wastes, if energy recovery can occur without generating significant air quality impacts on health and safety, ecosystems or the environment; and
6. Dispose of any remaining wastes;

⁸³⁵ As identified in Chapter 2.7, requirement 2.7.1.1.d.

⁸³⁶ When waste prevention (the first priority of the waste mitigation hierarchy) is not achievable or not fully achievable, the ENTITY is expected to carry out a risk assessment on the preferred next best option in the waste mitigation hierarchy, and if the assessment shows it can be implemented without creating unacceptable risks then it becomes the chosen mitigation strategy (for the residual waste that cannot be prevented). If there are unacceptable risks then the ENTITY must develop an alternative option and carry out a risk assessment on that one. This repeats until an acceptable mitigation option can be found.

⁸³⁷ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁸³⁸ These procedures should cover what takes place at the site and associated facilities, and, if relevant, procedures for safe transport (e.g., to off-site treatment, disposal, recycling or re-use facilities).

⁸³⁹ Not all of the procedures will be relevant for all hazardous wastes. Entities will need to justify to auditors why certain sub-requirements are not "appropriate" or relevant to their situations.

⁸⁴⁰ Other mitigation measures/controls to prevent environmental releases may be developed as part of the water management chapter (Chapter 4.3), and the tailings and physical stability management chapter (Chapter 4.2). Controls may vary depending on risks and context, but will usually include: 1) A leachate/run-off collection system; 2) Impermeable secondary containment for pipelines containing mine-influenced waters that have hazardous properties; and 3) Facility designs that incorporate safe freeboard levels.

⁸⁴¹ Guidance: Depending on the hazards and potential exposure routes, appropriate equipment may include eye, face, skin or respiratory protection, and there may be special requirements (e.g., a specific type of glove material, such as PVC or nitrile rubber gloves, depending on the breakthrough time of the glove material).

⁸⁴² E.g., locations and situations where eating, drinking, and/or smoking are prohibited.

⁸⁴³ E.g., safety data sheets.

⁸⁴⁴ Guidance: e.g., ventilation, temperature, moisture, identification of incompatible materials, and other conditions for safe storage.

⁸⁴⁵ For example, there may be special precautions to take for particular circumstances, or there may be practices like disposal of wastes into sewage systems or incineration that are prohibited. This information needs to be conveyed to workers.

⁸⁴⁶ See Chapter 2.7, requirement 2.7.1.5.

⁸⁴⁷ Eliminating the need for hazardous materials is the highest priority. Where elimination is not possible, Entities will be expected to investigate and include measures to substitute hazardous materials with materials that pose lower physical, health and/or environmental risks; and if when all options for elimination and substitution are exhausted, the ENTITY would develop measures as per 4.1.6.2 to minimize any remaining risks posed by these materials to human health or safety, biodiversity or the environment.

⁸⁴⁸ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁸⁴⁹ Not all of the procedures will be relevant for all hazardous wastes. Entities would be expected to justify to auditors why certain sub-requirements are not "appropriate" or relevant to their situations.

⁸⁵⁰ Other mitigation measures/controls to prevent environmental releases may be developed as part of the water management chapter (see 4.3.6.1), and the tailings and physical stability management chapter (Chapter 4.2). Controls may vary depending on risks and context, but will usually include: 1) Constructing impermeable secondary containment in areas where hazardous material is unloaded, mixed, processed or stored, and for pipelines containing or solutions that have hazardous properties, including, if relevant, pipelines carrying process water/solutions that have a concentration of 0.5 mg/l weak acid dissociable (WAD) cyanide or greater; 2) Secondary containment that holds at least 110% of the largest tank within the containment area plus additional capacity for the design storm event; and 3) Audible alarms, interlock systems, and/or sumps.

⁸⁵¹ Guidance: Depending on the hazards and potential exposure routes, appropriate equipment may include eye, face, skin or respiratory protection, and there may be special requirements (e.g., a specific type of glove material, such as PVC or nitrile rubber gloves, depending on the breakthrough time of the glove material).

⁸⁵² E.g., locations and situations where eating, drinking, and/or smoking are prohibited.

⁸⁵³ E.g., safety data sheets.

⁸⁵⁴ Guidance: e.g., ventilation, temperature, moisture, identification of incompatible materials, and other conditions for safe storage.

⁸⁵⁵ Hazardous materials transported to the site may include chemicals, fuels or other materials that have hazardous properties. They could also include ores or concentrates purchased from other sites.

⁸⁵⁶ Produced materials that may have hazardous properties/characteristics include ores, brines and concentrates.

⁸⁵⁷ E.g., ores, concentrates, brines.

⁸⁵⁸ This could include any of the following, when characterization and risk and impact assessment demonstrate the absence of hazard: Laboratory materials; light and heavy vehicles and mining/processing equipment including engines and spare parts; batteries, tires, electronics; scaling equipment, weighing gauges; construction materials and decommissioning materials/wastes; packaging and shipment elements including bulk bags, cubitainers, containers; others.

⁸⁵⁹ This would be identified in the process outlined in 4.1.2.1.

⁸⁶⁰ This mercury mass balance must be based on the calculated amount of mercury in the ore and waste materials, and the amount of mercury that is: 1) Released to air; 2) Recovered (e.g., from mercury emissions control systems) or produced as a by-product (e.g., from gold and/or silver heap leach processes) – Some of the information for 1) and 2) would be derived from the mercury air quality monitoring program in Chapter 4.5 – and; 3) Resident in tailings impoundments, waste rock dumps, or processing waste facilities (on-site and/or off-site).

⁸⁶¹ E.g., from heap leach processes.

⁸⁶² Annex A and B also list phase out dates after which the manufacture, import or export of the product shall not be allowed. Companies are expected to comply with those phase-out dates. The Minamata Convention text and Annexes are at:

<https://mercuryconvention.org/en/about>

⁸⁶³ This would be incorporated into the water sampling plan (see Chapter 4.3, Section 4.3.5)

⁸⁶⁴ E.g., fish tissue and stream sediment mercury levels.

⁸⁶⁵ Such as still waters, wetlands, and anaerobic sediment.

⁸⁶⁶ Overall monitoring and inspection is required every month, but specific inspections for each type of hazardous waste may take place less regularly if it can be demonstrated that its risk/hazard level does not require monthly inspection.

⁸⁶⁷ Such as tanks, pipes/pipelines, valve flanges.

⁸⁶⁸ Overall monitoring and inspection is required every month, but specific inspections for each type of hazardous material may take place less regularly if it can be demonstrated that its risk/hazard level does not require monthly inspection.

⁸⁶⁹ Such as tanks, pipes/pipelines, valve flanges.

⁸⁷⁰ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

⁸⁷¹ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁸⁷² This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁸⁷³ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁸⁷⁴ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁸⁷⁵ Depending on the nature of the incident, it is possible that response measures for affected communities or workers have already been developed, and in such cases, they would need to be implemented. For example, in Chapter 2.6, emergency response plans are required to include measures that will be implemented if there are spills, leaks or releases of hazardous materials or hazardous wastes (2.6.3.2). Similarly, Chapter 3.2 includes specific measures that are required to be taken if there is a verified imminent and serious threat to human health (See Section 3.2.12), including the authority to stop work in the area until the situation is remedied.

⁸⁷⁶ These types of issues may be identified, for example, through regular inspections or reported by workers. When they are identified, remedial measures would need to be developed within seven days of the issue/incident, however, implementation may require a longer time frame (e.g., in situations where ordering parts or scheduling shutdowns may be necessary).

⁸⁷⁷ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.



Chapter 4.2

Tailings and Mine Waste Storage Management

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Updated name of Chapter to clarify the new focus on the management of Tailings Storage Facilities (TSF) and Mine Waste Storage facilities/structures.
- Major changes made to align sequence of Sections, language, and minimum expectations with GISTM Standard.
- Introduced a series of requirements that are fully aligned with the GISTM standard, and that rely on external third-party conformance audits (see introduction to this Chapter and “Issues Under Close Watch” section).
- Made optional (IRMA+) all requirements related to the Physical Stability Management of Non-Waste Facilities (therefore not made explicit in the Chapter title).
- Substantial structural changes to increase clarity and auditability, and to ensure consistency throughout the Standard.



RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
4.X-01	(ANNEX 4.X-A: Best Practices for the Management of Physical Stability) Question: Do you agree with the proposal to create guidance to better inform auditor's assessments? If not, how do you suggest auditors determine whether or not the measures at a site are sufficient to prevent or mitigate physical instability?	Feedback received: 9 respondents: 5 mining, 2 NGO, 2 Consultancy. 6 respondents agree with the inclusion of guidance, but 1 NGO suggests to add more about Factor of Safety and Annual Probability of Failure, 2 Mining suggest it to be more risk-based, and 1 Mining finds it too prescriptive. 1 Mining and 1 Consultancy shared concerns about clarity and the difficulty in maintaining such guidance as technology can evolve rapidly. Proposed decision: The draft Annex attempted to cover the most stability-risk-prone facilities at mines and mineral processing operations. IRMA now proposes to focus this Chapter on Tailings Storage Facilities (TSFs) and Mine Waste Facilities, and to mark all the requirements related to the management of other facilities as optional (IRMA+) given the substantial scope expansion this represents for implementing sites. Also acknowledging the lack of clarity in the draft Annex that largely referred to "best practice" without necessarily offering more details, IRMA proposes to remove this Annex.
4.X-02 Part 1	(4.X.3.4: Initial facility designs and the refinement of the designs of critical facilities) Question: Do you agree that IRMA's best practice design criteria follow the well-established Canada Dam Association criteria? If not, why not? Or are there other design criteria that have emerged as best practice criteria?	Feedback received: 10 respondents: 5 mining, 2 NGO, 1 Finance, 2 Consultancy. -Supportive ('yes'): - The 2 NGOs answered yes, but one flagged the need to align design criteria to the highest/safest levels where there is a potential loss of life (in case of failure). 1 Mining respondent answered yes. - The 2 consultancy firms answered yes. -Not supportive ('no'): 4 Mining respondents are not supportive, for various reasons (1 flagging that dams and waste dumps are completely different, 1 flagging that all types of facilities are different and require different criteria, 1 suggests to not have criteria altogether, and 1 suggests to strictly align with GISTM) -Others - The finance respondent is undecided, but flags that designs must take climate change into account, and adopt more conservative design criteria accordingly Proposed decision: It is proposed to align design-related requirements with GISTM, but to require that the most protective criteria are used for all facilities (i.e., this approach is only one of two options proposed in GISTM (Option B1 of GISTM Requirement 4.2). Instead, in this DRAFT it is



		proposed to be the only option to obtain full conformance with this Chapter). See requirement 4.2.10.2.
4.X-02 Part 2	(4.X.3.4: Initial facility designs and the refinement of the designs of critical facilities) Question: Do you agree with the inclusion of slope stability criteria? If not, why not?	Feedback received: 8 respondents: 4 mining, 2 NGO, 2 Consultancy. -Supportive ('yes'): ▪ The 2 NGOs answered yes, but one flagged the need to align design criteria to the highest/safest levels where there is a potential loss of life (in case of failure). ▪ 1 Mining respondent answered yes. ▪ The 2 consultancy firms answered yes. -Not supportive ('no'): ▪ 3 Mining respondents are not supportive, 1 suggests to not have criteria altogether, and 2 suggest to strictly align with GISTM. Proposed decision: It is proposed to align design-related requirements with GISTM, but to require that the most protective criteria are used for all facilities (i.e., this approach is only one of two options proposed in GISTM (Option B1 of GISTM Requirement 4.2). Instead, in this DRAFT it is proposed to be the only option to obtain full conformance with this Chapter). See requirement 4.2.10.2.
4.X-03	(4.X.3.4: Initial facility designs and the refinement of the designs of critical facilities) Question: As with GISTM, should IRMA make additional allowances for existing facilities if they can demonstrate that upgrade to the best practice design criteria is not viable or cannot be retroactively applied? If so, then like GISTM, should IRMA require demonstration that upgrades still take place to minimize risk to as low as reasonably practicable (ALARP) at those sites? Perhaps if sites do not meet all of the design criteria but can demonstrate that risks have been reduced to ALARP, IRMA could cap a site's rating for this requirement at substantially meets (i.e., they would never be able to fully meet the requirement), so that the sites that have implemented best design practices are able to distinguish themselves. Is that an approach that you would support?	Feedback received: 9 respondents: 5 mining, 2 NGO, 2 Consultancy. This question saw a clear divide between the Mining companies and the consultants answering 'Yes' to aligning with GISTM on the one hand, and on the other hand the NGOs answering 'No' (i.e. if a site cannot fully meet, it cannot fully meet). One consultancy and one of the mining respondents did not provide a clear answer. Proposed decision: No consensus was found on this issue. In this 2nd DRAFT, it is proposed to -at least- align with the approach taken in GISTM, see requirement 4.2.10.4. However, IRMA proposes to discuss and explore potential approaches within an IRMA Expert Working Group dedicated to Tailings Storage and Mine Waste Facility Management. See more below.

BACKGROUND

Mining and mineral processing require facilities to store waste that, if mismanaged, can create risks to human rights, health and safety, biodiversity, and the environment.

Most mined material will remain on site as waste in two general forms: 1) soil and rock removed during mining that will not be processed (e.g., overburden, waste rock, sub-economic ore), and 2) waste from mineral, metallurgical and chemical processing (e.g., tailings, slag, spent heap leach piles, process residue storage ponds).

Tailings storage facilities (TSFs) can present a variety of risks and impacts. Throughout the history of modern mining, a number of unstable TSFs have failed, releasing large quantities of waste, often toxic, into the environment; resulting in some of the worst catastrophes in the minerals sector. Inappropriate management of TSFs can adversely affect rivers, the environment, homes, lives and livelihoods, and economies. As evidenced by the chronology of tailings dam failures and associated statistics, curated by the World Mine Tailings Failuresⁱ and the World Information Service on Energyⁱⁱ, the trend shows an increasing frequency and severity of TSF failures.

Besides TSFs, areas and facilities used to store or dispose of waste from underground and surface mines (other than tailings and waste from mineral processing) may also pose risks to local communities and the surrounding environment, as the storage of any large volumes of any material in piles or constructed impoundments holds the potential for stability-related risks under certain circumstances, that need to be identified and understood.

By implementing best practices, the potential for adverse impacts related to failure of mine waste storage facilities can be prevented or greatly reduced.

Appropriate design criteria and engineering controls, inspection and maintenance programs must also be informed by the characterization of the tailings and mine waste stored, to determine whether they have the potential to generate acid and/or leach metals and other contaminants; this is covered in Chapter 4.1 dedicated to Waste and Materials Management.

Increasingly, mining companies implement stronger governance and accountability mechanisms for mine waste management such as ensuring facility-related decision-making and oversight are assigned at Board and executive management levels; more rigorous risk assessment processes; and independent expert review of waste facility siting, design, construction, operation and closure plans.

This Chapter integrates best practices and recommendations from the Global Industry Standard for Tailings Management (2020, discussed in more detail below), the Safety First Guidelines V2.0 (2022), the ICOLD Committee on Tailings Dams and Waste Lagoons (since 1989) and the UNECE Joint Expert Working Group on Water and Industrial Accidents (since 2006).

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UNECE Safety Guidelines and Good Practices for Tailings Management Facilities, 2014
- ICMM, UNEP, UN PRI, Global Industry Standard on Tailings Management (GISTM), 2020
- ICOLD Bulletin 194 Tailings Dam Safety, 2025
- ICOLD Bulletin 181 Tailings Dam Design - Technology Update, 2021
- Earthworks, MiningWatch Canada, London Mining Network, Safety First Guidelines for Responsible Mine Tailings Management V2.0, 2022

ⁱ <https://worldminetailingsfailures.org/>

ⁱⁱ WISE Uranium Project, <https://www.wise-uranium.org/mdaf.html>



GLOBAL INDUSTRY STANDARD FOR TAILINGS MANAGEMENT (GISTM) AND THE GLOBAL TAILINGS MANAGEMENT INSTITUTE (GTMI)

In 2020, the Global Industry Standard for Tailings Management (GISTM) was released as a result of the Global Tailings Review, a two-year-long multi-stakeholder effort led by the International Council on Mining and Metals (ICMM), the United Nations Principles for Responsible Investment (UN PRI), and the United Nations Environment Programme (UNEP), which included discussions with IRMA. GISTM “strives to achieve the ultimate goal of zero harm to people and the environment with zero tolerance for human fatality”ⁱ, which aligns with the objectives of this Chapter, and the IRMA Standard more generally.

In January 2025, an independent institute, the Global Tailings Management Institute (GTMI), was announced to “oversee the implementation of and conformance with GISTM”.ⁱⁱ The Board, CEO, and Technical Committee nominees of the GTMI are expected to be communicated soon, as well as a subsequent work program. Amongst other remits, the GTMI will be responsible for developing “conformance protocols to guide consistent auditing and certification, or assurance as applicable” of GISTM.ⁱⁱⁱ

SYNERGIES BETWEEN GISTM, GTMI, AND IRMA

Most industry and finance organizations that have been taking part in the review and revision of the IRMA Standard between 2022 and 2024 have strongly suggested that IRMA should solely rely on GISTM conformance for this Chapter. Conversely, many NGOs and CSOs have flagged that GISTM currently lacks an official, independent and impartial accreditation process for third-party audit firms to undertake conformance verifications. They have also shared concerns about the current lack of auditability of certain elements of GISTM.

TSFs are complex, and the review, assessment and verification of the technical, engineering, and structural measures to ensure the safe management of TSFs require dedicated time and expertise that IRMA-accredited audit teams are not designed to offer.

The 2018 IRMA Standard V1.0 instead requires sites to regularly undertake Independent Reviews of Mine Waste Management Facilities (Section 4.1.6 in the Standard V1.0), and to demonstrate that any gap or risk identified is being addressed and corrected.

Assuming GISTM will be further developed and effectively overseen by the GTMI now that its set-up is underway, it can robustly address and assure the technical aspects of tailings management.

In this 2nd DRAFT, IRMA aims to support and amplify GISTM by requiring operators to undertake robust and independent third-party audits against the GISTM. The auditors conducting an IRMA audit would then rely on the outcomes of these audits to score the relevant IRMA requirements accordingly, without needing to re-audit. This is articulated through a series of requirements in this Chapter

To supplement the existing GISTM requirements, this Chapter contains a few additional technical requirements that cover additional guidance regarding facility characterization, design criteria, the content of risk management plans, additional safeguards for TSFs where at least one life could be lost in case of failure, that are not explicitly covered in GISTM but that are in line with the Key References that this Chapter builds on (see above). For those, no direct reference to GISTM is provided, although additional comparative guidance and detailed cross reference between the two standards will be developed.

As for the non-technical aspects of tailings management, the IRMA Standard offers a comprehensive framework of best practice on business integrity, long-term planning, social, and environmental

ⁱ ICMM, UNEP, UN PRI, Global Industry Standard on Tailings Management, 2020, <https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard-on-tailings-management.pdf>

ⁱⁱ Website of the GTMI, <https://thegtmi.org/>

ⁱⁱⁱ Ibid

management for the minerals sector. Most of these topics are transversal and apply to all features and facilities needed to operate an exploration, mining, or processing site. As such, aspects of the IRMA Chapters on human rights due diligence, stakeholder engagement and information sharing, Indigenous Peoples and the right to FPIC, grievance mechanisms, resettlement, financial assurance, closure and post-closure management, emergency preparedness, health and safety, water management, or climate action, apply to the management of TSFs, which is reflected in this Chapter and throughout the IRMA Standard.

IRMA has been in regular contact with members of the Global Tailings Review, and is committed to engage with the GTMI as soon as possible to maximize synergies and cross-recognition between our standards where possible, including the conformance protocols and associated assurance approach. IRMA will also strive to facilitate cross-participation of experts and interested parties between the IRMA Expert Working Group dedicated to Tailings Storage and Mine Waste Facility Management and relevant GTMI advisory or working groups.

PARTICIPATE IN AN EXPERT WORKING GROUP ON THIS CHAPTER

IRMA proposes to discuss the remaining challenging issues and concerns that were raised during the development of this 2nd DRAFT within an **IRMA Expert Working Group** dedicated to Tailings Storage and Mine Waste Facility Management. The topics to be covered include:

- Synergies and relationship with the GTMI;
- Requirements for TSFs that are not classified as 'Very High' or 'Extreme' but with at least one potential loss of life;
- Robustness and appropriateness of ALARP processes, Dam Breach Analyses (including estimations of the potential volumes of tailings and water that could be released), and Dam Safety Reviews;
- Risk management regarding upstream TSFs;
- Potential safety 'buffer' zones and application of ALARP;
- The range of technical information and reports that could be made publicly accessible –by default– by companies, if any; and
- Emergency preparedness planning based on Dam Breach Analysis and risk assessments.

The Terms of Reference applicable to this Expert Working Group, including instructions on how to apply, are available at (click on this link): [ToR for Expert Working Group 2025](#).

OBJECTIVES OF THIS CHAPTER

To manage the storage of tailings and waste from mining and mineral processing operations, including tailings storage facilities (TSFs) in a manner that minimizes their short- and long-term physical risks, and prevents harm to workers as well as to the human rights, health and safety of communities, and future land and water uses.



SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. However, if the scoping process required in 4.2.1.1 and 4.2.1.2 demonstrates the total absence of any proposed or existing storage, transport or disposal facilities/infrastructures for tailings and wastes from mineral processing, **and** the total absence of any proposed and existing facilities or structures used to store, transport or dispose of wastes and materials from underground and surface mines (other than tailings and wastes from mineral processing) that may have physical stability risks, the rest of this Chapter will not be applicable.

Also, in the context of this Chapter, and as per the GISTM Standard, **existing** tailings facilities are defined as those facilities that were already accepting new mine tailings on the date that the GISTM Standard took effect (i.e., August 2020) or are not currently accepting new mine tailings but are not in a state of safe closure; while all other tailings facilities are treated as **new** facilities.

For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

The critical requirement to not use riverine, lake, or marine disposal or storage of tailings is found in Chapter 4.1 on Waste and Materials Management.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are five (5) **optional IRMA+ requirements** in this Chapter (all related to non-mine waste facilitiesⁱ).

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

ⁱ **Management of Non-Waste Facilities:** Mines may also have other facilities and structures that could pose stability risks to nearby communities. For example, a mine may require water storage facilities for fresh and process water, which could also hold the potential for failure. These risks and impacts should be understood and managed. Requiring the same level of characterization, classification, and management for those non-waste facilities as for mine waste facilities aligns with emerging expectations and recommendations from stakeholders. However, we note that several of these requirements go above and beyond existing and established best practice. Therefore, the IRMA Standard reflects this and offers recognition of this opportunity for improved performance through IRMA+ requirements related to non-waste facilities, that are optional for auditing (see greater context in the Introduction to the IRMA Standard for how mining companies may choose to be measured against IRMA+ requirements).



ISSUES UNDER CLOSE WATCH (EYE ICON)

References to GISTM Standard and anticipated GTMI Conformance Protocols:

As explained above, in this Chapter IRMA introduces a different approach to audit and assessment, that relies on external third-party conformance audits against another voluntary standard not supervised by IRMA: GISTM. The auditors conducting an IRMA audit would rely on the outcomes of these audits to score the relevant IRMA requirements accordingly, without needing to re-audit. This new approach is articulated through a series of requirements in this Chapter that follow the sequence of the GISTM Standard, whose scoring levels will rely on the level of conformity determined by GTMI-accredited third-party audit against the GISTM. These requirements (4.2.2.2, 4.2.3.1, 4.2.4.1, 4.2.8.1, 4.2.9.1, 4.2.10.1, 4.2.10.4, 4.2.11.1, 4.2.12.1, 4.2.13.1, 4.2.14.1, 4.2.15.3, 4.2.15.7, 4.2.16.1, and 4.2.17.1) are signaled with an 'eye icon' to ensure that IRMA closely monitor their relevance, and their implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that these requirements are not 'optional' (unlike IRMA+).



IRMA Requirements

4.2.1 Scoping



4.2.1.1 A scoping process (or equivalent) is undertaken by competent professionals to identify all proposed and existing storage, transport or disposal facilities/infrastructures for **tailings and wastes from mineral processing** that are associated with the site and its associated facilities⁸⁷⁸.



4.2.1.2 A scoping process (or equivalent) is undertaken by competent professionals to identify all proposed and existing facilities or structures used to store, transport or dispose of **wastes and materials from underground and surface mines (other than tailings and wastes from mineral processing)**⁸⁷⁹, associated with the site and its associated facilities, **that may have physical stability risks that could impact** the health, safety or human rights of workers and communities, or the environment.



4.2.1.3 IRMA+
A scoping process (or equivalent) is undertaken by competent professionals to identify all **other** proposed and existing relevant facilities (other than tailings and waste facilities)⁸⁸⁰ that may have physical stability risks that could impact the health, safety or human rights of workers and communities, or the environment.



4.2.2 Formalized Policies and Accountabilities



4.2.2.1 The ENTITY has a formal policy in place that:

- Commits to the safe management of mine waste facilities, to emergency preparedness and response to tailings-related incidents, and to recovery after failure of mine waste facilities;
- Is approved at the top management level of the ENTITY;
- Is publicly accessible;
- Has been proactively shared with all relevant employees and contractors to a degree appropriate to their level of responsibility and function; and
- The ENTITY has allocated financial and staffing resources with the necessary competence to implement this policy at the level of the project/operation.



4.2.2.2 For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁸¹ with the following requirements:

- a. **GISTM Requirement 8.2ⁱ**, and **GISTM Requirement 8.3ⁱⁱ**;
- b. **GISTM Requirement 8.4ⁱⁱⁱ**, **GISTM Requirement 8.5^{iv}**, and **GISTM Requirement 8.6^v**; and
- c. **GISTM Requirement 8.7^{vi}**.

ⁱ GISTM Requirement 8.2: Establish a tailings governance framework and a performance-based Tailings Management System (TMS) and ensure that the Environmental and Social Management System (ESMS) and other critical systems encompass relevant aspects of the tailings facility management.

ⁱⁱ GISTM Requirement 8.3: For roles with responsibility for tailings facilities, develop mechanisms such that incentive payments or performance reviews are based, at least in part, on public safety and the integrity of the tailings facility. These incentive payments shall reflect the degree to which public safety and the integrity of the tailings facility are part of the role. Long-term incentives for relevant executive managers should take tailings management into account.

ⁱⁱⁱ GISTM Requirement 8.4: Appoint one or more Accountable Executives who is/are directly answerable to the CEO on matters related to this Standard. The Accountable Executive(s) shall be accountable for the safety of tailings facilities and for avoiding or minimising the social and environmental consequences of a tailings facility failure. The Accountable Executive(s) shall also be accountable for a programme of tailings management training, and for emergency preparedness and response. The Accountable Executive(s) must have scheduled communication with the EOR and regular communication with the Board of Directors, which can be initiated either by the Accountable Executive(s), or the Board. The Board of Directors shall document how it holds the Accountable Executive(s) accountable.

^{iv} GISTM Requirement 8.5: Appoint a site-specific Responsible Tailings Facility Engineer (RTFE) who is accountable for the integrity of the tailings facility, who liaises with the EOR and internal teams such as operations, planning, regulatory affairs, social performance, and environment, and who has regular two-way communication with the Accountable Executive. The RTFE must be familiar with the DBR, the design report and the construction and performance of the tailings facility

^v GISTM Requirement 8.6: Identify appropriate qualifications and experience requirements for all personnel who play safety-critical roles in the operation of a tailings facility, including, but not limited to the RTFE, the EOR and the Accountable Executive. Ensure that incumbents of these roles have the identified qualifications and experience, and develop succession plans for these personnel.

^{vi} GISTM Requirement 8.7: For tailings facilities with Consequence Classification of 'Very High' or 'Extreme', appoint an Independent Tailings Review Board (ITRB). For all other facilities, the Operator may appoint a senior independent technical reviewer. The ITRB or the reviewer shall be appointed early in the project development process, report to the Accountable Executive and certify in writing that they follow best practices for engineers in avoiding conflicts of interest.



4.2.2.3 The Entity has a system in place to ensure that, for any tailings facility not classified as 'Very High' or 'Extreme' but with at least one potential loss of life:

- a. The Accountable Executive reviews the facility's risk environment, and the past and current performance of the facility management;
- b. As a result of this review, the Accountable Executive decides whether to appoint an Independent Tailings Review Board (ITRB) (see 4.2.2.2.c);
- c. The decision is documented.

GUIDANCE SOUGHT ON REQUIREMENT 4.2.2.3:

Further discussion is needed on whether specific conditions or risks should automatically trigger a decision from the Accountable Executive to appoint an Independent Tailings Review Board (ITRB) for those tailings facility that are not classified as 'Very High' or 'Extreme' but with at least one potential loss of life. IRMA proposes to discuss and explore potential approaches within an **IRMA Expert Working Group** dedicated to Tailings Storage and Mine Waste Facility Management.

PARTICIPATE IN AN EXPERT WORKING GROUP ON THIS CHAPTER

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4.2.2.4 The ENTITY's ultimate decision-making authority (e.g. its Board of Directors, or its corporate owner/s' Board of Directors) includes at least one member with general knowledge about mine waste facilities and their associated risks.



4.2.2.5 For sites with any proposed or existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1), the ENTITY has a system in place to ensure that the risk profiles⁸⁸² associated with those facilities are regularly discussed at the level of its ultimate decision-making authority (e.g. its Board of Directors, or its corporate owner/s' Board of Directors, or sub-committees of those bodies)



4.2.3 Interdisciplinary Knowledge Base



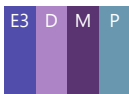
- 4.2.3.1** For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁸³ with the **GISTM Requirement 2.1**ⁱ.



4.2.4 Characterization



- 4.2.4.1** For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁸⁴ with the **GISTM Requirements 2.2**ⁱⁱ.



- 4.2.4.2** For **all** the proposed and existing mine waste facilities identified as per 4.2.1.1 and 4.2.1.2, the Entity has a system in place to ensure that a site characterization:
- Is carried out and documented by competent professionals, using credible methodologies;
 - Includes: 1) the proposed dimensions; 2) proposed location; 3) preliminary design; 4) operational lifespan; and 5) closure objectives; and
 - Includes: 6) the storage or disposal capacity; and 7) existing and planned future contents and their chemical characteristics.



- 4.2.4.3** For **all** the proposed and existing mine waste facilities identified as per 4.2.1.1 and 4.2.1.2, the Entity has a system in place to ensure that the site characterization also includes and documents the following factors, and how they may influence physical stability:
- Soil characteristics as follows: 1) soil type; 2) particle sizes; 3) pore water pressure; and 4) hydraulic conductivity of soils at the site;
 - Geology as follows: 1) seismicity; and 2) geologic and lithic subsurface conditions beneath the site and within 2 km of the site, including the thickness of each geologic unit and identification of which geologic units are water bearing;
 - Hydrology as follows: 1) subsurface conditions for all water-bearing zones beneath the site including maximum and minimum depths to ground water, direction of groundwater flow, hydrologic gradients, transmissivity and storativity; and 2) conditions of surface waters including average and seasonal levels and flow rates, gradients, and storage features within 2 km of the site; and
 - Climate-related factors, as follows: 1) mean annual temperature; 2) precipitation; 3) evaporation; 4) maximum precipitation events; 5) predicted probable maximum precipitation events⁸⁸⁵; 6) Trends in past weather and climate events, and predicted trends in future weather and climate events; and 7) Any uncertainties due to climate change for all the factors listed in a. to c.

ⁱ GISTM Requirement 2.1: Develop and document knowledge about the social, environmental and local economic context of the tailings facility, using approaches aligned with international best practices. Update this knowledge at least every five years, and whenever there is a material change either to the tailings facility or to the social, environmental and local economic context. This knowledge should capture uncertainties due to climate change.

ⁱⁱ GISTM Requirement 2.2: Prepare, document and update a detailed site characterisation of the tailings facility site(s) that includes data on climate, geomorphology, geology, geochemistry, hydrology and hydrogeology (surface and groundwater flow and quality), geotechnical, and seismicity. The physical and chemical properties of the tailings shall be characterised and updated regularly to account for variability in ore properties and processing.



4.2.4.4 For **all** the proposed and existing mine waste facilities identified as per 4.2.1.1 and 4.2.1.2, competent professionals assess the relevance of the following factors to physical stability and, where relevant, include them in the site characterization:

- a. Physical properties of the facility foundation materials, and of borrow or other materials used in construction of embankments or other features intended to provide physical stability of internally stored wastes and materials;
- b. Physical properties and chemical properties of stored wastes and materials⁸⁸⁶; and
- c. Actual volumes and updated estimates of future volumes of solid and liquid wastes, and the placement and/or fill plans and schedules (short and long-term) for the facility life cycle;



4.2.4.5 For **all** the proposed and existing mine waste facilities identified as per 4.2.1.1 and 4.2.1.2, competent professionals assess the need for conducting the following additional, and more detailed, geotechnical investigations and, where relevant, carry them out, document them, and include them in the site characterization: geohazard assessment, seepage analysis, stability assessment, seismic assessment, sensitivity analysis, water balance assessment, and flooding assessment.

4.2.5 Identification of Credible Failure Modes



4.2.5.1 For **all** the proposed and existing mine waste facilities identified as per 4.2.1.1 and 4.2.1.2:

- a. A multi-disciplinary team of competent professionals identifies and documents all credible failure modes⁸⁸⁷;
- b. This identification is informed by the facility characterization required in Section 4.2.4, and by the waste/material characterization required in Chapter 4.1 (Section 4.1.2); and
- c. The methodology used and all identified failure modes are documented.

4.2.6 Facility Breach Analysis



4.2.6.1 For **all** the proposed and existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1), the following analyses are carried out and documented:

- a. A facility breach analysis, informed by all the credible failure mode/s identified (as per 4.2.5.1), the facility characterization required in Section 4.2.4, and by the waste/material characterization required in Chapter 4.1 (Section 4.1.2);
- b. Runout or inundation analyses for the loss of all wastes and materials (water and liquefiable solids); and
- c. These analyses are carried out by competent professionals, using credible methodologies.



4.2.6.2 For **all** the proposed and existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1), the facility breach analysis required in 4.2.6.1 determines:

- a. The estimated physical area that may be impacted;
- b. Flow arrival times, velocities, and depth of material deposition; and
- c. Estimated potential and likely consequences in terms of loss of human life, impacts to public and private infrastructure and vital services, environmental impacts, and economic cost.



4.2.6.3 For **all** the proposed and existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1), the location of the facility is mapped in relation to:

- a. Topographical contours and geological data;
- b. Watercourses and other surface water features, and the most recent 100-year and 500-year flood zones; and
- c. The residential populations, individual households, and public and private infrastructure⁸⁸⁸ that may be affected by those credible failure modes.

GUIDANCE SOUGHT ON SECTION 4.2.6–Facility Breach Analysis

The possibility of systematically including worst-case/full release scenarios in breach analyses was discussed during the preparation of this 2nd DRAFT. However, no consensus was found, and the diverging views could not be resolved prior to the release of this 2nd DRAFT.

Further discussion is needed on ways for auditors to determine whether the credible failure modes, ALARP processes, Dam Breach Analyses (including estimations of the potential volumes of tailings and water that could be released), and Dam Safety Reviews are aligned and robust, and are used appropriately to inform emergency preparedness and response measures. IRMA proposes to discuss and explore potential approaches within an **IRMA Expert Working Group** dedicated to Tailings Storage and Mine Waste Facility Management.

PARTICIPATE IN AN EXPERT WORKING GROUP ON THIS CHAPTER

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4.2.7 Meaningful Engagement with Stakeholders



4.2.7.1 For **all** the proposed and existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1), the ENTITY:

- a. Proactively shares with affected rights-holders and stakeholders information on the factors that may affect the physical stability of proposed and existing facilities, including information on the most recently updated identification of credible failure modes and, if relevant, the most recently updated facility breach analysis;
- b. Building on the socio-environmental baseline and ongoing impact assessment required in Chapter 2.1, collaborates with affected rights-holders and stakeholders to identify, document, and regularly update, the potential negative impacts that physical stability failure at any of the identified mine waste facility could have on their social⁸⁸⁹, cultural heritage, and environmental resources; and
- c. To facilitate effective and meaningful engagement, and in accordance with Section 1.2.5, the ENTITY offers to provide financial assistance to affected rights-holders and stakeholders to select, hire and finance independent experts of their own choosing to advise them on risks related to the management of mine waste facilities.



4.2.8 Consequence Classification



4.2.8.1 For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁹⁰ with the following requirements:

- a. **GISTM Requirement 3.3**ⁱ;
- b. **GISTM Requirement 3.4**ⁱⁱ; and
- c. **GISTM Requirement 4.1**ⁱⁱⁱ.



4.2.8.2 Full conformance with GISTM Requirements 3.3 and 3.4 (i.e. assessment, and regular update, of the social, environmental, and local economic impacts of the tailings facilities and their potential failure throughout their lifecycle, required in 4.2.8.1) is demonstrated also for all **existing** tailings facilities⁸⁹¹.



4.2.8.3 For **all** the proposed and existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1), competent professionals:

- a. Determine and document the consequence of failure classification of the facility by assessing the downstream conditions documented in the knowledge base, building on the potential negative impacts identified in collaboration with affected communities (as per 4.2.7.1.b), and selecting the classification corresponding to the highest Consequence Classification for each category in Annex 4.2-A;
- b. Review each facility's failure consequence classification at least every five years, but without undue delay after a significant change; and
- c. Review each facility's failure consequence classification whenever new or more accurate data relating to risks to the stability of the facility⁸⁹² become available.

ⁱ GISTM Requirement 3.3: For new tailings facilities, use the knowledge base, including uncertainties due to climate change, to assess the social, environmental and local economic impacts of the tailings facility and its potential failure throughout its lifecycle. Where impact assessments predict material acute or chronic impacts, the Operator shall develop, document and implement impact mitigation and management plans using the mitigation hierarchy.

ⁱⁱ GISTM Requirement 3.4: Update the assessment of the social, environmental and local economic impacts to reflect a material change either to the tailings facility or to the social, environmental and local economic context. If new data indicates that the impacts from the tailings facility have changed materially, including as a result of climate change knowledge or long-term impacts, the Operator shall update tailings facility management to reflect the new data using Adaptive Management best practice).

ⁱⁱⁱ GISTM Requirement 4.1: Determine the consequence of failure classification of the tailings facility by assessing the downstream conditions documented in the knowledge base and selecting the classification corresponding to the highest Consequence Classification for each category in Annex 4.2-A. The assessment and selection of the classification shall be based on credible failure modes, and shall be defensible and documented.



4.2.9 Multi-Criteria Alternatives Analysis (MCAA)



4.2.9.1 For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁹³ with the **GISTM Requirement 3.2**ⁱ.



4.2.9.2 For **all** the proposed and existing mine waste facilities identified as per 4.2.1.1 and 4.2.1.2:

- A multi-criteria alternatives analysis (MCAA) is carried out and documented by a multidisciplinary team of competent professionals;
- Each MCAA has the objective of selecting an alternative that: 1) minimizes risks to people and the environment throughout the facility life cycle, and 2) minimizes the volume of fluids and/or wastes placed in those facilities;
- Each MCAA identifies minimum specifications and performance objectives for each facility throughout the facility life cycle (including closure objectives and post-closure land and water uses);
- Each MCAA identifies possible alternatives for initial siting, design and management of those facilities to prevent, and if that is not possible, minimize risks from all credible failure modes and for all phases of the lifecycle of the facility;
- Each MCAA includes a screening or “fatal flaw” analysis to eliminate alternatives that fail to meet minimum specifications;
- Each MCAA assesses remaining alternatives using a rigorous, transparent decision-making tool, such as Multiple Accounts Analysis or its equivalent, that takes into account environmental, technical, socio-economic and project economics considerations, inclusive of risk levels and hazard evaluations, associated with each alternative; and
- Each MCAA includes a sensitivity analysis to reduce potential that biases will influence the selection of final site locations, design specifications and facility management practices.

ⁱ GISTM Requirement 3.2: For new tailings facilities, the Entity shall use the knowledge base and undertake a multi-criteria alternatives analysis (MCAA) of all feasible sites, technologies and strategies for tailings management. The goal of this analysis shall be to: (i) select an alternative that minimises risks to people and the environment throughout the tailings facility lifecycle; and (ii) minimises the volume of tailings and water placed in external tailings facilities. This analysis shall be an objective constraint analysis reviewed by the Independent Tailings Review Board (ITRB) or a senior independent technical reviewer. For existing tailings facilities, the Entity shall periodically review and refine the tailings technologies and design, and management strategies to minimise risk and improve environmental outcomes. An exception applies to facilities that are demonstrated to be in a state of safe closure.



4.2.10 Design Criteria



4.2.10.1 For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁹⁴ with the and the **GISTM Requirement 4.2**ⁱ.



4.2.10.2 The ENTITY systematically adopts a more conservative approach by adopting the 'Extreme' Consequence Classification external loading criteria (see the matrix provided in [Annex 4.2-B-1](#), in Chapter Annexes), and applies this in conformance with all the relevant GISTM Requirements, for all proposed and existing tailings facilities identified as per 4.2.1.1⁸⁹⁵.



4.2.10.3 For **all** the proposed and existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1), if the design for the 'Extreme' Consequence Classification external loading criteria has not been implemented, the reviews of the consequence classification are conducted as follows:

- a. Reviews draw attention to any deficiencies or non-conformities in information⁸⁹⁶, in facility construction, operation, maintenance, surveillance, emergency preparedness and response plans, responses to incidents, and governance⁸⁹⁷;
- b. Every review of a particular facility is carried out by a different independent contractor; and
- c. Commentary, advice, and recommendations from the Dam Safety Review (DSR) are shared with the Accountable Executive.

ⁱ GISTM Requirement 4.2: With the objective of maintaining flexibility in the development of a new tailings facility and optimising costs while prioritising safety throughout the tailings facility lifecycle:

A. Develop preliminary designs for the tailings facility with external loading design criteria consistent with both the consequence of failure classification selected based on current conditions and higher Consequence Classifications (including 'Extreme').

B. Informed by the range of requirements defined by the preliminary designs, either:

B.1) Implement the design for the 'Extreme' Consequence Classification external loading criteria; or

B.2) Implement the design for the current Consequence Classification criteria, or a higher one, and demonstrate that the feasibility, at a proof of concept level, to upgrade to the design for the 'Extreme' classification criteria is maintained throughout the tailings facility lifecycle.

C. If option B.2 is implemented, review the consequence of failure classification at the time of the Dam Safety Review (DSR) and at least every five years, or sooner if there is a material change in the social, environmental and local economic context, and complete the upgrade of the tailings facility to the new Consequence Classification as determined by the DSR within three years. This review shall proceed until the tailings facility has been safely closed according to this Standard.

D. The process described above shall be reviewed by the Independent Tailings Review Board (ITRB) or the senior independent technical reviewer, as appropriate for the tailings facility Consequence Classification. Subject to Requirement 4.7, Requirements 4.2.C and 4.2.D shall also apply to existing tailings facilities.

4.2.10.4 For all the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁹⁸ with the following requirements:

- a. **GISTM Requirement 4.3ⁱ**, and **GISTM Requirement 4.4ⁱⁱ**;
- b. **GISTM Requirement 4.5ⁱⁱⁱ**, and **GISTM Requirement 4.6^{iv}**; and
- c. **GISTM Requirement 4.7^v**, and **GISTM Requirement 4.8^{vi}**.

GUIDANCE SOUGHT ON SECTION 4.2.10–Design Criteria

The possibility of requiring a site to avoid the upstream construction method of tailings dams for new facilities, and to work towards the gradual decommissioning of such existing upstream tailings facilities at the site (as legally required in certain jurisdictions with wet climates and high seismic activity, such as Brazil, Chile, Ecuador, and Peru) was discussed during the preparation of this 2nd DRAFT.

Additionally, the possibility of requiring a minimum distance between tailings facilities and inhabited areas (as legally required in certain jurisdictions such as like Brazil, China, or Ecuador) versus implementing an ALARP approach was discussed during the preparation of this 2nd DRAFT.

However, no consensus was found on these matters, and the diverging views could not be resolved by prior to the release of this 2nd DRAFT. IRMA proposes to discuss and explore potential approaches within an **IRMA Expert Working Group** dedicated to Tailings Storage and Mine Waste Facility Management.

PARTICIPATE IN AN EXPERT WORKING GROUP ON THIS CHAPTER

If you are interested in participating in an IRMA Expert Working Group on Tailings Storage and Mine Waste Facility Management, please contact IRMA's Standards Director, as explained in the [Terms of Reference for this Expert Working Group](#).

ⁱ GISTM Requirement 4.3: The Accountable Executive shall take the decision to adopt a design for the current Consequence Classification criteria and to maintain flexibility to upgrade the design for the highest classification criteria later in the tailings facility lifecycle. This decision shall be documented.

ⁱⁱ GISTM Requirement 4.4: Select, explicitly identify and document all design criteria that are appropriate to minimise risk for all credible failure modes for all phases of the tailings facility lifecycle.

ⁱⁱⁱ GISTM Requirement 4.5: Apply design criteria, such as factors of safety for slope stability and seepage management that consider estimated operational properties of materials and expected performance of design elements, and quality of the implementation of risk management systems. These issues should also be appropriately accounted for in designs based on deformation analyses.

^{iv} GISTM Requirement 4.6: Identify and address brittle failure modes with conservative design criteria, independent of trigger mechanisms, to minimise their impact on the performance of the tailings facility.

^v GISTM Requirement 4.7: Existing tailings facilities shall conform with the Requirements under Principle 4, except for those aspects where the Engineer of Record (EOR), with review by the ITRB or a senior independent technical reviewer, determines that the upgrade of an existing tailings facility is not viable or cannot be retroactively applied. In this case, the Accountable Executive shall approve and document the implementation of measures to reduce both the probability and the consequences of a tailings facility failure in order to reduce the risk to a level as low as reasonably practicable (ALARP). The basis and timing for addressing the upgrade of existing tailings facilities shall be risk-informed and carried out as soon as reasonably practicable).

^{vi} GISTM Requirement 4.8: The EOR shall prepare a Design Basis Report (DBR) that details the design assumptions and criteria, including operating constraints, and that provides the basis for the design of all phases of the tailings facility lifecycle. The DBR shall be reviewed by the ITRB or senior independent technical reviewer. The EOR shall update the DBR every time there is a material change in the design assumptions, design criteria, design or the knowledge base and confirm internal consistency among these element).



4.2.11 Robust Design Development



4.2.11.1 Critical Requirement

For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁸⁹⁹ with the following requirements:

- a. **GISTM Requirement 5.1ⁱ, GISTM Requirement 5.2ⁱⁱ, and GISTM Requirement 5.3ⁱⁱⁱ;**
- b. **GISTM Requirement 5.4^{iv}, GISTM Requirement 5.5^v, and GISTM Requirement 5.6^{vi}, and**
- c. **GISTM Requirement 5.7^{vii}.**



4.2.11.2 For any of the proposed and existing tailings facilities identified as per 4.2.1.1 where other measures to reduce the consequences of its credible failure mode as per the breach analysis have been exhausted, and pre-emptive resettlement cannot be avoided, the ENTITY fully meets all the applicable requirements of Chapter 2.5 (Land Acquisition, Displacement, and Resettlement) of the IRMA Standard for the given proposed or existing tailings facility⁹⁰⁰.

ⁱ GISTM Requirements 5.1: For new tailings facilities, incorporate the outcome of the multi-criteria alternatives analysis including the use of tailings technologies in the design of the tailings facility. For expansions to existing tailings facilities, investigate the potential to refine the tailings technologies and design approaches with the goal of minimising risks to people and the environment throughout the tailings facility lifecycle.

ⁱⁱ GISTM Requirements 5.2: Develop a robust design that considers the technical, social, environmental and local economic context, the tailings facility Consequence Classification, site conditions, water management, mine plant operations, tailings operational and construction issues, and that demonstrates the feasibility of safe closure of the tailings facility. The design should be reviewed and updated as performance and site data become available and in response to material changes to the tailings facility or its performance.

ⁱⁱⁱ GISTM Requirements 5.3: Develop, implement and maintain a water balance model and associated water management plans for the tailings facility, taking into account the knowledge base including climate change, upstream and downstream hydrological and hydrogeological basins, the mine site, mine planning and overall operations and the integrity of the tailings facility throughout its lifecycle. The water management programme must be designed to protect against unintentional releases.

^{iv} GISTM Requirements 5.4: Address all potential failure modes of the structure, its foundation, abutments, reservoir (tailings deposit and pond), reservoir rim and appurtenant structures to minimise risk to ALARP. Risk assessments must be used to inform the design.

^v GISTM Requirements 5.5: Develop a design for each stage of construction of the tailings facility, including but not limited to start-up, partial raises and interim configurations, final raise, and all closure stages).

^{vi} GISTM Requirements 5.6: Design the closure phase in a manner that meets all the Requirements of the GISTM Standard with sufficient detail to demonstrate the feasibility of the closure scenario and to allow implementation of elements of the design during construction and operation as appropriate. The design should include progressive closure and reclamation during operations.

^{vii} GISTM Requirements 5.7: For a proposed new tailings facility classified as 'High', 'Very High' or 'Extreme', the Accountable Executive shall confirm that the design satisfies ALARP and shall approve additional reasonable steps that may be taken downstream, to further reduce potential consequences to people and the environment. The Accountable Executive shall explain and document the decisions with respect to ALARP and additional consequence reduction measures. For an existing tailings facility classified as 'High', 'Very High' or 'Extreme', the Accountable Executive, at the time of every DSR or at least every five years, shall confirm that the design satisfies ALARP and shall seek to identify and implement additional reasonable steps that may be taken to further reduce potential consequences to people and the environment. The Accountable Executive shall explain and document the decisions with respect to ALARP and additional consequence reduction measures, in consultation with external parties as appropriate. (Note: GISTM Requirement 5.7 applies to facilities with consequence classification of 'High', 'Very High', or 'Extreme' or higher, which ensures inclusion of any proposed or existing facilities with at least one potential loss of life).



4.2.12 Planning, Building, and Operating Tailings Facilities



4.2.12.1 For all the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁹⁰¹ with the following requirements:

- a. **GISTM Requirement 6.1ⁱ** and **GISTM Requirement 6.2ⁱⁱ**;
- b. **GISTM Requirement 6.3ⁱⁱⁱ**, and **GISTM Requirement 6.4^{iv}**; and
- c. **GISTM Requirement 6.5^v**, and **GISTM Requirement 6.6^{vi}**.

ⁱ GISTM Requirements 6.1: Build, operate, monitor, and close the tailings facility according to the design intent at all phases of the tailings facility lifecycle, using qualified personnel and appropriate methodology, equipment and procedures, data acquisition methods, the Tailings Management System (TMS) and the overall Environmental and Social Management System (ESMS) for the mine and associated infrastructure.

ⁱⁱ GISTM Requirements 6.2: Manage the quality and adequacy of the construction and operation process by implementing Quality Control, Quality Assurance and Construction vs Design Intent Verification (CDIV). The Operator shall use the CDIV to ensure that the design intent is implemented and is still being met if the site conditions vary from the design assumptions.

ⁱⁱⁱ GISTM Requirements 6.3: Prepare a detailed Construction Records Report ('as-built' report) whenever there is a material change to the tailings facility, its infrastructure or its monitoring system. The EOR and the Responsible Tailings Facility Engineer (RTFE) shall sign this report.

^{iv} GISTM Requirements 6.4: Develop, implement, review annually and update as required an Operations, Maintenance and Surveillance (OMS) Manual that supports effective risk management as part of the TMS. The OMS Manual should follow best practices, clearly provide the context and critical controls for safe operations and be reviewed for effectiveness. The RTFE shall provide access to the OMS Manual and training to all levels of personnel involved in the TMS with support from the EOR.

^v GISTM Requirements 6.5: Implement a formal change management system that triggers the evaluation, review, approval and documentation of changes to design, construction, operation or monitoring during the tailings facility lifecycle. The change management system shall also include the requirement for the EOR to prepare a periodic Deviance Accountability Report (DAR) that provides an assessment of the cumulative impact of the changes on the risk level of the as-constructed facility. The DAR shall provide recommendations for managing risk, if necessary, and any resulting updates to the design, DBR, OMS and the monitoring programme. The DAR shall be approved by the Accountable Executive.

^{vi} GISTM Requirements 6.6: Include new and emerging technologies and approaches and use the evolving knowledge in the refinement of the design, construction and operation of the tailings facility.



- 4.2.12.2** For **all** the proposed and existing tailings facilities identified as per 4.2.1.1, the Operations, Maintenance, and Surveillance (OMS) Manual/s (or equivalent) include a risk management plan (or equivalent) that:
- Outlines critical controls to minimize the probability and potential consequences of a facility failure to as low as reasonably practicable (ALARP)
 - Includes other risk controls and actions necessary for the safe operation of the facility;
 - Documents specific and measurable performance objectives, indicators, and performance parameters for critical controls and risk controls;
 - Includes a trigger action response plan (TARP), or equivalent, that describes pre-defined trigger levels for performance criteria, and actions to be taken if trigger levels are reached or exceeded⁹⁰²;
 - Assigns implementation of controls and measures to responsible staff with adequate skills and expertise, and assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁹⁰³;
 - Includes clearly-defined timelines and an implementation schedule in place that specifies the expected outcomes;
 - Includes estimates of human resources and budget required; and
 - Includes a financing plan in place to ensure that funding is available for the effective implementation of the plan.



4.2.13 Monitoring and Evaluation



4.2.13.1 For all the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁹⁰⁴ with the following requirements:

- a. **GISTM Requirement 7.1ⁱ**, and **GISTM Requirement 7.2ⁱⁱ**;
- b. **GISTM Requirement 7.3ⁱⁱⁱ**, and **GISTM Requirement 7.4^{iv}**; and
- c. **GISTM Requirement 7.5^v**.



4.2.13.2 At least annually, but without undue delay after a significant change, competent professionals evaluate the performance of all existing mine waste facilities identified as per 4.2.1.1 and 4.2.1.2 by assessing whether the performance objectives defined for each facility are being met (see 4.2.9.2.c).

ⁱ GISTM Requirements 7.1: Design, implement and operate a comprehensive and integrated performance monitoring programme for the tailings facility and its appurtenant structures as part of the TMS and for those aspects of the ESMS related to the tailings facility in accordance with the principles of Adaptive Management).

ⁱⁱ GISTM Requirements 7.2: Design, implement and operate a comprehensive and integrated engineering monitoring system that is appropriate for verifying design assumptions and for monitoring potential failure modes. Full implementation of the Observational Method shall be adopted for non-brittle failure modes. Brittle failure modes are addressed by conservative design criteria.

ⁱⁱⁱ GISTM Requirements 7.3: Establish specific and measurable performance objectives, indicators, criteria, and performance parameters and include them in the design of the monitoring programmes that measure performance throughout the tailings facility lifecycle. Record and evaluate the data at appropriate frequencies. Based on the data obtained, update the monitoring programmes throughout the tailings facility lifecycle to confirm that they remain effective to manage risk.

^{iv} GISTM Requirements 7.4: Analyse technical monitoring data at the frequency recommended by the EOR, and assess the performance of the tailings facility, clearly identifying and presenting evidence on any deviations from the expected performance and any deterioration of the performance over time. Promptly submit evidence to the EOR for review and update the risk assessment and design, if required. Performance outside the expected ranges shall be addressed promptly through Trigger Action Response Plans (TARPs) or critical controls.

^v GISTM Requirements 7.5: Report the results of each of the monitoring programmes at the frequency required to meet company and regulatory requirements and, at a minimum, on an annual basis. The RTFE and the EOR shall review and approve the technical monitoring reports.



4.2.14 Engineer of Record



4.2.14.1 For all the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁹⁰⁵ with the following requirements:

- a. **GISTM Requirement 9.1ⁱ**;
- b. **GISTM Requirement 9.2ⁱⁱ**, and **GISTM Requirement 9.3ⁱⁱⁱ**; and
- c. **GISTM Requirement 9.4^{iv}**, and **GISTM Requirement 9.5^v**.

ⁱ GISTM Requirement 9.1: Engage an engineering firm with expertise and experience in the design and construction of tailings facilities of comparable complexity to provide EOR services for operating the tailings facility and for closed facilities with 'High', 'Very High' and 'Extreme' Consequence Classification, that are in the active closure phase. Require that the firm nominate a senior engineer, approved by the Operator, to represent the firm as the EOR, and verify that the individual has the necessary experience, skills and time to fulfil this role. Alternatively, the Operator may appoint an in-house engineer with expertise and experience in comparable facilities as the EOR. In this instance, the EOR may delegate the design to a firm ('Designer of Record') but shall remain thoroughly familiar with the design in discharging their responsibilities as EOR. Whether the EOR or the DOR is in-house or external, they must be competent and have experience appropriate to the Consequence Classification and complexity of the tailings facility. (Note: GISTM Requirement 9.1 applies to facilities with consequence classification of 'High', 'Very High', or 'Extreme' or higher, which ensures inclusion of any proposed or existing facilities with at least one potential loss of life.)

ⁱⁱ GISTM Requirement 9.2: Empower the EOR through a written agreement that clearly describes their authority, role and responsibilities throughout the tailings facility lifecycle, and during change of ownership of mining properties. The written agreement must clearly describe the obligations of the Operator to the EOR, to support the effective performance of the EOR.

ⁱⁱⁱ GISTM Requirement 9.3: Establish and implement a programme to manage the quality of all engineering work, the interactions between the EOR, the RTFE and the Accountable Executive, and their involvement in the tailings facility lifecycle as necessary to confirm that both the implementation of the design and the design intent are met.

^{iv} GISTM Requirement 9.4: Given its potential impact on the risks associated with a tailings facility, the selection of the EOR shall be decided by the Accountable Executive and informed, but not decided, by procurement personnel.

^v GISTM Requirement 9.5: Where it becomes necessary to change the EOR (whether a firm or an in house employee), develop a detailed plan for the comprehensive transfer of data, information, knowledge and experience with the construction procedures and materials



4.2.15 Ongoing Risk Assessment and Continuous Improvement



4.2.15.1 For each existing mine waste facility where one or more credible failure modes have been identified (see 4.2.5.1):

- A risk assessment is carried out to evaluate the risks to human rights and the health and safety of communities and the environment from all credible failure modes identified;
- It is carried out and documented by a multi-disciplinary team using a credible methodology;
- It identifies credible failure modes for which design elements and critical controls must be prioritized, and a rationale is documented;
- It is updated **at least every three years**, but without undue delay after a significant change; and
- It is informed by the collaborative identification of potential negative impacts with affected rights-holders and stakeholders required in 4.2.7.1.

GUIDANCE SOUGHT ON REQUIREMENT 4.2.15.1

The possibility of requiring a summary of the risk assessment findings to be made and maintained publicly accessible was discussed during the preparation of this 2nd DRAFT.

However, no consensus was found, and the diverging views could not be resolved prior to the release of this 2nd DRAFT. IRMA proposes to discuss and explore potential approaches within an **IRMA Expert Working Group** dedicated to Tailings Storage and Mine Waste Facility Management.

PARTICIPATE IN AN EXPERT WORKING GROUP ON THIS CHAPTER

The Terms of Reference applicable to this Expert Working Group, including instructions on how to apply, are available at (click on this link): [ToR for Expert Working Group 2025](#).

If you are interested in participating in the **IRMA Expert Working Group on Tailings and Mine Waste Storage Management**, please contact IRMA's Standards Director, as explained in the Terms of Reference.



4.2.15.2 For each existing mine waste facility where one or more credible failure modes have been identified (see 4.2.5.1), the ENTITY can demonstrate that:

- The refinements of the design are informed by the outcome of the multi-criteria alternatives analysis and the risk assessment;
- The design criteria used are appropriate to minimize risk to as low as reasonably practicable for: 1) all credible failure modes; and 2) all phases of construction over the facility life cycle⁹⁰⁶ and
- The facility uses the flood, seismic and slope stability design criteria that are consistent with the facility's failure consequence classification. If not originally applied at existing facilities the ENTITY can demonstrate that a plan to meet the applicable criteria has been developed, has undergone independent review and is being implemented.



4.2.15.3 For all the existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁹⁰⁷ with the following requirements:

- a. **GISTM Requirement 10.2ⁱ, GISTM Requirement 10.3ⁱⁱ, and GISTM Requirement 10.4ⁱⁱⁱ;**
- b. **GISTM Requirement 10.5^{iv}; and**
- c. **GISTM Requirement 10.6^v.**



4.2.15.4 For all the existing tailings facilities identified as per 4.2.1.1, the Dam Safety Review (DSR) draws attention to any deficiencies or non-conformities in information⁹⁰⁸, in facility construction, operation, maintenance, surveillance, emergency preparedness and response plans, responses to incidents, and governance⁹⁰⁹.



4.2.15.5 For all the existing tailings facilities identified as per 4.2.1.1:

- a. Every DSR of a particular facility is carried out by a different independent contractor; and
- b. All ITRB members, senior independent technical reviewers, and DSR contractors are objective, third-party, and competent, professionals with at least 15 years of experience in the specific area of review⁹¹⁰.

ⁱ GISTM Requirement 10.2: Conduct regular reviews of the TMS and of the components of the ESMS that refer to the tailings facility to assure the effectiveness of the management systems. Document and report the outcomes to the Accountable Executive, Board of Directors and project-affected people. The review shall be undertaken by senior technical reviewers with the appropriate qualifications, expertise and resources. For tailings facilities with 'High', 'Very High' or 'Extreme' Consequence Classification, conduct the review at least every three years. (Note: GISTM Requirement 10.2 applies to facilities with consequence classification of 'High', 'Very High', or 'Extreme' or higher, which ensures inclusion of any proposed or existing facilities with at least one potential loss of life).

ⁱⁱ GISTM Requirement 10.3: Conduct internal audits to verify consistent implementation of company procedures, guidelines and corporate governance requirements consistent with the TMS and aspects of the ESMS developed to manage tailings facility risks.

ⁱⁱⁱ GISTM Requirement 10.4: The EOR or senior independent technical reviewer shall conduct tailings facility construction and performance reviews annually or more frequently, if required.

^{iv} GISTM Requirement 10.5: Conduct an independent DSR at least every five years for tailings facilities with 'Very High' or 'Extreme' Consequence Classifications and at least every 10 years for all other facilities. For tailings facilities with complex conditions or performance, the ITRB may recommend more frequent DSRs. The DSR shall include technical, operational and governance aspects of the tailings facility and shall be completed according to best practices. The DSR contractor cannot conduct consecutive DSRs on the same tailings facility and shall certify in writing that they follow best practices for engineers in avoiding conflicts of interest.

^v GISTM Requirement 10.6: For tailings facilities with 'Very High' or 'Extreme' Consequence Classifications, the ITRB, reporting to the Accountable Executive shall provide ongoing senior independent review of the planning, siting, design, construction, operation, water and mass balance, maintenance, monitoring, performance and risk management at appropriate intervals across all phases of the tailings facility lifecycle. For tailings facilities with other Consequence Classifications, this review can be done by a senior independent technical reviewer.



4.2.15.6 The Entity has a system in place to ensure that, for any tailings facility not classified as ‘Very High’ or ‘Extreme’ but with at least one potential loss of life:

- a. Building on the review of the facility’s risk environment, and of the past and current performance of the facility management required in 4.2.2.3, the Accountable Executive and/or the ITRB (if appointed) decides whether independent Dam Safety Reviews (DSR) should also be conducted at least every five years⁹¹¹; and
- b. The decision is documented.



4.2.15.7 For **all** the existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁹¹² with the **GISTM Requirement 10.7ⁱ**.



4.2.15.8 At least every three years, the ENTITY:

- a. Reviews its performance in demonstrating full conformance with all the GISTM Requirements, as evidenced by the results of a third-party conformance audit against the GISTM Conformance Protocols;
- b. It develops and implements a time-bound action plan in response to all relevant commentary, advice or recommendations from this third-party audit;
- c. It documents a rationale for any advice or recommendations that will not be implemented; and
- d. Tracks its progress on implementing its previous time-bound action plan.



4.2.15.9 For any tailings facility not classified as ‘Very High’ or ‘Extreme’ but with at least one potential loss of life, if the decision was made to appoint an Independent Tailings Review Board (ITRB), as per 4.2.2.3, the ITRB, reporting to the Accountable Executive, also provides ongoing senior independent review of the planning, siting, design, construction, operation, water and mass balance, maintenance, monitoring, performance and risk management at appropriate intervals across all phases of the tailings facilities’ lifecycle (in accordance with GISTM Requirement 10.6).

ⁱ GISTM Requirement 10.7: The amount of estimated costs for planned closure, early closure, reclamation, and post-closure of the tailings facility and its appurtenant structures shall be reviewed periodically to confirm that adequate financial capacity (including insurance, to the extent commercially reasonable) is available for such purposes throughout the tailings facility lifecycle, and the conclusions of the review shall be publicly disclosed annually. Disclosure may be made in audited financial statements or in public regulatory filings. Subject to the provisions of local or national regulations on this matter, Operators shall use best efforts to assess and take into account the capability of an acquirer of any of its assets involving a tailings facility (through merger, acquisition, or other change in ownership) to maintain this Standard for the tailings facility lifecycle. (Note: see also Chapter 2.7 of the IRMA Standard on Concurrent Reclamation, Closure, and Post-Closure).



4.2.16 Organizational Culture



4.2.16.1 For all the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁹¹³ with the following requirements:

- a. **GISTM Requirement 11.1ⁱ**;
- b. **GISTM Requirement 11.2ⁱⁱ**, and **GISTM Requirement 11.3ⁱⁱⁱ**; and
- c. **GISTM Requirement 11.4^{iv}** and **GISTM Requirement 11.5^v**.



4.2.17 Information-Sharing and Public Reporting



4.2.17.1 For all the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY has undertaken a third-party conformance audit against the GISTM Conformance Protocols and demonstrated full conformance⁹¹⁴ with the following requirements:

- a. **GISTM Requirement 15.1^{vi}**;
- b. **GISTM Requirement 15.2^{vii}**; and
- c. **GISTM Requirement 15.3^{viii}**.

ⁱ GISTM Requirement 11.1: Educate personnel who have a role in any phase of the tailings facility lifecycle about how their job procedures and responsibilities relate to the prevention of a failure.

ⁱⁱ GISTM Requirement 11.2: Establish mechanisms that incorporate workers' experience-based knowledge into planning, design and operations for all phases of the tailings facility lifecycle.

ⁱⁱⁱ GISTM Requirement 11.3: Establish mechanisms that promote cross-functional collaboration to ensure effective data and knowledge sharing, communication and implementation of management measures to support public safety and the integrity of the tailings facility.

^{iv} GISTM Requirement 11.4: Identify and implement lessons from internal incident investigations and relevant external incident reports, paying particular attention to human and organisational factors.

^v GISTM Requirement 11.5: Establish mechanisms that recognise, reward and protect from retaliation, employees and contractors who report problems or identify opportunities for improving tailings facility management. Respond in a timely manner and communicate actions taken and their outcomes.

^{vi} GISTM Requirement 15.1: Publish and regularly update information on the Operator's commitment to safe tailings facility management, implementation of its tailings governance framework, its organisation-wide policies, standards or approaches to the design, construction, monitoring and closure of tailings facilities. Details on the required pieces of information can be found in the GISTM Standard.

^{vii} GISTM Requirement 15.2: Respond in a systematic and timely manner to requests from interested and affected stakeholders for additional information material to the public safety and integrity of a tailings facility. When the request for information is denied, provide an explanation to the requesting stakeholder.

^{viii} GISTM Requirement 15.3: Commit to cooperate in credible global transparency initiatives to create standardised, independent, industry-wide and publicly accessible databases, inventories or other information repositories about the safety and integrity of tailings facilities.



4.2.17.2 The ENTITY:

- a. Regularly reviews its stakeholder engagement plan (see 1.2.2) to identify and/or develop engagement activities related to mine waste facility management and monitoring, that are commensurate with the level of risks associated with its mine waste facilities;
- b. At least annually, meets with affected rights-holders and stakeholders that are significantly at risk⁹¹⁵ from one or more credible failure modes to report on the management, and surveillance and monitoring of mine waste facilities, as well as on the findings from independent reviews (where applicable)⁹¹⁶;
- c. Provide them an opportunity to give feedback on the ENTITY's management of mine waste facilities;
- d. Proactively shares with them information about how their feedback was taken into account to inform continuous improvement in the management of mine waste facilities; and
- e. Meets with other affected rights-holders and stakeholders (that are not significantly at risk) to share information about the management, and surveillance and monitoring of mine waste facilities, at a frequency that is commensurate with the level of risks associated as well as upon request from those rights-holders or stakeholders (see 1.2.3 - Processes for Sharing Information).



4.2.17.3 For all the proposed and existing tailings facilities identified as per 4.2.1.1, the ENTITY makes publicly accessible an updated version, and maintains publicly accessible all previous versions of:

- a. The findings and recommendations of the third-party conformance audit it undertook against the GISTM Conformance Protocols;
- b. Its rationale for any advice or recommendations that will not be implemented; and
- c. At least annually, a report on its progress on implementing the time-bound action plan required in 4.2.15.8.



4.2.17.4 In accordance with 1.2.3, the ENTITY ensures that any request from affected rights-holders and stakeholders to obtain additional information or reports related to mine waste facilities will be met in a timely and effective manner.

GUIDANCE SOUGHT ON SECTION 4.2.17–Information-Sharing and Public Reporting

The range of technical information and reports that could be made publicly accessible –by default– by companies, if any, such as Construction Records Reports, Dam Safety Review Reports, Internal reviews, EOR review, Independent Tailings Review Board reports, etc. was discussed during the preparation of this 2nd DRAFT. IRMA proposes to discuss and explore potential approaches within an **IRMA Expert Working Group** dedicated to Tailings Storage and Mine Waste Facility Management.

PARTICIPATE IN AN EXPERT WORKING GROUP ON THIS CHAPTER

The Terms of Reference applicable to this Expert Working Group, including instructions on how to apply, are available at (click on this link): [ToR for Expert Working Group 2025](#).

If you are interested in participating in the **IRMA Expert Working Group on Tailings and Mine Waste Storage Management**, please contact IRMA's Standards Director, as explained in the Terms of Reference.

4.2.18 Physical Stability Management of Other Facilities



4.2.18.1 IRMA+

For all the proposed and existing facilities that may have physical stability risks, other than tailings and waste facilities⁹¹⁷, identified as per 4.2.1.3, competent professionals characterized them, to inform a detailed analysis of physical stability risks, as follows:

- The proposed or actual: 1) dimensions, 2) location, 3) design, 4) operational lifespan, and 4) closure objectives are documented for each facility, and if relevant, the proposed or actual: 5) storage or disposal capacity, 6) contents and their chemical characteristics⁹¹⁸;
- Key environmental factors that may influence the physical stability of proposed and existing facilities are documented by competent professionals, including documentation of any uncertainties due to climate change⁹¹⁹; and
- The location of all facilities with physical stability risks are mapped in relation to: 1) Topographical contours; 2) Geological data; 3) Watercourses and other surface water features; and 4) The most recent 100-yr and 500-yr flood zones;



4.2.18.2 IRMA+

Building on 4.2.1.3 and 4.2.18.1, a multi-disciplinary team of competent professionals identifies all credible failure modes for each proposed and existing facilities other than tailings and waste facilities identified.⁹²⁰



4.2.18.3 IRMA+

Building on 4.2.18.1 and 4.2.18.2, a multi-disciplinary team of competent professionals determines the failure consequence classification (or equivalent) for each proposed and existing facilities other than tailings and waste facilities where one or more credible failure modes have been identified, based on the matrix provided in [Annex 4.2-A](#) (see Chapter Annexes).



4.2.18.4 IRMA+

Building on 4.2.18.1, 4.2.18.2 and 4.2.18.3, the ENTITY has systems in place to manage all proposed and existing facilities other than tailings and waste facilities where one or more credible failure modes have been identified, in accordance with Sections 4.2.3 to 4.2.17 (but adapted to these non-waste facilities).



CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁸⁷⁸ Including, but not limited to storage or disposal facilities for: tailings, sludges and residues, spent heap leach piles, process residue storage ponds; as well as any associated transport/delivery infrastructures such as pipes/pipelines, conveyors, launder channels, ploughs, radial stackers, etc..

⁸⁷⁹ Including, but not limited to storage or disposal facilities for: waste rock, overburden, rejects material, topsoil, and other stockpiles; as well as any associated transport/delivery infrastructures.

⁸⁸⁰ Including, but not limited to: surface mines features such as pit highwalls and other associated features, underground mines shafts, tunnels and features, fluid extraction areas or facilities (e.g., for brine or groundwater pumping/dewatering), water reservoirs and other water storage facilities, access roads, non-mining and non-processing hazardous and remediated waste storage facilities.

⁸⁸¹ Compliance was obtained or maintained during the last thirty-six months.

⁸⁸² Risk profiles should include both risks to business and risks to people, animals, biodiversity, and the environment, using a double-materiality approach.

⁸⁸³ Compliance was obtained or maintained during the last thirty-six months.

⁸⁸⁴ Compliance was obtained or maintained during the last thirty-six months.

⁸⁸⁵ E.g., 24-hour, annual, 10-year, 100-year, 500-year.

⁸⁸⁶ See Chapter 4.1, Section 4.1.2 for the characterization of potentially hazardous wastes and materials.

⁸⁸⁷ Depending on the facility, credible failure modes may include, but are not limited to:

- a. Shallow and deep failures within the facility;
- b. Foundation failures;
- c. Internal erosion failure (e.g., piping);
- d. Ground-subsidence-related failures;
- e. Slope failures;
- f. Pit highwall or slope failures;
- g. Failures due to storm events;
- h. Construction- and operations-related failures;
- i. Upstream/upgradient off-site failures that may affect a facility (e.g., upstream dam or landslide); and
- j. Cascading failures (e.g., if there are upstream and/or downstream facilities or structures).

⁸⁸⁸ Including, where relevant, bridges, irrigation systems, and water supply infrastructures.

⁸⁸⁹ E.g., human rights, ecosystem services, commercial and residential property, businesses.

⁸⁹⁰ Compliance was obtained or maintained during the last thirty-six months.

⁸⁹¹ GISTM Conformance Protocols only require these requirements for **new** tailings facilities.

⁸⁹² E.g., geological, hydrological, climate change, newly-identified credible failure modes.

⁸⁹³ Compliance was obtained or maintained during the last thirty-six months.

⁸⁹⁴ Compliance was obtained or maintained during the last thirty-six months.

⁸⁹⁵ This approach is only one of two options proposed in GISTM (Option B1 of Requirement 4.2). Instead, in the IRMA Standard, it is the only option to obtain full conformance with this Chapter.

⁸⁹⁶ E.g., identification of hazards, failure modes, geotechnical and hydrotechnical assessments, or the inputs or outcomes of failure consequence classifications.

⁸⁹⁷ E.g., roles, responsibilities, authorities and activities are clearly assigned, personnel are competent and trained.

⁸⁹⁸ Compliance was obtained or maintained during the last thirty-six months.

⁸⁹⁹ Compliance was obtained or maintained during the last thirty-six months.

⁹⁰⁰ Chapters 2.5 addresses Land Acquisition, Displacement, and Resettlement in a more detailed and comprehensive manner than GISTM Requirement 5.8.

⁹⁰¹ Compliance was obtained or maintained during the last thirty-six months.

⁹⁰² I.e., if performance is outside of expected range.

⁹⁰³ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁹⁰⁴ Compliance was obtained or maintained during the last thirty-six months.

⁹⁰⁵ Compliance was obtained or maintained during the last thirty-six months.



⁹⁰⁶ E.g., start-up, partial raises, interim configurations, final raise, and all closures stages.

⁹⁰⁷ Compliance was obtained or maintained during the last thirty-six months.

⁹⁰⁸ E.g., identification of hazards, failure modes, geotechnical and hydrotechnical assessments, or the inputs or outcomes of failure consequence classifications.

⁹⁰⁹ E.g., roles, responsibilities, authorities and activities are clearly assigned, personnel are competent and trained.

⁹¹⁰ E.g., facility design, operations, closure, environmental or social aspects or other specific topic of concern.

⁹¹¹ The way GISTM Requirement 10.5 requires it for every facilities with 'Very High' or 'Extreme' Consequence Classifications.

⁹¹² Compliance was obtained or maintained during the last thirty-six months.

⁹¹³ Compliance was obtained or maintained during the last thirty-six months.

⁹¹⁴ Compliance was obtained or maintained during the last thirty-six months.

⁹¹⁵ And their advisors, if relevant (see 4.2.7.1.c).

⁹¹⁶ E.g., reviews carried out by ITRB and/or independent senior technical reviewers, as well as independent dam safety reviews.

⁹¹⁷ Including, but not limited to: surface mines features such as pit highwalls and other associated features, underground mines shafts, tunnels and features, fluid extraction areas or facilities (e.g., for brine or groundwater pumping/dewatering), water reservoirs and other water storage facilities, access roads, non-mining and non-processing hazardous and remediated waste storage facilities.

⁹¹⁸ Information on storage or disposal capacity and contents would only be relevant for those facilities storing or disposing of fluid- and/or solid materials or wastes. The chemical characteristics of the fluids and wastes are required to be determined in Chapter 4.1, Section 4.1.1. These characteristics, such as the presence of contaminants of potential concern, will feed into the failure consequence classification evaluation (or equivalent) in 4.2.18.3.

⁹¹⁹ Including a. Soil characteristics: soil type, particle sizes, pore water pressure, hydraulic conductivity soils at the site; b. Geology: seismicity, geologic and lithic subsurface conditions beneath the site and within 2 km of the site, including the thickness of each geologic unit and identification of which geologic units are water bearing; c. Hydrology: subsurface conditions for all water bearing zones beneath the site including maximum and minimum depths to groundwater, direction of groundwater flow, hydrologic gradients, transmissivity and ~~storativity~~ ^{storage}; and surface waters including average and seasonal levels and flow rates, gradients, and storage features within 2 km of the site; and d. Climate: mean annual temperature, precipitation, evaporation, maximum precipitation events, predicted probable maximum precipitation events (e.g., 24-hour, annual, 10-year, 100-year, 500-year), trends in past events and predicted trends in future events.

⁹²⁰ Credible failure modes may include, but are not limited to: 1) Shallow and deep failures within the facility; 2) Foundation failures; 3) Internal erosion failure (e.g., piping); 4) Ground-subsidence-related failures; 5) Slope failures; 6) Pit highwall or slope failures; 7) Failures due to storm events; 8) Construction- and operations-related failures; 9) Upstream/upgradient off-site failures that may affect a facility (e.g., upstream dam or landslide); and 10) Cascading failures (e.g., if there are upstream and/or downstream facilities or structures).

CHAPTER ANNEXES

ANNEX 4.2-A: Failure Consequence Classification Matrix

Consequence Classification	Incremental Losses				
	Potential Population at Risk	Potential Loss of Life	Environment	Health, Social and Cultural	Infrastructure and Economics
Low	None	None expected	Minimal short-term loss or deterioration of habitat or rare and threatened or endangered species.	Minimal effects and disruption of business and livelihoods. No measurable effect on human health. No disruption of heritage, recreation, community or cultural assets.	Low economic losses (<US\$1M). Area contains limited infrastructure or services.
Significant	1 – 10	Unspecified	No significant loss or deterioration of habitat. Potential contamination of livestock/fauna water supply with no health effects. Process water low potential toxicity. Tailings not potentially acid generating and have low neutral leaching potential. Restoration possible within 1 to 5 years.	Significant disruption of business, service or social dislocation. Low likelihood of loss of regional heritage, recreation, community, or cultural assets. Low likelihood of health effects.	Losses to recreational facilities, seasonal workplaces, and infrequently used transportation routes <US\$10M.
High	10 – 100	1 – 10	Significant loss or deterioration of critical habitat or rare and threatened or endangered species. Potential contamination of livestock/ fauna water supply with no health effects. Process water moderately toxic. Low potential for acid rock drainage or metal leaching effects of released tailings. Potential area of impact 10 km ² – 20 km ² . Restoration possible but difficult and could take > 5 years	500-1,000 people affected by disruption of business, services or social dislocation. Disruption of regional heritage, recreation, community or cultural assets. Potential for short term human health effects.	High economic losses (<US\$100M) affecting infrastructure, public transportation, and commercial facilities, or employment. Moderate relocation/compensation to communities.
Very High	100 – 1000	10 – 100	Major loss or deterioration of critical habitat or rare and threatened or endangered species. Process water highly toxic. High potential for acid rock drainage or metal leaching effects from released tailings. Potential area of impact > 20 km ² . Restoration or compensation possible but very difficult and requires a long time (5 years to 20 years).	1,000 people affected by disruption of business, services or social dislocation for more than one year. Significant loss of national heritage, community or cultural assets. Potential for significant long-term human health effects.	Very high economic losses (< US\$1B) affecting important infrastructure or services (e.g., highway, industrial facility, storage facilities, for dangerous substances), or employment. High relocation/compensation to communities.
Extreme	> 1000	> 100	Catastrophic loss of critical habitat or rare and threatened or endangered species. Process water highly toxic. Very high potential for acid rock drainage or metal leaching effects from released tailings. Potential area of impact > 20 km ² . Restoration or compensation in kind impossible or requires a very long time (> 20 years).	5,000 people affected for years by disruption of business, services or social dislocation. Significant national heritage or cultural assets destroyed. Potential for severe and/or long- term human health effects.	Extreme economic losses (>US\$1B) affecting critical infrastructure or services, (e.g., hospital, major industrial complex) or employment. Very high relocation/compensation to communities and very high social readjustment costs.

Source: Adapted from GISTM, 2020

ANNEX 4.2-B: External Loading Criteria**1. As required in the IRMA Standard:**

Potential Loss of Life	Consequence Classification	Flood Design Criteria – Annual Exceedance Probability		Seismic Design Criteria – Annual Exceedance Probability	
		Operations and Closure	Operations and Closure	Operations and Closure	Operations and Closure
None	<i>Low</i>	1/200	1/10,000	1/200	1/10,000
	<i>Significant</i>	1/1,000	1/10,000	1/1,000	1/10,000
	<i>High</i>	1/2,475	1/10,000	1/2,475	1/10,000
	<i>Very High</i>	1/5,000	1/10,000	1/15,000	1/10,000
	<i>Extreme</i>	1/10,000	1/10,000	1/10,000	1/10,000
At least one	Any	1/10,000	1/10,000	1/10,000	1/10,000

Sources: Adapted from GISTM, 2020; and Safety First Guidelines V2.0, 2022.

2. As required in the GISTM Standard (for information only)

Consequence Classification	Potential Population at Risk	Potential Loss of Life	Flood Design Criteria – Annual Exceedance Probability		Seismic Design Criteria – Annual Exceedance Probability	
			Operations and Closure	Operations and Closure	Operations and Closure	Operations and Closure
Low	None	None expected	1/200	1/10,000	1/200	1/10,000
Significant	1 – 10	Un-specified	1/1,000	1/10,000	1/1,000	1/10,000
High	10 – 100	Possible (1 – 10)	1/2,475	1/10,000	1/2,475	1/10,000
Very High	100 – 1000	Likely (10 – 100)	1/5,000	1/10,000	1/5,000	1/10,000
Extreme	> 1000	Many (> 100)	1/10,000	1/10,000	1/10,000	1/10,000

Source: Adapted from GISTM, 2020.

Chapter 4.3

Water Management

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Updated some Section names for clarity and consistency throughout the Standard.
- Several requirements restructured to increase clarity and auditability.
- Added clarification about need to gather baseline/background water quality/quantity information for operations on Brownfields sites.
- Added two new water uses: protection of aquatic life and ecosystem health that are important for protected and conserved areas, biodiversity and the delivery of ecosystem services; and religious and cultural uses (see endnote for 4.3.2.2.a).
- Modified language related to biodiversity and ecosystems to better align with revised Chapter 4.4.
- Changed all references to mine/mining operation to mine/mineral processing operations, because the Standard now applied to mineral processing operations as well as more traditional mine sites.
- Added diversion as a potential part of the water balance and added a definition to the glossary.
- Removed specific requirements regarding mixing zones, as a consensus amongst IRMA Board members is that the use of mixing zones is not 'best practice' and therefore should not be included in the IRMA Standard. In an endnote to 4.3.6.1, it has been clarified that a mixing zone can only be proposed after demonstrating that all technically feasible options for avoiding the need for a mixing zone have been investigated and implemented (and if it is legally permissible).
- Added clear links between identified water uses and applicable IRMA Water Quality Criteria by End Use-Tables.
- Changed requirement to share water data with affected community from monthly to quarterly but clarified that the data will include all water data over time from points of compliance (see 4.3.9.2).
- Added one optional requirement to mirror adaptive risk and impact assessment for water quantity (4.3.3.5).
- New requirement added to close the Plan-Do-Check-Act loop to deliver continuous improvement (through regular updates and revised processes and criteria, informed by monitoring, evaluation, and review), this is now harmonized throughout the Standard.
- New critical requirement added to demonstrate water quality compliance, over at least the last twelve months (see Section 4.3.9 on Information-Sharing and Public Reporting)
- Officially added Annex 4.2-A on Water Monitoring and Reporting Guidance (now Annex 4.3-B), with plan to add non-US references. Former proposed Annex 4.2-B related to best practices was deemed more relevant to facilities (mine, mine waste, and mineral processing facilities) and has been removed. IRMA proposes to discuss the issue of verification of use of best water management/mitigation practices further within a working group.
- IRMA Water Quality Criteria by End-Use Tables (now Annex 4.3-A) – reviewed and updated.



RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
4.2-01 (4.2.3.4)	Question: Are there other codes or programs that you would recommend including? And should IRMA's list only include credible codes that are publicly available, or also include proprietary programs like GoldSim? What guidance can we offer if the codes or software are proprietary that would assist auditors in their evaluations?	Feedback (4): 3 mining, 1 consultant. One respondent suggested to require 3 rd -party review of models. The following programs were suggested by various respondents: MODFLOW, Leapfrog, MIKESHE and FEFLOW. Proposed decision: We will add MODFLOW, Leapfrog, MIKESHE, and FEFLOW to guidance. We will also consider a workshop on how to increase confidence in model results; consider requiring an independent review of model, especially if programs are proprietary and little operational data exist.
4.2-02 (4.2.4.1)	(Annex: Best Practices to Manage Water Risks Associated with Various Facilities) Question: Do you agree with this approach to create guidance to guide auditor's assessments? If not, how do you suggest auditors determine whether or not the measures at a site are sufficient to safeguard water resources? Would you be interested in being part of a working group to help work on this guidance? If so, please contact IRMA (comments@responsiblemining.net) and we will be in touch as we move forward with this process.	Feedback (6): 1 mining: Defer to local regulatory guidance or use Annex if doesn't exist; Annex generally good approach but not all reasonable (e.g., prefers design for 100-yr not 200-yr storm). 1 consultant + 1 mining: Agree to add annex. 1 mining: Agree but annex needs much work. 1 mining interested in joining a working group. 1 NGO is separately requesting independent review of models required in 4.3.3.2. Proposed decision: Did not include Annex for now; IRMA proposes to discuss it further within a working group, as well as the need for independent review of models in certain circumstances.
4.2-03 (4.2.4.3)	Question: Do you have any suggestions on alternative language or approaches, or alternative means for safeguarding water resources and those who rely on them if long-term water treatment is necessary, would be welcome.	Feedback (3): 1 mining: Water monitoring/mitigation plans more valuable than a risk assessment; can't know if long-term treatment will be needed w/o operational data. 1 mining: Future iterations may be needed, but current language is sufficient. 1 consultant: no suggestion. Proposed decision: Maintain the current proposed approach to long-term water treatment in the draft Standard.
4.2-04 (4.2.4.7, Critical)	Question: An adaptive management plan is also required for land and soil management (4.XX.4.3). Should adaptive management plans be required for the management of other resources (e.g., biodiversity, or air)?	Feedback (6): All (4 mining, 1 purchaser, 1 consultant) agree that management plans for other resources should contain adaptive management elements, but separate AMPs for each resource are not necessarily needed. Specific resources mentioned include biodiversity, air quality, GHGs, land and soil, Proposed decision: Some elements of adaptive management integrated in 3.7 (Noise and Vibration), and 4.5 (Air Quality). The harmonization of monitoring and evaluation + continuous improvement sections across all chapters also reflects this
4.2-05	Question: We do not currently have any prescribed frequency for sampling. We are considering requiring that samples be	Feedback (8): 1 mining + 1 purchaser: at least quarterly. 1 consultant + 1 Indigenous organization: at least monthly. 1 NGO: monthly for water quality, quarterly for water

(4.2.5.1, Critical)	collected and analyzed monthly unless there is a legitimate reason for a different sampling frequency, but would appreciate feedback on this topic.	levels/balance. 3 mining: IRMA should not prescribe frequency (one flagging the need to consider seasonal conditions) Proposed decision: IRMA will not prescribe a particular frequency. We have added an endnote that specifies “The frequency of sampling will be dependent on the results of baseline/background water sampling, the presence of storms and extreme events, and releases of project-affected waters according to the adaptive management plan outlined in 4.3.6.” Note that based on stakeholder input, we also propose to require consideration of temporal variability in addition to seasonal variability in the gathering of baseline/background data in in 4.3.1.1.
4.2-06 (4.2.5.1, Critical)	Question: At the present time, IRMA does not have any water quality criteria for rare earth elements (REEs). We would be interested in knowing of any international or national water quality standards for REEs. If none exist, should IRMA still require that rare earth mining and processing operations at least measure certain elements as part of their characterization of ores, wastes, brines, and concentrates (see Chapter 4.1, 4.1.1) to, at minimum, establish a baseline? If so, which elements should be monitored?	Feedback (6): No respondents knew of international or national water quality standards for REEs. 1 NGO and 1 Indigenous organization suggest that IRMA shouldn't include REE mines until it develops criteria specific to these radioactive waste issues. (e.g., waste management, monitoring, monitoring for radionuclides, etc.). 1 purchaser suggests measure REEs as part of their characterization; 1 mining is in favor of characterizing if known health effects. 1 consultant suggests to use background values or establish criteria (IRMA or the ENTITY). Proposed decision: Water quality standards for REE were investigated during the review of the IRMA Water Quality Criteria By End-Use tables (Annex 4.3-A). As mentioned in the Summary of the Chapter above, those tables were updated, but no values were added for REEs due to a dearth of relevant standards (only one reference to one REE was found – guideline value for Lanthanum in Australia and New Zealand’s guidance). Some radioactive parameters were updated (e.g., Radium 226/228, Uranium). Note that IRMA requires the geochemical characterization of ores in Chapter 4.1, so if there are radioactive elements such as uranium or thorium in REE ores that could be released as a result of mineral processing, they would need to be identified as per requirement 4.1.2.1, would be expected to be included in baseline sampling (in water and/or air), and if concentrations are high enough to pose a risk to human health or the environment they would need to be mitigated. As more information on REEs becomes available, IRMA will revisit its approach.
4.2-07 (4.2.7.2)	Question: Do you know of best practice examples of how water data are shared with affected communities? We would be interested in seeing those examples so that we can provide ample guidance to entities seeking to meet this requirement.	Feedback (4): 1 mining flag difficulty to share water data because some communities don’t have WiFi. 2 mining say that monthly is too cumbersome, request change to quarterly. 1 purchaser recommends to Use Alliance for Water Stewardship (annual disclosure).



		Proposed decision: IRMA is proposing that in 4.3.9.2 to make summaries of water data available quarterly, but all water data should be available, not individual months only. Requirement 4.3.9.2 also requires summaries of water data to be published and shared with stakeholders from affected communities whether they are requested or not. Discussions related to water data could also be shared as per Section 4.3.8, which requires Entities to review water quality management strategies, monitoring results, and adaptive management issues with relevant stakeholders on an annual basis.
4.2-08 (Water quality criteria by end use tables)	Question: Are you interested in reviewing the updated water quality tables? If so, please contact IRMA (comments@responsiblemining.net) and we will make sure you receive a copy of proposed updates.	Feedback (4): Four respondents expressed their interest in reviewing the updated water quality tables. <i>Response to one respondent who enquired about contradiction between legal criteria and IRMA criteria:</i> Regarding the IRMA Water Quality Criteria Tables, if the jurisdiction's standards meet or exceed (i.e. are more protective than) IRMA's water quality values, those will take precedence. However, if IRMA's are more protective, they will take precedence (as a standard reflecting best practice, and not just legal compliance), depending of course on the identified water uses. And in some cases, the jurisdiction will have additional standards that IRMA does not; in this situation, the jurisdiction's standards will apply. Proposed decision: Now that the IRMA Water Quality Criteria tables have been updated, IRMA will reach out directly to those stakeholders who expressed interest in reviewing the tables, and will also announce more generally that the tables are ready for review by others who might be interested.
4.2-09 (Annex 4.2-A)	Question: Is there any content in the guidance that you do not believe is best practice? Are there other elements of water monitoring programs that should be included?	Feedback (4): 1 NGO requests change baseline data collection to over a two-year period. 2 mining and 1 consultant: Annex 4.2-A (now Annex 4.3-B) is reasonable. 1 mining suggests that specifics in the annex should not be a requirement. 1 consultant suggests that more could be added on groundwater monitoring. Proposed decision: Annex 4.3-B is guidance, and is not normative. Annex 4.3-B has been revised such that baseline monitoring collection occurs over a two-year period. Based on additional discussion with mining companies, non-US references and information will be added to the annex.

BACKGROUND

Project-related activities can affect water quality in many ways, including from: the discharge of treated mine or process effluents to the environment, seepage through mine wastes to groundwater and surface water, breaches or failures of tailings and water storage facilities, chemical spills, and the release of uncontrolled stormwater.

Mines and mineral processing sites are often a large water user for their locale.⁹²¹ The impacts of water used by a mining project are highly location-specific, depending on the local climate as well as on competition for water for uses other than mining. In arid regions water scarcity may be a critical concern, whereas in high rainfall regions or areas where the water table is close to the ground surface, challenges arise from the need to pump or divert water in order to develop a mine. The depletion of groundwater, surface water and springs from mine dewatering operations and general water usage by facilities can take decades to replenish after operations cease, and in some instances, groundwater levels and flow directions can be altered indefinitely.

Entities can protect water resources by minimizing the use of water and using water efficiently, ensuring that total withdrawals maintain environmental flows in streams, springs and other surface waters, minimizing groundwater drawdown, and treating mine-influenced water and discharging it in ways that minimize harm to surrounding water users and environmental resources. They can also clean up previously impacted water to make it usable, and in some cases provide a water supply from an alternative source.

Increasingly, responsible entities are aware of their operating context and pay attention not only to their own impacts, but also their role in cumulative impacts on water, locally or regionally. They are also aware of their dependencies, and are participating in collective actions with diverse stakeholders to address shared water challenges and opportunities that lead to positive water management outcomes at local and regional levels. Such proactive and collaborative identification of potential water quality and quantity issues and the development of suitable management strategies adapted throughout an operation's life cycle can help prevent or minimize surface water and groundwater pollution and impacts on water quantity.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- United Nations Convention on the Law of the Non-navigational Uses of International Watercourses, 1997
- United Nations Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), 1992
- United Nations Convention on the Law of the Sea, 1982
- Minamata Convention on Mercury, 2013
- The International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold, (The Cyanide Code), 2002



OBJECTIVES OF THIS CHAPTER

To manage water resources in a manner that strives to protect current and future uses of water.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are two (2) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements.

4.3.1 Baseline/Background Data



4.3.1.1 Pre-impact data on baseline or background water quality and quantity are gathered by competent professionals as follows:

- a. Data are gathered in sufficient detail to reliably determine the sources of water contamination related to the site and its associated facilities, and the changes in water quantity or quality that are unrelated to the site and its associated facilities⁹²²;
- b. For new operations at brownfield sites, the existing background water quantity and quality data are also determined⁹²³;
- c. Data include seasonal and temporal variability in the physical and chemical conditions of surface waters, natural seeps/springs and groundwaters that could be affected by the site and its associated facilities, including baseline/background concentrations of the comprehensive suite of parameters in [IRMA Water Quality Criteria by End-Use Tables \(See Annex 4.3-A\)](#) including weak acid dissociable cyanide (if cyanide is used or proposed to be used at the site or its associated facilities)⁹²⁴;
- d. Data include seasonal and temporal variability in the physical and chemical conditions of surface waters, natural seeps/springs and groundwaters that could be affected by the site and its associated facilities, including field parameters⁹²⁵, measured at the time of baseline/background sampling; and
- e. Data include seasonal and temporal variability in flows, levels, and presence, of surface waters, natural seeps/springs and groundwaters⁹²⁶ that could be affected by the site and its associated facilities.

4.3.2 Scoping



4.3.2.1 Building on 1.3.2 and 2.1.3, a scoping process (or equivalent) is undertaken by competent professionals to identify all water users, water rights-holders, community members, and other stakeholders that may potentially affect or be affected by the ENTITY's water use and water management practices.



4.3.2.2 Building on 1.3.2 and 2.1.3, a scoping process (or equivalent) is undertaken by competent professionals, in collaboration with those affected rights-holders and stakeholders, to identify:

- a. How water resources that may be affected by the project/operation are currently being used by humans and how they may be used in the future⁹²⁷;
- b. Other receptors⁹²⁸ potentially affected by the project/operation's impacts on water quality, quantity, or availability; and
- c. Water-related concerns, challenges, and opportunities that exist at the local and regional levels.



4.3.2.3 A scoping process (or equivalent) is undertaken by competent professionals to identify the activities of the site and its associated facilities that may pose risks or have impacts **on water quality**. This process considers⁹²⁹:

- a. Direct, indirect, and cumulative, risks and impacts on **water quality**, including sedimentation risks, resulting from planned discharges or unplanned releases of contaminants of potential concern (COPCs);
- b. Facilities for storing or disposing of tailings or mine waste⁹³⁰, and other types of waste⁹³¹, if any, including risks and impacts related to facility failures and releases of mine waste (see Chapter 4.2);
- c. Any mining and/or mineral processing facilities⁹³² and activities⁹³³; and
- d. If any, evaporation ponds, sedimentation ponds, industrial stormwater retention/detention ponds, pregnant and barren solution ponds, and brine ponds.



4.3.2.4 A scoping process (or equivalent) is undertaken by competent professionals to identify the activities of the site and its associated facilities that may pose risks or have impacts **on water quantity and availability**. This process considers⁹³⁴:

- a. Direct, indirect, and cumulative, risks and impacts on **water quantity and availability**, including groundwater levels, surface water flows, natural seep/spring flows, or environmental flows ;
- b. The use, diversion⁹³⁵ and discharges of water from the site and its associated facilities;
- c. If any, activities such as groundwater extraction or pumping that may affect water resources; and
- d. If any, the presence of open pits, underground workings, other mine facilities, waste facilities, water and brine impoundments, water and brine reinjection facilities, and processing facilities that modify runoff, groundwater flow and infiltration of precipitation.



4.3.2.5 A conceptual site model is developed by competent professionals⁹³⁶, as follows:

- a. It is developed using a credible methodology, and the methodology is documented;
- b. It is proactively shared with affected rights-holders and stakeholders, in accordance with Section 1.2.3⁹³⁷.
- c. It includes a detailed description and depiction of the physiography, geology (including structural geology such as faults), hydrology, hydrogeology, climatology, and geochemistry of the site and its associated facilities as a whole⁹³⁸;
- d. It describes all potential sources of contamination related to the site and its associated facilities (identified in 4.3.2.3), and all contaminants of potential concern (see Chapter 4.1);⁹³⁹ and
- e. It describes what is known about site-wide contaminant release, transport, pathways between sources and receptors, and fate of contaminants along pathways and in receptors for the site and its associated facilities as a whole⁹⁴⁰.

4.3.3 Risk and Impact Assessment



4.3.3.1 Critical Requirement

Building on 4.3.2, where potential sources of direct, indirect, and cumulative risks or impacts on **water quality** and/or **water quantity** are identified, a risk and impact assessment is carried out and documented by competent professionals, in collaboration with affected rights-holders and stakeholders, to identify and assess, for each identified risk and impact⁹⁴¹:

- a. The level of risk posed to, and the magnitude of impact on, human health and safety, and the environment;
- b. The level of risk posed to, and the magnitude of impact on, current and future uses of water; and
- c. This risk and impact assessment uses a credible methodology, and the methodology used is documented.



4.3.3.2 This risk and impact assessment is informed by the use of the following conceptual and numeric models:

- a. A conceptual site model (required in 4.3.2.5), and conceptual models for facilities⁹⁴²;
- b. A numeric water balance model for the site as a whole and for each facility that poses a risk to water (as identified in 4.3.2.3 and 4.3.2.4) that: 1) Predicts expected changes in water inflows and outflows (e.g., dewatering rates, water use amounts and sources, treated water discharges) and water volumes stored on-site in facilities (e.g., in supernatant ponds, water management ponds, water in pits) related to the project/operations; 2) Takes into account the probable maximum precipitation event; low, average, and high precipitation years; and climate change effects on temperature and precipitation using the most reliable, recent, and relevant climate change projections; 3) Clearly identifies model assumptions, inputs, and uncertainty; and 4) Estimates the effects of water management on groundwater levels and stream/spring flows;
- c. Hydrogeochemical and hydrogeological models, to predict or quantify potential impacts to water resources during all phases of the operation's life cycle (from construction through post-closure)⁹⁴³. These models: 1) Clearly identify model assumptions, inputs, and uncertainty; 2) Predict changes in stream flows and groundwater levels at points of compliance; and 3) Estimate concentrations of COPCs at points of compliance; and
- d. These models are developed by competent professionals using credible methodologies, and the and the methodologies used are documented.



4.3.3.3 If, at any time during project development or operations, the concentrations of contaminants in water resource receptors are predicted to exceed baseline/background water quality or IRMA water quality criteria by end-use:

- a. The risk and impact assessment is carried out as per 4.3.3.1 to evaluate whether source control or other effective mitigation measures will be required to mitigate impacts on water quality during operations and/or closure and post-closure⁹⁴⁴;
- b. This evaluation uses a credible methodology, and the methodology used is documented.



4.3.3.4 If, at any time during project development or operations, the potential exists for long-term⁹⁴⁵ ~~acid rock drainage~~ or contaminant or metal leaching (see Chapter 4.1)⁹⁴⁶, the risk and impact assessment is carried out as per 4.3.3.1 to:

- Estimate the needed timing, volume, and duration of ~~long-term water treatment~~, using the results from the water balance and water quality models;
- Evaluate the potential consequences to human health and livelihoods⁹⁴⁷ from a failure in ~~long-term water treatment facilities~~;
- Evaluate the potential consequences to protected and conserved areas, biodiversity and ecosystem services⁹⁴⁸ from a failure in ~~long-term water treatment facilities~~; and
- These evaluations use credible methodologies, and the methodologies used are documented.



4.3.3.5 IRMA+

If, at any time during project development or operations, the availability of water is predicted to fall behind baseline/background water quantity or any minimum acceptable level defined in collaboration with affected users and stakeholders⁹⁴⁹, the risk and impact assessment is carried out as per 4.3.3.1 to evaluate whether other effective mitigation measures⁹⁵⁰ will be required to mitigate impacts on water quantity during operations and/or closure and post-closure.

4.3.4 Long-Term Water Treatment



4.3.4.1 If the need for ~~long-term water treatment~~ is predicted (as per 4.3.3.4) for any project or activity proposed to become operational after June 2018, the ENTITY ceases to pursue the proposed project or activity, unless **all** the following conditions are fully met:

- The methodology, assumptions, and findings of the risk and impact assessment have been discussed with ~~affected rights-holders and stakeholders~~, sufficiently in advance of decision-making, in accordance with Chapter 1.2;
- The methods and indicators for gauging community support developed and monitored in accordance with Chapter 2.4 have demonstrated a high and diverse level of support to the proposed project or activity amongst ~~affected rights-holders and stakeholders~~; and
- If ~~Indigenous Peoples~~ whose rights or interests have been or may be directly or indirectly affected by any of the proposed or existing project or activity have been identified (as per 1.2.1.1. and 1.3.2.3), the ENTITY has obtained their Free, Prior, and Informed Consent for the proposed project or activity (as per Chapter 2.2).



4.3.4.2 For any project or activity proposed to become operational after June 2018 where the need for long-term water treatment is predicted and all the conditions in 4.3.4.1 have been fully met, or for activity that became operational before June 2018 where long-term water treatment has been identified or is predicted, and if the ENTITY decides to pursue the project/activity:

- a. An action plan (or equivalent) including all the practicable steps that can, and will be, taken to minimize the volume of water to be treated is developed and implemented by competent professionals;
- b. The ENTITY maintains estimates of human resources and budget required, and has a financing plan in place, to ensure that funding is available for the effective implementation of this action plan, including to construct, operate and maintain an effective water treatment plant⁹⁵¹; and
- c. The ENTITY ensures these estimated costs are calculated and included in the detailed determination of the estimated costs of reclamation and closure, and post-closure measures and activities in accordance with Section 2.7.2⁹⁵².

4.3.5 Water Monitoring Program



4.3.5.1 A water monitoring program is developed and implemented by competent professionals to monitor effects on water **quality and quantity**. The monitoring program includes a **sampling plan (or equivalent)** that:

- a. Is consistent with practices listed in [Annex 4.3-B](#)⁹⁵³;
- b. Includes sample collection, handling and transportation protocols, sample hold times, analysis, quality assurance/quality control methods⁹⁵⁴, and reporting requirements;
- c. Includes sufficient monitoring locations at sites unaffected by the project (baseline locations) and at sites potentially affected by the project (points of compliance) to provide reliable data on changes to water quantity and quality conditions⁹⁵⁵; and
- d. Collection of water quality and quantity samples **on a frequent enough basis**⁹⁵⁶ to account for seasonal and temporal fluctuations, storm events, extreme events, and operational upset conditions that may cause changes in water quality or quantity⁹⁵⁷.



4.3.5.2 The monitoring program includes an **analysis plan (or equivalent)** that:

- a. Is consistent with practices listed in [Annex 4.3-B](#);
- b. Includes analysis, at the same frequency as in 4.3.5.1.d, of water quality samples for field parameters and all COPCs⁹⁵⁸, including, if applicable, cyanide and mercury⁹⁵⁹; and
- c. Analysis, at the same frequency as in 4.3.5.1.d, of water quality samples in laboratories using equipment capable of detecting contaminants at levels below the values in the relevant IRMA Water Quality Criteria by End-Use Tables (see [Annex 4.3-A](#)).



4.3.5.3 Besides any regular sampling and analysis required in 4.3.5.1 and 4.3.5.2, comprehensive sampling and analysis of the full suite of parameters in relevant IRMA Water Quality Criteria by End-Use Tables (see [Annex 4.3-A](#)) at points of compliance is conducted every five years, at a time of year when concentrations are expected to be the highest, to determine if unanticipated contaminants may be present⁹⁶⁰.



4.3.5.4 If relevant, the monitoring program includes sampling of the water quality of, and documentation of the quantity of, mine-influenced waters destined for use by external third-party entities.



4.3.6 Adaptive Management Plan



4.3.6.1 Building on 4.3.3, and informed by the tools required in 4.3.3.2, an adaptive management plan for water (or equivalent) is developed and documented by competent professionals, to prevent, mitigate, and remediate all the risks impacts on water quality, and on water quantity and availability, identified as per Section 4.3.3. The plan includes mitigation measures that:

- Regarding water **quality**, strictly align with the mitigation hierarchy, to prioritize source control and other measures that prevent or avoid the use or generation of contaminants, and/or measures that prevent or avoid the release of contaminants, including increased sediment load, relative to baseline conditions risk⁹⁶¹; and
- Regarding water **quantity and availability**, strictly align with the mitigation hierarchy, to prioritize measures that avoid the use, diversion or extraction of fresh water, and/or measures that avoid activities that adversely affect water resources and the protected and conserved areas, biodiversity and ecosystem services that they support⁹⁶².



4.3.6.2 The adaptive management plan:

- Identifies potential water quality/quantity effects that could occur at monitoring locations, based on the risk and impact assessment (see 4.3.3);
- Identifies key water quality and quantity indicators that will best characterize the potential effects;
- Includes trigger levels for water quality and quantity to provide early warning of negative changes in water characteristics;
- Includes general responsive (adaptive management) measures to be taken to confirm the exceedance of IRMA Water Quality Criteria (see 4.3.5.2) or of a legal or other threshold, or if a trigger level is reached, together with estimated timelines for completion of these measures⁹⁶³;
- Assigns implementation of measures to responsible staff with adequate skills and expertise;
- Assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping⁹⁶⁴;
- Has an implementation schedule in place, and specifies annual, or more frequent, reviews of the effectiveness of the measures implemented;
- Maintains estimates of human resources and budget required; and
- Includes a financing plan in place, to ensure that funding is available for the effective implementation of the plan.



4.3.6.3 The adaptive management plan includes the creation of an action plan if exceedance of IRMA Water Quality Criteria or of other applicable thresholds is confirmed as per 4.3.6.2.d, as follows:

- Determination of the areal extent of the impacts, and investigation of the cause/source of the exceedance;
- Evaluation and selection of adaptive management measures developed as per 4.3.6.1, and/or development of additional or different measures that are likely to correct the exceedance⁹⁶⁵;
- Development of estimated timeline and budget needed to implement these corrective measures, and a financing plan to ensure that funding is available for effective implementation of the corrective measures;
- Implementation of those corrective measures.



- 4.3.6.4** This adaptive management plan is developed collaboratively with affected rights-holders and stakeholders, as follows:
- Options to address shared challenges and contribute positively to local and regional water stewardship outcomes are developed through collaboration with relevant affected rights-holders and stakeholders and are included in an action plan (or equivalent);
 - The affected rights-holders and stakeholders who participate have opportunities to review and provide feedback on draft prevention and mitigation measures, priority setting, and on draft qualitative and quantitative performance criteria, indicators, and trigger levels, that are relevant to them;
 - Draft and final versions of relevant documents and information are proactively shared with affected rights-holders and stakeholders in a meaningful, accessible, and culturally appropriate way (as per Section 1.2.3), clearly showing how their feedback and input was taken into account;
 - Effective procedures for rapidly⁹⁶⁶ communicating with relevant stakeholders in the event that changes in water quantity or quality occur that pose an imminent threat to human health or safety, or commercial or natural resources, are developed and tested in collaboration with affected rights-holders and stakeholders, in accordance with Chapter 2.6 (for rights-holders, local communities, and other stakeholders) and Chapter 3.2 (for workers); and
 - Engagement activities are carried out in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people;

4.3.7 Monitoring and Evaluation



- 4.3.7.1** To monitor and evaluate the effectiveness and appropriateness of its measures to prevent, mitigate, and remediate risks and impacts to water quality, and to water quantity and availability, at least annually, and building on the water monitoring program required in Section 4.3.5, the ENTITY:
- Tracks and documents its performance on water management, over successive time periods, against the key indicators and trigger levels defined in 4.3.6.2 and informed by stakeholder engagement as per 4.3.6.4;
 - If applicable, tracks and documents the effectiveness of the measures implemented to correct all confirmed exceedance of any IRMA Water Quality Criteria or other applicable thresholds, as per 4.3.6.3; and
 - Tracks and documents the effectiveness of the measures implemented to address shared challenges and contribute positively to local and regional water stewardship outcomes, as per 4.3.6.4.



- 4.3.7.2** The monitoring and evaluation process:
- Encourages and facilitates joint monitoring and joint tracking with affected communities, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2⁹⁶⁷;
 - Includes continuous feedback from internal and external sources, including from joint monitoring and joint tracking with affected communities; and
 - If members of affected communities agree to participate in the water monitoring program required in Section 4.3.5, the ENTITY offers to cover, in full or in part, costs related to participation in monitoring and review of the monitoring program, including for independent experts, and a mutually-acceptable agreement for covering costs is developed.

4.3.8 Continuous Improvement



- 4.3.8.1** At least annually, but without undue delay after a significant change, the ENTITY collaborates with affected rights-holders and stakeholders to review the water monitoring program, and the ENTITY's ability to demonstrate⁹⁶⁸ that:
- Water quality parameters/contaminants measured at points of compliance are in compliance with relevant regulatory and permit requirements in the jurisdiction;
 - Water quality parameters/contaminants measured at points of compliance are either: 1) Being maintained at baseline or background levels for relevant parameters, which in some cases could exceed IRMA Water Quality Criteria; or 2) Being maintained at levels that are protective of the identified uses of those waters as per the IRMA Water Quality Criteria by End Use (see [Annex 4.3-A](#))⁹⁶⁹; or 3) Being maintained at levels or conditions compliant to country of operation's regulatory requirements that are more protective than IRMA Water Quality Criteria for identified uses, or that fill gaps where no IRMA Water Quality Criteria exist; and
 - Surface waters, groundwater levels, natural seep/spring flows and environmental flows are being maintained in a manner that supports continued current and potential future uses of the water resources, protected and conserved areas, biodiversity and the ecosystem services that they support,⁹⁷⁰ unless affected rights-holders and stakeholders have agreed that some decline in flows or water levels is acceptable⁹⁷¹.



- 4.3.8.2** At least annually, but without undue delay after a significant change, the ENTITY collaborates with affected rights-holders and stakeholders to:
- Review all conceptual and numeric models required in 4.3.3.2, using operational monitoring data;
 - Review the water risk and impact assessment required in 4.3.3; and
 - Review the results of the monitoring and evaluation required in 4.3.7, and the effectiveness of the mitigation measures and adaptive management measures the ENTITY implements.
 - Develop and implement time-bound corrective measures to update, if necessary⁹⁷², its water risk and impact assessment, including the conception and numerical models, in accordance with Section 4.3.3;
 - Develop and implement time-bound corrective measures to update, if necessary⁹⁷³, its water monitoring program, in accordance with Section 4.3.5; and
 - Develop and implement time-bound corrective measures to update, if necessary⁹⁷⁴, its adaptive management plan to improve water management outcomes, in accordance with Section 4.3.6.

4.3.9 Information-Sharing and Public Reporting



4.3.9.1 The ENTITY makes and maintains publicly accessible⁹⁷⁵:

- a. All the results of the baseline or background **water quality** evaluation for surface water, natural seep/springs, and groundwater; and
- b. All the results of the baseline or background **water quantity** evaluation for surface water, natural seep/springs, and groundwater; and



4.3.9.2 **At least quarterly**, the ENTITY makes publicly accessible updated versions of, and maintains⁹⁷⁶ publicly accessible all previous versions of:

- a. A summary of all water data over time at points of compliance;
- b. This summary, for **water quality**: 1) Presents data using graphical or other suitable representations that clearly show whether parameters measured at monitoring locations are the same as, higher than, or lower than IRMA water quality criteria⁹⁷⁷; and 2) Puts any deviations from criteria into context, taking into consideration likely stakeholder concerns regarding risks to human health and impacts on the environment;
- c. This summary, for **water quantity**: 1) Presents data on flows and levels for surface waters and natural seeps/springs, groundwater level/elevation, and the volume of water discharged and extracted for use by the project/operation using graphical or other suitable representations that clearly show whether the flows, levels, and volumes are the same as, higher than, or lower than baseline/background and agreed-upon values; and 2) Puts any deviations from baseline/background and agreed-upon values into context, taking into consideration likely effects on aquatic life habitat and conditions (environmental flows) and water quantity amounts needed to maintain domestic, community, and local commercial water supplies; and
- d. Is proactively shared with affected rights-holders and stakeholders in a meaningful, accessible, and culturally appropriate way, in accordance with Section 1.2.3.



4.3.9.3 **Critical Requirement**

The ENTITY:

- a. Demonstrates publicly that it was able to maintain, for at least the last twelve months, all water quality parameters/contaminants measured at points of compliance: 1) in compliance with relevant regulatory and permit requirements in the jurisdiction; and 2) within one of the scenarios listed in 4.3.8.1.b;
- b. If, and whenever, exceedance of IRMA Water Quality Criteria or of another threshold is confirmed (see 4.3.6.2), **it creates a report summarizing the corrective measures required in 4.3.6.3, their outcome, and needed changes to improve the effectiveness of implemented mitigation measures identified in Section 4.3.6;** and
- c. If, and whenever, exceedance of IRMA Water Quality Criteria or of another threshold is confirmed (see 4.3.6.2), it makes and maintains this report publicly accessible, and proactively shares it with affected rights-holders and stakeholders in a timely, meaningful, accessible, and culturally appropriate way, in accordance with Section 1.2.3.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

⁹²¹ For example, a study in Australia calculated that smelters and acid plants associated with pyrometallurgical production of copper from sulfide feed directly used approximately 10,000 L of water per tonne of copper produced and a further 10,000 L of water indirectly; smelters associated with pyrometallurgical production of nickel from sulfide feed used approximately 5,000 L of water directly and 15,000 L indirectly per tonne of nickel, while refineries used approximately 15,000 L directly and 5,000 L indirectly per tonne of nickel.

For more details, see: Northey, S and Haque, N. 2013. Life Cycle Based Water Footprint of Selected Metal Production: Assessing Production Processes of Copper, Gold and Nickel. <https://publications.csiro.au/rpr/download?pid=csiro:EP137374&dsid=DS3>

⁹²² Sampling of baseline/background data will be expected to align with the monitoring guidance in [Annex 4.3-B](#) (unless entities have a clear and reasonable rationale for using alternative approaches). The frequency of sampling will be dependent on the results of baseline/background water sampling, the presence of storms and extreme events, and releases of project-affected waters according to the adaptive management plan outlined in 4.3.6. Note that a survey of the potential water bodies and groundwater resources that could be affected by the project/operation should have been carried out in the environmental and social impact assessment (Chapter 2.1, Section 2.1.4), but if not, then Entities would be expected to undertake a process to identify/survey and map of all water elements within the project's/operation's area of influence, so that their baseline characteristics can be established as per 4.3.1.1.

⁹²³ Brownfield site background conditions will help determine changes in water quality/quantity caused by the new operation vs. the historic operation. Brownfield site background data collection will follow the same requirements in 4.3.1.1.a to d.

⁹²⁴ This is to establish whether certain constituents are present in the absence of mining activity (i.e., they are naturally occurring, or they are present as a result of third-party activities unrelated to the mineral development project/operation). If baseline data were not collected prior to the commencement of operations, then background data must be collected to estimate likely pre-operational water conditions. For more information see IRMA Standard for Responsible Mining 1.0, Guidance Document (v.1.2). Explanatory Note for 4.2.2.1. Available at: <https://responsiblemining.net/resources/#full-documentation-and-guidance>

⁹²⁵ I.e., pH, specific conductance, temperature, and potentially dissolved oxygen and turbidity (in surface waters) and redox potential (in groundwater).

⁹²⁶ Including through an inventory of phreatophytes as indicators of groundwater dependence (field surveys or satellite based), where relevant.

⁹²⁷ Water uses can include fishing and protection of aquatic life and ecosystem health that are important for protected and conserved areas, biodiversity and the delivery of ecosystem services (see requirement 4.4.1.1 and 4.4.1.3); drinking water; irrigation; livestock watering; aquaculture; recreation; industrial; and religious and cultural uses (see requirement 3.6.1).

⁹²⁸ This includes plants and animals (including endangered and threatened species), habitats, and ecosystems.

⁹²⁹ Note that information from Chapter 4.1 (Waste and Materials Management) will also be instrumental in identifying the risks to water quality. For example, the scoping process and characterization processes in 4.1.1 and 4.1.2 will identify chemicals and wastes with hazardous properties and waste facilities (e.g., tailings facilities or landfills, etc.) and project/operation components (e.g., pits, underground workings) that may have the potential to release COPCs to the environment and affect water resources.

Also, information from Chapter 4.2 (TSF and Physical Stability Management) will help identify facilities that may be subject to failures and releases of materials that could affect the environment and water resources.

⁹³⁰ Including tailings impoundments, waste rock dumps, slag heaps, heap and dump leach piles, open pits, pit lakes, underground workings.

⁹³¹ Including hazardous wastes, solid waste landfills, sewage treatment plants.

⁹³² Including mine pits and mine workings

⁹³³ For mining, this includes for example blasting, transport of chemicals and materials. For mineral processing, this includes crushing/grinding, flotation, heap or vat leaching.

⁹³⁴ Note that information from Chapter 4.1 (Waste and Materials Management) will also be instrumental in identifying the risks to water quality. For example, the scoping process and characterization processes in 4.1.1 and 4.1.2 will identify chemicals and wastes with hazardous properties and waste facilities (e.g., tailings facilities or landfills, etc.) and project/operation components (e.g., pits, underground workings) that may have the potential to release COPCs to the environment and affect water resources.

Also, information from Chapter 4.2 (TSF and Physical Stability Management) will help identify facilities that may be subject to failures and releases of materials that could affect the environment and water resources.

⁹³⁵ See new definition in glossary at the end of this chapter. Diversion could include, for example, water diverted for use in operations, or to generate hydroelectric power for the operation.

⁹³⁶ A conceptual site model may have been developed in Chapter 2.1.

⁹³⁷ Timeliness, comprehensiveness, usability, comparability, accessibility, and cultural appropriateness criteria for the sharing of information and data are identified, defined and reviewed in collaboration with stakeholders on a regular basis. Adequacy of the information sharing in this requirement therefore relies on Section 1.2.2.

⁹³⁸ The description and depiction rely on information provided in requirements 4.3.1.1 (baseline), Chapter 4.1 (Waste and Materials Management) requirements in Section 4.1.2 (source material characterization), and Chapter 4.2 (TSF and Physical Stability Management), Section 4.2.1 (identification of tailings and wastes from mineral processing, underground and surface mines, which would then be characterized in 4.1.2).

⁹³⁹ COPCs are identified in requirements 4.1.2.1, 4.1.2.2, and 4.1.2.4.

⁹⁴⁰ For example, a scaled map with a clear legend showing the potential sources (e.g., facilities), the location and flow directions in rivers, streams, springs and seeps; the groundwater flow directions; and the locations of major faults.

⁹⁴¹ Requirement 2.1.3.3 in ESIA Scoping requires the identification and documentation of potential significant environmental and social impacts and risks that require further assessment. Also refer to 2.1.4.2.a, which requires: Consideration of whether the potential impacts are adverse or positive, direct or indirect, or if the project may contribute to cumulative impacts in its area of influence. If adequate documentation is not provided for 2.1.3, it needs to be done as required in 4.3.3.1.

⁹⁴² These facility models would be developed in a manner similar to that for the site model in 4.3.2.5, except for each facility.

⁹⁴³ Models include, as necessary, groundwater flow models, surface runoff and infiltration models, and/or a combined water balance and load model that can be used alone or in combination to estimate concentrations of COPCs in water resource receptors.

Note: As per Chapter 4.1 (Waste and Materials Management) requirement 4.1.2.1, COPCs from mined material and mine wastes are identified using the results of laboratory short-term and long-term (kinetic) leach tests or results, or as per requirement 4.1.2.2 the results of chemical analysis of extracted brines and liquid wastes. If laboratory leachate, brine or liquid waste concentrations exceed numeric IRMA water quality criteria ([See Annex 4.3-A](#)), those constituents are identified as COPCs. The risk assessment will determine final contaminants of concern.

Also, as per requirement 4.1.1.1, for materials coming from third parties to be used as feedstock for mineral processing operations, if the supplier does not disclose to the ENTITY detailed information on the principal components and contaminants that are considered likely to be routinely or periodically present in feed materials, the ENTITY will need to carry out a characterization to determine the characteristics for themselves.

⁹⁴⁴ The risk and impact assessment must be informed by information on: 1) contaminants of potential concern; and 2) information on treatment methods and alternatives.

⁹⁴⁵ I.e. potential risk of requiring water treatment after mine closure. See definition of 'long-term water treatment' in the Glossary.

⁹⁴⁶ E.g., determined by the characterization of mined materials and waste in 4.1.2.1.

⁹⁴⁷ The assessment should include consideration of direct, indirect and cumulative risks and impacts (e.g., ecosystem degradation, loss of threatened species, human health risk from consumption of fish containing high metal concentrations, livestock condition and mortality, crop productivity, etc.).

⁹⁴⁸ The assessment should include consideration of direct, indirect and cumulative risks and impacts (e.g., ecosystem degradation, loss of threatened species, human health risk from consumption of fish containing high metal concentrations, livestock condition and mortality, crop productivity, etc.).

⁹⁴⁹ See relevant consultation- and agreement-related requirements in Chapters 1.2, 1.3, 2.1, 2.2, 2.4, and 3.3.

⁹⁵⁰ Mitigation measures include, but are not limited to, reduced operative rate or the use of alternative technologies/production methods.

⁹⁵¹ This information should feed into Chapter 2.7, requirements 2.7.1.6, 2.7.2.1, and 2.7.3.2.

⁹⁵² Including by basing them on the conservative assumption that they would be carried out by a regulatory agency using a third-party contractor.

⁹⁵³ Biodiversity monitoring of aquatic biota is covered in Section 4.4.1.4 (baseline) and 4.4.7.1, if relevant.

⁹⁵⁴ E.g., collecting replicate, trip blank, and equipment blank samples.

⁹⁵⁵ See Chapter 2.1 – the monitoring network may have been established as part of the ESIA or equivalent.

⁹⁵⁶ At least every quarter.

⁹⁵⁷ The frequency of sampling will depend on the results of baseline/background water sampling in 4.3.1.1, the presence of storms and extreme events, and releases of project-affected waters according to the adaptive management plan outlined in 4.3.6.

⁹⁵⁸ COPCs are determined in 4.3.2.3. Field parameters include pH, temperature, specific conductance, and potentially dissolved oxygen, redox potential and turbidity.

All parameters with a reasonable potential to adversely affect current and future water uses or receptors (see 4.3.2.2) must be sampled unless the ENTITY can demonstrate that there is no reasonable potential for a parameter to exceed the baseline/background values or numeric criteria in the IRMA Water Quality Criteria by End-Use Tables ([See Annex 4.3-A](#)). If there is no reasonable potential for such an exceedance, then those parameters only need to be measured in samples every five years as per 4.3.5.2.c. The ENTITY can demonstrate that there is no reasonable potential, for example, if baseline or background monitoring do not detect the parameter, and source geochemical and chemical characterization (see Section 4.1.2 in Chapter 4.1), modeling, and other site-specific information indicate no/low probability that the parameter will be detected.

⁹⁵⁹ Note that if cyanide is likely to be used at the site (see 4.1.7.1) then water samples at points of compliance would need to be monitored for weak acid dissociable (WAD) cyanide. If WAD cyanide is detected in discharges to surface waters, the ENTITY would also monitor total cyanide, free cyanide, and thiocyanate levels.

If mercury is released to air or disposed on-site (see 4.1.8.1) then inorganic mercury (total and dissolved) and methyl mercury and sulfate are sampled in wetlands and water bodies located on or downwind of the operation and at points of compliance regardless of identified current and future water uses, and methylmercury is monitored in tissue, stream sediment and locations most likely to promote methylation, such as still waters, wetlands, and anaerobic sediment.

⁹⁶⁰ E.g., due to changes in ore, waste, or brine characteristics or processing methods as operations progress.

⁹⁶¹ 1) Priority must be given to source control and other measures that prevent or avoid the use or generation of contaminants or the release of contaminants, including increased sediment load, relative to baseline conditions; 2) Where elimination of contaminants through substitution or source control measures is not practicable or effective, mitigation measures are implemented to minimize the movement of contaminants to receptors where they can cause harm to human health, protected and conserved areas, biodiversity or the delivery of ecosystem services; 3) Then, if necessary, polluted waters are captured and treated to remove contaminants and improve water quality before water is returned to the environment or used for other purposes; and 4) As a last resort, if prevention and minimization measures are not feasible or do not eliminate impacts, compensation is used as a last resort to offset any remaining impacts on human health, protected and conserved areas, biodiversity, the delivery of ecosystem services, or livelihoods.

IRMA Board members agree that the use of mixing zones is not best practice. Therefore, as per Step 1 above, Entities will be expected to demonstrate that all technically feasible measures have been investigated and implemented to avoid the use of mixing zones prior to their use.

⁹⁶² 1) Priority must be given to measures that avoid the use, diversion or extraction of fresh water, or to measures that avoid activities that adversely affect water resources and the protected and conserved areas, biodiversity and ecosystem services that they support; 2) If that is not possible, measures are developed, as relevant, to reduce the volumes of water used or extracted, or to minimize the water quantity/water supply impacts from other project-related activities on water resources and the protected and conserved areas, biodiversity and ecosystem services that they support; 3) Then, if necessary, measures to restore affected water supplies, protected and conserved areas, biodiversity and ecosystem services are developed; 4) As a last resort, if other options are not practicable or possible, water supplies are replaced with other sources in a manner that is agreed to by affected rights-holders and stakeholders (see also 4.3.6.4), and any impacts on protected and conserved areas, biodiversity or ecosystem services are managed as per Chapter 4..

⁹⁶³ These actions could include: first confirming if the sample results are accurate (see Proposed Guidance below); implementation of measures to regain control of a situation/stop an exceedance/come back into compliance; suspension of mine discharge until water quality meets criteria; reporting within the ENTITY, to government agencies and stakeholders; increase in sampling frequency; changes to monitoring regime, etc.

Proposed Guidance regarding steps to take if water quality trigger levels or thresholds are reached or exceeded in a single sample:

- 1) The sample is reanalyzed by the laboratory if the sample still exists and meets holding and QA/QC requirements;
- 2) If the reanalyzed result reaches or exceeds the relevant value, another sample is taken at the same location as quickly as possible, noting any substantial differences in flow, levels, or other characteristics at the site;
- 3) If resampling confirms concentrations exceed relevant values, the frequency of sampling at that location is increased (e.g., if monthly, sample weekly; if quarterly, sample monthly or more frequently), and the monitoring plan is updated accordingly; and the planned adaptive management actions are implemented.

⁹⁶⁴ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

⁹⁶⁵ Once a threshold exceedance is confirmed, different or additional actions may be needed than those in the adaptive management plan (in 4.3.6.2), because situations may not always unfold as expected, or more may need to be done than was originally anticipated. Often, actions are more specific to the observed exceedance. Examples of actions include: installing groundwater pumping wells downgradient of a waste rock pile, improving removal of arsenic in a treatment plant, increasing the freeboard of the barren solution pond to avoid overtopping, etc.

⁹⁶⁶ The timing of notification, information-sharing, and implementation of measures would depend on process developed and agreed on with affected rights-holders and stakeholders.

⁹⁶⁷ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

⁹⁶⁸ Note that if this requirement is not met, then corrective measures would need to be developed as part of the adaptive management plan for water. See requirement 4.3.6.2.

⁹⁶⁹ Identified uses correspond to the following IRMA Water Quality Criteria by End Use Tables, [see Annex 4.3-A](#): fishing and protection of aquatic life and ecosystem health that are important for protected and conserved areas, biodiversity and the delivery of ecosystem services; drinking water; irrigation; livestock watering; aquaculture; recreation; and industrial. The protection of water quality for religious and cultural uses or preservation is variable, and the appropriate standards would depend on the activities (e.g., if ingestion occurs during a religious or cultural practice then standards for drinking water would apply; if dermal contact, then recreational standards might be more appropriate; if waters provide spiritual or cultural value in and of themselves, then there may be the need to consult with stakeholders or rights-holders to determine the appropriate water quality protections (see also Section 3.6.1).

⁹⁷⁰ As identified in collaboration with relevant stakeholders (see 4.3.2.2).

⁹⁷¹ The acceptability of some reduction in flows would have been determined through consultations with affected stakeholders that happened in 4.3.2.2. If this requirement is not met, then corrective measures should be developed as part of the Adaptive Management Plan.

⁹⁷² This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁹⁷³ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁹⁷⁴ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

⁹⁷⁵ This is done in a meaningful, accessible, and culturally appropriate way, in accordance with Section 1.2.3.

⁹⁷⁶ All material must remain publicly accessible *at least until the completion of all post-closure activities (including any previous versions, iterations and revisions)*. Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

⁹⁷⁷ Baseline/background, permit limits and/or trigger levels could be added to graphs if requested by affected stakeholders.

CHAPTER ANNEXES

ANNEX 4.3-A: IRMA Water Quality Criteria by End-Use Tables

1) Criteria Protective of All IRMA Uses

	Units	Protective of All IRMA Uses		
		FRESHWATER	MARINE	
		IRMA Surface Water ¹	IRMA Ground Water ²	IRMA Marine Water
METALS / METALLOIDS				
Aluminum	ug/L	55	100	10
Antimony	ug/L	6	6	-
Arsenic	ug/L	10	10	8
Barium	ug/L	300	300	700
Beryllium	ug/L	4	4	-
Boron	ug/L	500	500	750
Cadmium	ug/L	1.8 *	5	0.12
Calcium	mg/L	measure	-	-
Chromium (Total)	ug/L	50	50	-
Chromium (III)	ug/L	4.9	4.9	27
Chromium (VI)	ug/L	1	8	1.5
Cobalt	ug/L	50	50	1
Copper	ug/L	2.4 *	200	1.3
Iron	ug/L	300	300	2
Lead	ug/L	2.5 *	10	4.4
Lithium	ug/L	2500	2500	-
Magnesium	mg/L	measure	-	-
Manganese	ug/L	50	50	10
Mercury	ug/L	0.06	1	0.016
Molybdenum	ug/L	10	10	-
Nickel	ug/L	20	20	5
Potassium	mg/L	measure	-	-
Radium 226/228	pCi/L	13.5	13.5	-
Selenium	ug/L	1	20	10
Silver	ug/L	0.25	100	0.7
Sodium	mg/L	measure	-	-
Thallium	ug/L	0.8	2	-
Uranium	ug/L	10	10	-
Vanadium	ug/L	100	100	100
Zinc	ug/L	13 *	2000	5

* Use USEPA Hardness-based or Biotic Ligand Model (BLM) calculations for metals. (Values displayed assume 100 mg/L hardness for temporary reference only)

Notes:

¹ IRMA Fresh Water includes all freshwater uses except Freshwater Aquaculture, which is not a common use around mines. If Freshwater Aquaculture is a use downgradient of a mine discharge, then those criteria apply.

² IRMA Ground Water includes Uses for Drinking Water & Human Health, and Agriculture/Irrigation.

	Units	Protective of All IRMA Uses		
		FRESHWATER	MARINE	
		IRMA All Fresh Water ¹	IRMA Ground Water ²	IRMA Marine Water
OTHER CONSTITUENTS				
Alkalinity (as CaCO ₃)	mg/L	350	350	-
Ammonia (NH ₃ as N)	mg/L	0.01	0.02	0.02
Chlorine (as Cl ₂)	ug/L	0.1	0.1	0.5
Chloride	mg/L	113	113	120
Cyanide (Free or WAD)	ug/L	5	100	1
Dissolved Organic Carbon	mg/L	measure	-	-
Dissolved Oxygen	mg/L	5	-	-
Fecal Coliform / E Coli	MPN / 100mL	0	0	-
Fluoride	mg/L	1	1	1.16
Hardness	mg/L	500	-	-
Hydrogen Sulfide (as S ²⁻)	ug/L	0.05	0.05	2
Nitrate & Nitrite (as N)	mg/L	10	10	-
Nitrate (NO ₃ as N)	mg/L	2.3	10	4
Nitrite (NO ₂ as N)	mg/L	0.06	1	0.03
pH	s.u.	6.5 - 8.4	6.5 - 8.4	7.0 - 8.5
Phosphorus	mg/L	0.025	0.025	0.062
Sulfate	mg/L	250	250	-
Temperature	degC	Δ < 3	-	Δ < 3
Total Dissolved Solids	mg/L	450	450	-
Total Suspended Solids	mg/L	15	50	10

Notes:

¹ IRMA Fresh Water includes all freshwater uses except Freshwater Aquaculture, which is not a common use around mines. If Freshwater Aquaculture is a use downgradient of a mine discharge, then those criteria apply.

² IRMA Ground Water includes Uses for Drinking Water & Human Health, and Agriculture/Irrigation.

2) Criteria by Designated Water Use

	Units	FRESHWATER					FRESH WATER		MARINE	
		Aquatic Fresh Water	Drinking Water & Human Health	Agriculture & Irrigation	Recreational	Industrial	Freshwater Aquaculture ¹		Aquatic Salt Water	Marine Aquaculture
METALS / METALLOIDS										
Aluminum	ug/L	55	100	5000	-	-	30		-	10
Antimony	ug/L	9	6	-	6	-	-		-	-
Arsenic	ug/L	20	10	100	10	40	50		12.5	8
Barium	ug/L	-	2000	300	700	3000	-		700	-
Beryllium	ug/L	-	4	100	-	-	-		-	-
Boron	ug/L	750	2400	500	500	3000	750		-	750
Cadmium	ug/L	1.8 *	5	5	3	5	0.2		0.12	0.12
Calcium	mg/L	measure	-	-	-	-	-		-	-
Chromium (Total)	ug/L	-	50	100	50	-	-		-	-
Chromium (III)	ug/L	8.9	-	4.9	10	-	-		27	-
Chromium (VI)	ug/L	1	-	8	-	20	20		1.5	2
Cobalt	ug/L	-	-	50	-	-	-		1	-
Copper	ug/L	2.4 *	2000	200	200	50	1		1.3	3
Iron	ug/L	300	300	5000	300	7500	10		-	2
Lead	ug/L	2.5 *	10	50	10	30	2.5		4.4	8.1
Lithium	ug/L	-	-	2500	-	-	-		-	-
Magnesium	mg/L	measure	-	-	-	-	-		-	-
Manganese	ug/L	430	50	200	100	2000	10		-	10
Mercury	ug/L	0.06	1	2	1	1.8	0.77		0.1	0.016
Molybdenum	ug/L	73	50	10	-	-	-		-	-
Nickel	ug/L	52 *	20	200	20	74	52		7	5
Potassium	mg/L	measure	-	-	-	-	-		-	-
Radium 226/228	pCi/L	-	13.5	54	-	-	-		-	-
Selenium	ug/L	1	50	20	10	40	5		71	10
Silver	ug/L	0.25	100	-	50	-	3		1.4	0.7
Sodium	mg/L	measure	-	-	-	-	-		-	-
Thallium	ug/L	0.8	2	-	-	-	-		-	-
Uranium	ug/L	15	30	10	20	-	-		-	-
Vanadium	ug/L	-	-	100	100	-	100		100	100
Zinc	ug/L	13 *	3000	2000	2000	120	5		8	5

* Use USEPA Hardness-based or Biotic Ligand Model (BLM) calculations for metals. (Values displayed assume 100 mg/L hardness for temporary reference only)

Notes:

¹ IRMA Fresh Water includes all freshwater uses except Freshwater Aquaculture, which is not a common use around mines. If Freshwater Aquaculture is a use downgradient of a mine discharge, then those criteria apply.

² IRMA Ground Water includes Uses for Drinking Water & Human Health, and Agriculture/Irrigation.



	Units	FRESHWATER					FRESH WATER	MARINE	
		Aquatic Fresh Water	Drinking Water & Human Health	Agriculture & Irrigation	Recreational	Industrial	Freshwater Aquaculture ¹	Aquatic Salt Water	Marine Aquaculture
OTHER CONSTITUENTS									
Alkalinity (as CaCO ₃)	mg/L	measure	-	350	-	-	≥20	-	-
Ammonia (NH ₃ as N)	mg/L	0.01	0.02	-	0.06	0.3	0.02	0.03	0.02
Chlorine (as Cl ₂)	ug/L	0.5	0.6	0.1	-	-	2	0.5	2
Chloride	mg/L	120	250	113	250	400	-	120	-
Cyanide (Free or WAD)	ug/L	5	200	100	8	200	5	1	1
Dissolved Organic Carbon	mg/L	measure	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	5	-	-	-	-	-	-	-
Fecal Coliform / E Coli	MPN / 100m L	-	0	-	-	-	-	-	-
Fluoride	mg/L	1	1.5	1	-	2	20	-	1.16
Hardness	mg/L	measure	-	-	500	-	-	-	-
Hydrogen Sulfide (as S ₂ -)	ug/L	2	0.05	-	50	50	1	2	2
Nitrate & Nitrite (as N)	mg/L	measure	10	100	-	-	-	-	-
Nitrate (NO ₃ as N)	mg/L	3	10	-	2.3	15	3	45	4
Nitrite (NO ₂ as N)	mg/L	0.06	1	10	0.3	-	0.03	-	0.03
pH	s.u.	6.5 - 9.0	6.5 - 8.5	6.5 - 8.4	6.5 - 8.5	6.8 - 8.5	6.5 - 9.0	7.0 - 8.5	6.0 - 8.5
Phosphorus	mg/L	0.025	0.025	0.025	0.025	-	0.025	0.062	0.062
Sulfate	mg/L	-	250	1000	250	500	-	-	-
Temperature	degC	Δ < 3	-	-	-	Δ < 3	Δ < 3	Δ < 3	Δ < 3
Total Dissolved Solids	mg/L	-	500	450	1000	-	-	-	-
Total Suspended Solids	mg/L	15	-	50	30	70	40	15	10

Notes:

¹ IRMA Fresh Water includes all freshwater uses except Freshwater Aquaculture, which is not a common use around mines. If Freshwater Aquaculture is a use downgradient of a mine discharge, then those criteria apply.

² IRMA Ground Water includes Uses for Drinking Water & Human Health, and Agriculture/Irrigation.

ANNEX 4.3-B: Water Monitoring Guidance**1. Locating and Documenting Water Monitoring Sites**

Water monitoring sites are located in areas not affected by project-related activity and releases (for baseline and background sites) and in areas potentially affected by project-related activity and releases (for assessment sites). The conceptual site model in Section 4.3.3 will be used to identify appropriate baseline/background and assessment monitoring locations. A scaled map with a clear legend showing the location of all monitoring sites relative to potential sources (e.g., facilities) will be created as part of the monitoring plan. The location and flow directions in rivers, streams, springs and seeps; the groundwater flow directions; and the locations of major faults will be plotted and depicted on the map(s) and considered when siting monitoring locations.

1.1. Baseline and background monitoring locations

Baseline monitoring sites must be located upstream or upgradient of facilities and potential areas of impact, or, for background monitoring, in reference locations with similar hydrology, geology, and mineralization as the Project site.

1.2. Assessment monitoring locations

Proximal groundwater and surface water assessment monitoring sites will be located as close as practicable around the perimeter and downgradient of each facility at the mine site. Each proximal site shall take into account surface topography, hydrogeologic conditions, geologic controls, infrastructure, engineering design plans, depth to groundwater, working distance, and safety.

Additional monitoring sites will be located downgradient and downstream of the proximal sites to determine the potential spatial extent of project-influenced water.

Assessment monitoring locations will also include treated effluent and non-industrial stormwater locations.

Groundwater monitoring sites will also be located at different depths to determine the potential vertical extent of project-influenced water.

1.3. Timing of installation and initial sampling of monitoring sites

For a new project or new facility, the monitoring networks shall be installed at least two years before emplacement of any process water or waste materials to allow sampling prior to discharge.

For expansion of existing project or the footprint of an existing facility, monitoring around and downgradient of the facility/facilities must begin before emplacement of waste material unless an existing monitoring network adequately monitors water quality and quantity/level in the area of the facility.

Initial sampling of new monitoring sites shall be monthly or more frequent.

1.4. Monitoring location information

The ENTITY shall provide a table showing: the monitoring site identification code; type of monitoring site (surface water, seep/spring, groundwater); name of the stream or project area where the site is located; date of installation of the monitoring site; locations of the monitoring sites (latitude/longitude); for groundwater sites, the total depth, screened interval, well diameter, elevation of the ground surface and the measuring point (e.g., top of casing), lithologic log and construction information; and the monitoring purpose of each location (e.g., baseline/background, downgradient of tailings facilities).

Monitoring location information shall be updated annually, or as often as new sites or modifications of existing sites occur.

2. Sampling and Analysis Plan



2.1. Use of competent professionals

The sampling and analysis plan must be created by competent professionals.

All sample collection, handling, preservation, and laboratory analysis must be conducted by competent professionals.

2.2. Elements of the sampling and analysis plan

A general sampling and analysis plan for water will have the following sections. The information in the sections can be short and contained in tables, but each section should be included.

- i. Objectives and overview (e.g., to determine the potential effects of the project on water quality, stream and spring flows, and groundwater elevations over the life of the project)
- ii. Sampling and analysis schedule (frequency and approximate dates of field sampling and laboratory analysis)
- iii. Types, numbers, and locations of samples to be collected (using a table that shows the sample type (e.g., total metals, anions, field/equipment blank, replicate), bottle size (mL), whether sample will be filtered and if so where (field or lab))
- iv. Map showing sampling locations and identifiers, including streams, project facilities, highways, etc.
- v. Sample identification and labeling to be used (labels for bottles conveying the sample identification code, sample date and time, sample matrix (water or sample type), preservative used (if relevant), filtered/unfiltered, analyses required).
- vi. Field sampling protocols (sample site selection and marking, sample collection methods, field parameter measurement methods, sampling filtering methods (if applicable), preparation of field/equipment/trip blanks and replicates)
- vii. Field documentation (bound field sheets for each location or a dedicated field notebook with the following information: site and project name, samplers' names, data and time of sample collection, sample identification, stream or spring flow measurements and depth to groundwater, listing of samples collected at each location, results of field parameter measurements, deviations from field sampling plan and reasons, description of each photograph taken)
- viii. Decontamination procedures (if not using disposable sampling equipment)
- ix. Sample preservation, storage, shipping, and custody (sample preservation included in a table, e.g., 1% concentrated nitric acid added to metals samples; samples stored in coolers on ice until arriving at laboratory, if needed; shipping method to laboratory; chain-of-custody⁹⁷⁸ (sheets, often provided by the analytical laboratory, that include project name, identifier for each sample bottle and analyses requested, date and time of collection, name and signature of samplers, date and time of shipping, shipping mode))
- x. Analytical measurements: a table showing the parameters to be determined, laboratory analytical methods to be used for each parameter and sample type, and detection limits for each parameter. Detection limits must be lower than relevant IRMA water quality criteria (according to IRMA requirement 4.3.5.2).

3. General Requirements for Water Quality and Quantity/Level Sampling

3.1. Sampling frequency

Water quality and quantity sampling will take place often enough to account for seasonal fluctuations, storm events, and extreme events that may cause changes in water characteristics.

Sampling will be informed by meteorologic events (e.g., storms, snowmelt) that control precipitation and stream and spring/seep flows and by changes in project water balance.



3.2. Surface water quality and flow sampling

- a. For collection of surface water quality samples from streams or surface waters with obvious flow, the following procedure will be used:
 - i. The sampler should wear waders and rubber or neoprene gloves.
 - ii. Depending on the safety of flow conditions, the sampler will enter the stream downstream of the sampling location and proceed upstream to the sampling point. If stream flows are unsafe, samples will be collected from the bank using a dipper or other device with an extended handle to allow safe collection of the sample.
 - iii. The sampling gloves should be rinsed in ambient water for 10 seconds.
 - iv. For bottles without added preservative (e.g., acid):
 - After uncapping the sample bottle, the sampler will face upstream and lower the inverted bottle into the stream so that a minimum of water enters the bottle. Samples will be collected from mid-depth or from as deep a depth as possible, given safety constraints.
 - When the bottle has been lowered, the sampler will rotate the bottle so that the open end faces upward, thus allowing water to fill bottle. Partially fill the bottle with water, then remove the bottle from the water and cap immediately. Shake the bottle to coat all surfaces with ambient water. Remove cap and pour out water. Repeat three times. Fill the bottle completely after rinsing with ambient water for the third time, remove from the water, and cap immediately.
 - The procedures in steps iv. and v. will be repeated as necessary for any replicate samples.
 - v. For bottles with added preservative or if the water depth is too shallow to immerse a sample bottle, a disposable beaker or 1-L pre-cleaned bottle will be used to transfer water from the stream to the sample bottle. The beaker or 1-L bottle will be rinsed three times in ambient water. Do not fill the sample bottle to overflowing.
 - vi. For samples collected from diversion pipes or spigots on tailraces, the sample bottles will be filled directly from the water stream without inverting the sample bottle and will be rinsed three times in ambient water. Rubber or neoprene gloves rinsed for 10 seconds in ambient water will be worn while collecting the sample.

For measurement of stream flow:

- i. Stream flows will be measured using standard U.S. Geological Survey (USGS) methods for gauging flow (<http://water.usgs.gov/pubs/twri/>). If possible, flow measurements will be made in the location that the water quality sample is collected. However, if more suitable section of stream is present within a few hundred feet, and no significant recharge or discharge to the stream is observed along the reach, the streamflow measurements may be taken slightly upstream or downstream of the location where the water quality sample is collected. All locations where flow measurements are made will be described using a hand-held GPS.
- ii. Stream flow will be measured by one of the following methods at each location: velocity measurement using flow meters; velocity measurement using floats; or direct volume measurement.

Velocity measurement using flow meters: Discharge in stream reaches near sensitive stream areas (e.g., upstream of fish hatcheries) will be measured using a portable flow meter. The stream cross section will be segmented into vertical subsections, and the mean velocity will be estimated by making velocity measurements along the verticals. If the depth of the river is > 2.5 ft (0.76 m), velocities will be measured at 0.2 and 0.8 of the depth below the surface (Buchanan and Somers, 1969). For stream depths between 0.3 and 2.5 ft (0.09 and 0.76 m), velocity measurements will be made at the 0.6 depth, i.e., 60% of the total distance from the surface of the water to the streambed. Discharges



will be computed using these measurements using standard methods (Buchanan and Somers, 1969; Church and Kellerhals, 1970). In general, the area and velocity for each vertical subsection are multiplied and then summed for each section:

$$Q_s = \sum (a_i v_i)$$

where: Q_s = stream flow

a_i = cross-sectional area of vertical subsection i

v_i = average velocity measured for vertical subsection i .

Velocity measurement using floats: If the stream cannot be safely waded, an estimate of discharge will be made using a float. A suitable float will be placed in the river, and the surface velocity of the river estimated by timing the passage of the float along a reach. The stream cross section will be estimated using whatever measurements can be safely made with respect to stream width and depth. The stream flow will be calculated using standard equations (Buchanan and Somers, 1969; Church and Kellerhals, 1970). For a round float, stream flow is calculated by:

$$Q_s = 0.85 A v$$

where: Q_s = flow in the stream

A = cross-sectional area of the stream

V = measured surface velocity of the float.

Direct volume measurement: If flows are too low or too shallow to use a current meter, flows will be measured with a container of known volume and a stopwatch. Flow will be collected into the container, and the time to fill the container to a specific level will be measured.

3.3. Groundwater quality and level sampling

Measure the depth to groundwater

- i. Measure from the top of the well casing to the nearest 0.1 cm (0.01 ft) using an electronic water level indicator, pneumatically or by using a fiberglass or steel measuring tape using the chalk method, or other similar method.

Purge monitoring well

- i. Purge three well volumes of water using conventional methods before sample collection.
- ii. Purge the monitoring well using low-flow purging methods until measurements of indicator parameters have stabilized. Use a low-flow pump and a low-stress approach, micro-purge method or minimal drawdown method. Measure indicator parameters periodically during purging. Record the results in a parameter stabilization log during each sampling event for each monitoring well and include: date; water quality indicator parameter measurements; time for all measurements; and the purge volume extracted.
- iii. For low yield wells, purge the well of all available water.

Measure and record the following field parameters: pH, specific conductance, temperature, and redox potential (if applicable).

Collect the groundwater sample.

Preserve, store, and transport the groundwater samples to an analytical laboratory for analysis.

References:

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Wilde, F.D., ed., variously dated, Field Measurements: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 9, Chap. A6. Available: https://pubs.usgs.gov/twri/twri9a6/twri9a6_final508ChapterA6.pdf

⁹⁷⁸ The documentation of a sample's history (from time of collection through sample analysis to final disposal) is referred to as "chain of custody." Much of the information on the chain of custody sheets is derived from the bottle labels and field sheets.



Chapter 4.4

Biodiversity, Ecosystem Services, and Protected and Conserved Areas

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Chapter title expanded to “Biodiversity, Ecosystem Services, and Protected **and Conserved** Areas”, to align with international terminology Conserved Areas.
- Added “Sites of other effective area-based conservation measures (OECMs)” and “Proposed new protected areas and OECMs” to the categories of conserved areas that need to be identified and considered.
- Added “Ecologically or Biologically Significant Marine Areas (EBSAs)” to the categories of areas of important biodiversity values that need to be identified and considered.
- Added reference to the High Conservation Values approach, and strengthened language around natural habitats supporting high biodiversity values.
- Added subrequirements related to quantitative measures of abundance, distribution and other measures of viability and/or function (4.4.1.4).
- Added subrequirement for sharing publicly the rationale for when the ENTITY is unable to achieve the required net gain or no net loss outcomes, and what other conservation measures are being implemented to address this shortfall.
- Clarified that mitigation measures should be designed to deliver a NET GAIN for critical habitats (in line with the IFC PS), and at least no net loss (and preferably a net gain) in other important biodiversity values.
- Strengthened and clarified language regarding natural forests in endnotes.
- Added one optional requirement related to the protection and restoration of primary forests, natural regenerating forests and natural ecosystems, in line with the EU Deforestation Directive (which currently does not apply to mined minerals); and one optional baseline study requirement to inform it.
- Added one optional requirement related to Nature-based Solutions.
- Clarified the need to assess and address risks as well (not only potential and actual impacts).
- Added more categories of conserved and protected areas to the no-go zone requirements (4.4.4.4).
- Added one requirement related to the integration of Traditional Knowledge and Traditional Ecological Knowledge.
- Removed specific reference that biodiversity offsets be aligned with international best practice, as this would have required that offsetting projects themselves would be audited (e.g., for credibility of methodology, effectiveness, respect of fundamental rights of stakeholders and Indigenous rights-holders etc.). At the present time IRMA could not identify agreed international best practice for offsets that is **consistently successful and non-controversial**. Thus, IRMA does not want to appear as if its own audit system can sufficiently evaluate the legitimacy, integrity or long-term effectiveness of offset projects. The chapter instead emphasizes the first three tiers of the mitigation hierarchy, and requires transparency and explanation regarding why avoidance or further minimization and further restoration are not deemed feasible, what additional measures are proposed/taken -as a last resort- if mitigation measures fail to achieve net gain/no net loss.
- Clustered stakeholder engagement requirements together.
- Clustered and clarified requirements related to continuous improvement.
- Added public reporting requirements, in line with GRI 101: Biodiversity 2024 standard.
- Major structural changes for greater auditability and consistency across the Standard.



RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
4.6-01	(4.6.1) Question: Should mining entities be required to identify ICCAs (Indigenous and Community Conserved Areas) as part of their scoping? If so, and if they are identified in the <u>area of influence</u>, would the next steps be: consultation with ICCA custodians to determine what values are being conserved and identify potential impacts on the ICCA, free, prior and informed consent from <u>Indigenous Peoples</u> for proposed activities that would affect their rights or interests, collaboration with affected local stakeholders to determine mitigation strategies as per the <u>mitigation hierarchy</u>, implementation, monitoring and reporting on effectiveness of mitigation (in other words, steps outlined in this chapter)?	Feedback received: 12 responses received (4 NGO, 4 mining, 1 purchasing, 1 finance, 2 consultancy). All but one respondent supported the inclusion of ICCAs in the scoping. Proposed decision: We have added a sub-requirement that other effective area-based conservation measures (OECM) be identified during Scoping. As per the IUCN and IRMA definition, OECMs including ICCAs, IUCN Green List sites, certain Private Protected Areas, etc.
4.6-02	(4.6.3) Question: Should IRMA also include specific requirements to manage and minimize impacts on plant or animal populations or species even if those plants/animals do not provide a priority ecosystem service or if impacts on them will not lead to an overall loss of biodiversity? Or should IRMA keep this chapter focused on the most critical/material impacts on biodiversity and ecosystem services?	Feedback received: 8 responses received (5 mining, 2 NGO, 1 purchaser). All mining and purchaser respondent suggested to keep the focus on the most critical/material impacts. The 2 NGO respondent suggested to expand the focus. Proposed decision: We have retained the focus on important biodiversity values and priority ecosystem services, in alignment with the Ecosystem Approach, Systematic Biodiversity Planning principles, and material impact approaches. But we have proposed additional explanations and guidance for the identification of important biodiversity values and priority ecosystem services. In the proposed changes, we require that, if potentially significant impacts on any biodiversity values or ecosystem services are identified, they should be addressed in the management plans (see 4.4.3.1), but the most stringent objectives (e.g., net gain, no net loss) and highest priority in the plans would be for critical habitats, and the important biodiversity values and the priority ecosystem services (See 4.4.3.2).
4.6-03	(4.6.3.2) Question: Do you agree that all projects and operations should be required to demonstrate no net loss and preferably a net gain in important biodiversity values, and in priority ecosystem services?	Feedback received: 13 responses received (6 mining, 3 Ngo, 1 purchaser, 1 finance, 2 consultancy). 6 respondents agree (1 mining, 2 NGO, 1 purchaser, 1 finance, 1 consultant).



		2 respondents (1 mining, 1 NGO) do not agree. 4 respondents (3 mining and 1 consultancy) expressed skepticism about the feasibility of being able to achieve "no net loss" and the ability to demonstrate it, at the level of a site. 1 respondent (1 consultant) does not have preference. Proposed decision: We have proposed a revision to the draft standard requiring "a net gain for critical habitats; and no net loss when possible, and preferably a net gain, in other important biodiversity values, and priority ecosystem services in alignment with international best practice". Net gain is required for critical habitats as per IFC PS6 (2012). We propose to also provide additional guidance for this requirement, particularly regarding no net loss and net gain.
4.6-04	(4.6.6) Question: Do you think that a reporting requirement should be added to this chapter? If so, what would be some of the information that should be shared on an annual basis? And would a written report suffice, or should entities be engaging directly with stakeholders?	Feedback received: 11 responses received (5 mining, 2 NGO, 1 purchaser, 1 finance, 2 consultant). All but one respondent (mining) agreed that a reporting requirement should be added. Proposed decision: We have added requirements for public reporting in alignment with the GRI 101: Biodiversity 2024 standard and the GRI 14 Mining Sector



BACKGROUND

Biological diversity, or biodiversity, describes the variety of life on Earth. It refers to the wide variety of ecosystems and living organisms, including animals, plants, fungi, and their habitats and genes. Biodiversity underpins ecosystem functioning and the provision of ecosystem services essential for human well-being, it is a central component of many belief systems, world views and identities, it provides for food security, human health, clean air and water, and contributes to local livelihoods and economic development. Despite its fundamental importance, however, biodiversity continues to be lost.⁹⁷⁹

Mineral development and mineral processing operations may take place in certain landscapes that are already heavily modified or degraded, where they pose little or no threat to global biodiversity loss. When located in areas of high biodiversity value, however, there is the potential that mining and mineral processing activities may lead to a temporary or permanent loss in biodiversity and ecosystem services.

In some cases, mining and mineral processing sites may permanently remove entire ecosystems, particularly where biota have co-evolved with specific mineral substrates. In other cases, biodiversity may be unaffected by these activities, or they may cause less damage than alternative land uses.⁹⁸⁰ However, even where one mining or mineral processing operation does not create significant impacts on biodiversity on its own, there may be larger indirect impacts caused by its development, such as the exacerbation of deforestation,⁹⁸¹ or a single operation may contribute to significant impacts when considered cumulatively with other developments (either on a spatial or temporal basis).⁹⁸²

Globally, a network of protected areas has been put in place, offering various levels of protection for biodiversity, landscapes, and seascapes. Developments such as exploration, mining and mineral processing are expected to respect those protections and operate in a manner that safeguards biodiversity and other values that led to a protected area designation (e.g., cultural, spiritual, or scenic values). In many areas of the world, however, an adequate system of protected areas has yet to be established, or where protections exist further opportunities to conserve biodiversity and other important values remain.

This is particularly true for any *site of other effective area-based conservation measures* (OECMs), which the International Union for Conservation of Nature (IUCN) defines as “geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values”. This could include IUCN Green List Sites that are not protected areas, Indigenous and Community Conservation Areas (ICCAs), Private Protected Areas (PPA), Conservancies, Communal Reserves, Flora and Fauna Sanctuaries, Marine Conservation Areas, Areas of Responsible Fishing (ARF), and areas managed under land-use rights in fisheries, amongst other conservation areas.

Through adherence to the mitigation hierarchy during the most appropriate stages in project development, appropriately located and designed mineral development and mineral processing projects and operations can proceed in a manner that supports global, national and local biodiversity, maintains the ecosystem services that communities need to survive and thrive, and leaves behind structurally safe and functioning ecosystems upon closure.

This chapter puts forward a framework for mining and mineral processing projects and operation to proactively assess and manage impacts on biodiversity and ecosystem services according to the mitigation hierarchy of first avoiding, then minimizing impacts, early in the project life cycle, and if impacts cannot be avoided and/or minimized, restoring and, if necessary, offsetting or compensating for residual impacts throughout the remainder of the operation life cycle. It is recognized though that mining and mineral processing activities in certain locations or via certain methods is not appropriate, which is also reflected in this Chapter.



KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- Kunming-Montreal Global Biodiversity Framework, 2022
- UNESCO World Heritage Convention, and World Heritage List
- UNESCO World Network of Biosphere Reserves
- UNESCO Guidance for the World Heritage 'No-Go' Commitment, 2022
- The (Ramsar) Convention on Wetlands of International Importance, 1971
- IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources, 2012
- IFC Performance Standard 4: Community Health, Safety, and Security, 2012
- IUCN Green List of Protected and Conserved Areas
- IUCN Environmental & Social Management System (ESMS): Standard on Biodiversity Conservation and Sustainable Use of Natural Resources, 2016
- United Nations Rio Declaration on Environment and Development, 1992
- United Nations Convention on Biological Diversity, 1993
- KBA Partnership's Guidelines on Business and Key Biodiversity Areas, 2018

OBJECTIVES OF THIS CHAPTER

To protect biodiversity, maintain viable and safe ecosystems services, and respect the values being safeguarded in protected and conserved areas.



SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There are six (6) **critical requirements** in this Chapter (including 3 requirements related to operations in no-go zones which are not relevant if the ENTITY does not operate in such zones).

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are two (2) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into the management of biodiversity, ecosystem services, and protected and conserved areas:

In 1992, in the Rio Declaration on Environment and Development, over 175 countries affirmed that “Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development”. And in its associated UN Convention on Biological Diversity⁹⁸³, which all UN member states (except the USA) have ratified, article 8(j) specifically request each state to, “respect, preserve and maintain knowledge, innovations and practices of Indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices[...]”.

Several countries have since adapted these expectations into national laws and regulations, or for projects sporadically, including in relation with mineral development and mining activities (e.g. Canada, Norway, Rwanda, USA⁹⁸⁴). The lack of explicit reference to TEK in the was one of the very few areas for improvement identified in a recent benchmark of standards against the 2023 Risk Readiness Assessment Criteria Guide V3.0 (conducted by a consultancy firm on behalf of an industry association). IRMA added one requirement, assessing how entities integrate TK and TEK of local affected communities, and Indigenous rights-holders if applicable, into the management of biodiversity, ecosystem services, and protected and conserved areas. This requirement (4.4.6.1) is signaled with an ‘eye icon’ to ensure that IRMA closely monitor its relevance, and its implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that this requirement is not ‘optional’ (unlike IRMA+).

IRMA Requirements

4.4.1 Scoping and Baseline Studies

4.4.1.1 Critical Requirement

A process is undertaken and documented by competent professionals to identify all **protected and conserved areas** that are located in the area of influence of the project/operation. This scoping process includes the identification of the boundaries of the following areas:

- Protected areas with international recognition, including: World Heritage Sites, and areas on a state party's official Tentative List for World Heritage Site Inscription; IUCN protected area management categories I-VI; United Nations Educational, Scientific and Cultural Organization (UNESCO) biosphere reserves; and Ramsar sites;
- Regional, national, sub-national and local legally protected areas⁹⁸⁵; and
- Sites of other effective area-based conservation measures (OECMs)⁹⁸⁶, and proposed new protected areas and sites of OECMs as reflected in formally approved Protected and Conserved Areas Expansion Strategies and/or Plans (or equivalents)⁹⁸⁷.

4.4.1.2 Building on 4.4.1.1, a **protected and conserved area** baseline study is established and documented by competent professionals. This baseline study:

- Identifies and describes the values⁹⁸⁸ being protected or conserved in the identified protected and conserved areas⁹⁸⁹;
- Takes into consideration how risks related to Waste and Materials Management (Chapter 4.1), Tailings Storage Facilities and Physical Stability Management (Chapter 4.2), Water Management (Chapter 4.3), Air Quality (Chapter 4.5), and Noise and Vibration (Chapter 3.7)⁹⁹⁰, may result in impacts on the values in protected and conserved areas; and
- Results in the identification of whether or not any protected or conserved areas, or the values for which the area was designated or is recognized: 1) Are at risk (i.e. may be affected by a proposed project or modification); and/or 2) Are and/or have been impacted (i.e. have been affected by past mining-related activities or are being affected by current mining-related activities).

4.4.1.3 Critical Requirement

A **biodiversity and ecosystem services** scoping process (or equivalent) is undertaken and documented by competent professionals to identify:

- Boundaries of Key Biodiversity Areas (KBA)⁹⁹¹ and Ecologically or Biologically Significant Marine Areas (EBSAs)⁹⁹² that are located in the site's area of influence;
- Boundaries of other areas of High Biodiversity Value⁹⁹³ or High Conservation Value⁹⁹⁴ that are located in the site's area of influence;
- The ecological processes and habitats supporting those values⁹⁹⁵ (a. and b.);
- Areas of modified habitat, natural habitat, and critical habitat within the site's area of influence⁹⁹⁶;
- Ecosystems or processes within the area of influence of the project/operation that may provide or do provide provisioning, regulating, cultural and supporting ecosystem services⁹⁹⁷;
- The beneficiaries of the ecosystem services identified (e.); and
- The priority ecosystem services.



4.4.1.4 Building on the scoping process required in 4.4.1.3, a **biodiversity** baseline study is established and documented by competent professionals⁹⁹⁸. This baseline study:

- a. Identifies the species of flora, fauna, and, where relevant, fungi, in the area of influence of the project/operation, and describes their natural habitats⁹⁹⁹;
- b. Identifies and describes the important biodiversity values present in the areas of modified habitat, natural habitat, and critical habitat, and provides information on the importance of the habitats and species relative to their global distribution;
- c. Identifies quantitative measures of: 1) distribution and other measures of viability and/or function for terrestrial and aquatic habitats (ecosystems) and ecological processes, as required; and 2) abundance, distribution and other measures of viability and/or function for species of conservation concern and species of special concern¹⁰⁰⁰ (terrestrial and aquatic), as required;
- d. Takes into consideration how risks related to Waste and Materials Management (Chapter 4.1), Tailings Storage Facilities and Physical Stability Management (Chapter 4.2), Water Management (Chapter 4.3), Air Quality (Chapter 4.5), and Noise and Vibration (Chapter 3.7)¹⁰⁰¹, may result in impacts on biodiversity;
- e. Results in the identification of whether or not there are any areas of potentially important **global or national** biodiversity values that¹⁰⁰²: 1) Are at risk (i.e. may be affected by a proposed project or modification); and/or 2) Are and/or have been impacted (i.e. have been affected by past mining-related activities or are being affected by current mining-related activities); and
- f. Results in the identification of whether or not there are any areas of potentially important **local** biodiversity values that¹⁰⁰³: 1) Are at risk (i.e. may be affected by a proposed project or modification); and/or 2) Are impacted (i.e. have been affected by past mining-related activities or are being affected by current mining-related activities).



4.4.1.5 Building on the scoping process required in 4.4.1.3, an **ecosystem services** baseline study is established and documented by competent professionals¹⁰⁰⁴. This baseline study

- a. Identifies and describes the levels of dependencies of communities, the project/operation¹⁰⁰⁵, and other stakeholders, for each ecosystem service type¹⁰⁰⁶;
- b. Takes into consideration how risks related to Waste and Materials Management (Chapter 4.1), Tailings Storage Facilities and Physical Stability Management (Chapter 4.2), Water Management (Chapter 4.3), Air Quality (Chapter 4.5), and Noise and Vibration (Chapter 3.7)¹⁰⁰⁷, may result in impacts on ecosystem services; and
- c. Results in the identification of whether or not any ecosystem services¹⁰⁰⁸: 1) Are at risk (i.e. may be affected by a proposed project or modification); and/or 2) Are and/or have been impacted (i.e. have been affected by past mining-related activities or are being affected by current mining-related activities).

4.4.1.6 IRMA+

If forests are present in the area of influence of the site or its associated facilities, and building on the scoping processes required in 4.4.1.1 and 4.4.1.3, a **forest-specific** baseline study is established or peer-reviewed by a reputable conservation organization and/or academic institution¹⁰⁰⁹, and documented. This baseline study:

- Identifies, describes, and maps all forests, including Primary Forests and Natural Regenerating Forests (if any), in the project/operation's area of influence;
- Measures and/or estimates what the surfaces and conditions of all forests, including Primary Forests and Natural Regenerating Forests (if any), in the project/operation's area were on 31 December 2020; and
- This baseline study is made and maintained publicly accessible.

4.4.2 Risk and Impact Assessment

4.4.2.1 Building on 4.4.1, when the scoping process identifies protected or conserved areas, ecosystem services, or areas of potentially important global, national, or local biodiversity values that have been or may be affected by a project/operation, a risk and impact assessment is carried out and documented by competent professionals, to determine in detail the potentially significant risks and impacts¹⁰¹⁰ (direct, indirect, and cumulative impacts) of past and proposed mining-related activities, and associated facilities, on:

- Biodiversity values, and the ecological processes and habitats supporting them;
- Ecosystem services, the ecological processes and habitats supporting them, and the beneficiaries of the identified ecosystem services¹⁰¹¹; and
- The conservation values of protected and conserved areas, and the ecological processes and habitats supporting them.

4.4.2.2 This risk and impact assessment evaluates options and measures to address potentially significant risks to, and impacts on, biodiversity, ecosystem services and the conservation values in protected and conserved areas in a manner that aligns with the mitigation hierarchy as follows¹⁰¹²:

- By first evaluating the technically feasible alternatives to avoid/prevent significant adverse risks and impacts¹⁰¹³, avoiding a priori assumptions and judgements about alternatives¹⁰¹⁴;
- Then, where avoidance or prevention is not possible¹⁰¹⁵, by evaluating options to minimize predicted significant adverse risks and impacts¹⁰¹⁶; and
- As a last resort, where minimization is not possible¹⁰¹⁷, by evaluating strategies available to restore biodiversity, ecosystem services and the ecological processes and habitats that support them after impacts occur¹⁰¹⁸.

4.4.2.3 This risk and impact assessment identifies and evaluates opportunities for:

- Partnerships and additional conservation measures to enhance the long-term sustainable management of protected or conserved areas;
- Partnerships and additional conservation measures to enhance the long-term sustainable management of biodiversity and ecosystem services; and
- Identifies opportunities for compensation or offset for any significant negative residual impacts that cannot be avoided, reduced and/or restored.

4.4.3 Biodiversity and Ecosystem Services Management

- 4.4.3.1** Building on 4.4.1 and 4.4.2, a **biodiversity and ecosystem services** management plan (or equivalent) is developed and documented by competent professionals, at the level of the project/operation, to prevent, mitigate, and remediate all the risks and impacts on biodiversity and **ecosystem services** identified as per 4.4.2. The plan:
- Outlines the specific mitigation measures that will be carried out to address the adverse risks and impacts on biodiversity values, and the supporting ecological processes and habitats supporting them (identified as per 4.4.2), in a manner that strictly aligns with the **mitigation hierarchy**¹⁰¹⁹;
 - Outlines the specific mitigation measures that will be carried out to address the adverse risks and impacts on ecosystem services, the supporting ecological processes and habitats supporting them, and the beneficiaries of those ecosystem services¹⁰²⁰, in a manner that strictly aligns with the **mitigation hierarchy**¹⁰²¹;
 - Includes specific objectives (including regarding no net loss/net gain as per 4.4.3.2) and appropriate time-bound performance indicators¹⁰²² to enable evaluation of the effectiveness of mitigation measures over time;
 - Includes appropriate monitoring measures to enable evaluation of the effectiveness of mitigation measures over time against these identified performance indicators;
 - Assigns implementation of measures, and oversight of implementation, to responsible staff¹⁰²³;
 - Includes an implementation schedule, and **estimates of human resources and** budget required;
 - Includes a financing plan to ensure that funding is available for the effective implementation of the plan; and
 - Identifies the role of affected rights-holders and stakeholders in the collaborative development, implementation, and monitoring and evaluation of the plan.

4.4.3.2 Critical Requirement

The mitigation measures included in the **biodiversity and ecosystem services** management plans (or equivalent) required in 4.4.3.1 are designed¹⁰²⁴:

- To deliver a **net gain** for critical habitats;
- To deliver **no net loss** when possible, and preferably a net gain¹⁰²⁵, in natural habitats and other important biodiversity values, and priority ecosystem services; and
- On an appropriate geographic scale, and to be self-sustaining after closure.

4.4.3.3 IRMA+

The ENTITY can demonstrate that:

- Mining-related activities do not take place in, or adversely affect¹⁰²⁶, Primary Forests and Natural Regenerating Forests after 31 December 2020¹⁰²⁷;
- Mining-related activities do not take place in, or adversely affect¹⁰²⁸ intact Natural Ecosystems, (other than Primary Forests and Natural Regenerating Forest¹⁰²⁹), after 31 December 2020¹⁰³⁰; and
- The restoration of any affected forests or other ecosystems is successfully completed by competent professionals¹⁰³¹, over and above any mitigation measures identified to achieve no net loss in 4.4.3.1 and 4.4.3.2.

4.4.3.4 IRMA+

The ENTITY has a system in place to ensure that Nature-based Solutions (NbS) are developed and implemented by competent professionals, at the level of the project/operation, in alignment with the IUCN Global Standard for Nature-based Solutions¹⁰³².

4.4.4 Protected and Conserved Areas Management

4.4.4.1 Critical Requirement

The ENTITY can demonstrate that mining-related activities do not take place in, and do not adversely affect, **the following protected areas** (whether legally protected or not)¹⁰³³:

- World Heritage Sites**, and areas on a state party's official Tentative List for World Heritage Site Inscription;
- Areas classified as **IUCN protected area management categories I-III**; and
- Core areas of **UNESCO biosphere reserves**.

4.4.4.2 Critical Requirement

The ENTITY can demonstrate that mining-related activities do not occur in **legally protected areas**¹⁰³⁴ unless all the following conditions are met:

- The proposed activities are legally permitted in those areas;
- The ENTITY has consulted with relevant management authorities, protected and conserved area sponsors, managers, and relevant stakeholders on the proposed activities; and
- The ENTITY fully meets all other relevant requirements in this chapter¹⁰³⁵.

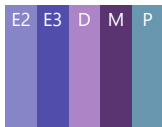
4.4.4.3 If all the conditions required in 4.4.4.2 are met, and the ENTITY decides to proceed with mining-related activities in legally protected areas, an area management plan (or equivalent) is developed by competent professionals. This plan:

- Is developed in collaboration with relevant management authorities, protected and conserved area sponsors, managers, and relevant stakeholders;
- Outlines how mining-related activities will be carried out in a manner consistent with the protected or conserved area management plans developed by relevant management authorities for such areas;
- If relevant¹⁰³⁶, includes measures to mitigate those impacts or risks, identifies key indicators, and ensures that there is an adequate baseline for the indicators to enable measurement of the effectiveness of mitigation activities over time;
- Includes additional conservation measures to promote and enhance the conservation aims and/or effective management of the area;
- Assigns implementation of measures, and oversight of implementation, to responsible staff¹⁰³⁷;
- Includes an implementation schedule, and estimates of human resources and budget required;
- Includes a financing plan to ensure that funding is available for the effective implementation of the plan; and
- Identifies the role of protected and conserved area sponsors, managers, and relevant stakeholders in the collaborative development, implementation, and monitoring and evaluation of the plan.

**4.4.4.4 Critical Requirement**

The ENTITY can demonstrate that mining-related activities do not take place in, and do not adversely affect, the following protected and conserved areas: 1) IUCN protected areas designated as protected area management category IV; 2) Ramsar sites that are not in areas classified as IUCN protected area management categories I-III¹⁰³⁸; 3) Buffer zones of UNESCO biosphere reserves; 4) Key Biodiversity Areas (KBAs); 5) Ecologically or Biologically Significant Marine Areas (EBSAs); 6) Sites of other effective area-based conservation measures (OECMs); 7) Proposed new protected areas and OECMs as reflected in formally approved Protected or Conserved Areas Expansion Strategies and/or Plans (or equivalent); unless all the following conditions are met:

- a. Mining-related activities are legally permitted in those areas, and the operation was in place¹⁰³⁹ prior to the area's official designation;
- b. For proposed mining-related activities, an assessment, carried out or peer-reviewed by a reputable conservation organization and/or academic institution¹⁰⁴⁰, and documented, concludes that mining-related activities will not damage the integrity of the special values for which the area was designated or recognized; and
- c. The ENTITY fully meets all other relevant requirements in this Chapter¹⁰⁴¹.

**4.4.4.5** If all the conditions required in 4.4.4.4 are met, and the ENTITY decides to proceed with mining-related activities in any of the protected areas listed in 4.4.4.4, an area management plan (or equivalent) is developed by competent professionals. This plan:

- a. Is developed in collaboration with relevant management authorities, protected and conserved area sponsors, managers, and relevant stakeholders;
- b. Outlines mutually-acceptable mitigation measures to protect, and if necessary, restore the integrity of the special values for which the area was designated or recognized;
- c. Identifies key indicators, and ensures that there is an adequate baseline for the indicators to enable measurement of the effectiveness of mitigation and/or restoration activities over time;
- d. Includes collaboration with relevant management authorities to integrate the operation's management strategies into the protected area's management plan;
- e. Assigns implementation of measures, and oversight of implementation, to responsible staff¹⁰⁴²;
- f. Includes an implementation schedule, and estimates of human resources and budget required;
- g. Includes a financing plan to ensure that funding is available for the effective implementation of the plan; and
- h. Identifies the role of protected and conserved area sponsors, managers, and relevant stakeholders in the collaborative development, implementation, and monitoring and evaluation of the plan.



4.4.5 Meaningful Engagement with Stakeholders

- 4.4.5.1** In accordance with Chapter 1.2, and as per 1.2.3.1, the ENTITY has a system in place to ensure that affected rights-holders and communities are:
- Preemptively provided with relevant and comprehensive information, in accordance with Section 1.2.3, about the scoping processes required in 4.4.1, the risk and impact assessment required in 4.4.2, and the relevant mitigation measures that will be carried out;
 - Preemptively provided with relevant and comprehensive information, in accordance with Section 1.2.3, about the estimated timeline, and the range of opportunities for them to participate in consultation and collaborative decision-making within the management of biodiversity, ecosystem services, and protected and conserved areas;
 - Offered equal opportunities to participate in consultations and collaborative decision-making, whether they are supportive of the proposed project/modification or not supportive; and
 - Included in consultations and collaborative decision-making in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people.

- 4.4.5.2** In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders are consulted and can review and comment, at least 60 days before reports and/or processes are finalized¹⁰⁴³, on:

- The issues, risks, and impacts to be considered in the scoping processes required in 4.4.1¹⁰⁴⁴;
- The methodologies for the collection of data, and the final outcomes of the baseline studies required in 4.4.1; and
- The findings of the risk and impact assessment and the recommended mitigation measures required in 4.4.2, and the performance criteria required in 4.4.3.

- 4.4.5.3** In accordance with Chapter 1.2, the ENTITY has a system in place to ensure that affected rights-holders and stakeholders:

- If necessary, are provided with resources for capacity building and training to enable meaningful stakeholder engagement¹⁰⁴⁵;
- Are provided with the opportunity to propose independent experts to provide input to the ENTITY on the scoping processes, and the baseline studies; and
- Are provided with the opportunity to propose independent experts to provide input to the ENTITY on the risk and impact assessment, the management plans, and the monitoring and evaluation processes.



4.4.6 Traditional Knowledge

- 4.4.6.1** The ENTITY has systems in place to ensure that the traditional knowledge, and especially traditional ecological knowledge, of local affected communities, and Indigenous rights-holders if applicable, is integrated into:
- The scoping process required in 4.4.1, and the risks and impact assessment process required in 4.4.2;
 - The development of the management plans required in 4.4.3 and 4.4.4; and
 - Relevant monitoring and evaluation processes required in 4.4.7, and relevant review and continuous improvement processes required in 4.4.8.

4.4.7 Monitoring and Evaluation

- 4.4.7.1** To monitor and evaluate the effectiveness and appropriateness of its biodiversity and ecosystem services management plan/s, and protected and conserved area management plans (if relevant), at least annually, the ENTITY:
- Tracks and documents its performance, over successive time periods, against the indicators defined in 4.4.3.1, 4.4.4.3 (if applicable), and 4.4.4.5 (if applicable);
 - Tracks and documents how the measures developed and implemented as per 4.4.3, and 4.4.4 (if relevant), are effectively preventing impacts on biodiversity values and ecosystem services, and on protected and conserved areas (if relevant), and where prevention is not possible or not immediately possible, minimizing these impacts, and where minimization is not possible, restoring biodiversity values, ecosystem services and the ecological processes and habitats that support them after impacts occur; and
 - Tracks and documents its progress toward the objectives of at least no net loss or net gain in biodiversity and ecosystem services over time, as per 4.4.3.2.

- 4.4.7.2** The monitoring and evaluation process:
- Encourages and facilitates joint tracking or joint fact-finding with affected rights-holders and stakeholders, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2¹⁰⁴⁶;
 - Includes continuous feedback from internal and external sources, including from joint tracking and joint fact-finding with affected rights-holders and stakeholders; and
 - Is reviewed by independent, competent experts, including those proposed by affected rights-holders and stakeholders as per 4.4.5.3.

4.4.8 Continuous Improvement

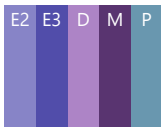
- 4.4.8.1** At least annually, but without undue delay after a significant change, the ENTITY collaborates with affected rights-holders and stakeholders to:
- Review the monitoring and evaluation results, informed by internal and external feedback, as per Section 4.4.7;
 - Review any biodiversity-, ecosystem services-, or protected and conserved area-related grievances and the functioning of the relevant grievance mechanism/s (see also Section 1.6.4);
 - Review the ENTITY's effectiveness in achieving the objectives of at least no net loss or net gain in biodiversity and ecosystem services as per 4.4.3.2, informed by the monitoring and evaluation required in 4.4.7.1 and 4.4.7.2;
 - Develop and implement time-bound corrective measures to update, if necessary¹⁰⁴⁷, the scoping processes in accordance with Section 4.4.1, and the risk and impact assessment in accordance with Section 4.4.2;
 - Develop and implement time-bound corrective measures to update, if necessary¹⁰⁴⁸, the management plans in accordance with Sections 4.4.3 and 4.4.4; and
 - Develop and implement time-bound corrective measures to update, if necessary¹⁰⁴⁹, the monitoring and evaluation processes in accordance with Section 4.4.7.



4.4.9 Information-Sharing and Public Reporting



- 4.4.9.1 At least annually, the ENTITY makes publicly accessible updated versions of, and maintains¹⁰⁵⁰ publicly accessible all previous versions of:
- a. The assessments of risks and impacts on: 1) biodiversity values, and the ecological processes and habitats supporting them; 2) ecosystem service, the ecological processes and habitats supporting them, and their beneficiaries; and 3) the conservation values of protected and conserved areas, and the ecological processes and habitats supporting them.¹⁰⁵¹
 - b. The biodiversity and ecosystem services management plans, and the protected and conserved area management plans; and
 - c. The results, and summaries of the key findings, of the monitoring and evaluation processes and, if the ENTITY is unable to achieve the required no net loss or net gain objectives, a rationale to explain this shortfall and a detailed description of what other conservation measures are being implemented to address it.



- 4.4.9.2 At least annually, the ENTITY makes publicly accessible updated data on, and maintains¹⁰⁵² publicly accessible all previous data on, the following land use change, sea use change, and biodiversity change¹⁰⁵³:
- a. The size in hectares of natural ecosystem converted since a cut-off or reference date, the cut-off date or reference date, and the type of ecosystem before and after conversion;
 - b. The size in hectares of land and sea converted from one intensively used or modified ecosystem to another during the reporting period, and the type of ecosystem before and after conversion; and
 - c. Changes to the state of each affected and/or potentially affected ecosystem, through: 1) the ecosystem type for the base year; 2) the ecosystem size in hectares for the base year; and 3) the ecosystem condition for the base year and the current reporting period.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

Although presented in a different format, many of the requirements in this chapter are meant to generally align with the International Finance Corporation’s (IFC) Performance Standard 6—Biodiversity Conservation and Sustainable Management of Living Natural Resources, and also the KBA Partnership’s Guidelines on Business and Key Biodiversity Areas (KBAs).¹⁰⁵⁴

Several requirements reference the International Union for the Conservation of Nature (IUCN) Protected and Conserved Areas Management Categories. These categories are defined in the glossary definition for ‘Protected Area / Protected Area Management Categories.’¹⁰⁵⁵

This chapter focuses on the conservation of the most important or critical areas of biodiversity (in some cases these have been designated as protected areas or Key Biodiversity Areas, in other cases they will not have been officially designated but still contain important biodiversity values). While the objectives of no net loss and preferably net gain are explicitly required to be planned for in the case of impacts on important biodiversity values and priority ecosystem services, it is strongly encouraged that such objectives be considered for any impacts on biodiversity or ecosystem services (e.g., IFC PS6 states that in

areas of natural habitat, mitigation measures will be designed to achieve no net loss of biodiversity where feasible).

⁹⁷⁹ Adopted from the Convention on Biological Diversity (CBD) Strategic Plan for Biodiversity 2011-2020. Available at: www.cbd.int/sp/

⁹⁸⁰ Mining and biodiversity: key issues and research needs in conservation science. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6283941/>

⁹⁸¹ World Wildlife Fund. 2023. Extracted Forests. pp. 22, 23. <https://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/Wald/WWF-Studie-Extracted-Forests.pdf>

⁹⁸² Mining and biodiversity: key issues and research needs in conservation science. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6283941/>

⁹⁸³ Convention on Biological Diversity, <http://www.cbd.int/convention/text/default.shtml>

⁹⁸⁴ Examples in Canada: <https://www.sciencedirect.com/science/article/abs/pii/S2214790X23000540>

Norway: LOV-2009-06-19-100: Lov om forvaltning av naturens mangfold (naturmangfoldloven) [Nature Diversity Act]. Sametingets retningslinjer for vurderingen av samiske hensyn ved endret bruk av meahcci/ utmark i Finnmark (Guidelines for Assessment of Sami interests in cases of changes in land use in Finnmark), 2007. The status of the Guidelines as injunction to the FA was approved by the Norwegian government in 2007. The guidelines are available from <https://lovdata.no/dokument/SF/forskrift/2007-06-11-738> (accessed February 4, 2015). Sametingets planveileder. Veileder for sikring av naturgrunnlaget for samisk kultur, næringsutøvelse og samfunnsliv ved planlegging etter plan- og bygningsloven (plandelen) (The Sami Parliament's Planning Guidelines), 2010. <http://www.sametinget.no/Miljoe-areal-ogkulturvern/Areal/Sametinget-planveileder/Sametinget-planveileder> (accessed September 7, 2015). LOV-2005-06-17-85: Lov om rettsforhold og forvaltning av grunn og naturressurser i Finnmark fylke (finnmarksloven) [Finnmark Act]. LOV-2008-06-27-71: Lov om planlegging og byggesaksbehandling (plan- og bygningsloven) [Plan and Building Act].

Rwanda: There exists a national law n° 28/2016 of 22/7/2016 on the preservation of both tangible and intangible cultural heritage and traditional knowledge.

USA: see EPA Tribal Councils and

⁹⁸⁵ Regional protected areas could include, for example, those in the European Union's Natura 2000 network. National, subnational and local areas may include parks, wilderness areas, wildlife preserves, etc.

⁹⁸⁶ Sites of other effective area-based conservation measures (OECMs) are "A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values" (IUCN, 2024). This could include IUCN Green List Sites that are not protected areas, Indigenous and Community Conservation Areas (ICCAs), Private Protected Areas (PPA), Conservancies, Communal Reserves, Flora and Fauna Sanctuaries, Marine Conservation Areas, Areas of Responsible Fishing (ARF), and areas managed under land-use rights in fisheries, amongst other conservation areas.

⁹⁸⁷ Formally adopted by the relevant competent authority/organ of state (e.g., Environmental Ministry, Protected Area Agency, State Department, Local Municipality etc.) that holds a legal mandate for protected and conserved area declaration and/or expansion.

⁹⁸⁸ E.g., ecological, biological, geological, geomorphological, cultural, spiritual, historical, scenic, etc.

⁹⁸⁹ NOTE: If protected areas have been designated as such to provide protection of cultural values, this needs to feed into Chapter 3.7—Cultural Heritage.

⁹⁹⁰ While Chapter 3.7 addresses impacts of noise and vibration on human receptors and structures there may need to be an integrated approach between noise and environmental experts. As part of Chapter 4.4 the relevant Entity's staff working on issues related to protected areas would be expected to determine if any wildlife species are being protected or managed for in the identified protected and conserved areas. If any protected wildlife species are present that may be affected by noise/vibrations, risk and impacts should be assessed and appropriate avoidance and mitigation measures identified, implemented, monitored and adaptive management measures instituted as per the requirements in other Sections of Chapter 4.4. An integrated approach between noise and environmental experts could include consideration of the pressure levels (dB), frequency (Hz/kHz/cps and number of occurrences in time), acoustic characteristics (e.g., tonality, impulsivity, intermittence), peak particle velocity (for vibration), duration of noise/vibration, and the biology of the relevant specie/s, amongst other relevant factors. For impacts on wildlife, relevant stakeholders under 4.4.5 may include protected area agency representatives, government biologists, wildlife conservation organizations, academic experts, and community members whose livelihoods or sustenance may be affected if noise/vibration has an adverse impact on wildlife.

⁹⁹¹ Key Biodiversity Areas (KBAs) are the most important places in the world for species and their habitats. Key Biodiversity Areas (KBAs) are sites that contribute significantly to the global persistence of biodiversity. KBAs also include Alliance for Zero Extinction (AZE) sites, Important Bird and Biodiversity Areas (IBA), Important Plant Areas (IPA). See <https://www.keybiodiversityareas.org/>

⁹⁹² The EBSAs are special areas in the ocean that serve important purposes, in one way or another, to support the healthy functioning of oceans and the many services that it provides. The CBD scientific criteria for ecologically or biologically significant areas (EBSAs) (annex I, decision IX/20) include Uniqueness or Rarity; Special importance for life history stages of species; Importance for threatened, endangered or declining species and/or habitats; Vulnerability, Fragility, Sensitivity, or Slow recovery; Biological Productivity; Biological Diversity; and Naturalness. See <https://www.cbd.int/ebsa/> and <https://www.cbd.int/doc/meetings/mar/ebsaws-2014-01/other/ebsaws-2014-01-azores-brochure-en.pdf>

⁹⁹³ Areas of High Biodiversity Value include, but are not limited to: 1) primary forest and other wooded land, that is forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed; 2) highly biodiverse natural grassland (grassland that would remain grassland in the absence of human intervention and which maintains the natural species composition and ecological characteristics and processes); and 3) highly biodiverse non-natural grassland (grassland that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded, unless evidence is provided that the harvesting of the raw material is necessary to preserve its grassland status).

To identify areas of High Biodiversity Value, the scoping process should particularly consider the biodiversity value of natural forests, natural peatlands, and permafrost (e.g. supporting tundra and taiga ecosystems), where relevant.

⁹⁹⁴ As per the IUCN ESMS, areas with high biodiversity value extend to areas identified as High Conservation Value areas (HCV). The HCV approach has been adopted by TNFD, the Accountability Framework Initiative, and by other standards in soft commodities and agricultural products. The analogous six High Conservation Values are:

HCV 1: Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.

HCV 2: Intact forest landscapes and large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.

HCV 3: Rare, threatened, or endangered ecosystems, habitats or refugia.

HCV 4: Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.

HCV 5: Sites and resources fundamental for satisfying the basic necessities of local communities or Indigenous Peoples (for livelihoods, health, nutrition, water, etc...), identified through engagement with these communities or Indigenous Peoples.

HCV 6: Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or Indigenous Peoples, identified through engagement with these local communities or Indigenous Peoples.

⁹⁹⁵ Including natural forests and natural habitats.

⁹⁹⁶ See glossary definitions at the end of the chapter. Modified, natural and critical habitat refers to the biodiversity value of the area as determined by species, ecosystems and ecological processes. In practice, natural and modified habitats exist on a continuum that ranges from largely untouched, pristine natural habitats to intensively managed modified habitats. Critical habitats are a subset of modified or natural habitats. (See: International Finance Corporation. 2012. Performance Standard 6, Guidance Notes. (GN26 and Para.9) https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps6

To identify natural habitats, one can use the Science Based Targets Network map on natural lands (which is also supported by the Task Force on Nature Related Financial Disclosures – TNFD), or to Gosling et al. (2020), developed for compliance with IFC's PS6. Both provide good resource to start delineating what is natural habitat in specific concessions or mining operations and applying the mitigation hierarchy: <https://data-gis.unep-wcmc.org/portal/home/item.html?id=4e2d929b580b40f48513906ca5097140> ; <https://wri-datalab.earthengine.app/view/sbtn-natural-lands>

⁹⁹⁷ NOTE: If ecosystem services have been designated as cultural in nature, this needs to feed into Chapter 3.6 (Cultural Heritage).

⁹⁹⁸ For more on baseline studies, see, e.g., the International Finance Corporation (IFC). 2019. International Finance Corporation's Guidance Notes: Performance Standards on Environmental and Social Sustainability. Performance Standard 6. "Biodiversity Conservation and Sustainable Management of Living Natural Resources" (paragraphs GN9 to GN14). Available at: <https://www.ifc.org/content/dam/ifc/doc/2010/2012-ifc-performance-standards-guidance-note-en.pdf>. and Gullison, T, Hardner, J., Anstee, S. and Meyer, M. 2015. Good Practices for the Collection of Biodiversity Baseline Data. Available at <https://publications.iadb.org/en/good-practices-collection-biodiversity-baseline-data;amongst-other-resources>.

⁹⁹⁹ The IUCN Red List fungi provides some data on fungal species at risk in various geographies. <https://redlist.info/en/iucn/welcome>.

¹⁰⁰⁰ Species of conservation concern or Species of special concern are species that have a high conservation importance in terms of preserving high diversity and include not only threatened species as per the IUCN Red List (e.g., Critically Endangered, Endangered, and Vulnerable) or legislation (e.g., state and/or federal endangered species act or imperiled species act lists, European Birds and Habitats Directive), but also those classified in the categories Extinct in the Wild (EW), Regionally Extinct (RE), Near Threatened (NT), Critically Rare, Rare, Declining and Data Deficient - Insufficient Information (DDD). For example, see <https://speciesstatus.sanbi.org/about/>; <https://wildlife.ca.gov/Conservation/SSC>; <https://myfwc.com/wildlifehabitats/wildlife/>; https://environment.ec.europa.eu/topics/nature-and-biodiversity/habitats-directive_en; https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive_en#.

¹⁰⁰¹ While Chapter 3.7 addresses impacts of noise and vibration on human receptors and structures there may need to be an integrated approach between noise and biodiversity experts. As part of Chapter 4.4 the relevant ENTITY staff working on biodiversity management would be expected to determine if any potentially impacted wildlife specie/s may have important biodiversity value. If the wildlife specie/s constitutes an important biodiversity value that may be significantly affected by noise/vibration, these impacts should be assessed and appropriate avoidance and mitigation measures identified, implemented, monitored and adaptive management measures instituted as per the requirements in other Sections of Chapter 4.4. An integrated approach between noise and biodiversity experts could include consideration of the pressure levels (dB), frequency (Hz/kHz/cps and IRMA STANDARD V2.0 – 2nd DRAFT VERSION

number of occurrences in time), acoustic characteristics (e.g., tonality, impulsivity, intermittence), peak particle velocity (for vibration), duration of noise/vibration, and the biology of the relevant specie/s, amongst other relevant factors. For impacts on wildlife, relevant stakeholders under 4.4.5 may include protected area agency representatives, government biologists, wildlife conservation organizations, academic experts, and community members whose livelihoods or sustenance may be affected if noise/vibration has an adverse impact on wildlife.

¹⁰⁰² This is to include consideration of direct, indirect, and cumulative impacts.

¹⁰⁰³ This is to include consideration of direct, indirect, and cumulative impacts.

¹⁰⁰⁴ Baselines for ecosystem services and identification of associated dependencies (in subrequirement a.) should have been conducted in Chapter 2.1. If it was not, it would need to be carried out as part of this Chapter in order to meet this requirement.

Also, information gathered related to ecosystems services and associated dependencies may need to be integrated into assessments and mitigation measures in other chapters (e.g., Chapter 1.3, 2.2, 2.3, 2.4, 2.5, 2.6, 3.3), with appropriate levels of integration between the relevant chapters.

¹⁰⁰⁵ Ecosystem services related to the project/operation are those services on which the project/operation is directly dependent for its operations (e.g., water for processing, sanitation etc.).

¹⁰⁰⁶ For more on ecosystem services baseline studies, see, e.g., the International Finance Corporation (IFC). 2019. International Finance Corporation's Guidance Notes: Performance Standards on Environmental and Social Sustainability. Performance Standard 6. "Biodiversity Conservation and Sustainable Management of Living Natural Resources" (paragraphs GN2 to GN41, GN105 and 106, and Annex A). Available at: <https://www.ifc.org/content/dam/ifc/doc/2010/2012-ifc-performance-standards-guidance-note-en.pdf>; the World Resources Institute's Weaving Ecosystem Services into Impact Assessment: A Step-By-Step Method Version 1.0 and associated appendices and tools. Available at <https://www.wri.org/research/weaving-ecosystem-services-impact-assessment>; Peh et al. 2022. Toolkit for Ecosystem Service Site-based Assessment (TESSA) Version 3.0. Available at <https://www.birdlife.org/assets/TESSA-v3.pdf> and <https://tessa.tools/>; and Neugarten et al. 2018. Tools for measuring, modelling, and valuing ecosystem services: Guidance for Key Biodiversity Areas, natural World Heritage Sites, and protected areas. Gland, Switzerland: IUCN. Available at <https://portals.iucn.org/library/node/47778>; amongst others.

¹⁰⁰⁷ While Chapter 3.7 addresses impacts of noise and vibration on human receptors and structures there may need to be an integrated approach between noise and biodiversity experts. As part of Chapter 4.4 the relevant ENTITY staff working on biodiversity management would be expected to determine if any potentially impacted wildlife specie/s may provide ecosystem services (e.g., food sources, clothing, pollination, seed dispersion, pest control, nutrient cycling, etc.) that are important to affected communities. If the wildlife specie/s that provide ecosystem services may be significantly affected by noise/vibration, these impacts should be assessed and appropriate avoidance and mitigation measures identified, implemented, monitored and adaptive management measures instituted as per the requirements in other Sections of Chapter 4.4. An integrated approach between noise and biodiversity experts could include consideration of the pressure levels (dB), frequency (Hz/kHz/cps and number of occurrences in time), acoustic characteristics (e.g., tonality, impulsivity, intermittence), peak particle velocity (for vibration), duration of noise/vibration, and the biology of the relevant specie/s, amongst other relevant factors. For impacts on wildlife, relevant stakeholders under 4.4.5 may include protected area agency representatives, government biologists, wildlife conservation organizations, academic experts, and community members who are beneficiaries of the identified ecosystem services that may be at risk from the effects of noise/vibration on wildlife.

¹⁰⁰⁸ This is to include consideration of direct, indirect, and cumulative impacts.

¹⁰⁰⁹ E.g., Peer review should be undertaken by an academic institution or environmental NGO with experience in biodiversity assessments. Also, the personnel responsible for carrying out the peer-review or assessment are expected to be competent professionals (i.e., in-house staff or external consultants with relevant education, knowledge, proven experience and necessary skill-sets and training to carry out the required work. Competent professionals are expected to follow scientifically robust methodologies to carry out their work). Their assessment should be done using the most recent geographic layers.

¹⁰¹⁰ Including through land use and land degradation.

¹⁰¹¹ Assessment of risk and impacts on ecosystem services and their beneficiaries (in subrequirement 4.4.2) should have been done in Chapter 2.1. If it was not, it would need to be carried out as part of this Chapter in order to meet this requirement.

¹⁰¹² This section is meant to align with many other standards and guidelines that address impacts on biodiversity, such as IFC's Performance Standard 6 (see Para. 10 and 14) and the KBA Partners Guidelines on Business and KBAs (KBA Partners. 2018. Guidelines on Business and KBAs: Managing Risk to Biodiversity. <https://portals.iucn.org/library/sites/library/files/documents/2018-005-En.pdf>)

¹⁰¹³ Avoidance may be achieved, for example through changes in project designs, technologies, processes, siting of facilities. Alternative locations such as brownfield sites may be feasible for mineral processing facilities. For mines, some facilities such as open pits, will necessarily be tied to a specific location due to the location of the ore, however, there should be options to move other facilities and infrastructure to alternative locations, some of which may already have been developed/brownfields.

¹⁰¹⁴ Whilst it is recognized that there may be limits to the avoidance of impacts from core mine operations (e.g., mine pits, mine shafts), avoidance should be assessed and implemented to the greatest extent practically possible, particularly for ancillary infrastructure (e.g., waste rock dumps, tailings storage facilities, pollution control dams, maintenance yards, mine offices etc.). This includes prioritizing avoidance of impacts on the ecological processes and habitats (including natural forests, and critical and natural habitats) necessary to support the identified biodiversity, ecosystem services and conservation values.

¹⁰¹⁵ Evaluations must include clear rationale as to why identified avoidance measures are not deemed possible.

¹⁰¹⁶ Including those related to land use change of natural forests and natural habitats, and deforestation.

¹⁰¹⁷ Evaluations must include clear rationale as to why no additional minimization measures are feasible.

¹⁰¹⁸ Evaluations must include clear rationale as to why further restoration is not possible in cases where all proposed avoidance, minimization and restoration measures will still result in residual impacts.

¹⁰¹⁹ 1) Prioritize avoidance/prevention of impacts on, and risks to, important biodiversity values, and the supporting ecological processes and habitats supporting them (including natural forests, and critical and natural habitats); and 2) Where avoidance/prevention is not possible, prioritize minimization of impacts and risks, before restoring biodiversity, and the supporting ecological processes and habitats supporting them (including natural forests, and critical and natural habitats). It is recognized that there may be limits to the avoidance of impacts from core mine operations (e.g., mine pits, mine shafts). Avoidance related to ancillary infrastructure (e.g., waste rock dumps, tailings storage facilities, pollution control dams, maintenance yards, mine offices etc.) should be assessed and implemented to the greatest extent practically possible. Entities must provide an analysis and rationale for when a step cannot be fully achieved; and determine residual impacts.

¹⁰²⁰ Management of risks and impacts on ecosystem services and the beneficiaries of those services (in subrequirement b.) should have been done in Chapter 2.1. If it was not, it would need to be carried out as part of this Chapter in order to meet this requirement.

¹⁰²¹ 1) Prioritize avoidance/prevention of impacts on, and risks to, ecosystem services; and 2) Where avoidance/prevention is not possible, prioritize minimization of impacts and risks, before restoring ecosystem services. This includes prioritizing avoidance of impacts on the ecological processes and habitats necessary to support the ecosystem services. It is recognized that there may be limits to the avoidance of impacts from core mine operations (e.g., mine pits, mine shafts). Avoidance related to ancillary infrastructure (e.g., waste rock dumps, tailings storage facilities, pollution control dams, maintenance yards, mine offices etc.) should be assessed and implemented to the greatest extent practically possible. Entities must provide an analysis and rationale for when a step cannot be fully achieved; and determine residual impacts.

¹⁰²² Indicators should be quantitative to the greatest extent practically possible, but qualitative at a minimum.

¹⁰²³ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

¹⁰²⁴ Examples of guidance include Forest Trends' Business and Biodiversity Offsets Programme tools and publications (BBOP, 2018). Available at <https://www.forest-trends.org/bbop/resources>; Guidance on achieving no net loss or net gain of biodiversity and ecosystem services (IEEP, 2020), The many meanings of no net loss in environmental policy (Maron et al, 2018), Good Practice Requirements for Delivering Biodiversity Net Gain (On- and Off-Site) (CIEEM, 2021), and Ensuring No Net Loss for people and biodiversity: good practice principles (Bull et al, 2018), amongst others.

¹⁰²⁵ No Net Loss and Net Gain should be calculated considering historical baseline conditions (i.e., pre-project condition, including prior to exploration activities) and the biodiversity currency/ies or metric/s for each biodiversity feature that will be lost, amongst other considerations in alignment with current credible methodologies.

¹⁰²⁶ This includes but is not limited to habitat conversion, loss, or degradation.

¹⁰²⁷ As per the definitions in Regulation (EU) 2023/1115 of the European Parliament and of the Council (i.e., EU Deforestation Regulation).

¹⁰²⁸ This includes but is not limited to habitat loss or degradation.

¹⁰²⁹ As per the definitions in Regulation (EU) 2023/1115 of the European Parliament and of the Council (i.e., EU Deforestation Regulation).

¹⁰³⁰ This requirement is aligned with and in support of paragraph 82 of the preamble of Regulation (EU) 2023/1115 of the European Parliament and of the Council (i.e., EU Deforestation Regulation) in recognition of the global importance of natural ecosystems that are not Primary Forest and Natural Regenerating Forest.

¹⁰³¹ Examples of guidance include Nelson et al. 2024. Standards of practice to guide ecosystem restoration – A contribution to the United Nations Decade on Ecosystem Restoration 2021-2030. Rome, FAO, Washington, DC, SER & Gland, Switzerland, IUCN CEM; Gann et al. 2019. International principles and standards for the practice of ecological restoration. Second edition. Restoration Ecology S1-S46; Young et al. 2022. International principles and standards for the ecological restoration and recovery of mine sites. Restor Ecol, 30: e13771; and Bartholomew and Mosyftiani et al. 2024. The Global Biodiversity Standard: Manual for assessment and best practices. BGCI, Richmond, UK & SER, Washington, D.C. USA.

¹⁰³² IUCN. 2023. Global Standard for Nature-based Solutions. A user-friendly framework for the verification, design and scaling up of NbS. First edition. Gland, Switzerland: IUCN. Available at <https://www.iucn.org/news/europe/202007/iucn-global-standard-nbs>

¹⁰³³ Unless the operation was in place prior to the area's official designation. In such a case, the ENTITY is required to either: a) cease activities and remove infrastructures from such areas; or b) develop a justification for why activities are maintained in such areas and develop and implement an area management plan in accordance with 4.4.4.2 and 4.4.4.3. Note that this does not exempt the ENTITY from demonstrating conformance with all other relevant requirements across the Standard (especially related to ESIA, concurrent reclamation, closure and post-closure, Indigenous Peoples rights and FPIC).

If the scope includes exploration activities that were in place prior to the area's official designation, to meet this requirement the Entity would need to cease those exploration-related activities, remove infrastructure, and reclaim the area as per Chapter 2.7.

¹⁰³⁴ Including regional, national, sub-national and local legally protected areas. In case the areas listed in 4.4.4.1 are legally protected, requirement 4.4.4.1 supersedes the provisions of 4.4.4.2.

¹⁰³⁵ Other relevant requirements include 4.4.1.1, 4.4.1.2, 4.4.2.1, 4.4.2.2, and 4.4.2.3.

¹⁰³⁶ I.e., if there is the potential that the project/operation will impact important conservation values of the protected or conserved area.

¹⁰³⁷ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

¹⁰³⁸ If Ramsar sites are in areas classified as IUCN protected area management categories I-III, see requirement 4.4.4.1.

¹⁰³⁹ I.e. operational. This excludes exploration; exploration activities prior to the area's official designation do not constitute "the operation" for this requirement.

¹⁰⁴⁰ E.g., Peer review should be undertaken by an academic institution or environmental NGO with experience in biodiversity assessments. Also, the personnel responsible for carrying out the peer-review or assessment are expected to be competent professionals (i.e., in-house staff or external consultants with relevant education, knowledge, proven experience and necessary skill-sets and training to carry out the required work. Competent professionals are expected to follow scientifically robust methodologies to carry out their work).

¹⁰⁴¹ Other relevant requirements include 4.4.1.1, 4.4.1.2, 4.4.2.1, 4.4.2.2, and 4.4.2.3.

¹⁰⁴² If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

¹⁰⁴³ Unless a longer period is required through a regulatory process. Implications for finalizing any update may vary depending on the jurisdiction. The intent is to ensure that a period of at least 60 days is offered for consultation and feedback on the scoping process; then, once the scoping process is formally finalized, another period of at least 60 days is offered for consultation and feedback on the scoping report; then, once the scoping report is formally finalized, another period of at least 60 days is offered regarding baseline data collection; and so on through risk and impact assessment, and the ESIA report.

¹⁰⁴⁴ For risks and impacts related to ecosystem services, this includes consultation to identify priority ecosystems services for affected communities.

¹⁰⁴⁵ For more on meaningful stakeholder engagement see Chapter 1.2, requirement 1.2.2.2.

¹⁰⁴⁶ This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

¹⁰⁴⁷ If new information on increased or additional risks to biodiversity or ecosystem services becomes available during the life cycle of the project/operation, or if monitoring indicates that mitigation measures are not being effective (see 4.4.8 and 4.4.9); and whenever there are proposed changes to mining-related activities, significant changes to the physical footprint, a new significant impact or risk, or changes in the operational, environmental, or social context that may create new risks to biodiversity, ecosystem services or protected and conserved areas or change the nature or degree of an existing impact. This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁰⁴⁸ If new information on increased or additional risks to biodiversity or ecosystem services becomes available during the life cycle of the project/operation, or if monitoring indicates that mitigation measures are not being effective (see 4.4.8 and 4.4.9); and whenever there are proposed changes to mining-related activities, significant changes to the physical footprint, a new significant impact or risk, or changes in the operational, environmental, or social context that may create new risks to biodiversity, ecosystem services or protected and conserved areas or change the nature or degree of an existing impact. This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁰⁴⁹ If new information on increased or additional risks to biodiversity or ecosystem services becomes available during the life cycle of the project/operation, or if monitoring indicates that mitigation measures are not being effective (see 4.4.8 and 4.4.9); and whenever there are proposed changes to mining-related activities, significant changes to the physical footprint, a new significant impact or risk, or changes in the operational, environmental, or social context that may create new risks to biodiversity, ecosystem services or protected and conserved areas or change the nature or degree of an existing impact. This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹⁰⁵⁰ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

¹⁰⁵¹ Including explanations for why mitigation hierarchy steps of avoidance, minimization and restoration were not sufficient to prevent residual impacts. See 4.4.2.2 (and associated endnotes).

¹⁰⁵² All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

¹⁰⁵³ This is aligned with the GRI 101: Biodiversity 2024 Standard.

¹⁰⁵⁴ IFC. 2012. Performance Standard 6— Biodiversity Conservation and Sustainable Management of Living Natural Resources with Guidance Notes. Available at: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>

KBA Partners. 2018. Guidelines on Business and KBAs: Managing Risk to Biodiversity. <https://portals.iucn.org/library/sites/library/files/documents/2018-005-En.pdf>

¹⁰⁵⁵ For more information see Dudley, N. 2008. Guidelines for Applying Protected Area Management Categories. <https://portals.iucn.org/library/sites/library/files/documents/pag-021.pdf>



Chapter 4.5

Air Quality and Dust Management

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Added “Dust Management” to the title, to reflect its scope.
- Removed mentions of beneficiation as this is now considered part of mineral processing.
- Added references to endnotes to support air quality monitoring.
- Clarified expectations around dust management and monitoring.
- Moved two requirements under Air Quality Management to Continuous Improvement (which is a new section). The requirements relate to corrective measures and evaluating the effectiveness of mitigation measures.
- Fixed the confusing mistake between limit values for air emission versus ambient air quality. The Standard requires to demonstrate compliance for ambient air, not air emissions. We are not aware of applicable limit values for emissions at the source, e.g. exhaust, stack or chimney outlet, in the mining sector to draw upon, largely because this is too context-specific.
- The European Parliament has now adopted a revised law that will substantially lower ambient air quality limits by 2030. The former Table 4.3 (now Annex 4.5-A) is modified to include limits and permitted exceedances/year for EU values required to be met by 2030. Annex 4.5-B (WHO’s AQG limits) is included for comparison. Most of WHO’s AQGs are lower (more stringent) than those in Annex 4.5-A. However, WHO doesn’t have air quality limits for the metals in Annex 4.5-A, so for consistency, EU’s limit values and allowable exceedances are recommended to be used.
- Created a Table for IRMA Dust Deposition Criteria (Annex 4.5-C), based on the reference used in the 2018 IRMA Standard V1.0, complemented with additional, more recent, sources from various countries.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Decision
4.3-01 (4.3.1)	Question: Do you agree with the two requirements proposed below? Would you add any potential sources or categories of contaminants of potential concern? 4.3.1.1. The ENTITY identifies all potential sources of air emissions (including fugitive emissions) from the project/operation and associated facilities, including, as relevant:... 4.3.1.2. For each air emission source, the ENTITY identifies the contaminants of potential concern (COPCs), including...	Feedback: (4): 1 mining: Yes, remove ozone and add HAPS. 1 purchaser: add CO₂. 1 consultant: add leaching and tailings facilities. 1 mining: agrees with both. Proposed decision: Based on input from stakeholders, we propose to retain the proposed 4.3.1.1. and 4.3.1.2 (now 4.5.1.1.a and b). In the list of COPCs in 4.5.1.1.b we will retain ozone because smelting, certain processing operations, and fuel combustion can generate ozone emissions. The HAPS list would add 188 pollutants, most of which are not relevant for mining and mineral processing operations, so they are not included. Mercury will be added to Table 4.3 (Now Annex 4.5-A). We will not add CO₂ e (carbon dioxide equivalent) as it does not have numeric limits in the standards or guidelines that we have found. We will add mine haul roads and service and access roads to guidance as examples of Roads in 4.5.1.1.a.
4.3-02 (4.3.6.1)	Question: We are proposing that all entities measure their <u>air quality emissions</u> against the standards in Table 4.3, so that there is comparability between sites, but then offer a menu of how they might mitigate any exceedances of the air quality limits. The options align with the options that were proposed in the 2018 Mining Standard. Do you agree with this approach? NOTE THAT 4.3.6.1 REFERS TO AMBIENT AIR QUALITY MEASUREMENTS, NOT AIR QUALITY EMISSIONS. See disclaimer opposite.	Disclaimer: The wording in this consultation question is in error – it refers to emissions generated by the site, but the criteria in Table 4.3 (now Annex 4.5-A) are for ambient air quality monitoring. This was unfortunately a mistake in the IRMA 2018 Standard too, as expectations were confusing and contradictory between direct emissions and ambient air. Feedback: 5 responses received (3 mining, 1 finance, 1 consultant). Four agree, while 1 disagrees – arguing that this approach is too cumbersome and would require modeling. The same respondent suggests to use EPA's National Ambient Air Quality Standards (NAAQS) as the requirement instead of the EU standards in Annex 4.5-A. Note: The pollutants listed in Table 4.3 (now Annex 4.5-A) that are not in EPA's NAAQS list are benzene, As, Cd, Ni, and PAHs. Note that all but benzene are target values, not limit values. EU guidance says that "For a target value, the obligation is to take all necessary measures that do not entail disproportionate costs to ensure that it is attained, and so it is less strict than a limit value." Also, Pb seems to be the only parameter that is measured "in the immediate vicinity of specific, notified industrial sources." (see https://environment.ec.europa.eu/topics/air/air-quality/eu-air-quality-standards_en). However, for the updated EU limits (to be met by 2030), all are for ambient air quality monitoring. We are not aware of applicable limit values for emissions at the source, e.g. exhaust, stack or chimney outlet, in the



		mining sector to draw upon, largely because this is too context-specific. Proposed decision: The monitoring and compliance sections of the chapter (4.5.4 and 4.5.7, respectively) have been refocused on ambient air quality, and therefore the alternative risk-bases approach to address air emissions (at the sources) has been removed. Continue to align IRMA air quality criteria with EU standards (see Annex 4.5-A), with addition of mercury.
4.3-03 (4.3.7.1)	Question: In addition to disclosure requirements, some IRMA chapters require annual reporting to stakeholders on the ENTITY's management of the issues. In some cases, the reporting is to stakeholders generally (e.g., reporting on human rights due diligence), and in other cases, it involves more active discussion with relevant stakeholders, which tend to be the affected communities, on the issues (e.g., annual discussions on water management). Should IRMA require that entities report to stakeholders, or that they meet with and discuss air quality issues with affected communities? Or should IRMA not require this (and assume that if it is an important issue to stakeholders, that they will request such meetings with the ENTITY)?	Responses (7): Four say it should not be a requirement (3 mining + 1 finance), and three say it should (1 mining + 1 purchaser + 1 consultant). 1 finance and 1 mining had identical responses – could report air quality data annually if also holding annual discussion on other environmental topics but should not be mandatory. 1 mining suggests air emissions data could be reported annually but not ambient air quality data. 1 purchaser + 1 consultant say should be required if air quality impact is significant according to risk assessment. Proposed decision: If ambient air quality monitoring data exceed the IRMA Air Quality Criteria provided in Annex 4.5-A as a result of the project, or a dust deposition from project activities exceeds the value provided in Annex 4.5-C, the ENTITY is required to meet with the affected communities annually. This requirement is now 4.5.9.1.



BACKGROUND

Mine and mineral processing sites can release significant quantities of air contaminants such as gases, fumes, vapors, and dust. By volume, the great majority of air contaminants from mine sites is in the form of particulate matter, such as dust from blasting, conveyors, and ore crushing. Mineral processing facilities, which often use high temperature processes, may also generate large volumes of gaseous emissions, including fine particulates that can carry metals and metalloids. Particulate matter and other emissions such as organic pollutants and sulfur can adversely affect human health and the environment.

Mines and processing sites may emit contaminants from diffuse sources, such as fugitive dust emitted by blasting or truck traffic, or wind-blown dust from exposed surfaces such as roads, pits, and waste piles, and the dried surfaces of tailings impoundments. Some releases can be controlled with reasonably inexpensive measures. However, a mine's typically large geographic footprint makes control especially important and sometimes difficult. The most common method of dust control is spraying water - such as by truck on roads and near blasting activities. Chemical additives, such as magnesium chloride, may be added to increase the effectiveness and durability of dust suppression on mine roads.

Mineral processing, smelting and refining operations can produce more localized air emissions from include units that involve pyrometallurgical, hydrometallurgical and electrometallurgical processes. The range of contaminants contained in off-gases and other process emissions depend on the commodity being processed, impurities present in the feed, and mineral processing method employed. Off-gases and other emissions may be generated in an enclosed environment (where capture for subsequent treatment is less challenging) or in an open environment (where capture may be difficult or incomplete). The control mechanisms for process emissions are often expensive and technically complex. The common methods for controlling these emissions include technologies such as acid plants (specifically for the capture of sulfur dioxide), bag houses, electrostatic precipitators, and wet and dry scrubbers.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- Convention on Persistent Organic Pollutants (Stockholm Convention), 2001



OBJECTIVES/INTENT OF THIS CHAPTER

To protect human health and the environment from airborne contaminants and dust.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is no (0) optional IRMA+ requirement in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

IRMA Requirements

4.5.1 Characterization and Scoping



4.5.1.1 A characterization process (or equivalent) is undertaken and documented by competent professionals to characterize sources of air emissions from the site and its associated facilities, and associated Contaminants of Potential Concern (COPCs) as follows:

- a. The process identifies and describes all potential sources of air emissions (including fugitive emissions) from the site and associated facilities, including, as relevant¹⁰⁵⁶: 1) Mining, ore handling and transportation, grinding, crushing; 2) Mineral processing, including thermal treatments and electrolytic processes; 3) Mobile equipment; 4) Stationary equipment; 5) Power plants, and, if relevant, fuel handling and transportation¹⁰⁵⁷; 6) Water treatment plants; 7) Waste handling, treatment, and disposal¹⁰⁵⁸; and 8) Roads;
- b. It identifies and describes the COPCs, including, as relevant¹⁰⁵⁹: 1) Particulate matter (PM₁₀, PM_{2.5}); 2) Sulfur dioxide¹⁰⁶⁰; 3) Nitrogen oxides (NO and NO₂); 4) Carbon monoxide; 5) Ozone; 6) Polycyclic Aromatic Hydrocarbons (PAH); 7) Volatile organic compounds (including benzene); 8) Acids; 9) Persistent organic pollutants;¹⁰⁶¹ 10) Metals and metalloids¹⁰⁶²; and 11) Radionuclides¹⁰⁶³; and
- c. It uses credible methodologies, and the methodologies are documented.



4.5.1.2 A scoping process (or equivalent) is undertaken and documented by competent professionals, in collaboration with affected rights-holders and stakeholders, to identify potential receptors and potential values that may be affected by air contaminants or dust from the site and its associated facilities, and to identify the sources of air emissions that are 'significant', as follows: It includes the following potential receptors and values:

- a. It identifies individuals, communities, soils, water bodies, or cultural heritage sites that may be affected by emissions, deposition or dispersion of the identified COPCs;
- b. It identifies potentially underserved and/or marginalized people within nearby affected communities, or individuals in nearby residences, who may be **particularly sensitive receptors** of the identified COPCs¹⁰⁶⁴;
- c. It identifies plants, animals, or fungi with known sensitivity to the identified COPCs;
- d. It identifies receptors that may be affected by dust or odors;
- e. It identifies individuals, animals, cattle, plants, crops, water bodies, and cultural heritage sites that may be affected by dust and dust deposition;
- f. It identifies areas with scenic values that may be affected by haze;
- g. It defines the criteria used to identify levels of significance of air emissions;
- h. It estimates emissions of COPCs identified in 4.5.1.1.b from each potential emissions source identified in 4.5.1.1.a, based on proposed or actual operational characteristics, using credible methodologies; and
- i. It documents the rationale for why certain facilities, activities or processes are considered to be minor or insignificant sources of emissions of air contaminants or dust.

4.5.2 Baseline/Background Data



4.5.2.1 Data on baseline (or background) air quality are gathered by competent professionals, as follows:

- Data are gathered in sufficient detail to reliably determine the sources of air contamination that are related to the site and its associated facilities, and the changes in air quality that are unrelated to the site and its associated facilities; and
- Data include measurement of the ambient concentrations of all identified COPCs¹⁰⁶⁵.

4.5.3 Risk and Impact Assessment



4.5.3.1 If the scoping required in 4.5.1.2, or any other credible information¹⁰⁶⁶, indicates that air emissions and/or dust deposition from the site or its associated facilities may adversely impact human health, quality of life, livelihoods, or the environment, a risk and impact assessment is carried out and documented by competent professionals, in collaboration with affected rights-holders and stakeholders, to identify and assess, for each identified risk and impact:

- The level of risk posed to, and the magnitude of impact on, health, quality of life, and livelihoods;
- The level of risk posed to, and the magnitude of impact on, the environment; and
- This risk and impact assessment uses a credible methodology, and the methodology used is documented.



4.5.3.2 This risk and impact assessment is informed by a modelling of the emissions, deposition, and dispersion of COPCs which:

- Includes estimation of potential emissions on a contaminant-by-contaminant basis, and under various operational scenarios including maximum emissions during maximum production levels;
- Includes estimation of potential emissions at potentially sensitive receptors (e.g., residences, water bodies, ecosystems) under the worst-case dispersion conditions; and
- Is evaluated annually and updated, as necessary, through an iterative process using the results of the ambient air quality and dust monitoring program (see 4.5.4)¹⁰⁶⁷.

4.5.4 Ambient Air Quality and Dust Monitoring Program



4.5.4.1 Building on 4.5.3, an air quality monitoring program (or equivalent) is developed and implemented by competent professionals to monitor relevant COPCs in ambient air, and/or to monitor dust deposition¹⁰⁶⁸, as follows:

- The locations of the ambient air quality and dust monitoring stations are in sufficient number to provide reliable data on air quality/contamination, and dust deposition, across the site' area of influence and relevant transportation routes;
- The monitoring locations¹⁰⁶⁹ provide a representative sampling of air quality and dust deposition sufficient to detect air quality and dust impacts on affected receptors and values; and
- The monitoring stations are equipped to monitor all contaminants or dust deposition levels that have a reasonable potential to adversely affect identified receptors and values, and are capable of measuring parameters at the appropriate levels described in the IRMA Air Quality Criteria Table (see Annex 4.5-A)¹⁰⁷⁰



- 4.5.4.2** If mercury is detected in ore, concentrate, or mining facilities (including tailings, heap leaches, waste rock), as determined in 4.1.2.1 and/or 4.5.1.1, the ENTITY has a system in place to ensure that:
- Best available techniques (BAT) and best environmental practices (BEP) are used to control fugitive gaseous and dust emissions associated with crushing, grinding, handling, and transporting of ore, concentrate and/or disposal of waste materials containing mercury, unless the ENTITY can demonstrate that fugitive emissions (gaseous and dust) from certain sources are unlikely to pose a significant risk to human health or the environment;
 - These BAT and BEP are Implemented at mineral processing or smelting facilities that use thermal processes¹⁰⁷¹, unless the ENTITY can demonstrate that air emissions (gaseous and dust) from the facility are unlikely to pose a significant risk to human health or the environment¹⁰⁷²;
 - Mercury is included in the ambient air monitoring program;
 - Direct releases of mercury to the atmosphere from ore treatment and/or mineral processing or smelting facilities that use thermal processes¹⁰⁷³ are monitored and documented;
 - Fugitive emissions are monitored and documented¹⁰⁷⁴, or the ENTITY provides best estimates for these emissions;
 - The amount of mercury recovered or captured as by-product in mercury emission control systems is monitored and documented;
 - The concentrations of mercury in soils, water, sediment, and biota downwind of the emissions sources¹⁰⁷⁵ are monitored and documented; and
 - The ENTITY collaborates with ~~affected rights-holders and stakeholders~~ to develop and implement a mercury monitoring plan (or equivalent) to monitor and document mercury levels in their blood, urine, and hair, and in any significant food sources that may be affected by the emissions;

4.5.5 Air Quality Management



- 4.5.5.1** Building on 4.5.3 and 4.5.4, if significant potential or actual impacts on air quality are identified, an air quality management plan (or equivalent) is developed and documented by competent professionals as follows:
- The plan outlines mitigation measures that strictly align with the ~~mitigation hierarchy~~ to first avoid and, where that is not possible, minimize adverse impacts on human health and the environment (including impacts to land, soil, water, and vegetation);
 - It identifies key air quality indicators that will best characterize the potential effects, and includes trigger levels to provide early warning of ambient air pollution¹⁰⁷⁶;
 - It includes general responsive (adaptive management) measures to be taken if trigger levels or other thresholds are reached, and estimated timelines for completion of measures;
 - It assigns implementation of measures to responsible staff with adequate skills and expertise;
 - It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping¹⁰⁷⁷;
 - It has an implementation schedule in place;
 - It specifies annual, or more frequent, reviews of the effectiveness of the measures implemented;
 - It maintains estimates of human resources and budget required; and
 - It includes a financing plan to ensure that funding is available for the effective implementation of the plan.



- 4.5.5.2** The air quality management plan required in 4.5.5.1 includes the creation of an action plan (or equivalent) if exceedance of IRMA Ambient Air Quality Criteria (see 4.5.4.1) or other applicable thresholds is confirmed, as follows:
- Determination of the areal extent of the impacts, and investigation of the cause/source of the exceedance;
 - If the cause/source is located in an airshed where baseline air quality was already degraded beyond the IRMA Ambient Air Quality Criteria (see [Annex 4.5-A](#)), determination of the extent to which emissions from site-related activities, alone, exceed the IRMA Ambient Air Quality Criteria (or not);
 - Evaluation and selection of adaptive management measures developed as per 4.5.5.1.c, and/or development of additional or different measures that are likely to correct the exceedance or minimize adverse impacts (or, where baseline air quality was already degraded, to make incremental improvements to the air quality in the airshed that are at least equivalent to the site's own emissions), and documentation in a corrective action plan¹⁰⁷⁸;
 - Development of estimated timeline and budget needed to implement these corrective measures, and a financing plan to ensure that funding is available for effective implementation of the corrective measures; and
 - Implementation of those corrective measures.



- 4.5.5.3** The ENTITY has a system in place to ensure that air pollution control equipment is inspected and calibrated on a regular basis, by competent professionals:
- To verify that the equipment was installed and is being maintained in accordance with vendor instructions;
 - To verify that the equipment is operating as expected; and
 - Inspection dates and observations are documented and recorded by the ENTITY.



- 4.5.5.4** The ENTITY has a system in place for unwanted events related to air quality¹⁰⁷⁹ that is carried out by competent professional, as follows:
- Taking and documenting corrective measures to minimize air emissions from unwanted events, and additional ambient air quality and dust sampling and analyses to determine potential exceedance of ambient air quality and dust levels as per Annex 4.3-A and 4.3-C respectively;
 - For high-potential incidents (HPI) or incidents that exceed the air quality levels (as determined in a.), carrying out and documenting a root cause-analysis to determine the cause¹⁰⁸⁰ of the unwanted event; and
 - Closing out actions from the root cause analysis, and updating the air quality management plan (or equivalent) to prevent similar occurrence of high-potential incidents or incidents that exceed the air quality levels.

4.5.6 Dust Management



4.5.6.1 Building on 4.5.4, if significant potential or actual impacts related to dust emission or deposition are identified, or monitoring in 4.5.4.1 confirms an exceedance of the IRMA Dust Deposition Criteria in [Annex 4.5-C](#), a dust management plan (or equivalent) is developed and documented by competent professionals, as follows:

- a. It outlines mitigation measures that strictly align with the mitigation hierarchy to first avoid and, where that is not possible, minimize adverse impacts on individuals, animals, cattle, plants, crops, water bodies, or cultural heritage sites,;
- b. It identifies key dust indicators that will best characterize the potential effects;
- c. It assigns implementation of measures to responsible staff with adequate skills and expertise;
- d. It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping¹⁰⁸¹;
- e. It has an implementation schedule in place;
- f. It specifies annual, or more frequent, reviews of the effectiveness of the measures implemented;
- g. It maintains estimates of human resources and budget required; and
- h. It includes a financing plan to ensure that funding is available for the effective implementation of the plan.

4.5.7 Monitoring and Evaluation



4.5.7.1 To monitor and evaluate the effectiveness and appropriateness of its measures to prevent, mitigate, and remediate all risks and impacts to air quality and related to dust, at least annually, and building on the ambient air and dust monitoring program required in Section 4.5.4, the ENTITY:

- a. Tracks and documents its performance on air quality and dust management, over successive time periods, against the key indicators and trigger levels defined in 4.5.5.1 and 4.5.6.1;
- b. If applicable, tracks and documents the effectiveness of the measures implemented to correct all exceedance of any IRMA Ambient Air Quality Criteria or other applicable thresholds, as per 4.5.6.3 and
- c. Encourages and facilitates joint monitoring and joint tracking with affected communities, in a manner that is inclusive of different genders, ages, ethnicities, and any potentially underserved and/or marginalized people, as per Chapter 1.2¹⁰⁸².

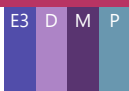
4.5.8 Continuous Improvement



4.5.8.1 At least annually, but without undue delay after a significant change, the ENTITY collaborates with affected rights-holders and stakeholders to:

- a. Review the ENTITY's ability to demonstrate that air quality parameters/contaminants measured at points of compliance are in compliance with relevant regulatory and permit requirements in the jurisdiction;
- b. Review the ENTITY's ability to demonstrate that air quality parameters/contaminants measured at points of compliance are: 1) Being maintained at baseline or background levels for relevant parameters, which in some cases could exceed IRMA Ambient Air Quality Criteria (see Annex 4.5-A); or 2) Being maintained at levels that are protective of the identified receptors and values, as per the IRMA Ambient Air Quality (see Annex 4.5-A); or 3) Being maintained at levels or conditions compliant to country of operation's regulatory requirements that are more protective than IRMA Ambient Air Quality Criteria, or that fill gaps where no IRMA Ambient Air Quality Criteria exist;
- c. Review the ENTITY's ability to demonstrate that dust deposition from project-related activities measured at points of compliance¹⁰⁸³ does not exceed the IRMA Dust Deposition Criteria (See Annex 4.5-C);
- d. Review the results of the monitoring and evaluation required in 4.5.7, and the effectiveness of the mitigation measures and management measures it implements;
- e. Develop and implement time-bound corrective measures to update, if necessary¹⁰⁸⁴, the risk and impact assessment, including the conception of numerical models, in accordance with Section 4.5.3;
- f. Develop and implement time-bound corrective measures to update, if necessary¹⁰⁸⁵, its ambient air and dust monitoring program, in accordance with Section 4.5.4; and
- g. Develop and implement time-bound corrective measures to update, if necessary¹⁰⁸⁶, its management plans to improve air quality and dust management outcomes, in accordance with Sections 4.5.5 and 4.5.6

4.5.9 Information-Sharing and Public Reporting



4.5.9.1 Critical Requirement

The ENTITY:

- a. Demonstrates publicly that it was able to maintain, for at least the last twelve months, all air quality and dust deposition parameters/contaminants measured at points of compliance: 1) in compliance with relevant regulatory and permit requirements in the jurisdiction; and 2) within one of the scenarios listed in 4.5.8.1.b for air quality, and listed in 4.5.8.1.c for dust deposition;
- b. If, and whenever, exceedance of IRMA Ambient Air Quality Criteria or IRMA Dust Deposition Criteria, or another threshold is confirmed, it creates a report summarizing the corrective measures required in 4.5.5.3, their outcome, and needed changes to improve the effectiveness of implemented mitigation measures identified in Section 4.3.6; and
- c. Makes and maintains publicly accessible this report, and proactively shares it with affected rights-holders and stakeholders in a timely, meaningful, accessible, and culturally appropriate way, in accordance with Section 1.2.3.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

Air quality standards and requirements were reviewed for various countries, focusing on the most expansive, standards (those of the European Union, Canada, Australia, and United States). With the goal in mind of adopting a standard that would evolve over time the decision was made to adopt the European Union's (EU) numeric air quality standards. The EU's stands out for its breadth of contaminants including some known to be released during mining and mineral processing (in particular, metal and metalloid contaminants such as nickel, lead, cadmium, arsenic).¹⁰⁸⁷ Further, like many developed national standards, EU's air quality standards were developed to be comprehensive, transparent, and enduring. Finally, the EU's air quality standards are evolving and therefore predicating IRMA's air quality standard on them will ensure that IRMA's air quality standards also evolve.

¹⁰⁵⁶ This should have been done during ESIA for proposed projects. If not, then it needs to be done for operations. As per the rest of the Standard, the ENTITY must provide supporting evidence that demonstrates that a potential item is not relevant.

¹⁰⁵⁷ E.g., coal, diesel, etc.

¹⁰⁵⁸ This in mine wastes (e.g., tailings, waste rock), as well as non-hazardous and hazardous wastes produced by the project/operation.

¹⁰⁵⁹ This should have been done during ESIA for proposed projects. If not, then it needs to be done for operations. As per the rest of the Standard, the ENTITY must provide supporting evidence that demonstrates that a potential item is not relevant.

¹⁰⁶⁰ E.g., from sulfur in fuels and feed materials or from thermal treatment of sulfide ores.

¹⁰⁶¹ Persistent organic pollutants include, for example, polychlorinated biphenyls (PCBs), polychlorinated dibenzo-p-dioxin, and dibenzofuran (PCDD/F), polychlorinated naphthalenes, and others. These may be by-products from industrial processes or combustion, including smelting (e.g., see: Yang et al. 2020. Concentrations and profiles of persistent organic pollutants unintentionally produced by secondary nonferrous metal smelters, Chemosphere. 255:126958.

<https://www.sciencedirect.com/science/article/abs/pii/S0045653520311516>

¹⁰⁶² Mining operations are notable with respect to the quantity of particulates generated, the global extent of the area impacted, and the toxicity of contaminants associated with metal and metalloid emissions. See, e.g., the following study (with case studies that focus on smelters and emissions of Lead Pb, Zinc Zn, Arsenic As, Mercury Hg, Copper Cu, Cadmium Cd, Selenium Se, and other metals and metalloids and their health and environmental impacts): Csavina et al., 2012. A review on the importance of metals and metalloids in atmospheric dust and aerosol from mining operations. Science of the Total Environment 433, 58-73.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3418464/>

¹⁰⁶³ Radionuclides may be present in ores, most notably those mined for uranium, but also may be present in polymetallic, gold, and copper ores, monazite sand (from which thorium, rare earth elements (REEs), and uranium can be recovered), and phosphate rock.

¹⁰⁶⁴ What may constitute 'underserved and/or marginalized people' requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement, those who may be vulnerable to air pollution include children, elderly, people with respiratory conditions like asthma, and others who may be a heightened risk due to exposure to air pollution.

¹⁰⁶⁵ This is to establish the pre-project air quality conditions, and/or any existing air contaminants that are unrelated to the project/operation.

¹⁰⁶⁶ E.g., independently and rigorously conducted scientific/technical studies that suggest that mining activities may adversely affect human health.

¹⁰⁶⁷ This process includes comparing the predicted model results with actual monitoring data and set parameters for what constitutes acceptable versus unacceptable deviations between modeled and actual results. When predicted and actual results do not agree, models should be revised and predictions updated to ensure that air management practices are based on the best possible data.

¹⁰⁶⁸ Relevant COPCs would be those that were identified as having a reasonable potential to adversely affect human health, quality of life, livelihoods, or the environment.

¹⁰⁶⁹ Which must be situated around the site, associated facilities (if there are any emissions sources), relevant transportation routes and the surrounding environment (as per a.).

¹⁰⁷⁰ For COPCs that were identified as having a reasonable potential to adversely affect human health, quality of life, livelihoods, or the environment but that are not covered in the Annex 4.5-A, the Entity must still ensure that the monitoring program can monitor their presence and measure their concentration levels.

¹⁰⁷¹ For example, an autoclave, roaster, carbon kiln, refining furnace, or other thermal processes.

¹⁰⁷² While many air emissions of many metals can be controlled using technologies that control emissions of particulate matter, some metals, like mercury, remain a vapor at ambient temperatures, and can pass through some control equipment. So alternative control techniques and technologies must be used. (Source: IFC. 2007. Environmental, Health, and Safety Guidance. Base Metal Smelting and Refining. pp. 3, 4. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/605891489653831342/environmental-health-and-safety-guidelines-base-metal-smelting-and-refining>)

¹⁰⁷³ This could be carried out through continuous monitoring or measured at least annually if using sorbent trap systems, or. See, e.g., Envirotech. 2022. Mercury sorbent trap sampling for compliance in the U.S. <https://www.envirotech-online.com/article/air-monitoring/6/ohio-lumex/mercury-sorbent-trap-sampling-for-compliance-in-the-us/3153>

¹⁰⁷⁴ To the extent technologically and economically feasible with air monitoring equipment.

¹⁰⁷⁵ The ENTITY would need to sample for mercury (total and dissolved) and methyl mercury and sulfate in wetlands and water bodies located on or downwind of the mine site and carry out environmental sampling (e.g., fish tissue and sediment mercury levels) in locations that are most likely to promote mercury methylation, such as still waters, wetlands, and anaerobic sediment. This could be incorporated into the water sampling and analysis plan (see 4.3.5.2.b, and the accompanying footnote), or, along with the soils sampling, could be incorporated into a standalone mercury sampling and analysis plan.

¹⁰⁷⁶ Trigger levels might include, for example, concentrations of contaminants in ambient air that are between baseline and a regulatory air quality criteria.

¹⁰⁷⁷ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

¹⁰⁷⁸ Once an exceedance is confirmed, there may be more or different actions needed than envisioned in the original adaptive management actions, because situations may not always unfold as expected, or more may need to be done than was originally anticipated.

The actions that can be implemented during operations would be added to the corrective action plan. The actions that can only take place after operations cease (i.e., during reclamation and closure) must be added to the reclamation and closure plan, and associated costs must be included in the calculation of financial assurance (see Chapter 2.7, requirements 2.7.1.4, 2.7.1.5 and 2.7.2.1).

¹⁰⁷⁹ E.g., this could include, but is not limited to, loss of normal operation in air pollution control equipment.

¹⁰⁸⁰ E.g., improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error, etc.

¹⁰⁸¹ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

¹⁰⁸² This is especially relevant for contexts where your business and (potentially) affected rights-holders are in dispute about a particular (potential) adverse impact, and rights-holders are unlikely to accept the business' own tracking of the effectiveness of its response to it.

¹⁰⁸³ An exception to 4.5.8.1.c may be made for some points of compliance if demonstrating compliance is not reasonably possible through ordinary monitoring methods (e.g. an example of where exceptions might be appropriate are where roads are shared by external third parties, or operational and non-operational roads are so close to each other so as to make it impossible to distinguish their contributions). In such cases, the ENTITY must document its rationale, and is still required to implement best available/applicable practices (BAP) to minimize dust contamination, and incorporates the BAP measures into its air quality management plan.

¹⁰⁸⁴ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to d.

¹⁰⁸⁵ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to d.

¹⁰⁸⁶ This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to d.

¹⁰⁸⁷ The US EPA's Air Quality Standards are similar in many ways, however the EU includes contaminants not found in the US standards that may be released by mining and mining-related activities, such as arsenic, cadmium, and nickel.

CHAPTER ANNEXES

ANNEX 4.5-A: IRMA Ambient Air Quality Criteria

Pollutant	Limit concentration values ⁱ	Averaging period	Permitted exceedances / year
Sulphur dioxide (SO ₂)	350 µg/m ³	1 hour	3
	50 µg/m ³	24 hours	18
	20 µg/m ³	1 year	not applicable
Nitrogen dioxide (NO ₂)	200 µg/m ³	1 hour	3
	50 µg/m ³	24 hours	18
	20 µg/m ³	1 year	not applicable
Fine particles (PM-2.5)	10 µg/m ³	1 year	not applicable
	25 µg/m ³	24 hours	18
PM-10	45 µg/m ³	24 hours	18
	20 µg/m ³	1 year	not applicable
Lead (Pb)	0.5 µg/m ³	1 year	not applicable
Carbon monoxide (CO)	10 mg/m ³ ⁱⁱ	Maximum daily 8-hour mean	not applicable
	4 mg/m ³	24 hours	18
Benzene	3.4 µg/m ³	1 year	not applicable
Ozone	120 µg/m ³	Maximum daily 8-hour mean	25 days averaged over 3 years
Arsenic (As)	6.0 ng/m ³	1 year	not applicable
Cadmium (Cd)	5.0 ng/m ³	1 year	not applicable
Nickel (Ni)	20 ng/m ³	1 year	not applicable
Polycyclic Aromatic Hydrocarbons	1.0 ng/m ³ (as concentration of Benzo(a)pyrene)	1 year	not applicable
Mercury (Hg) from production and processing of Zn, Ni, Cd	New sources: 0.2 mg/m ³ Existing sources: 1.0 mg/m ³	not applicable	not applicable
Mercury (Hg) from the recovery of metal from any form of scrap material by the application of heat	New sources: 0.05 mg/m ³ Existing sources: 0.05 mg/m ³	not applicable	not applicable

Sources: EU. Air Quality Standards (as of July 3, 2013). https://environment.ec.europa.eu/topics/air/air-quality/eu-air-quality-standards_en; and EU Air Quality Standards Table 1 – Limit values for the protection of human health to be attained by 1 January 2030. https://www.europarl.europa.eu/doceo/document/TA-9-2024-0319_EN.html; except for Mercury: South Africa, 2004 THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT NO. 39 OF 2004), STANDARDS AND REGULATIONS https://saagis.environment.gov.za/Pagesfiles/NEM-AQA%20Booklet_10-09-2015.pdf

ⁱ Arsenic, cadmium, lead, nickel, and benzo(a)pyrene mean the total content of these elements and compounds in the PM10 fraction; sampling points measuring arsenic, cadmium, lead, mercury, nickel and polycyclic aromatic hydrocarbons shall, where possible, be co-located with sampling points for PM10

ⁱⁱ The maximum daily 8-hour mean concentration shall be selected by examining 8-hour running averages, calculated from hourly data and updated each hour. Each 8-hour average so calculated shall be assigned to the day on which it ends, i.e. the first calculation period for any 1 day shall be the period from 17.00 on the previous day to 1.00 on that day; the last calculation period for any 1 day shall be the period from 16.00 to 24.00 on that day.

ANNEX 4.5-B: Recommended Air Quality Guidelines (AQG), World Health Organization (for information only)

Pollutant	Averaging time	Interim target 1	Interim target 2	Interim target 4	Interim target 4	AQG level
PM _{2.5} (µg/m ³)	Annual	35	25	15	10	5
	24-hour	75	50	37.5	25	15
PM ₁₀ (µg/m ³)	Annual	70	50	30	20	15
	24-hour	150	100	75	50	45
O ₃ (µg/m ³)	Peak season	100	70	--	--	60
	8-hour	160	120	--	--	100
NO ₂ (µg/m ³)	Annual	40	30	20	--	10
	24-hour	120	50	--	--	25
SO ₂ (µg/m ³)	24-hour	125	50	--	--	40
CO (mg/m ³)	24-hour	7	--	--	--	4

Source: World Health Organization. 2021. WHO global air quality guidelines: particulate matter (PM_{2.5} and PM₁₀), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. Table 0.1. <https://apps.who.int/iris/handle/10665/345329>.

ANNEX 4.5-C: IRMA Dust Deposition Criteria

Measurement Method	Limit value
According to TA Luft Standard, which includes both soluble and insoluble matter ⁱⁱⁱ	10mg/m ² /hour 350 mg/m ² /day 30g/m ² /thirty-days
According to WA 2021 Guideline, which only includes insoluble matter ^{iv}	4 g/m ² /thirty-days (maximum) 2 g/m ² /thirty-days (above baseline/background)

Sources: US EPA guidance; TA Luft Standard; AFNOR NF X43-007; Government of Western Australia; NSW EPA 2016; and NZ MfE 2016.

ⁱⁱⁱ IRMA has added a dust deposition limit because dust is not listed on EU list of contaminants as it is not strictly harmful to health rather it is a "nuisance" and can be problematic for communities, livelihoods, values, and ecosystems located near project sites. IRMA is not aware of any legal criteria in place in a mining country. However, US EPA guidance suggests, "a soiling of 10mg/m²/hour is generally considered to pose a soiling nuisance". This equates to 240mg/m²/day of Total Depositional Dust. The EPA recommends a maximum level of 350mg/m² day of dust deposition when measured according to TA Luft standard, which includes both soluble and insoluble matter (i.e. EPA compliance monitoring is based on the TA Luft Method). This requirement is based on the German Technical Instructions on Air Quality Control (TA Luft) Regulation, 2022, which is the reference IRMA has used already in the 2018 IRMA Standard V1.0. (TA Luft Regulation available at : https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Luft/taluft_engl.pdf).

The monthly limit value comes from the French national standardization body (AFNOR) that has defined 3 categories of dust pollution based on monthly deposition values: 1) Lightly polluted area: Dust < 10 g/m²/month; 2) Moderately polluted area: 10 g/m²/month < Dust < 30 g/m²/month; AND 3) Heavily polluted area: Dust > 30 g/m²/month (Norm AFNOR NF X43-007).

^{iv} In its updated 2021 Guideline for Dust emissions, the Department of Water and Environmental Regulation of the Government of Western Australia provides these alternatives limit values. These are based on existing recommendations from NSW EPA (Australia) and NZ MfE (New Zealand) (source: <https://www.wa.gov.au/system/files/2022-03/Draft%20Guideline%20-%20Dust%20emissions.pdf>)

In its 2012 Ambient Air Quality Criteria (AAQCs), the Ontario Ministry of the Environment (MOE) also includes a limit value for 'dustfall', set at 7g/m²/thirty-days, which seems to include only insoluble matter. IRMA has kept the more protective (and more recent) value used by the Government of Western Australia (Source: <https://www.airqualityontario.com/downloads/AmbientAirQualityCriteria.pdf>)



Chapter 4.6

Climate Action

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Chapter title changed to “Climate Action”, as the chapter encompasses more issues than just GHG emissions and energy efficiency.
- Added a policy requirement committing to take climate action (4.6.1.1).
- Added a requirement to assess contribution of the project/operation to climate change.
- Added exception criteria to GHG targets for “green enabling” projects (4.6.6.1.b).
- Clarified expectations related to Scope 1 and 2, and Scope 3 emissions.
- Added one requirement related to Traditional Knowledge (Section 4.6.9).
- Added optional requirements with regard to the carbon tunnel vision and planetary boundaries (4.6.7.2), and cross-cutting integrated management of climate action (4.6.2.2).
- Clarified and regrouped requirements related to information-sharing and public reporting (Section 4.6.12).
- Removed section on carbon offsets, as there is no consensus amongst the IRMA Board that these are considered ‘best practice’. The IRMA Secretariat has not been able to identify agreed international best practice for carbon offsets that is consistently successful and non-controversial. Thus, IRMA does not want to appear as if its own audit system can sufficiently evaluate the legitimacy, integrity or long-term effectiveness of carbon offset projects. The chapter instead focuses on the Entity’s efforts to reduce its own emissions (and those in its supply chain). While this chapter will not prohibit the use of offsets, it does not encourage them, and IRMA will not attempt to audit the legitimacy or effectiveness of carbon offset projects. Instead, it will simply require transparency and rationale about their use (4.6.11.2.e) -as a last resort-, if any. Guidance on safeguards and minimum criteria to follow when using carbon offsets could be produced and published separately from the IRMA Standard.
- Major structural changes to maintain consistency across the Standard.



RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Proposed Decision
4.5-01	(4.5.1.1 – Technology Selection) Question: Do you agree with adding this requirement? Are there other ways a company might demonstrate it has given the minimization of energy use and greenhouse gas emissions due weight in its mine design processes? Should this requirement be limited to proposed projects, or is it reasonable to create a similar requirement that applies to existing operations that are adding or replacing equipment or processes?	Feedback received: 6 responses received (4 mining, 1 finance, 1 NGO). Almost all respondents agreed that it makes sense to add a requirement, although several made suggestions regarding how it could be revised: including by adopting a risk-based approach, or by requiring the ENTITY to demonstrate how these considerations are integrated in decision-making. Proposed Decision: We propose to keep the requirement, but we propose to refocus it to assess the presence of a “system”, and the extent to which integration and rationales are documented (see 4.6.3.1).
4.5-02	(4.5.2.1 – Targets) Question: Do you agree with the proposal to require absolute emissions AND intensity targets? If this is the chosen approach, what would realistic targets and timeframes be for each measure and how should they be linked?	Feedback received: 11 responses received (6 mining, 2 finance, 1 NGO, 1 purchaser, 1 consultant). Responses were mixed. Across responding sectors, there was a majority of respondents in favor of either requiring both or focusing on absolute targets (instead of intensity). Proposed Decision: We propose to focus on the need to have absolute targets, in what is now requirement 4.6.6.1. We clarify that alignment with the Paris Agreement can be demonstrated for site-level targets, or as part of company-wide targets. For more information and rationale on Paris Agreement targets, see the Section entitled Issues Under Close Watch, which precedes the Chapter requirements.
4.5-03	(4.5.2.1 – Targets) Question: Do you agree with the addition of a renewable energy target? If not, why not?	Feedback received: 10 responses received (6 mining, 2 finance, 1 purchaser, 1 consultant). Responses were mixed, but a majority (5) agreed with the proposition. 1 respondent suggested to exclude exploration projects from this requirement. Proposed Decision: We propose to keep this sub-requirement (now 4.6.6.2.b). As already clarified in the applicability guidance (and now visible directly in this document), these targets are not required for exploration projects (until the project permitting and development stages).
4.5-04	(4.5.3.1 – Emissions Quantification) Question: Do you have any suggestions of other methodologies for calculating Scope 1, Scope 2 and Scope 3 emissions that could be added as examples in IRMA Guidance?	Feedback received: 6 responses received (4 mining, 2 finance). Some suggested including ICMM Scope 3 Guidance, AEE methods for energy savings, and GHG Protocol Project Overview. One respondent suggested that IRMA could allow entities to be assessed against country of operation’s laws. Proposed Decision: No substantial change. Some structural and minor content changes to add clarity and increase auditability. Taking into account respondents’ suggestions, we will review and update guidance on this requirement.

4.5-05	(4.5.3.1 – Emissions Quantification) Question: Are you aware of trends in use of direct measurements for particular greenhouse gas emissions? If so, what are the methods being used to do so, and what are the main limitations in the use of those approaches?	Feedback received: 3 responses received (all mining). They all signaled that direct measurements are not practical, difficult to undertake, and seldom occur. Proposed Decision: No requirement added, at this stage.
4.5-06	(4.5.3.2 – Scope 3 emisisions) Question: Has IRMA struck an appropriate balance between driving progress on Scope 3 emissions with creating the necessary breathing space for sites to work towards conformance within a reasonable timeframe?	Feedback received: 6 responses received (4 mining, 2 finance). Overall sense is that IRMA has not struck the right balance yet. One thought it was fine, another didn't know because it has not yet been implemented. Others made suggestions for improvement. Suggestions include: ▪ Allowing projects to determine relevant Scope 3 emissions on a project-by-project basis, and do not prescribe the Scope 3 sources [this is aligned with our requirement] ▪ Emissions should be confined to when the product is in the company's custody, otherwise, impossible to track all downstream emissions in this global economy ▪ Only require quantification of immediate downstream customers in the value chain. ▪ Scope 3 emissions not feasible for most exploration and development companies ▪ Instead of a time bound commitment, require commitment to advancing downstream emissions quantification in a manner aligned with best practice, which IRMA can update over time. ▪ Agrees that setting a time frame is important (given that Scope 3 emissions from Downstream activities account for close to 90% of GHG emissions from the mining industry), but also need to acknowledge that it will take time to do the groundwork (map and work with downstream users/emitters on emissions reductions) Proposed Decision: Language has been updated to ensure targets on Scope 3 emissions reduction consider what can be done, to the greatest extent possible (see 4.6.6.2.c). We will provide guidance on what this means in practice. Additionally, the Sections on calculations (4.6.4) and target-setting (4.6.6) are now separated for greater clarity and consistency across the Standard. Language has been updated to ensure targets on Scope 3 emissions reduction consider what can be done, to the greatest extent possible. As already clarified in the applicability guidance (and now visible directly in this document), these targets are not required for exploration projects (until the project permitting and development stages).

4.5-07	(4.5.3.4 – Intensity) Question: Do you agree with the proposed method(s) of reporting GHG intensity and energy intensity? If not, please suggest what metrics would be more appropriate, and why.	Feedback received: 4 responses received (4 mining). Responses all in favor, though 1 respondent suggesting that as long as the company is reporting then the units should not matter. Proposed Decision: IRMA will not prescribe how intensities are calculated.
4.5-08	(4.5.5 – Carbon offsets) Question: Do you agree with the proposed approach to offsets? If not, what would you change and why?	Feedback received: 4 responses received (3 mining, 1 NGO). General agreement with the approach. However, respondents want more clarity that offsets are a strategy of last resort. Proposed Decision: In the absence of consensus within the IRMA Board of Directors on whether carbon offsets could be considered best practice, we propose to remove the proposed Section dedicated to carbon offsets. The IRMA Secretariat has not been able to identify agreed international best practice for carbon offsets that is consistently successful and non-controversial. Thus, IRMA does not want to appear as if its own audit system can sufficiently evaluate the legitimacy, integrity or long-term effectiveness of carbon offset projects. The chapter instead focuses on the Entity's efforts to reduce its own emissions (and those in its supply chain). While this chapter will not prohibit the use of offsets, it does not encourage them, and IRMA will not attempt to audit the legitimacy or effectiveness of carbon offset projects. Instead, it will simply require transparency and rationale about their use (4.6.11.2.e) -as a last resort-, if any.
4.5-09	(4.5.5 – Carbon offsets) Question: Should IRMA include a requirement addressing the use of carbon credits and if yes, what limits (if any) should be put in place, and what expectations are reasonable with respect to establishing the credibility of the credit issuer?	Feedback received: 5 responses received (4 mining, 1 consultant). Respondents are split, 2 support carbon credit requirement (one only as "a last option"), 2 do not support (1 had no comment). Proposed Decision: We propose to not include requirements related to carbon credits in the Standard.
4.5-10	(4.5.6.1 – Reporting and disclosure) Question: Do you support the proposal that GHG management plans be made publicly available? If not, why not?	Feedback received: 8 responses received (5 mining, 1 NGO, 1 finance, 1 consultant). The responses are split, with no clear divide between sectors. Proposed Decision: We propose to keep this requirement. It is not a critical requirement, and therefore won't prevent higher achievement levels if the ENTITY does well on other requirements. Also, the Standard requires management plan disclosures in many other chapters.
4.5-11	(4.5.6.4 – Reporting and disclosure)	Feedback received: 6 responses received (4 mining, 1 finance, 1 consultant). Most think that in general the level of



	Question: Do you support the proposed approach for greater transparency in greenhouse gas and energy data? If not, what would you change and why?	disclosure is reasonable, but a few revisions are suggested (including exceptions for exploration and development, exclusion of raw calculation files/sheets, exclusion of business-sensitive data). Proposed Decision: No substantial change. As already clarified in the applicability guidance (and now visible directly in this document), these public reporting elements are not required for exploration projects (until the project permitting and development stages). As per chapter 1.2, business-sensitive information (if any) can be redacted as long as a rationale is documented and proactively shared with stakeholders.

BACKGROUND

Humans are increasingly influencing the climate and the earth's temperature by burning fossil fuels, cutting down rainforests and raising livestock.¹⁰⁸⁸ These activities release gases such as carbon dioxide, methane, nitrous oxide, ozone and a few others that have the ability to trap heat in the Earth's atmosphere. Many of these gases occur naturally, but human activity is increasing the concentrations of some of them in the atmosphere.¹⁰⁸⁹ The need to reduce emissions is urgent: the Intergovernmental Panel on Climate Change (IPCC) recently noted that to limit warming to around 1.5°C (2.7°F) requires global greenhouse gas emissions to peak before 2025 at the latest, and be reduced by 43% by 2030.¹⁰⁹⁰ As a result, the United Nations Framework Convention on Climate Change has spurred the establishment of targets for the reduction of greenhouse gas emissions that are applicable in nearly 200 countries.¹⁰⁹¹

Mines and mineral processing operations are major energy consumers and emitters of greenhouse gases (GHG). These operations therefore have an opportunity and responsibility to manage their energy use and carbon emissions, at a pace and scale consistent with mitigation pathways that meet the goals of the Paris Agreement, the legally-binding international treaty on climate change signed by 196 Parties at the UN Climate Change Conference (COP21) in 2016.

The potential exists for these operations to consume less energy, increase the proportion of energy used that comes from renewable sources, emit less carbon from ongoing activities, capture carbon already emitted to the atmosphere, and improve the ENTITY's bottom line.

There are three categories of greenhouse gas emissions from mines and mineral processing operations:

- 1) **Scope 1** or direct emissions resulting from fossil fuel use in operations, transportation of ore, feed and waste materials and products, and non-renewable electricity generation at remote sites, and fugitive emissions. This also includes emissions from land use changes and reductions in land carbon stock arising from the site's direct activities¹⁰⁹²,
- 2) **Scope 2** or indirect emissions associated with electricity purchased from third-party service providers; and
- 3) **Scope 3** emissions, which are defined as all other indirect emissions not included in Scope 2 that occur in the upstream and downstream value chain of the operation.

Mines and mineral processing operations can manage Scope 1 and Scope 2 emissions and at the same time cut costs and improve competitiveness by adopting best practices in energy sourcing, efficiency, and emissions reductions.

Until relatively recently, the focus in the mining sector has been on Scope 1 and Scope 2 emissions. For many operations, however, Scope 3 emissions are substantially larger than the cumulative total of Scope 1 and Scope 2. Therefore, progress must also be made on this third category of emissions if the mining sector is to successfully decarbonize its operations.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- Paris Agreement, 2015
- Rio Declaration on Environment and Development, 1992
- The GHG Protocol Corporate Accounting and Reporting Standard, and Calculation Tools
- ISO 14064-1: 2018 Greenhouse gases
- United Nations Framework Convention on Climate Change (UNFCCC)
- United Nations Convention on Biological Diversity, 1993



OBJECTIVES OF THIS CHAPTER

To minimize contribution to climate change impacts through increased energy efficiency, reduced energy consumption, and reduced emissions of greenhouse gases from direct and indirect sources, in a manner that aligns with the Paris Agreement.

SCOPE OF APPLICATION

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame. There is one (1) **critical requirement** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There are two (2) **optional IRMA+ requirements** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.



ISSUES UNDER CLOSE WATCH (EYE ICON)

Integration of Traditional Knowledge (TK) and Traditional Ecological Knowledge (TEK) into climate action processes:

In 1992, in the Rio Declaration on Environment and Development, over 175 countries affirmed that “Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development”. And in its associated UN Convention on Biological Diversity¹⁰⁹³, which all UN member states (except the USA) have ratified, article 8(j) specifically request each state to, “respect, preserve and maintain knowledge, innovations and practices of Indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices[...]”.

Several countries have since adapted these expectations into national laws and regulations, or for projects sporadically, including in relation with mineral development and mining activities (e.g. Canada, Norway, Rwanda, USA¹⁰⁹⁴). The lack of explicit reference to TEK in the was one of the very few areas for improvement identified in a recent benchmark of standards against the 2023 Risk Readiness Assessment Criteria Guide V3.0 (conducted by a consultancy firm on behalf of an industry association). IRMA added one requirement, 4.6.8.1, assessing how entities integrate TK and TEK of local affected communities, and Indigenous rights-holders if applicable, into their climate action processes. This requirement (4.6.8.1) is signaled with an ‘eye icon’ to ensure that IRMA monitors more closely its implementation and relevance, as the Standard V2.0 would get gradually adopted; and to ensure IRMA can review the decision more quickly if necessary. Note that this requirement is not ‘optional’ (unlike IRMA+).

Setting Greenhouse Gas Emission Targets that are in line with the Paris Agreement:

IRMA noted in the 2018 Standard V1.0 that, while there was agreement among IRMA sectors that setting greenhouse gas reduction targets was something that every responsible company should be doing, there was not yet cross-sectoral agreement within IRMA regarding how to set those targets. Many frameworks have been published since, and global expectations have gradually mounted regarding the need for all industrial sites, including mines and mineral processing operations, to set targets that are in line with the Paris Agreement, and to develop action plans to meet them. IRMA acknowledges that some mineral processes still rely almost entirely on fossil fuels, and that several companies have developed company-wide targets that are in line with the Paris Agreement, but that do not necessarily translate into each and every asset’s targets being aligned. IRMA also acknowledges that some companies may own only one asset (mining or mineral processing operation) that produces mineral/s that demonstrably contribute to global energy transition towards lower-carbon energy sources or mobility solutions. IRMA has proposed different pathways to reflect these realities. This requirement (4.6.6.1) is signaled with an ‘eye icon’ to ensure that IRMA monitors more closely its implementation and relevance, as the Standard V2.0 would get gradually adopted; and to ensure IRMA can review the decision more quickly if necessary. Note that this requirement is not ‘optional’ (unlike IRMA+).

IRMA Requirements

4.6.1 Formalized Policy

4.6.1.1 The ENTITY has a formal policy in place that

- Commits to take climate action in order to protect workers, affected rights-holders and stakeholders, and facilities, from the adverse impacts of climate change;
- Includes a clear commitment to avoid and reduce greenhouse gas emissions linked to the ENTITY's mining-related activities¹⁰⁹⁵ at a pace and scale consistent with mitigation pathways that meet the goals of the Paris Agreement¹⁰⁹⁶ to curb global temperature rise to 1.5°C above pre-industrial levels;
- Is approved at the top management level of the ENTITY;
- Is proactively communicated to affected rights-holders and stakeholders, personnel, contractors, suppliers, customers, and other relevant business partners;
- Is publicly accessible; and
- The ENTITY has allocated financial and staffing resources to implement this policy at the level of the site.

4.6.2 Contribution to Climate Change

4.6.2.1 Building on the scoping and risk and assessment processed required in 2.1, an assessment of the significant contributions of the site and its associated facilities to climate change is conducted and documented by competent professionals as follows:

- The assessment includes a full inventory of identified causes and effects of the contributions of the site and its associated facilities to climate change, and their levels of significance;
- The assessment considers direct and indirect contributions to climate change;
- It is updated, at least annually, and whenever there is the potential that the magnitude, duration, or probability of already-identified causes and effects have changed; and
- The ENTITY facilitates the participation of affected rights-holders and stakeholders in the assessment process, in accordance with Chapter 1.2.

4.6.2.2 IRMA+

The ENTITY has an comprehensive site-wide plan (or equivalent) to mitigate and adapt to the adverse environmental, bio-geophysical, and social impacts of climate change, always following the mitigation hierarchy¹⁰⁹⁷ that integrates all its management plans and mitigation measures related to:

- Greenhouse gas emissions and energy reduction;
- Waste and materials management;
- Water management;
- Air pollution; and
- Biodiversity, ecosystem services, and protected areas.

4.6.3 Technology Selection

- 4.6.3.1** The ENTITY has a system in place to ensure energy efficiency and minimization of greenhouse gas emissions¹⁰⁹⁸ are considered by competent professionals:
- When selecting technology options and alternatives for, if any, energy sources, mining and processing methods, technologies and equipment, and the design of new buildings and facilities (at proposed projects, or existing operations);
 - When there are opportunities to replace, upgrade, or add technology, or change processes; and
 - The ENTITY documents how energy efficiency and minimization of greenhouse gas emissions were considered, and the rationale for the final selections.

4.6.4 GHG Emissions and Energy Consumption Quantification

- 4.6.4.1** For Scope 1 and 2 emissions, at least annually:
- Emissions of all relevant Scope 1 greenhouse gases associated with the site and its associated facilities¹⁰⁹⁹, including emissions from land use changes and reductions in land carbon stock arising from the site's direct activities¹¹⁰⁰, are calculated by competent professionals, using internationally-recognized (or national, where they meet or exceed them) protocols or standards¹¹⁰¹;
 - Emissions of all relevant Scope 2 greenhouse gases associated with the site and its associated facilities¹¹⁰² are calculated by competent professionals, using internationally-recognized (or national, where they meet or exceed them) protocols or standards¹¹⁰³; and
 - All Scope 1 and Scope 2 emissions calculations are verified by a credible third-party expert.

- 4.6.4.2** For Scope 3 emissions:
- A screening exercise is completed by competent professionals to determine relevant upstream and downstream Scope 3 categories associated with the site and its associated facilities, using credible methodologies;
 - At least annually, Scope 3 emissions of all relevant greenhouse gases for those relevant categories of emissions identified are calculated using credible methodologies; and
 - All Scope 3 emissions calculations are verified by a credible third-party expert.

- 4.6.4.3** At least annually, energy consumption associated with the project/operation is measured using a credible methodology, and data are disaggregated into:
- Energy generated by the site and its associated facilities from fossil fuels and consumed by fixed and mobile equipment (collectively referred to as 'sources of Scope 1 emissions');
 - Acquired and consumed electricity, steam, heat, or cooling (collectively referred to as 'sources of Scope 2 emissions'); and
 - Energy derived from renewable sources purchased from external suppliers and, separately, from renewable sources generated by the ENTITY.

4.6.5 Scoping



4.6.5.1 A scoping process (or equivalent) is undertaken and documented by competent professionals to:

- Identify sources of direct and/or indirect emissions that can be eliminated and/or that have the highest reduction potential;
- Identify technically feasible opportunities to increase energy efficiency, including through the adoption of less impactful sources of energy¹¹⁰⁴;
- Identify opportunities for carbon capture and storage of any emissions that cannot be avoided;
- Building on a. to c., identify and prioritize options for managing GHG emissions sequentially, in accordance with the mitigation hierarchy, starting with action to avoid emissions at the level of the project/operation, followed by action to reduce and minimize them, and, as a last resort, compensate¹¹⁰⁵ for them; and
- Ensure that any emission-reduction opportunity takes into consideration the potential adverse social and human rights impacts arising from its implementation.



4.6.6 Greenhouse Gas and Energy Targets



4.6.6.1 Critical Requirement

Building on the quantification required in 4.6.4 and the scoping process required in 4.6.5, the Entity has site-based targets in place for **absolute** Scope 1 and Scope 2 greenhouse gas emissions, developed by competent professionals using a credible methodology¹¹⁰⁶, as follows:

- These targets include time-bound short-term (<5 years), medium-term (5-15 years) and long-term (>15 years) site-based targets;
- These targets are in line with the Paris Agreement, or are part of corporate-level targets that are in line with the Paris Agreement; unless the site meets all the criteria for Green Enabling Projects¹¹⁰⁷ and can demonstrate the environmental benefits of its production's end-use¹¹⁰⁸; and
- These targets are verified and validated by a credible third-party expert.



4.6.6.2 Building on the quantification required in 4.6.4 and the scoping process required in 4.6.5, the Entity has the following targets in place, developed by competent professionals using a credible methodology:

- An energy consumption reduction target, either at site-level or as part of corporate-level targets;
- A target for increasing the proportion of energy consumed that comes from renewable sources, either at site-level or as part of corporate-level targets; and
- Targets to reduce, to the greatest extent possible, Scope 3 emissions of all relevant greenhouse gases, disaggregated by the relevant categories of emissions identified in 4.6.4.2, either at site-level or as part of corporate-level targets.

4.6.7 Greenhouse Gas and Energy Management



- 4.6.7.1** Building on 4.6.4, 4.6.5, and 4.6.6, a management plan (or equivalent) is developed **and documented by competent professionals**, at the level of the site, to manage energy and GHG emissions reductions. The plan:
- Outlines specific measures with their priority levels to achieve, in accordance with the **mitigation hierarchy**, the site-level Scope 1, Scope 2 **and, if relevant, Scope 3** greenhouse gas reduction targets required in 4.6.6 and updated as per 4.6.10;
 - Outlines specific measures with their priority levels to achieve, in accordance with the mitigation hierarchy, the site-level energy consumption reduction targets required in 4.6.6 and updated as per 4.6.10;**
 - Outlines specific measures with their priority levels to achieve, in accordance with the mitigation hierarchy, the site-level targets for the proportion of energy consumed at the site that comes from renewable sources, required in 4.6.6 and updated as per 4.6.10;**
 - Assigns implementation of measures, or oversight of implementation, to responsible staff¹¹⁰⁹;**
 - Includes an implementation schedule, estimates of human resources and budget required;**
 - Includes a financing plan to ensure that funding is available for the effective implementation of the plan; and**
 - Is made and maintained publicly accessible.**



- 4.6.7.2 IRMA+**
- This management plan is integrated into an overarching holistic approach that moves beyond the carbon tunnel vision, and takes into account all nine planetary boundaries: Climate change, Change in biosphere integrity, Biogeochemical, Ocean acidification, Land use, Freshwater change, Ozone depletion, Atmospheric aerosols, and Novel entities.



4.6.8 Traditional Knowledge



- 4.6.8.1** The ENTITY has systems in place to ensure that traditional knowledge, and especially traditional ecological knowledge, of local affected communities, and Indigenous rights-holders if applicable, is integrated into:
- The scoping process required in 4.6.5;**
 - The development of the management plan required in 4.6.7;**
 - Relevant monitoring and evaluation processes required in 4.6.9; and**
 - Relevant review and continuous improvement processes required in 4.6.10.**

4.6.9 Monitoring and Evaluation



4.6.9.1 To monitor and evaluate the implementation and effectiveness of its climate action, the ENTITY, at least annually:

- Tracks and documents its performance on reducing in accordance with the mitigation hierarchy site-level Scope 1 and Scope 2 and, if relevant, Scope 3 greenhouse gas emissions, over successive time periods, against the targets required in 4.6.6 and updated as per 4.6.10;
- Tracks and documents its performance on reducing site-level energy consumption, over successive time periods, against the targets required in 4.6.6 and updated as per 4.6.10; and
- Tracks and documents its performance on increasing the proportion of energy consumed at the site that comes from renewable sources, over successive time periods, against the targets required in 4.6.6 and updated as per 4.6.10.

4.6.10 Continuous Improvement



4.6.10.1 At least annually, but without undue delay after a significant change, the ENTITY:

- Reviews the monitoring and evaluation results, and the ENTITY's effectiveness in meeting the targets required in 4.6.6 and updated as per 4.6.10;
- Reviews any climate-related grievances and the functioning of its relevant grievance mechanism/s required in Section 1.4.3;
- Reviews the potential that the magnitude, duration, or probability of the causes and effects of the contributions of the project/operation to climate change, identified in 4.6.2, have changed;
- Develops and implements time-bound corrective measures to update, if necessary¹¹¹⁰, the scoping process in accordance with Section 4.6.5;
- Develops and implements time-bound corrective measures to update, if necessary¹¹¹¹, the greenhouse gas and energy targets in accordance with Section 4.6.6;
- Develops and implements time-bound corrective measures to update, if necessary¹¹¹², the greenhouse gas and energy management plan in accordance with Section 4.6.7; and
- Develops and implements time-bound corrective measures to update, if necessary¹¹¹³, the monitoring and evaluation processes, in accordance with Section 4.6.9.

4.6.11 Information-Sharing and Public Reporting



4.6.11.1 At least annually, the ENTITY makes publicly accessible updated versions of, and maintains¹¹¹⁴ publicly accessible all previous versions of:

- All the Scope 1 and Scope 2 reduction targets required in 4.6.6.1, either at site-level or corporate-level;
- All the Scope 3 reduction targets required in 4.6.6.2, either at site-level or corporate-level; and
- All the energy targets required in 4.6.6.2, either at site-level or corporate-level.



4.6.11.2 At least annually, the ENTITY makes publicly accessible updated versions of, and maintains¹¹¹⁵ publicly accessible all previous versions of:

- a. All site-specific Scope 1 emissions calculations¹¹¹⁶, verified by a credible third-party expert, as required in 4.6.4.1;
- b. All site-specific Scope 2 emissions calculations¹¹¹⁷, verified by a credible third-party expert, as required in 4.6.4.1;
- c. All relevant site-specific Scope 3 emissions calculations/estimates, verified by a credible third-party expert, as required in 4.6.4.2;
- d. Quantified progress, informed by the review process required in 4.6.10.1, towards meeting the absolute targets for Scope 1 and Scope 2 emissions, and (if relevant) targets for Scope 3 emissions required in 4.6.6;
- e. The percentage of greenhouse gas emissions reductions (Scope 1, 2 and/or 3) that has been achieved through carbon offsetting (rather than source elimination or reduction), and, if carbon offsetting was used¹¹¹⁸, a justification for doing so;
- f. The site's total energy consumption and use;
- g. Disaggregated energy consumption data that details, at a minimum, delivered energy, energy from fossil fuels consumed on-site, renewable energy purchased from external suppliers and renewable energy generated at the site;
- h. Quantified progress towards meeting targets for energy reduction and the proportion of energy consumed that comes from renewable sources (as set in 4.6.6.2); and
- i. The methods used to measure energy consumption and use, and to calculate Scopes 1, 2 and 3 emissions;



4.6.11.3 At least annually, the ENTITY makes publicly accessible updated versions of, and maintains¹¹¹⁹ publicly accessible all previous versions of:

- a. Key findings of the monitoring and evaluation process required in 4.6.9, and of the review process required in 4.6.10.1, for the reporting period;
- b. A list of the time-bound corrective measures related to its greenhouse gas and energy management plan, identified as per 4.6.10.1, for the reporting period; and
- c. A list of the time-bound corrective measures related to its monitoring and evaluation processes, identified as per 4.6.10.1, for the reporting period.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

CHAPTER ENDNOTES

¹⁰⁸⁸ European Commission: "Causes of Climate Change." https://ec.europa.eu/clima/change/causes_en

¹⁰⁸⁹ Ibid.

¹⁰⁹⁰ Intergovernmental Panel on Climate Change. 2022. "The evidence is clear: the time for action is now. We can halve emissions by 2030." <https://www.ipcc.ch/2022/04/04/ipcc-ar6-wgiii-pressrelease/>

¹⁰⁹¹ For example, see: "Nationally appropriate mitigation commitments or actions by developed country Parties," United Nations Climate Change website. <https://unfccc.int/topics/mitigation/workstreams/nationally-appropriate-mitigation-actions>

¹⁰⁹² The physical extent for calculating Scope 1 GHG emissions due to land use change (and reductions in land carbon stock) should only include specific land areas managed or controlled by the ENTITY, ensuring that only emissions from activities within these boundaries are considered.

¹⁰⁹³ Convention on Biological Diversity, <http://www.cbd.int/convention/text/default.shtml>

¹⁰⁹⁴ Examples in Canada: <https://www.sciencedirect.com/science/article/abs/pii/S2214790X23000540>

Norway: LOV-2009-06-19-100: Lov om forvaltning av naturens mangfold (naturmangfoldloven) [Nature Diversity Act]. Sametingets retningslinjer for vurderingen av samiske hensyn ved endret bruk av meahcci/ utmark i Finnmark (Guidelines for Assessment of Sami interests in cases of changes in land use in Finnmark), 2007. The status of the Guidelines as injunction to the FA was approved by the Norwegian government in 2007. The guidelines are available from <https://lovdata.no/dokument/SF/forskrift/2007-06-11-738> (accessed February 4, 2015). Sametingets planveileder. Veileder for sikring av naturgrunnlaget for samisk kultur, næringsutøvelse og samfunnsliv ved planlegging etter plan- og bygningsloven (plandelen) (The Sami Parliament's Planning Guidelines), 2010. <http://www.sametinget.no/Miljoe-areal-ogkulturvern/Areal/Sametinget-planveileder/Sametinget-planveileder> (accessed September 7, 2015). LOV-2005-06-17-85: Lov om rettsforhold og forvaltning av grunn og naturressurser i Finnmark fylke (finnmarksloven) [Finnmark Act]. LOV-2008-06-27-71: Lov om planlegging og byggesaksbehandling (plan- og bygningsloven) [Plan and Building Act].

Rwanda: There exists a national law n° 28/2016 of 22/7/2016 on the preservation of both tangible and intangible cultural heritage and traditional knowledge.

USA: see EPA Tribal Councils and

¹⁰⁹⁵ The policy can be established at the level of the project/operation, or at the level of its corporate owner(s). IRMA acknowledges that a corporate-level commitment to meet Paris Agreement goals could include actions at the some sites that may be far more ambitious than at others, which is acceptable as long as the corporate as a whole can achieve the necessary overall emissions reductions.

¹⁰⁹⁶ Evidence maybe provided to demonstrate that a site contributes to global objectives, in spite of site-specific or company-specific targets that are not in line with the Paris Agreement, if the site meets all the criteria for Green Enabling Projects and can demonstrate the environmental benefits of its production's end-use. See 4.6.6.1.b for more details and guidance.

¹⁰⁹⁷ Including through avoiding and minimizing the significant contributions of the site and its associated facilities to climate change.

¹⁰⁹⁸ One should refer to "net GHG emissions" if, and only if, total GHG emissions are partially offset by human-led and deliberate GHG removal activities (like forestation/plantations or tech-based CO₂ removals) thereby leading to net GHG emissions.

¹⁰⁹⁹ There are seven greenhouse gases according to the United Nations Framework Convention on Climate Change and Kyoto Protocol. These are: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).

¹¹⁰⁰ The physical extent for calculating Scope 1 GHG emissions due to land use change (and reductions in land carbon stock) should only include specific land areas managed or controlled by the ENTITY, ensuring that only emissions from activities within these boundaries are considered.

¹¹⁰¹ Including GHG Protocol, PAS 2050, ISO 14064 part 1 or equivalent.

¹¹⁰² There are seven greenhouse gases according to the United Nations Framework Convention on Climate Change and Kyoto Protocol. These are: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).

¹¹⁰³ Including GHG Protocol, PAS 2050, ISO 14064 part 1 or equivalent.

¹¹⁰⁴ Including to prioritize use of renewable sources of energy, where technically and economically viable.

¹¹⁰⁵ Compensation measures (used as a last resort) may include the use of carbon offsets.

¹¹⁰⁶ The requirement is that targets are set for Scope 1 and Scope 2 emissions, but entities can choose to develop Scope 3 targets if they have already developed a robust understanding of their Scope 3 emissions.

¹¹⁰⁷ Specific criteria for eligible Green Enabling Projects, as articulated in the International Capital Market Association (ICMA) 2024 'Green Enabling Projects Guidance document' include:



- 1) Necessary for an enabled Green Project's value chain (see details in Guidance document);
- 2) No carbon lock-in;
- 3) Clear, quantifiable and attributable environmental benefit; and
- 4) Mitigated adverse social or environmental impacts.

Guidance available at: <https://www.icmagroup.org/assets/documents/Sustainable-finance/2024-updates/Green-Enabling-Projects-Guidance-document-June-2024.pdf>

¹¹⁰⁸ Demonstration of the environmental benefits of the production's end-use are also expected by ICMA, refer to the above document for guidance on sites where: a) the end-user is known and largely traceable; or b) the end-user is not known. The IRMA Chain of Custody Standard provides an auditable framework to ensure accounting and traceability of material produced by IRMA-audited sites. Downstream due diligence and understanding of the risk and impact associated with the end-use of products sold is also addressed under Chapter 1.4 – Upstream and Downstream Sustainability Due Diligence.

ICMA Guidance available at: <https://www.icmagroup.org/assets/documents/Sustainable-finance/2024-updates/Green-Enabling-Projects-Guidance-document-June-2024.pdf>

¹¹⁰⁹ If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

¹¹¹⁰ They must be updated if the review process indicates that the site is not on track with its targets (that must be aligned with the Paris Agreement, as per 4.6.6.1). This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹¹¹¹ They must be updated if the review process indicates that the site is not on track with its targets (that must be aligned with the Paris Agreement, as per 4.6.6.1). This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹¹¹² They must be updated if the review process indicates that the site is not on track with its targets (that must be aligned with the Paris Agreement, as per 4.6.6.1). This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹¹¹³ They must be updated if the review process indicates that the site is not on track with its targets (that must be aligned with the Paris Agreement, as per 4.6.6.1). This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

¹¹¹⁴ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

¹¹¹⁵ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.

¹¹¹⁶ May be reported as CO₂ equivalent (CO₂e) or as the seven greenhouse gases defined in the United Nations Framework Convention on Climate Change and the Kyoto Protocol (CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).

¹¹¹⁷ May be reported as CO₂ equivalent (CO₂e) or as the seven greenhouse gases defined in the United Nations Framework Convention on Climate Change and the Kyoto Protocol (CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).

¹¹¹⁸ Carbon offsets can only be used as a last resort, see 4.6.5.1.

¹¹¹⁹ All material must remain publicly accessible at least until the completion of all post-closure activities (including any previous versions, iterations and revisions). Note that the intention is not that the reports should be removed from the public domain after that. Rather, where possible, it should be retained indefinitely as the information may be important for legal or other purposes.



Chapter 4.XX

Land and Soil Management (REMOVED)

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- The proposed Chapter 4.XX is not included anymore, following feedback from the public consultation and discussion at the level of the IRMA Board.
- The requirement for Mineral Processing projects to assess the possibility of locating the project on an existing brownfield site has been moved to the ESIA chapter (2.1.1.1).
- Strengthened the references to soil resources in the list of issues that must be considered in Annex 2.1-B for the ESIA process (Chapter 2.1).
- References to soil quality and soil pollution is also found in Chapter 2.7 Concurrent reclamation, closure and post-closure chapter (See 2.7.1.4, 2.7.1.5, 2.7.5.3).
- IRMA has kept an archive of this Chapter (also acknowledging that a lot of excellent work, comments, annex development and international norm benchmarking went into its development) to be able to consider it for a future version of the IRMA Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback and Decision
4.XX-01	(Background/Notes) Question: Do you agree with the proposal to add a new chapter on 'Land and Soil Management'? If not, why not?	Feedback received: 7 responses received. 3 (2 mining, 1 consultant) agree with adding. 3 (mining) disagree and suggest combining with other chapters. 1 (mining) suggests removing duplicate requirements from other chapters and piloting before adopting into the Standard. Proposed decision: Do not include as a separate chapter. We have strengthened references to soil resources in Chapter 2.1 (ESIA) and Chapter 2.7 (Concurrent Reclamation, Closure and Post-Closure)
4.XX-02	(Background/Notes) Question: Do you agree that soil does not need to be maintained or restored to original (pre-mining) biological and physical quality? If you do not agree, please explain. If you believe the chapter should have additional best practice requirements, please feel free to make suggestions, and if possible, provide examples of where your best practice suggestions are being implemented at mining or mineral processing sites.	Feedback received: 6 responses received (5 mining, 1 consultant). All respondents agreed that soil does not need to be maintained or restored to original (pre-mining) biological and physical quality. No respondents suggested additional best practice requirements in responding to the second question. Proposed decision: The Chapter is not included anymore.
4.XX-03	(4.XX.1.1 – Site selection for mineral processing projects) Question: Is this a reasonable requirement and would many/most new mineral processing operations be able to demonstrate that brownfield sites were considered (or explain why they were not)?	Feedback received: 5 responses received (4 mining, 1 consultant). All respondents agreed 4.XX.1.1 is a reasonable requirement. Proposed decision: The Chapter is not included anymore.
4.XX-04	(4.XX.4.1) Question: Can you recommend examples of international good practice related to soil remediation as it relates to mining and/or mineral processing?	Feedback received: No detailed example provided. One respondent suggested to use the French methodology for managing polluted sites (no other information included). Decision: The Chapter is not included anymore.
4.XX-05	(4.XX.4.1) Question: Are these requirements too onerous in cases where there is no legal liability? In such cases, does the scope of the requirements need to be narrowed? For example, should remediation only be required within the site boundary (as long as on-site contaminated areas are not contributing to off-site contamination or impacts)?	Feedback received: 4 responses received (4 mining). 3 respondents suggested the requirements were too onerous, 1 questioning requirements if no liability. 1 suggests keeping the requirement to ensure IRMA expectations are met where the country of operation's law does not set meaningful standards. Proposed decision: The Chapter is not included anymore.

4.XX-06	(4.XX.4.2) Question: Are there other strategies that you can suggest to protect soil chemical quality and minimize erosion and loss of soil and land? If so, where would your suggestions fit in the hierarchy above?	Feedback received: 4 responses received (4 mining). 1 respondent finds it sufficient as listed. 1 respondent provided links to ICMM approaches (links to ICMM's Good Practice Guidance for Mining and Biodiversity, which only has limited specifics about soil quality and soil loss) and to a soil loss modeling reference. Proposed decision: The Chapter is not included anymore. Soil erosion and soil loss is now addressed under Chapter 2.7: Concurrent Reclamation, Closure, and Post-Closure.
4.XX-07	(4.XX.5.1) Question: Do you believe it critical to quantify soil erosion rates, or should monitoring focus on qualitative visual inspections to recognize the signs of erosion and prioritize affected areas for mitigation and restoration? If you believe that soil erosion measurements are needed, are there particular methods that you would recommend? Is knowing the actual volume of soil or land loss important? Or should these numbers not be a concern as long as actions are taken to effectively return land to a productive, beneficial use?	Feedback received: 2 responses received (2 mining). 1 respondent suggested to just use visual approach and focus on restoration not volume calculations. The other suggested to use visual and modeling; flagging that modeling may overestimate erosion rates. Proposed decision: The Chapter is not included anymore. Soil erosion and soil loss is now addressed under Chapter 2.7: Concurrent Reclamation, Closure, and Post-Closure.

Glossary of Terms used in this Standard

Direct access to each letter entry

A	546
B	548
C	552
D	560
E	562
F	566
G	568
H	570
I	572
K	575
L	576
M	578
N	582
O	583
P	584
R	588
S	591
T	593
U	596
V	597
W	597
Z	599

A

Accessibility (also Web accessibility)

Accessibility ensures that all people—regardless of ability or disability— can interact with the information or services provided. This includes, but is not limited to, appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. To be efficient, these measures require the identification and elimination of obstacles and barriers to accessibility.

Source: UN Convention on the Rights of Persons with Disabilities (CRPD), Article 9
<https://social.desa.un.org/issues/disability/crpd/article-9-accessibility>

Accident

An event that results in injury, ill health, fatality or harm/damage to people, animals, biodiversity, property or the environment.

Accountable Executive

One or more executive (s) who is/are directly answerable to the CEO on matters related to this chapter, communicates with the Board of Directors, and who is accountable for the safety of tailings storage and mine waste storage facilities and for minimizing the social and environmental consequences of a potential facility failure. Accountable executive(s) may delegate responsibilities but not accountability.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Acid Rock Drainage (ARD)

The drainage produced when rocks with sulfide or other acid-producing minerals are under oxidizing conditions (exposed to water and oxygen) and generate an acidic water stream. Acid rock drainage generally contains elevated concentrations of metals, sulfate, and other constituents and has a pH < 6. The terms acid mine drainage and acid and metalliferous drainage (both AMD) are sometimes used as synonyms for ARD.

Actual Human Rights Impact

An adverse impact on human rights that has already occurred or is occurring.

Adaptive Management

Adaptive Management is a structured, iterative process of robust decision-making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. It includes the development of management practices based on clearly identified outcomes, and monitoring to determine if management actions are meeting desired outcomes. If outcomes are not being met, the process requires development and implementation of management changes to ensure that outcomes are met or re-evaluated.

Source: Adapted from US Forest Service. 2008. National Forest System Land Management Planning. Final Rule. Federal Register. Vol. 73, No. 77, §219.16.

Additional Conservation Measures

Measures which benefit biodiversity and ecosystem services, but which do not directly compensate for losses. This contrasts with 'biodiversity offsets', which specifically aim to compensate for project impacts by generating gains at least equivalent to the biodiversity losses. (Also referred to as 'Additional Conservation Actions').

Adverse Human Rights Impact

When an action removes or reduces the ability of an individual to enjoy their human rights.

Affected Community

A community that is subject to risks or impacts from a project/operation.

Source: Adapted from IFC. IFC Policy & Performance Standards and Guidance Notes. Glossary of Terms.

Affected rights-holders and stakeholders

In the context of this Standard, refer to the rights-holders and stakeholders **affected or potentially affected** by the site and its associated facilities; including direct, indirect, and cumulative impacts. Their identification and mapping are covered in Chapters 1.2 and 1.3, and are fundamental steps to ensure meaningful engagement and collaborative decision-making with those affected rights-holders and stakeholders, as well as effective protection of their rights, health, and safety.

Affected Indigenous Peoples

Refer to all Indigenous Peoples (individuals and groups, other than those uncontacted or in initial contact) whose rights or interests may be directly or indirectly affected by the ENTITY's mining-related activities. IRMA recognizes that there may be peoples for whom relevant chapters apply who prefer to use other terms such as tribal, aboriginal, First Nations, Adivasi, etc., but who have the right to FPIC according to international and/or in-country laws. For the purposes of interpreting this standard IRMA uses the full inclusive definition presented in the Glossary (see Indigenous Peoples), which is directly adapted from guidance published by the United Nations Permanent Forum on Indigenous Peoples and from guidance published by the World Bank.

Air Quality Modeling

Mathematical and numerical techniques used to simulate the physical and chemical processes that affect air pollutants as they disperse and react in the atmosphere. These include, for example: air dispersion models, which are used to predict concentrations of pollutants at selected downwind receptor locations; and receptor models, which use observational techniques and chemical and physical characteristics of gases and particles measured at source and receptor and to identify the presence of and to quantify source contributions to receptor concentrations.

Source: USEPA website: "Air Quality Models." <https://www3.epa.gov/scram001/aqmindex.htm>

Alien/Non-Native Species

Animals, plants or other organisms introduced by humans, either intentionally or accidentally, into areas outside their natural range. Some of these species become established and negatively impact native biodiversity. These species are classified as invasive alien species.

Source: IUCN. <https://www.iucn.org/resources/issues-brief/invasive-alien-species-and-sustainable-development>

Ambient Air Quality

The concentrations of pollutants (e.g., chemicals, particulate matter) in air (for IRMA's purposes, outdoor air).

Area of Influence

The area of influence encompasses the areas: 1) likely to be affected by the project/operation and facilities, including associated facilities; 2) actually affected by the project/operation and facilities, including associated facilities; and 3) affected by any unplanned but reasonably foreseeable developments induced by a project/operation and/or cumulative impacts from the project/operation. In the context of this Standard, the area of influence is required to be determined in Chapter 2.1 – Environmental and Social Impact Assessment and Management (see requirement 2.1.4.1). If not done as required by Chapter 2.1, entities would be expected to establish the area of influence in order to fully meet any requirement that refers to it.

Source: Adapted from IFC 2012. Performance Standard 1. <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards> and USAID. 2017. Construction Sector Environmental Guidance. Glossary. https://2017-2020.usaid.gov/sites/default/files/documents/1860/SectorEnvironmentalGuidelines_Construction_2017.pdf

Artisanal and Small-Scale Mining (ASM)

Formal or informal operations with predominantly simplified forms of exploration, extraction, processing, and transportation. ASM is normally low capital intensive and uses high labor-intensive technology. ASM can include men and women working on an individual basis as well as those working in family groups, in partnership or as members of cooperatives or other types of legal associations and enterprises involving hundreds or thousands of miners. For example, it is common for work groups of 4-10 individuals, sometimes in family units, to share tasks at one single point of mineral extraction (e.g., excavating one tunnel). At the organizational level, groups of 30-300 miners are common, extracting jointly one mineral deposit (e.g., working in different tunnels), and sometimes sharing processing facilities.

Source: OECD. 2016. OECD Due Diligence Guidance on Responsible Mineral Supply Chains from Conflict Affected and High Risk Areas.

As Low As Reasonably Practicable

All reasonable measures are taken with respect to 'tolerable' or acceptable risks to reduce them even further until the cost and other impacts of additional risk reduction are grossly disproportionate to the benefit.

Source: Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Assistive Technology

Assistive technology (AT) is any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities.

Source: ATIA (Assistive Technology Industry Association)

Associated Facility

Any facility owned, managed, and/or used by the ENTITY that would not have been constructed, expanded or acquired but for the project/operation and/or without which the project/operation would not be viable. Examples include but are not limited to stationary physical property such as power plants, port sites, roads, railroads, pipelines, borrow areas, fuel production or preparation facilities, parking areas, shops, offices, housing facilities, construction camps, storage facilities, etc. Associated facilities may be geographically separated from the area hosting the site. See also 'Facility'.

Autonomous Consultation and/or FPIC Protocol

A documentation or codification of Indigenous Peoples' principles and rules for the exercise of collective rights as regards their internal organization and their relationship with the State and other actors. These protocols are developed by the Indigenous Peoples themselves to formalize their engagement rules and procedures in relation to robust FPIC processes ensuring they can give or withhold consent. Other terms, such as regulatory or normative frameworks, policies, templates, guidelines and manifestos, are also used by Indigenous Peoples, or are used interchangeably, to describe such instruments, and some peoples have their terms in their own languages which they deem culturally appropriate. According to UNDRIP (Article 34), Indigenous Peoples have the right to promote, develop and maintain autonomous protocols or procedures, "in accordance with international human rights standards."

B

Background Water Quality

Established after an operation has commenced, it is the water quality in a similarly mineralized area outside of the operation's influence (e.g., surface water quality upstream of the mine site or upgradient for groundwater).

GLOSSARY

Baseline

A description of existing conditions to provide a starting point (e.g., pre-project condition) against which comparisons can be made (e.g., post-impact condition), allowing the change to be quantified.

Source: Adapted from the Business and Biodiversity Offsets Programme. 2012. Glossary.

Baseline Air Quality

Ambient air quality at the site and in the area surrounding a proposed project, before mining-related activities have occurred.

Source: Adapted from BC Ministry of Environment. 2008. Guidelines for Air Quality Dispersion Modelling in British Columbia.

Baseline Ambient Noise Levels

Ambient noise level is the total noise from all sources at a given location and time. In the context of this Standard, baseline ambient noise is the background sound pressure level at a given location without the presence of noise sources of interest (in this case, sources of interest would be noise related to a mining and/or mineral processing operation).

Baseline Water Quality

The water quality at the site and in the area surrounding a proposed project, before mining-related activities have occurred.

Beneficial Owner

The natural person(s) who ultimately owns or controls a company and/or on whose behalf a company is owned. It includes those people who exercise ultimate effective control over a legal person or arrangement. Reference to “ultimately owns or controls” and “ultimate effective control” refer to situations in which ownership/control is exercised through a chain of ownership or by means of control other than direct control.

Source: Adapted from FATF Guidance: Transparency and Beneficial Ownership. 2014. Chapter III.

Best Available Techniques (BAT)

Techniques that can most effectively achieve a high level of environmental protection and allow implementation in relevant sectors under economically and technically viable conditions. “Techniques” includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned; “Available” techniques means those techniques that are accessible to the operator and that are developed on a scale that allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages; and “Best” means most effective in achieving a high general level of protection of the environment as a whole.

Source: Adapted from the Stockholm Convention. 2009.

Best Available Technology (BAT)

Site-specific combination of technologies and techniques that are economically achievable and that most effectively reduce risks (e.g., physical, geochemical, ecological, social, financial, and reputational) to an acceptable level during all stages of operation and closure, and support an environmentally and economically viable mining operation.

Source: Adapted from Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (3rd Ed).

Best Available/Applicable Practice (BAP)

Encompasses management systems, operational procedures, techniques and methodologies that, through experience and demonstrated application, have proven to reliably manage risk and achieve performance objectives in a technically sound and economically efficient manner. BAP is an operating philosophy that embraces continual improvement and operational excellence, and which is applied consistently throughout the life of a facility, including the post-closure period.

Source: Adapted from Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (3rd Ed).

Best Environmental Practices (BEP)

The application of the most appropriate combination of environmental control measures and strategies.
Source: The Stockholm Convention. 2009.

Best Practice(s)

In the context of the drafting of the IRMA Standard, this has been interpreted to mean that the Standard should consist of a set of auditable requirements that reflects agreement of the multi-stakeholder IRMA process on the most effective way to achieve the agreed social and environmental objectives of each chapter of the IRMA Standard, given the current state of knowledge. The IRMA Standard is intended to specify levels of performance such that a mine that is operating according to best practice could reasonably be expected to conform with all the specified requirements of every chapter.

Biodiversity/Biological Diversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are a part; this includes diversity within species, between species, and of ecosystems.

Source: Convention on Biological Diversity. 1992, Article 2.

Biodiversity Offset

As it relates to biodiversity, measurable conservation outcomes resulting from actions applied to areas not impacted by the project designed to compensate for residual adverse impacts on biodiversity arising from project development. Offsets should only be used after or while appropriate avoidance, minimization, and restoration actions have been assessed. The goal of biodiversity offsets is no net loss or a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function, and people's use and cultural values associated with biodiversity. (See also mitigation hierarchy).

Biological Exposure Indices (BEI)

The concentration of chemicals in the body that would correspond to inhalation exposure at a specific concentration in air.

Source: International Labour Organization (ILO) website. "Chemical exposure limits."

Biosphere Reserves

Biosphere reserves are areas comprising terrestrial, marine, and coastal ecosystems. Each reserve promotes solutions reconciling the conservation of biodiversity with its sustainable use. Biosphere reserves are 'Science for Sustainability support sites' – special places for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity. Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Their status is internationally recognized.

Source: UNESCO. <https://www.unesco.org/en/biosphere/wnbr/about>

Breach Analysis

A study that assumes a failure of a tailings storage or mine waste storage facility and estimates its impact. Breach analyses must be based on credible failure modes. The results should determine the physical area impacted by a potential failure, flow arrival times, depth and velocities, duration of flooding, and depth of material deposition. The breach analysis is based on scenarios which are not connected to probability of occurrence. It is primarily used to inform emergency preparedness and response planning and the consequence of failure classification. The classification is then used to inform the external loading component of the design criteria.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

GLOSSARY

Brine

Groundwater, surface water or sea water that contains valuable dissolved minerals at sufficient concentrations to be economically extractable. (See also *Evaporate*).

Brownfield

Land which has previously been developed for industrial use and where disturbance, degradation and/or contamination have not been effectively addressed through rehabilitation or restoration.

Business Partner

Refers to any individual or organization: with which the ENTITY has a commercial agreement related to the operations, products or services of the ENTITY or to which the ENTITY provides services pursuant to its chain of activities ('direct business partner'); or which is not a direct business partner but which performs business operations related to the operations, products or services of the ENTITY ('indirect business partner'). In the context of this Standard, business partners, but are not limited to: contractors, suppliers, agents, brokers, intermediaries, and subsidiaries or joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities.

Figure G1 below clarifies the terminology used to differentiate the ENTITY and its on-site Contractors from upstream and downstream business partners (including upstream suppliers of input mineral for mineral processing operations).

Figure G1. Schematic representation of the interactions and business relationships between the Entity, on-site Contractors, and upstream and downstream business partners (both direct and indirect)

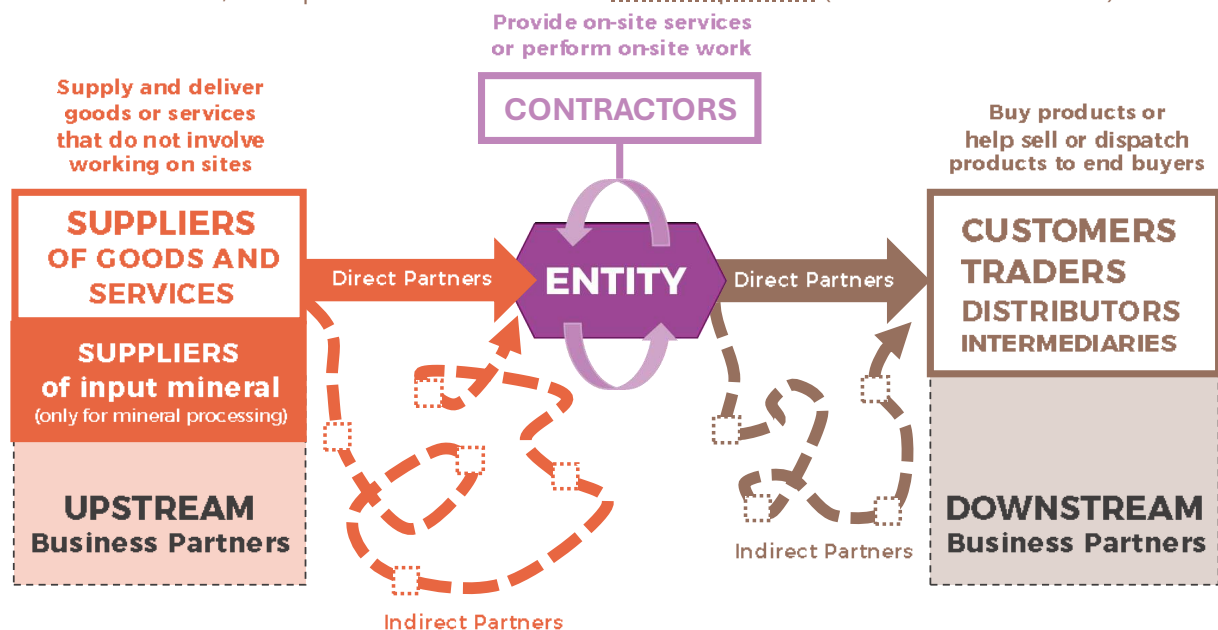
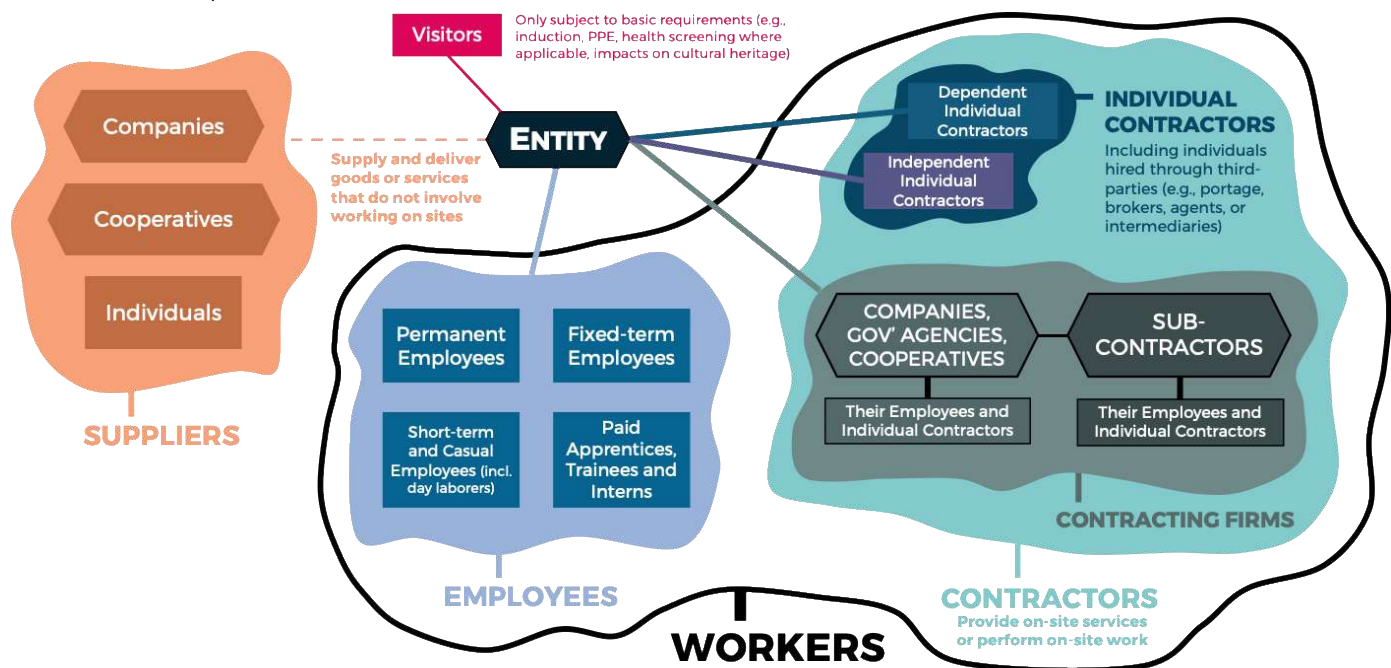


Figure G2 below clarifies the terminology used to differentiate the ENTITY and its employees from Contractors, Suppliers, and Visitors.

GLOSSARY

FIGURE G2. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors

Source: adapted from ILO ICSE-18-A



<https://ilostat.ilo.org/methods/concepts-and-definitions/classification-status-at-work/>

Business Relationships

Relationships a business enterprise has with business partners, entities in a value chain, and any other non-state or state ENTITY directly linked to its business operations, products, or services. They include indirect business relationships in its value chain, beyond the first tier, and minority as well as majority shareholding positions in joint ventures. See *Business Partner*.

C

Carbon Offset

A carbon offset broadly refers to a reduction in GHG emissions – or an increase in carbon storage (e.g., through land restoration or the planting of trees) – that is used to compensate for emissions that occur elsewhere.

Source: <https://www.offsetguide.org/understanding-carbon-offsets/what-is-a-carbon-offset/>

Certification Body

Also known as a conformity assessment body, is an ENTITY that performs auditing and conformity assessment services to determine if specified requirements are fulfilled (in this case conformity with the IRMA Standard).

Source: Adapted from ISO/IEC 17000:2005.

Chain of Activities

The ENTITY's chain of activities encompasses: 1) all activities of the ENTITY's upstream business partners, i.e. related to the production of goods or the provision of services by these business partners to the ENTITY, including the design, extraction, sourcing, manufacture, transport, storage and supply of raw materials (including input raw materials for an ENTITY running mineral processing operations), products or parts of products and the development of the product or the service; and 2) all activities of the ENTITY's downstream business partners, i.e. related to the distribution, transport and storage of a product of the ENTITY, where the business partners carry out those activities for the ENTITY or on behalf of the ENTITY.

Chance Find (Procedure)

A chance find procedure is a project-specific procedure that outlines the actions to be taken if previously unknown cultural heritage is encountered.

Source: IFC. 2012. Performance Standard 8. Footnote 2.

Child Labor

Work that deprives children of their childhood, their potential, and their dignity, and that is harmful to physical and mental development. In most jurisdictions - and for the purposes of the IRMA Standard - child labor meeting this definition is all labor by children under the age of 15, and all labor by children between 15 and 18 years old that does not meet certain conditions (i.e., is not hazardous work - see definition below, does not occur during school hours, does not total more than 10 hours / day between work and school, etc.).

Source: Various, including International Labour Organization (ILO) website: "What is child labour."; International Labour Organization (ILO). C182, Worst Forms of Child Labour Convention, 1999 (No. 182) and R190 - Worst Forms of Child Labour Recommendation, 1999 (No. 190).

Closure

Refers to the post-reclamation activities that are required to close and secure a site to maintain compliance with environmental and health and safety regulations. It includes interim fluid and site management in addition to post-reclamation monitoring and maintenance during the period when the success of reclamation measures to achieve site-safety, stability, revegetation, and water quality as well as other reclamation objectives is measured and maintained. The closure period is finite and typically no more than ten years in duration.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Company Union

A workers' organization that is dominated or controlled by an employer.

Competent Authority

The government department or other authority having power to issue and enforce regulations, orders, or other instructions having the force of law in respect of the subject matter of the provision concerned.

Source: International Labour Organization (ILO). Maritime Labour Convention, 2006.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, and necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional.

Complaint

See '*Grievance*'.

Comprehensible

In forms and languages that are easily understood by workers and/or other stakeholders.

Source: International Labour Organization (ILO). Code of Practice. Ambient Factors in the Workplace.

Conceptual Site Model (CSM)

A qualitative description, based on site measurements and observations, of what is known about the release, transport, and fate of contaminants at a site. A CSM includes a schematic or diagram and an accompanying narrative description.

Concurrent Reclamation

Concurrent reclamation, also termed “progressive” or “contemporaneous” reclamation, means a reclamation activity that is undertaken concurrent with mining and/or mineral processing activities, prior to the end of the operation’s life, that contributes to the final reclamation and closure goals, and the post-closure land use objectives.

Confidential Business Information

Material that contains trade secrets or commercial or financial information that has been claimed as confidential by its source. The information must be secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to people within the circles that normally deal with the kind of information in question; it must have commercial value because it is secret; and it must have been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Sources: US EPA Terms and Acronyms Search, and World Intellectual Property Organization: “What is the international legal framework of trade secret protection?”

Conflict Analysis

The systematic study of the profile, issues, and stakeholders that shape an existing or potential conflict, as well as factors in the interaction between the three. It helps companies gain a better understanding of the environment in which they operate and their role in that context.

Source: Adapted from International Alert. 2005. Conflict-sensitive Business Practice: Guidance for extractive industries.

Conflict-Affected and High-Risk Area

This terminology encompasses a wide range of realities and situations. The OECD Guidance includes in its definition of conflict-affected areas: “areas identified by the presence of armed conflict, widespread violence, including violence generated by criminal networks, or other risks of serious and widespread harm to people”. And a definition of high-risk areas: “where there is a high risk of conflict or of widespread or serious abuses of human rights. Such areas are often characterized by political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, widespread violence, and violations of national or international law.” The Guidance notes that “armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars.” And the UNGP Guide points out to “new forms of widespread violence distinct from those associated with traditional armed conflict that have emerged in recent years. This ‘non-conventional armed violence’ is the result of the activities of groups summarized as tribal networks, thugs (organized crime) and terrorists such as organized criminal groups (‘gangs’) and violent extremist organizations, illicit economy-related actors and other actors who may not be driven by clear political or ideological agendas, or be organized by the state.” Further elaborating on the complexity and nuances that conflicts can take, the UNDP Guide notes that “businesses should be aware of early ‘red flags’ pointing towards armed conflict or mass violence which should prompt them to initiate (or update earlier) heightened human rights due diligence processes.” These include:

- Amassing of weapons, especially arms, especially by non-state groups.
- Weak or absent state structures, including the imposition of emergency laws or extraordinary security measures, or the suspension of, or interference with, vital state institutions, particularly if this results in the exclusion of underserved and/or marginalized people or minority groups.
- Records of serious violations of international human rights and/or humanitarian law.
- Increased inflammatory rhetoric or hate speech targeting specific groups or individuals.
- Signs of militia or paramilitary group recruitment, public appearances or other activity.

GLOSSARY

- Strengthening of the state security apparatus or mobilization against specific groups.
- Strict control or banning of communication channels; including control of media and distortion of facts, censorship, propaganda, misinformation and lack of access to reliable objective information, lack of objective independent media (TV and radio) and closure of internet or websites.
- Expulsion or banning of non-governmental organizations, international organizations, media, or other relevant actors.
- Groups of individuals at the mercy of an authority they oppose or that perceives them as the enemy, and the members of their families and communities.
- People are not protected from acts of violence perpetrated against them.
- People are unable to meet their basic needs because of a climate of fear and violence.
- Presence of displaced persons including those who are internally displaced.

Sources: OECD. 2016. Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

United Nations Development Programme (2022). Heightened Human Rights Due Diligence for business in conflict-affected contexts; A Guide.

Conflict Risk

The assessed potential consequences of any conflicts that may emerge or be exacerbated because of an ENTITY's presence, activities, or relationships; and the probability that such conflicts will occur. Conflicts may arise within or between communities and/or stakeholder groups, or between the company and communities/stakeholders.

Conservation Outcome

A conservation outcome is the result of a conservation intervention aimed at addressing direct threats to biodiversity or their underlying socio-political, cultural, and/or economic causes. Conservation outcomes are typically in the form of: (a) extinctions avoided (i.e., outcomes that lead to improvements in a species' national or global threat status); (b) new or additional sites protected or conserved (i.e., outcomes that lead to the designation of a site as a formal or informal protected or conserved area and thereby an improvement in the management effectiveness of an area); and (c) corridors created (i.e., outcomes that lead to the creation of interconnected networks of sites at the landscape scale, which enable the maintenance of intact biotic assemblages and natural processes, and, thereby, enhance the long-term viability of natural ecosystems). Conservation outcomes would also include any other intervention that leads to conservation gains (i.e., improvements in biodiversity or ecosystem services). However, they are not the interventions themselves.

Conservation Values

The ecological, biological, geomorphological, geological, cultural, spiritual, scenic, or amenity values, features, processes, or attributes that are being conserved.

Construction Versus Design Intent Verification

Intended to ensure the design intent is implemented and still being met if the site conditions vary from the design assumptions. The CDIV identifies any discrepancies between the field conditions and the design assumptions, such that the design can be adjusted to account for the actual field conditions.

Source: Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. The ENTITY should take into account the concerns and views expressed by stakeholders in the final decision.

Contaminant of Concern (COC)

Contaminants of Concern (COCs) are those contaminants which have been shown through risk assessment, analysis, or equivalent, to be those that are likely to be actually posing risk to human health or non-human biological receptors (e.g., flora, fauna, fungi).

Contaminant of Potential Concern (COPC)

Contaminants that may pose a risk to human health or non-human biological receptors (e.g., flora, fauna, fungi). COPCs are usually identified using the results of laboratory short-term and long-term (kinetic) leach tests or results of chemical analysis of extracted brines and liquid wastes. In the context of this Standard, If laboratory leachate, brine or liquid waste concentrations exceed numeric IRMA Water Quality Criteria ([See Annex 4.3-A](#)), those constituents are identified as COPCs. A risk assessment will be conducted to determine actual final Contaminants of Concern (COCs).

Contamination

The presence of a substance where it should not be or at concentrations above background, but not necessarily high enough to have an adverse impact on ecosystem and/or human health. See also 'Pollution'.

Source: Chapman, P. 2006. "Determining when contamination is pollution," Environ. Int. <https://doi.org/10.1016/j.envint.2006.09.001>

Continuous Feedback

In the context of this Standard, continuous feedback from internal and external sources encompasses all information obtained through regular and ongoing review, communication and engagement activities. In addition to time-bound evaluation measures (such as the ones required on a biannual or annual basis throughout the Standard), continuous feedback is often gathered when relevant information becomes available. A continuous feedback loop helps identify concerns from workers, rights-holders, and stakeholders throughout the project cycle, and enhance their participation in decision-making and overseeing processes.

Source: Adapted from The World Bank.

Contract

In line with the approach taken by the EITI, the term "contract" in Chapter 1.6 means:

- 1) The full text of any contract, concession, production-sharing agreement or other agreement (or equivalent) granted by, or entered into by, the government (or the competent authority) which provides the terms attached to (as relevant) the exploration, development, exploitation, production, and processing of mineral resources by the ENTITY.
- 2) The full text of any annex, addendum or rider which establishes details relevant to these rights, or the execution thereof.
- 3) The full text of any alteration or amendment to the documents described 1) and 2) above.

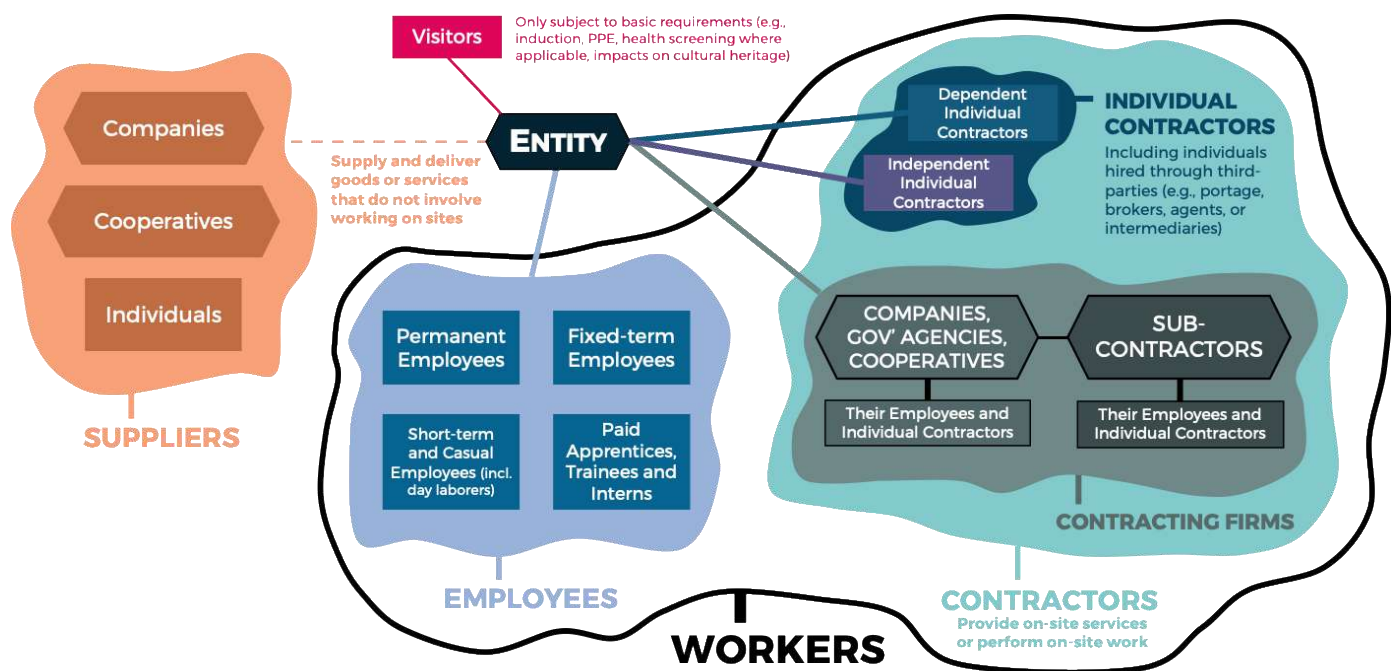
See also definition of licenses.

GLOSSARY

Contractors

Include all individual contractors, and contracting firms, as well as the latter's employees and contractors, regardless of management levels. Individual contractors include both dependent and independent individual contractors (also including those hired through third party contractors e.g., brokers, agents, or intermediaries) that carry out duties, or supply services and/or goods, in a manner that involves working on sites. Dependent individual contractors are individual contractors who maintain an economic reliance on a specific company, although they are not classified as formal employees, and still offer their services to multiple clients. Contracting firms include companies, firms, government agencies, cooperatives, or other legal entities that are subject to a contractual agreement to carry out duties, or supply services and/or goods, in a manner that involves working on sites. See Figure G3 below.

FIGURE G3. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors



Source: adapted from ILO ICSE-18-A
<https://ilostat.ilo.org/methods/concepts-and-definitions/classification-status-at-work/>

Control

An act, object (engineered), or system (combination of act and object) intended to prevent or mitigate an unwanted event.

Source: ICMM. 2015. Health and Safety Critical Control Management: Good Practice Guide.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a project/operation.

Corruption

In general terms, corruption can be defined as “the abuse of entrusted power for private gain” (Transparency International) or “any unlawful or improper behavior that seeks to gain a private advantage through illegitimate means” (RJC). In the context of the mining and mineral sector, corruption covers a range of different types of actions including bribery, abuse of power, extortion, fraud, deception, collusion, cartels, embezzlement, money laundering, nepotism, cronyism, influence peddling and self-dealing. Corruption can include legal and illegal actions. Some forms of corruption are not necessarily prohibited by a country’s laws, particularly since the beneficiaries of corruption may play a role in setting those laws.

Source: Adapted from Natural Resource Governance Institute, Diagnosing Corruption in the Extractive Sector: A Tool for Research and Action (2nd Edition, 2023, <https://anticorruptiontool.resourcegovernance.org/wp-content/uploads/2023/12/Diagnosing-Corruption-in-the-Extractive-Sector-A-Tool-for-Research-and-Action.pdf>); and Responsible Jewellery Council, Code of Practices (2019, <https://www.responsiblejewellery.com/wp-content/uploads/RJC-COP-2019-V1.2-Standards.pdf>)

Country of Operation’s Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the project or operation is located. Country of operation’s law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory ENTITY, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the project or operation is located. The primacy of country of operation’s laws, such as federal versus provincial, is determined by the laws of the country.

CO₂e (or CO₂-e or CO₂-equivalent)

A carbon dioxide equivalent or CO₂ equivalent, abbreviated as CO₂e is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same GWP.

Source: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Carbon_dioxide_equivalent

Credible Failure Mode

Refers to technically feasible failure mechanisms given the materials present in a facility’s structure and its foundation, the properties of these materials, the configuration of the structure, drainage conditions and surface water control at the facility, throughout its life cycle. Credible failure modes can and do typically vary during the life cycle of a facility as the conditions vary. A facility that is appropriately designed and operated considers all of these credible failure modes and includes sufficient resilience against each. Different failure modes will result in different failure scenarios. Credible failure modes do not exist for all facilities. The term ‘credible failure mode’ is not associated with a probability of this event occurring and having credible failure modes is not a reflection of facility safety.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Credible Method/Methodology

A method/methodology that is widely recognized, accepted, and used by experts and practitioners in a particular field of study.

Critical Control

An action, object (engineered) or system (combination of action and object) put in place to prevent or reduce the likelihood of an unwanted event, or to minimize or mitigate the negative consequences if an unwanted event occurs, in particular for high-consequence risks.

Sources: Adapted from ICMM. 2015. Health and Safety Critical Control Management: Good Practice Guide, and Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (3rd Ed).

Critical Cultural Heritage

Consists of: (i) the internationally recognized heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes; (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation; or (iii) natural areas with cultural and/or spiritual value such as sacred groves, sacred bodies of water and waterways, sacred trees, and sacred rocks.

Source: Adapted from IFC. 2012. Performance Standard 7. Para. 16; and Performance Standard 8, Para. 13.

Critical Habitat

Areas with high biodiversity value, including but not necessarily limited to: (i) habitat of significant importance to critically endangered, endangered species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes. Other recognized high biodiversity values might also support a critical habitat designation, based on case-by-case evaluation.

Source: Adapted from IFC. 2012. Performance Standard 6, Para. 13 and GN55, GN56, 57.

Cultural Heritage

Refers to (i) tangible moveable or immovable objects, property, sites, structures, or groups of structures, artefacts, works of monumental sculpture and painting, artworks, inscriptions, cave dwellings, landscapes, gardens and urban spaces, buildings, architectural works, monuments and historic places having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values that are considered worthy of preservation for the future from the point of view of history, art or science; (ii) unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and (iii) certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural practices, representations, expressions, knowledge, skills, innovations – as well as the instruments, objects, artefacts and cultural spaces associated therewith – and practices of communities embodying traditional lifestyles.

Source: Adapted from IFC Performance Standard 8 (IFC, 2012), EBRD Performance Requirement 8 (2019), the Convention for the Safeguarding of the Intangible Cultural Heritage (UNESCO, 2003), and the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (UNESCO, 1972).

Culturally Appropriate

Refers to methods, formats, languages, and timing (e.g., of communications, interactions, and provision of information) being aligned with the cultural norms, practices, and traditions of the target audience/group (i.e. affected communities, rights-holders, and/or stakeholders). This includes paying particular attention to sensitive cultural issues and avoiding the use of images, terms or concepts that may be perceived as offensive. In the context of this Standard, requirements to engage and/or share information with stakeholders and rights-holders in a culturally appropriate manner is aimed at ensuring their understanding of the issues, risk, and impacts addressed.

Cumulative Impacts

Additive, synergistic, interactive or nonlinear outcomes of multiple development or disturbance events that aggregate over time and space. Examples of cumulative impacts (or effects) may include reduction of water flows in a watershed due to multiple withdrawals; increases in sediment loads to a watershed over time; interference with migratory routes or wildlife movement; or more traffic congestion and accidents due to increases in vehicular traffic on community roadways.

Source: Adapted from International Association for Impact Assessment. 2005. Biodiversity Impact Assessment. Special Publication Series No. 3, with examples from IFC. 2012. Performance Standard 1, page 4, footnote 16.

Cumulative Impacts (on biodiversity)

Cumulative impacts refer to the incremental impacts of the mining project on biodiversity values, when also considering other current and reasonably foreseeable future stressors affecting a biodiversity value in the landscape. Cumulative impacts can be similar in type (e.g., emissions to air from multiple projects) or distinct (e.g., the cumulative effect of habitat loss, habitat fragmentation, and vehicular mortality on wildlife).

Source: Adapted from Gullison et al. 2015. Good Practices for the Collection of Biodiversity Baseline Data.

Customary Law (or Traditional Law)

The law and related customs of Indigenous and Tribal Peoples and local communities, increasingly recognized by courts, lawmakers, and public administrative bodies. Even where national or subnational legislation is available that aims to protect Indigenous Peoples and local communities, their rights are frequently denied in practice. Recognition of customary traditional law can aid in fair and effective administration of justice that is necessary to foster reconciliation, peace, stability and development among Indigenous Peoples and local communities.

Source: UN Economic and Social Council Commission on Human Rights. 2004. Human Rights and Indigenous Issues. pp. 2-3, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G04/105/28/PDF/G0410528.pdf?OpenElement> and World Intellectual Property Assoc. 2016. Customary Law and Traditional Knowledge. <https://www.wipo.int/publications/en/details.jsp?id=3876>

Customary Rights

Rights that arise from a behavior or act that is repeated over time under the belief that it is obligatory, and due to repetition and acceptance acquire the force of law within a geography or society. Such rights may be based on patterns of long-standing land and resource usage in accordance with those customary rights-holders' customary laws, values, customs, and traditions. Such rights apply to the lands, resources, and territories that those customary rights-holders have traditionally owned, occupied, or otherwise used. They do not apply to lands, territories, and resources that these groups have acquired in other ways, such as by purchase or part of a compensation package. In the case of Indigenous Peoples, these rights are one of their collective human rights, that exists whether or not a title from the State has been issued.

Source: Accountability Framework Initiative, 2024. <https://accountability-framework.org/the-framework/contents/definitions/>

D

Defenders

See *Human Rights, Land, Environmental, and Labor Rights Defenders*.

Deforestation

Loss of natural forest as a result of: (1) conversion to agriculture or other non-forest land use; (2) conversion to a tree plantation; or (3) severe and sustained degradation.

- This definition pertains to no-deforestation supply chains that generally focus on preventing the conversion of natural forests.
- Severe and sustained degradation (scenario iii in the definition) constitutes deforestation even if the land is not subsequently used for a non-forest land use.
- Loss of natural forest that meets this definition is considered to be deforestation regardless of whether or not it is legal.

Source: The Accountability Framework Initiative, 2024. <https://accountability-framework.org/use-the-accountability-framework/definitions>

Design Basis Report

Provides the basis for the design, operation, construction, monitoring and risk management of a tailings storage or mine waste storage facility.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

GLOSSARY

Dewatering (of mines)

Pumping of groundwater inside or outside mine facilities to allow for underground or open pit mining or to create or maintain hydrologic control of mine influenced water. The extraction of water to lower the water table to a level lower than the deepest point of the mine keeps the mine dry.

Direct Impacts

Direct impacts are those caused by activities that are undertaken and facilities that are owned and managed by an ENTITY, and occur at the same time and in the same place that the action is occurring. See also 'Indirect Impacts'.

Disabled/Disability

Disabilities may be hidden and/or visible. Common challenges are mobility, vision, autism, hearing, chronic pain or illness, developmental, intellectual, speech. The focus should be on understanding the reason for a challenge, e.g. spina bifida requires use of wheelchair.

Discharge

A permitted release of treated mine-influenced water or compliant water to surface water, groundwater, or the land. See also 'Release'.

Displacement (Economic and / or Physical)

A process by which the development of a project or operation causes people to lose land or other assets, or access to resources. This may result in physical and / or economic displacement, defined below. See also 'Involuntary Displacement' and 'Voluntary Displacement':

- Economic Displacement: the loss of assets or access to assets that leads to a loss of income sources or other means of livelihood (i.e., the full range of means that individuals, families, and communities utilize to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource-based livelihoods, petty trade, and bartering). Economic displacement results from an action that interrupts or eliminates people's access to jobs or productive assets, whether or not the affected people must move to another location.
- Physical displacement: the relocation or loss of shelter (i.e., residential housing) as a result of project- or operation-related land acquisition and/or restrictions on land use.

Source: Adapted from IFC. 2012. Performance Standard 5.

Displacement Remediation Plan

Remediation refers to both the processes of providing remedy for an adverse impact and the substantive outcomes that can counteract, or make good, the adverse impact. Referring to historical land acquisition and displacement, this means a plan designed to remediate (through whatever means are most appropriate in the context) the adverse impacts of displacement caused by historical land acquisition processes. This plan should, to the extent possible, endeavor to achieve the objectives of a Resettlement Action Plan or Livelihoods Restoration Plan (see respective definitions).

Disposition

The process of selling, donating, or recycling all or part of a facility or equipment once it has been decommissioned.

Diversion

Diversion is the act of causing the instream flow of water to be rerouted temporarily or permanently from its natural channel. Water may be diverted into or away from a waterway. A diversion may be permanently (e.g., inter-basin transfer scheme) or temporary (e.g., interim realignment a waterway during road construction, with the original routing then re-instated). Water can be diverted via various means, including dams, weirs, culverts, canals, berms or pipes, amongst others). Diversion can considerably change flow, water levels and water quality. Any of these activities can adversely affect the natural characteristics of a waterway, the associated species and ecosystems, related ecological processes, and the delivery of ecosystem services.

Sources: NWA, 2023; NIWA, 2024.

Document Accessibility

Refers to the practice of designing documents in a way that allows persons with disabilities to read, understand, and interact with the content effectively. Key aspects to be considered include text, structure, color and contrast, images and multimedia, and tables. An accessible document is designed to be easily readable by all users, including low-vision or non-sighted readers, who may navigate through a document using screen reader software. Documents of various file formats can be proactively developed to make content accessible to assistive technology by applying a set of common principles.

Source: University of Pittsburgh, University Center for Teaching and Learning.

E

Ecological Processes

Biophysical processes (e.g., hydrologic regimes, local climatic regimes, soil chemistry/nutrient cycling, fires, floods and other natural disturbance regimes, herbivory, predation, ecological corridors, migration routes) necessary for the habitat to persist in a landscape or seascape for the long term.

Source: Adapted from IFC. 2012. Performance Standard 6. Guidance Note.

Ecologically or Biologically Significant Marine Areas (EBSAs)

The EBSAs are special areas in the ocean that serve important purposes, in one way or another, to support the healthy functioning of oceans and the many services that it provides.

Ecosystem

A dynamic complex of plant, animal, and micro-organism communities and their non-living environment interacting as a functional unit.

Source: United Nations Environment Programme, Convention on Biological Diversity 1992, Art. 2.

Available at <https://www.cbd.int/convention/>

Ecosystem Health

A value judgement of the overall condition of an ecosystem. Indices that can be used to assess ecosystem health for aquatic, estuarine, marine and terrestrial ecosystems include remaining ecosystem extent in relation to its historical distribution, habitat condition, degree of naturalness or degradation, extent of habitat modification, habitat integrity and fragmentation, diversity and abundance of indicator species, species assemblages, number or proportion of threatened species, distribution and prevalence of invasive species, change in stocks, change in flows, deviation from natural flow, flow connectivity, functionality of ecological processes, ecosystem ability to deliver goods and services, and water quality, amongst others

Sources: DWA, 2001 ; USEPA, 2024 ; Vollmer et al, 2018 ; Wu et al, 2015 ; Souter et al, 2015 ; Carlisle et al, 2008.

GLOSSARY

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fiber; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Source: Business and Biodiversity Offsets Programme. 2012. Glossary.

Effluent

Mine- or project-influenced water that has been treated to remove contaminants before being released to the environment.

Emergence of Infectious Disease

See 'Emerging Infectious Disease'.

Emergency Response Simulation

In the context of this Standard, a hands-on experience where participants perform procedures (i.e., act out their roles and responses) in a simulated environment to mimic a real-life emergency situation, thus building capacity of exposed stakeholders/populations while enabling an assessment of technical skills and decision-making under pressure.

Emergency Scenario

A description of a possible unwanted event or emergency situation that could pose an immediate risk to health, safety, life, property, or environment.

Emergency Situation

Any situation arising from a sudden and unexpected event that poses an immediate risk to health, safety, life, property, or environment and requires immediate corrective action to restore normal operation.

Emerging Infectious Disease

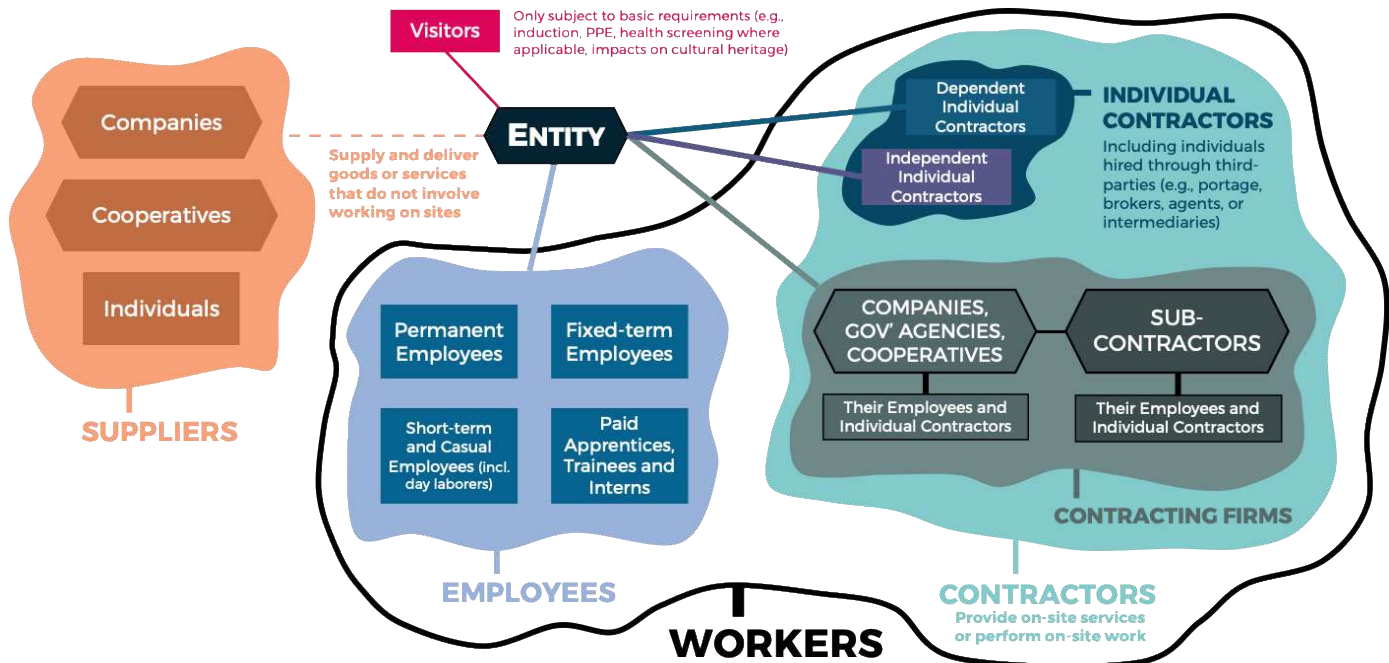
An infectious disease whose incidence has increased recently, and could increase in the near future. "The most frequent factor in emergence is human behavior that increases the probability of transfer of viruses from their endogenous animal hosts to man." (Morse SS, Schluederberg A. "Emerging Viruses: The Evolution of Viruses and Viral Diseases". *The Journal of Infectious Diseases*. 162 (1): 1–7).

GLOSSARY

Employees

All staff (regardless of management levels) employed by the ENTITY. This includes permanent employees, fixed-term employees, short-term and casual employees (including daily workers employed directly by the ENTITY), and paid apprentices, trainees and interns. See Figure G4 below.

FIGURE G4. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors



Source: adapted from ILO ICSE-18-A

<https://ilostat.ilo.org/methods/concepts-and-definitions/classification-status-at-work/>

Engineer of Record

The qualified engineer responsible for confirming that a facility is designed, constructed, and decommissioned with appropriate concern for integrity of the facility, and that it aligns with and meets applicable regulations, statutes, guidelines, codes, and standards. The engineer of record may delegate responsibility but not accountability.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Energy Consumption

The total use of energy from fossil fuel and non-fossil fuel sources (including renewables), whether delivered in the form of electricity, steam, heat (combustion), or cooling.

Enhancement (of biodiversity values)

The improvement of the ability of a degraded ecosystem to support biodiversity, through conservation measures such as alteration to the soils, vegetation, and / or hydrology. The term is sometimes used for a type of restoration that enhances the biodiversity present but is not couched in terms of restoring the ecosystem to some prior state.

Source: Business and Biodiversity Offsets Programme. 2012. Glossary.

ENTITY

The company, corporation, joint-venture partners, partnership, individual/s, or other type of organization/s that is effectively in control of managing an exploration, mining or mineral processing project or operation, and that is responsible for implementing this Standard (and for being independently audited against the Standard, for a third-party IRMA audit).

Environmental Flows

The water provided within a river, wetland, or coastal zone to maintain ecosystems and their benefits where there are competing water uses and where flows are regulated.

Source: IUCN. 2003. Flow: the essentials of environmental flows. <https://www.iucn.org/resources/publication/flow-essentials-environmental-flows>

Equitable

In reference to grievance mechanisms, means seeking to ensure that aggrieved parties have reasonable access to sources of information, advice, and expertise necessary to engage in a grievance process on fair, informed, and respectful terms.

Source: Ruggie, J. 2011. Guiding Principles on Business and Human Rights.

Evaporate

Solid material produced by evaporative concentration of brine (may be by solar or other evaporation method).

Exploration

A process or range of activities undertaken to find commercially viable concentrations of minerals to mine and to define the available mineral reserve and resource. May occur concurrent with and on the same site as existing mining operations.

Exploration Stage 1: Office compilation, photo-geologic study, pre-contact and exploration investigations (e.g., review of existing information, previous studies, research, and screening evaluations). The strict assumption in all cases is that there are no on-the-ground or in-the-air activities or activities that presume future exploration, such as contact with affected communities or applying for permits during the desktop stage of exploration.

Exploration Stage 2: Preparatory activities, consultations with affected communities, exploration project specific free, prior and informed consent (FPIC) determination, initial non-invasive site visits. The assumption in all cases is that these activities are conducted prior to other Stage 2 activities including any aerial examinations, geologic examinations, mapping and investigations, geochemical sampling, geophysics-airborne/ground, non-mechanized surface trenching.

Exploration Stage 3: Continued consultations with affected communities, exploration project specific FPIC determination, road construction, mechanized surface trenching, rotary drilling, core drilling, underground work, other surface work (e.g., surface facilities to support underground work), bulk sampling, on-site pilot processing plant. If additional exploration or in-fill drilling is performed during mine development or the operations stages, then the requirements of Stage #3 are applicable to those activities.

Expropriation

The legal (according to country of operation's laws) taking of land without the consent of the owner by an expropriating authority (often the host government) for the purposes of using said land for public interest. Definitions of public interest vary by country, but typically mining is considered to be in the public interest.

F

Facilitation Payment

Sums of money paid to get preferential treatment for something the receiver is otherwise still required to do—for example, paying an official to speed up, or ‘facilitate’, an authorization process.

Source: Responsible Jewellery Council. 2019. Code of Practices Guidance. <https://www.responsiblejewellery.com/wp-content/uploads/RJC-COP-Guidance-April-2019.pdf>

Facility

Refers to any land, building, installation, structure, equipment, conveyance, or area that alone or together serve a particular purpose. In the IRMA Standard, the term may be associated with a specific type of facility that is self-described (e.g., tailings facility), but other examples of facilities are open pits, access roads, water dams, waste disposal sites, underground mine workings, beneficiation plants, brine ponds, slag piles, etc. See also ‘Associated Facility’.

Failure Consequence Classification

A rating or ranking (e.g., low, significant, high, very high, extreme) based on losses, damages or impacts on downstream populations, the environment, the economy, cultural values, property and infrastructure if there were to be a loss of stability or integrity in a facility or its appurtenances that leads to an uncontrolled release of all or part of its contents. Failure consequence classifications are carried out for all credible failure modes.

Source: Adapted from various, including British Columbia Government. 2017. Downstream Consequence of Failure Classification Interpretation Guideline. https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/dam-safety/con_class_guidelines_for_owners-2017.pdf and Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Financial Assurance

Financial assurance is the monetary provision (or monetary safeguard)—based on the value calculated from the cost estimates for reclamation, closure and post-closure—required to be made by the Entity to mitigate and manage mining-related reclamation, closure and post-closure liabilities.

Source: Adapted from IGF (2021, “Global Review: Financial assurance governance for the post-mining transition”)

Financial Assurance Instrument

In the context of this Standard, a financial mechanism or instrument to ensure that sufficient funds are available for a regulatory authority (or functional equivalent) to ensure that the required reclamation, decommissioning, monitoring, cleanup or other activities at a specific facility or site are undertaken if the responsible ENTITY is unable or unwilling to perform required actions. In the context of this Standard, acceptable mechanisms or instruments for financial assurance are limited to forms of cash (commercial deposits, trusts), irrevocable letters of credit from an established bank, surety bonds and insurance policies from bonded insurers, and trust funds (see Chapter 2.7).

First Aid

First aid is the immediate treatment or care given to a person suffering from an injury or illness until more advanced care is provided or the person recovers.

Forced Eviction

The permanent or temporary removal against their will of individuals, families, and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection. For the purposes of this Standard, there is the potential that forced eviction could occur when efforts at good faith negotiations and arbitration with project-affected people whose lands a project or operation intends to acquire fail, triggering a legal expropriation process which ultimately ends in the state approving the land acquisition and clearing and the removal of the land occupants. See also 'Trafficking in People'.

Source: United Nations Committee on Economic, Social and Cultural Rights. 1997. Basic Principles and Guidelines on Development-Based Evictions and Displacement.

Forced Labor

Any work or service not voluntarily performed that is exacted or coerced from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements required to pay off a debt, or slavery or slavery-like practices. It also includes requirements of excessive monetary deposits, excessive limitations on freedom of movement, excessive notice periods, substantial or inappropriate fines, and loss or delay of wages that prevent workers from voluntarily ending employment within their legal rights.

Source: Adapted from IFC. 2012. Performance Standard 2. Guidance Note 2, GN67.

Forest

Land spanning more than 0,5 hectares with trees higher than 5 metres and a canopy cover of more than 10 %, or trees able to reach those thresholds in situ, excluding land that is predominantly under agricultural or urban land use. Forest includes natural forests and tree plantations.

Sources: European Union Deforestation Regulation (EUDR) (Regulation (EU) 2023/1115 of the European Parliament and of the Council); The Accountability Framework Initiative, 2024 <https://accountability-framework.org/use-the-accountability-framework/definitions/>

Forest degradation

Structural changes to forest cover, taking the form of the conversion of:

- a) primary forests or naturally regenerating forests into plantation forests or into other wooded land; or
- b) primary forests into planted forests.

Source: European Union Deforestation Regulation (EUDR) (Regulation (EU) 2023/1115 of the European Parliament and of the Council)

Free, Prior and Informed Consent (FPIC)

A process and an outcome that is based on: engagement that is free from external manipulation, coercion and intimidation; notification, sufficiently in advance of commencement of any activities, that consent will be sought; full disclosure of information regarding all aspects of a proposed project or activity in a manner that is accessible and understandable to the people whose consent is being sought; acknowledgment that the people whose consent is being sought can collectively approve or reject a project or activity, and that the entities seeking consent will abide by the decision. The right to FPIC is a fundamental right of Indigenous Peoples (see *Indigenous Peoples*). The First Nations Mining and Energy Council states that, "consent is simple — it is the right to say yes, the right to say no, or the right to say yes with conditions." Consent can be given or withheld at distinct stages of a project, including exploration. See Chapter 2.2 for comprehensive details on IRMA articulates this fundamental right in the context of exploration, mining, and mineral processing projects and operations.

Sources: BC First Nations Mining and Energy Council, 2021. Indigenous Sovereignty: Consent For Mining On Indigenous Lands; Food and Agricultural Organization of the United Nations (FAO), 2016. Free Prior and Informed Consent: An Indigenous Peoples' right and a good practice for local communities.

G

Gender

Gender refers to the norms, responsibilities, and social structures enforcing pre-defined roles for women, men, girls, boys, and LGBTQIA+ persons. As a social construct, gender varies from society to society and can change over time. (see also definition of '*Gender Identity*').

Source: Adapted from World Health Organization, Health Topics: Gender, https://www.who.int/health-topics/gender#tab=tab_1

Gender Equality

People have equal access to, and are given equal treatment when it comes to, rights, responsibilities, and opportunities, regardless of their gender identities. Gender equality does not mean that female, male, non-binary persons, and all gender identities become the same; only that access to opportunities and life changes is neither dependent on, nor constrained by, their sex assigned to a person at birth or their adherence to prescribed gender norms. Gender equality is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centered development.

Source: Adapted from UN Women, Gender Mainstreaming Concepts and Definitions, available at <https://www.un.org/womenwatch/osagi/conceptsanddefinitions.htm>.

Gender Equity

The process of being fair to all people, regardless of their gender identities. To ensure fairness, strategies and measures must often be available to compensate for historical, cultural, and social disadvantages, as well as privilege, bias and other parameters that prevent women, girls, and LGBTQIA+ persons from otherwise operating on a level playing field, using an intersectional approach. Gender equity leads to gender equality.

Source: Adapted from United Nations Population Fund Frequently Asked Questions About Gender Equality, available at: <https://www.unfpa.org/resources/frequently-asked-questions-about-gender-equality>

Gender Identity

All persons have some form of gender identity. Gender identity refers to each person's deeply felt internal and individual experience of gender, which may or may not correspond with the sex assigned at birth, including the personal sense of the body and other gender expressions, including dress, speech and mannerisms. The notion that there is a gender norm, from which certain gender identities "vary" or "depart" is based on a series of preconceptions that must be challenged if all humankind is to enjoy human rights. Those misconceptions include: that human nature is to be classified with reference to a male/female binary system on the basis of the sex assigned at birth; that persons fall neatly and exclusively into that system on the same basis; and that it is a legitimate societal objective that, as a result, persons adopt the roles, feelings, forms of expression and behaviors that are considered inherently "masculine" or "feminine." A fundamental part of the system is a nefarious power asymmetry between the male and the female. Concepts of gender identity vary greatly across the world and a wide range of gender identities and gender expressions exist in all regions as a result of long-established cultures and traditions. Some of the terms used include *hijra* (Bangladesh, India and Pakistan), *travesti* (Argentina and Brazil), *waria* (Indonesia), *okule* and *agule* (Democratic Republic of the Congo and Uganda) *muxe* (Mexico), *fa'afafine* (Samoa), *kathoey* (Thailand) and *two-spirit* (Indigenous North Americans). Some of these and other identities transcend Western concepts of gender identity, gender expression or sexual orientation and, depending on the language, the terms "sex", "gender", "gender identity" and/or "sexual identity" are not always used or distinguished. Cultures and countries from all over the globe, including Australia, Bangladesh, Canada, India, Nepal, New Zealand and Pakistan — together representing a quarter of the world's population — recognize in law and in cultural traditions genders other than male and female.

Source: United Nations, 2018, Report of the Independent Expert on sexual orientation and gender identity on 'Legal Recognition of Gender Identity and Depathologization', available at: <https://www.ohchr.org/en/calls-for-input/report-legal-recognition-gender-identity-and-depathologization>

Gender Mainstreaming

Integration of a gender equity perspective into the design, management, and monitoring of business operations in order to improve business outcomes and identify areas where benefits, risks and impacts may be experienced differently for men, women, girls, and LGBTIQ+ persons. This may include intersectional gender analysis, intersectional gender impact assessments, and consultation with gender experts. Gender mainstreaming can better enable the successful development, implementation and ongoing monitoring of gender-responsive strategies and measures designed to achieve gender equality.

Gender Protections

Addressing and keeping people safe from gender-based discrimination, and sexual and gender-based violence (SGBV), , e.g., abuse, rape, harassment, exploitation or harmful practices.

Source: Adapted from International Federation of Red Cross and Red Crescent Societies (IFRC), Protection, Gender and Inclusion, <https://www.ifrc.org/our-work/inclusion-protection-and-engagement/protection-gender-and-inclusion#:~:text=Protection%20means%20addressing%20violence%20and,excluded%20people%20in%20our%20work> and UNHCR Sexual and Gender-Based Violence, <https://help.unhcr.org/turkiye/social-economic-and-civil-matters/sexual-and-gender-based-violence/>

Geochemical Test Unit

Geochemical test units are rock types of distinctive lithology, mineralogy, and/or alteration. The units should be as homogeneous as possible, based on information on lithology, mineralogy, alteration, and the availability of minerals to weathering.

Sources: Maest and Kuipers, 2005; GARD Guide, Sections 5.4.2 and 5.4.4 and Figure 5-5; http://www.gardguide.com/index.php?title=Chapter_5b#5.4.4_Introduction_to_Geochemical_Characterization

Greenfield

Land that has not previously been developed for industrial use or land previously developed for industrial use where disturbance, degradation and/or contamination have been effectively addressed through rehabilitation or restoration.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, state-based or non-state-based, judicial or non-judicial process through which project- or operation-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought. An operational- or project-level grievance mechanism is a formalized means through which individuals or groups can raise concerns about the impact of a specific project/operation on them—and can seek remedy.

Ground Vibration

The level of vibration (peak particle velocity) measured in millimeter/second in the ground. The measurement point should be at least the longest dimension of the foundations of a building or structure away from the building or structure, if possible. If this is not possible, the measurement point should be as far from the building or structure as is practical.

Source: Adapted from Victoria (Australia) State Government. Ground Vibration and Airblast Limits for Blasting in Mines and Quarries.

Groundwater Remediation

The treatment of polluted groundwater to remove contaminants of concern or convert them to harmless products. Ex-situ groundwater remediation is the most commonly used approach (with the remediated water being replaced underground following treatment), but in-situ treatment may be possible in some cases.

H

Habitat

A terrestrial, freshwater, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the non-living environment. The place or type of site where an organism or population naturally occurs.

Sources: IFC. 2012. Performance Standard 6; Convention on Biological Diversity, Article 2.

Hazard (in relation to the workplace)

A potential source of harm or adverse health effect on something or someone under certain conditions at work.

Source: Canadian Centre for OHS website: "Hazard and Risk."

Hazard

A potentially dangerous phenomenon, substance, human activity or condition. It may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Source: International Federation of Red Cross and Red Crescent Societies. <https://www.ifrc.org/document/hazard-definitions>

Hazardous Materials

Chemicals and materials with properties or characteristics that make them a physical, health, or environmental hazard.

Hazardous Wastes

Wastes with properties or characteristics that make them a physical, health, or environmental hazard.

Hazardous Work (in relation to child labor)

Work that, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety, or morals of children.

Source: ILO. 1999. Convention Concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour. No. 182. Article 3 (d).

Health Surveillance

Procedures and investigations to assess workers' (or others') health in order to detect and identify an abnormality. The results of surveillance should be used to protect and promote health of the individual, collective health at the workplace, or the health of exposed working population. Health assessment procedures may include, but are not limited to, medical examinations, biological monitoring, radiological examinations, questionnaires, or a review of health records.

Source: Adapted from ILO. 1997. Technical and Ethical Guidelines for Workers Health Surveillance. OSH No. 72.

Heap Leach/Heap Leaching

An industrial mining process to extract precious metals, copper, and other compounds from ore.

Typically, mined ore is crushed and heaped on an impermeable leach pad, and chemicals (reagents) are applied that percolate through the ore and absorb specific minerals and metals. The solution is collected and target metals are recovered from the solution.

Hierarchy of Controls

A step-by-step approach to eliminating or reducing workplace hazards that ranks controls from the most effective level of protection to the least effective level of protection as follows: Elimination (physically remove the hazard), Substitution (replace the hazard with something safer), Engineering Controls (use equipment or other means to isolate people from the hazard), Administrative Controls (change the way people work via procedures), Personal Protective Equipment (protect the worker using personal protective equipment).

Source: WorkSafe BC. <https://www.worksafebc.com/en/health-safety/create-manage/managing-risk/controlling-risks>

High Conservation Value

As per the IUCN ESMS, areas with high biodiversity value extend to areas identified as High Conservation Value areas (HCV). The HCV approach has been adopted by TNFD, the Accountability Framework Initiative, and by other standards in soft commodities and agricultural products. The analogous six High Conservation Values are:

- HCV 1: Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.
- HCV 2: Intact forest landscapes and large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.
- HCV 3: Rare, threatened, or endangered ecosystems, habitats or refugia.
- HCV 4: Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.
- HCV 5: Sites and resources fundamental for satisfying the basic necessities of local communities or Indigenous Peoples (for livelihoods, health, nutrition, water, etc...), identified through engagement with these communities or Indigenous Peoples.
- HCV 6: Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or Indigenous Peoples, identified through engagement with these local communities or Indigenous Peoples.

High-Potential Incident

A High-Potential Incident (HPI) is a near-miss incident that could have ended in someone getting seriously hurt or killed, but for some reason that was avoided.

High-Risk Hazard

Hazard that could result in serious injury or illness and would require at least first aid. These high-risk hazards include those that have caused or have a reasonable potential to cause a life-altering or fatal injury or disease. In the context of this Standard, high-risk hazards are identified in collaboration with workers' health and safety representatives and relevant workers in requirement 3.2.4.2 (see sub-requirement b.)

High-Risk Work Area

Work areas where workers are exposed to high-risk hazards (as opposed to low-risk work areas).

Holding Costs

The costs that would be incurred by a regulatory agency immediately after bankruptcy of a company responsible for maintaining a mine site and before reclamation begins. Examples of such costs include continuing water treatment, routine maintenance, and the other operating costs involved with holding a piece of severely disturbed land.

Host Community

With respect to resettlement, any community receiving displaced people.

Source: IFC. 2012. Performance Standard 5.

Human Right

In the context of this Standard, internationally recognized human rights are understood, at a minimum, as those expressed in the International Bill of Human Rights, the principles concerning fundamental rights set out in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the International Labour Organization's core/fundamental conventions (Freedom of Association and Protection of the Right to Organise Convention, 1948 (No 87); Right to Organise and Collective Bargaining Convention, 1949 (No 98); Forced Labour Convention, 1930 (No 29) and its 2014 Protocol; Abolition of Forced Labour Convention, 1957 (No 105); Minimum Age Convention, 1973 (No 138); Equal Remuneration Convention, 1951 (No 100); and Discrimination (Employment and Occupation) Convention, 1958 (No 111)), the fundamental right to a clean, healthy, and sustainable environment as recognized by the UN Human Rights Council in 2021 and the UN General Assembly in 2022, and all United Nations human rights instruments elaborating the rights of persons belonging to particular groups or populations (the International Convention on the Elimination of All Forms of Racial Discrimination, the Convention on the Elimination of All Forms of Discrimination against Women, the Convention on the Rights of the Child, the United Nations Declaration on the Rights of Indigenous Peoples, the United Nations Declaration on the Rights of Peasants, the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, the Convention on the Rights of Persons with Disabilities, and the Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities. In most instances, the rights in these instruments relate to the individuals in the groups they address. The United Nations Declaration on the Rights of Indigenous Peoples addresses both the human rights of Indigenous individuals and the collective rights of Indigenous Peoples). See also Annexes 1.3 and 1.4-A.

Human Rights, Land, Environmental, and Labor Rights Defenders

Any person or group of people working to promote human rights, land rights, environmental rights, and/or labor rights, and contributing to the effective elimination of all violations of these rights and fundamental freedoms of peoples and individuals. Also referred to as "Rights Defenders" or "Defenders", their rights and the protection owed to them by governments and businesses are detailed in a special UN Declaration (the UN "Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms"). Defenders can be of any gender, of varying ages, from any part of the world and from all sorts of professional or other backgrounds, e.g., social justice activists, Indigenous rights-holders, community members or leaders, community lawyers, unionists, public-interest journalists, staff members at human rights organizations, government officials, civil servants or members of the private sector. Land and environmental Defenders in particular are people who take a stand and carry out peaceful action against the unjust, discriminatory, corrupt or damaging exploitation of natural resources or the environment.

Human Rights Risks

Human rights risks are understood to be a business enterprise's potential adverse human rights impacts. (May also be referred to as potential human rights impacts).

Source: Ruggie, J. 2011. Guiding Principles on Business and Human Rights. Commentary on Principle 17.



Important Biodiversity Values

The particular biodiversity elements or features, such as individual species, assemblages of species, particular ecological processes, etc., that trigger an area's designation as having significant biodiversity value (e.g., designation as critical habitat, a Key Biodiversity Area, a protected area), as well as the ecological context needed to support the maintenance of the trigger elements.

Source: Adapted from IUCN.

GLOSSARY

In-Kind Compensation

In the context of resettlement, in-kind compensation refers to compensating project-affected people for lost assets with similar or equivalent assets (e.g., offering replacement land for lands acquired by a project / operation, rather than simply paying cash compensation for land value).

In-Kind Payments

Payments made to a government (e.g., royalty) in the form of the actual commodity (oil, gas, or minerals) instead of cash.

Source: Extractives Industries Transparency Initiative (EITI) Glossary.

Inclusive

In the context of stakeholder engagement, means that engagement includes men, women, non-binary people, the elderly, youth, persons with disabilities, displaced people, and other potentially underserved, and /or marginalized people.

Source: Adapted from IFC. 2012. Performance Standard 1.

Independent Dam Safety Review (DSR)

Independent review of the safety of a tailings storage or mine waste storage facility covering technical, operational and governance aspects, conducted by an independent technical specialist according to established best practices. It is conducted at intervals based on the failure consequence classification and the complexity of its condition or performance. It is regulatory requirement in many jurisdictions.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Independent Review

Independent, objective, expert commentary, advice, and, potentially, recommendations to assist in identifying, understanding, and managing risks associated with tailings storage or mine waste storage facilities.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Independent Review Board (IRB)

A board of at least three members that provides independent technical review of the design, construction, operation, closure and management of tailings storage or mine waste storage facilities. The independent reviewers are third-parties who are not, and have not been directly involved with the design or operation of the particular facility. The expertise of the ITB members reflects the range of issues relevant to the facility and its context and the complexity of these issues.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Independent Senior Technical Reviewer

A professional who is either an in-house employee or an external party with in-depth knowledge and at least 15 years' experience in the specific area of the review requirements, e.g., tailings design, operations and closure, environmental and social aspects or any other specific topic of concern.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Indigenous Peoples

An official definition of “Indigenous” has not been adopted by the United Nations system due to the diversity of the world’s Indigenous Peoples. Instead, a modern and inclusive understanding of “Indigenous” includes peoples who: identify themselves and are recognized and accepted by their community as Indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links and/or collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas; have distinct customary cultural, economic, social, or political institutions that are distinct or separate from those of the mainstream society or culture; maintain distinct languages, dialects, cultures and beliefs; form non-dominant groups of society; resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. This may include communities or groups who, during the lifetime of members of the community or group, have lost collective attachment to distinct habitats or ancestral territories in the project area because of forced severance, conflict, government resettlement programs, dispossession of their land, natural disasters, or incorporation of such territories into an urban area. In some regions, there may be a preference to use other terms such as: Tribes, First Peoples, First Nations, Aboriginals, Ethnic Groups, Adivasi and Janajati. All such terms fall within this modern understanding of “Indigenous.”

Sources: Adapted from United Nations Permanent Forum on Indigenous Issues, Fifth Session, “Fact Sheet 1: Indigenous Peoples and Identity” and World Bank Guidance for the Borrower on the application of the Environmental and Social Standards (ESSs) ESS7 (2018)

Indigenous Peoples’ Rights

These include traditional rights, which are defined as “Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit.” It also encompasses the rights of Indigenous and Tribal Peoples established by the United Nations Declarations of the Rights of Indigenous Peoples (UNDRIP).

Source: Adapted from Forest Stewardship Council.

Indigenous Peoples in Initial Contact

Indigenous Peoples or segments of Indigenous Peoples who maintain intermittent or sporadic contact with the majority non-Indigenous population, generally used in reference to peoples or segments of peoples who have initiated a process of contact recently. However, “initial” should not necessarily be understood as a temporal term, but as a reference to the scant extent of contact and interaction with the majority non-Indigenous society. Indigenous Peoples in initial contact are peoples who were previously in voluntary isolation and who for some reason, voluntary or otherwise, came into contact with members of the surrounding population, and although they maintain a certain level of contact, they are not fully familiar with nor do they share the patterns and codes of social relations of the majority population. An Indigenous Peoples or a segment of Indigenous Peoples is considered to be “in initial contact” so long as it remains vulnerable (to disease, loss of territory, etc.) as a result of its situation with regard to contact or so long as it remains at risk of extinction owing to problems generated by mainstream society and the consequences arising at the moment of contact, regardless of how long this situation lasts. Other terms used for Indigenous Peoples in Initial Contact include “Recently Contacted Peoples”.

Sources: Inter-American Commission on Human Rights. Rapporteurship on the Rights of Indigenous Peoples.

“Indigenous Peoples in voluntary isolation and initial contact in the Americas: Recommendations for the full respect of their human rights.” <https://www.oas.org/en/iachr/indigenous/docs/pdf/Report-Indigenous-Peoples-Voluntary-Isolation.pdf>
UN Human Rights Council. 2009. Draft Guidelines On The Protection Of Indigenous Peoples In Voluntary Isolation And In Initial Contact Of The Amazon Basin And El Chaco. A/HRC/EMRIP/2009/6, 30 June 2009.

https://www2.ohchr.org/english/issues/indigenous/ExpertMechanism/2nd/docs/A_HRC_EMRIP_2009_6.pdf

Indigenous Peoples Living in Voluntary Isolation

See ‘Uncontacted Indigenous Peoples’.

GLOSSARY

Indirect Impacts

Impacts that are caused by a project or operation but occur later in time or are farther removed in distance than a direct impact. See also 'Direct Impacts'.

Inform

The provision of information to inform stakeholders of a proposal, activity, or decision. The information provided may be designed to help stakeholders in understanding an issue, alternatives, solutions or the decision-making process. Information flows are one-way. Information can flow either from the company to stakeholders or vice versa.

Source: Adapted from South Africa Dept. of Env. Affairs and Tourism. Stakeholder Engagement.

Intangible Cultural Heritage

Knowledge, innovations and/or practices, including oral expressions of folklore, performing arts, rituals, and festivals that are inherited from past generations, maintained in the present, and bestowed for the benefit of future generations.

Interim Fluid and Site Management

The management of process fluids and associated facilities and management of the site to ensure it remains in a safe and stable condition during unanticipated periods of temporary closure such as a suspension of operations, and for periods of anticipated seasonal closure where there is potential to recommence operations in the future. Also may be referred to as 'care and maintenance'.

International Accounting Standards

Several accounting standards are commonly recognized as an international accounting standard; for example, the International Financial Reporting Standards (IFRS), which are set by the International Accounting Standards Board (IASB).

Source: Extractives Industries Transparency Initiative (EITI) Standard. 2013.

Intersectional

In the context of this Standard, refers to the interconnected nature of social categorizations such as race, class, and gender as they apply to an individual or group, regarded as creating overlapping and interdependent systems of discrimination or disadvantage. Discrimination based on one factor such as gender may intersect with other factors of discrimination such as ethnicity, socioeconomic status, disability, age, geographic location, gender identity and sexual orientation, among others.

Source: World Health Organization, Health Topics: Gender, https://www.who.int/health-topics/gender#tab=tab_1.

Involuntary Displacement

Displacement is considered involuntary when affected people or communities do not have the right to refuse land acquisition or restrictions on land use that result in physical or economic displacement. This occurs in cases of (i) lawful expropriation or temporary or permanent restrictions on land use (see also 'Forced Eviction') and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail. See also definition for 'Voluntary Displacement'.

Source: IFC. 2012. Performance Standard 5.

K

Key Biodiversity Areas (KBA)

Sites that contribute to the global persistence of biodiversity, including vital habitat for threatened or geographically restricted plant and animal species in terrestrial, freshwater, and marine ecosystems.

Source: IUCN.

L

Lagging Indicators

Measure outcomes and occurrences (e.g., the extent of harm that has occurred in the past). Reactive, tells you whether you have achieved a desired result (or when a desired safety result has failed) and provides historical information about health and safety performance.

Source: Adapted from OECD 2008. <https://doi.org/10.1787/9789264221741-en>

Landscape

A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic, and human interactions in a given area.

Source: IUCN.

Laws, Rules, and Regulations

In the context of this Standard, laws, rules, and regulations, include all applicable requirements, including but not limited to laws, rules regulations, and permit requirements, from any governmental or regulatory body, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the project/operation is located and the country where the ENTITY (but also all (if any) relevant subsidiaries and joint-venture partners that may be involved in (and/or have a shared legal or regulatory responsibility for) the management of the project/operation and associated facilities) may be registered or listed.

Leading Indicators

Measure precursors to harm (e.g., conditions, events or measures that precede an undesirable event, whether it is an accident, near-miss incident, or undesirable safety state), and are associated with proactive activities that identify hazards and assess, eliminate, minimize, and control risk in order to achieve a desired outcome or avoid unwanted outcomes.

Source: Adapted from Grabowski. 2006.

<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=23b29d1d38d57b741e65a371b0854c43d1c40e29>

Legitimate Artisanal and Small-Scale Mining (ASM)

ASM that is conducted in a manner that is consistent with applicable laws and does not contribute to conflict and serious abuses associated with the extraction, transport or trade of minerals (including those defined in Annex II of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas), or, in the absence of a legal framework or if the legal framework is not enforced, where ASM entities can demonstrate 'good faith efforts' to work within the legal framework (i.e., obtaining permits where available) and pursue formalization.

Source: Adapted from OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. (3rd Ed.) p. 69. <https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf>

Leverage

Leverage is an advantage that gives power to influence. In the context of Chapter 1.3, it refers to the ability to effect change in the wrongful practices of the party that is causing or contributing to an adverse human rights impact. "Leverage" over an ENTITY (business, governmental or non-governmental) in this context may reflect one or more factors, such as: (a) Whether there is a degree of direct control by the ENTITY over its partner/counterpart/other party; (b) The terms of contract between them; (c) The proportion of business the ENTITY represents for the other party; (d) The ability of the ENTITY to incentivize the other party to improve human rights performance in terms of future business, reputational advantage, capacity-building assistance, etc.; (e) The benefits of working with the ENTITY to the other party's reputation and the harm to its reputation if that relationship is withdrawn; (f) The ability of the ENTITY to incentivize other enterprises or organizations to improve their own human rights performance, including through business associations and multi-stakeholder initiatives; (g) The ability of the ENTITY to engage local or central government in requiring improved human rights performance by the other party through the implementation of regulations, monitoring, sanctions, etc.

GLOSSARY

Source: United Nations, 2012, The Corporate Responsibility to Respect Human Rights: An Interpretive Guide (to the Guiding Principles on Business and Human Rights)

https://www.ohchr.org/sites/default/files/Documents/Publications/HR.PUB.12.2_En.pdf

LGBTIQA+ persons

LGBTIQA+ is an abbreviation for lesbian, gay, bisexual, transgender, intersex, queer or questioning, asexual, and more (+). These terms are used to describe a person's sexual orientation or gender identity. This includes people whose gender identity, including their gender expression, is at odds with social construction of binary gender, including those who do not place themselves in the male/female binary (non-binary) and people who identify with a different sex than the one assigned to them at birth (transgender, intersex). There is no single LGBTIQA+ community, rather a plurality of identities and experiences. Definitions of each individual term can be found on the website of the United Nations Human Rights Office: <https://www.unfe.org/know-the-facts/definitions/>.

Sources: UN Free & Equal, The Lesbian, Gay, Bisexual & Transgender Community Center, Australian Institute of Family Studies, UCSF LGBTQ Resource Center,

License

In line with the approach taken by the EITI, the term “license” in Chapter 1.6 means:

- 1) The full text of any license, lease, title or permit (or equivalent) by which the government (or the competent authority) confers on the ENTITY rights to (as relevant) explore, develop, exploit, produce, and process mineral resources.
- 2) The full text of any annex, addendum or rider which establishes details relevant to these rights, or the execution thereof.
- 3) The full text of any alteration or amendment to the documents described 1) and 2) above.

See also definition of licenses.

Lin Peak/Linear Peak

The maximum level of air pressure fluctuation measured in decibels without frequency weighting.

Livelihood

The full range of means that individuals, families, and communities utilize to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource-based livelihoods, petty trade, and bartering.

Source: IFC. 2012. Performance Standard 5.

Livelihood Restoration Plan

A plan that establishes the entitlements (e.g., compensation, other assistance) of affected people and/or communities who are economically displaced, in order to provide them with adequate opportunity to reestablish their livelihoods.

Living Wage

Remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and their family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events.

Source: Social Accountability International. 2014. SA8000 Standard.

Lobbying activities

Any activity carried out to influence a government or institution's policies and decisions in favor of a specific cause or outcome. Even when allowed by law, these acts can become distortive if disproportionate levels of influence exist – by companies, associations, organizations and individuals. There is no internationally accepted standard for what constitutes lobbying and who qualifies as a lobbyist. Some interest groups that attempt to influence government policy, legislation and priorities do not consider themselves lobbyists and instead portray their activities as advocacy, public affairs or interest representation

Source: Transparency International

Local

In the context of Chapter 2.4 (Obtaining Community Support and Delivering Benefits), local (as in local content, local supplier, local business-owner, local entrepreneur, local community) refers to the geographical areas within the vicinity of the site and its associated facilities, i.e. the immediate units of administrative/territorial division in and around the site's area of influence. Depending on the jurisdiction, the land footprint of the site and its associated facilities, and the proximity of the closest inhabited areas, this may extend to entire districts, counties, departments, provinces or regions. As identified by the IGF, "some companies distinguish between "local" suppliers, meaning businesses registered in the country, and "local-local" businesses, meaning mining communities. Although the local content regulation does not make express reference to the obligation to procure from specific geographic locations, it is nonetheless good practice for some mining companies to give preference to suppliers originating from their local communities when goods and services are available". According to this terminology, the term "local" used in Chapter 2.4 should be understood as "local-local". Note that the GRI Sector Standard for Mining requires companies to report "the organization's geographical definition of 'local'" (GRI 14.9.6).

Source: Adapted from IGG (2019, "Local Content Policies in the Mining Sector: Scaling up local procurement", available at:

<https://www.iisd.org/system/files/publications/local-content-policies-mining.pdf>

Long-Term Water Treatment

Long-term water treatment is defined as any water treatment that requires active water treatment after mine closure. After mine closure, long-term water treatment is assumed to be required until it can be empirically demonstrated that water treatment is no longer needed.

Low-Risk Work Area

Work areas where workers are not exposed to high-risk hazards (as opposed to high-risk work areas).

M

Major Modification

A proposed change in an existing operation that could create new significant risks or change the scope, magnitude, duration, or probability of existing adverse impacts on the health or safety of workers or communities, human rights, the rights or interests of Indigenous Peoples, cultural heritage, livelihoods, biodiversity or the environment.

Management Plan

A comprehensive plan that specifies objectives, identified impacts and risks, mitigation/management measures, timelines for implementation, roles and responsibilities, monitoring metrics, and adaptive management measures in response to the results of monitoring and evaluation of the effectiveness of the mitigation/management measures. The plan should be specific, measurable, achievable, realistic, and time-bound.

GLOSSARY

Marine Environments

Marine environments include estuaries, coastal marine and nearshore zones, and open-ocean-deep-sea regions (seas or oceans).

Source: European Environment Agency

Mass Wasting

Movement of rock and soil down slope under the influence of gravity. Rock falls, slumps, and debris flows are all examples of mass wasting.

Material Payments

If not defined in a mandatory transparency regime or through an Extractives Industries Transparency Initiative (EITI) country-specific multi-stakeholder process, material payments are those that exceed US\$100,000 (or its equivalent in other currencies). Payments may occur as a single installment or be the aggregate of a series of related payments that are made in the same fiscal/financial year. Material payments may be monetary or in-kind.

Mercury Emission Control System

Any system that will limit mercury emissions (either designed specifically for mercury, or mercury capture is a co-benefit), including sorbent technologies that can remove mercury from the gas stream during processing, or oxidation technologies that will increase the percentage of particulate-bound mercury removed by particulate scrubbers.

Mercury Waste

Wastes consisting of, containing, or contaminated with mercury (i.e., elemental mercury [Hg(0)] or mercury compounds.

Source: Basel Convention. Technical Guidelines.

Metals Leaching

The release of metals by contact with solvents. Leaching may be natural or induced (e.g., related to mining operations). Mining commonly accelerates metal leaching. Metals leaching can also be referred to as "contaminant" leaching.

Mine-Influenced Water (MIW)

Any water whose chemical composition has been affected by mining or mineral processing. Also referred to as mining influenced waters or mine-impacted waters. Includes acid rock drainage (ARD), acid mine drainage or acid and metalliferous drainage (AMD), neutral mine drainage, saline drainage, and metallurgical process waters of potential concern. A key characteristic of most mining impacted waters (also known as mining influenced waters) is that they contain elevated metals that have leached from surrounding solids (e.g., waste rock, tailings, mine surfaces, or mineral surfaces in their pathways). This fact is commonly acknowledged by the phrase "metals leaching" (ML), frequently resulting in acronyms such as ARD/ML.

Mine Waste Facility

In the context of this Standard, any facility that contain, store, is constructed of, or come in contact with wastes that are generated or created during/as a result of mining (e.g., waste rock, overburden, rejects material, topsoil, and other stockpiles) and during/as a result of mineral processing (e.g., tailings, sludges and residues, spent heap leach piles, process residue storage ponds). These facilities include, but are not limited to open pits, underground mine workings and subsidence areas, waste rock facilities, tailings storage facilities, heap leach facilities, process water facilities, stormwater facilities, borrow areas for construction and/or reclamation, water treatment facilities, and water supply dams/impoundments; as well as any associated transport/delivery infrastructures such as pipes/pipelines, conveyors, launder channels, ploughs, radial stackers, etc.

Mineral Development Life Cycle

All of the stages from cradle to grave required to produce a saleable mineral/metal product. Includes exploration, project development, permitting, construction, mining and mineral processing operations, reclamation and closure, and post-closure stages.

Mineral Processing

Activities undertaken to separate valuable and non-valuable minerals and convert the former into an intermediate or final form required by downstream users. In IRMA this includes all forms of physical, chemical, biological and other processes used in the separation and purification of the minerals, including beneficiation (e.g., flotation and heap leaching).

Mine Waste Facility

In the context of this Standard, any facility that contain, store, is constructed of, or come in contact with wastes that are generated or created during/as a result of mining (e.g., waste rock, overburden, rejects material, topsoil, and other stockpiles) and during/as a result of mineral processing (e.g., tailings, sludges and residues, spent heap leach piles, process residue storage ponds). These facilities include, but are not limited to open pits, underground mine workings and subsidence areas, waste rock facilities, tailings storage facilities, heap leach facilities, process water facilities, stormwater facilities, borrow areas for construction and/or reclamation, water treatment facilities, and water supply dams/impoundments; as well as any associated transport/delivery infrastructures such as pipes/pipelines, conveyors, launder channels, ploughs, radial stackers, etc.

Mining

Activities undertaken to extract minerals, metals and other geologic materials from the earth. Includes extraction of minerals in solid (e.g., rock or ore) and liquid (e.g., brine or solution) forms.

Mining-Related Activities

In the context of this Standard, any activities carried out during any phase of the mineral development life cycle for the purpose of locating, exploring, developing, extracting and/or producing ore or mineral or products, including mineral processing projects and operations. Includes physical activities (e.g., land disturbance and clearing, road building, sampling, drilling, airborne surveys, field studies, construction, ore removal, brine extraction, mineral or brine processing, transport of materials and wastes, waste management, monitoring, reclamation, etc.) and non-physical activities (e.g., desk-based modelling, project or operational planning, permitting, stakeholder engagement, etc.).

Mitigation (including in relation to human rights impacts)

Actions taken to reduce the likelihood of the occurrence of a certain adverse impact. The mitigation of adverse human rights impacts refers to actions taken to reduce their extent, with any residual impact then requiring remediation.

Source: Adapted from UN Office of the High Commissioner for Human Rights. 2012. The Corporate Responsibility to Respect Human Rights: An Interpretive Guide.

Mitigation Hierarchy

The mitigation hierarchy is a set of prioritized steps to alleviate environmental (or social) harm as far as possible through avoidance, minimization, and restoration of adverse impacts. Compensation/offsetting are only considered to address residual impacts as a last resort, after appropriate avoidance, minimization, and restoration measures have been applied. The biodiversity mitigation hierarchy is as follows (but the steps can be applied for any environmental or social impacts, although waste management has its own hierarchy. For waste, see definition of Waste Mitigation Hierarchy):

1. Avoidance: measures taken to avoid creating impacts from the outset, such as careful spatial or temporal placement of elements of infrastructure in order to completely avoid impacts on certain components of biodiversity. This results in a change to a 'business as usual' approach.
2. Minimization: If avoidance is not possible, measures taken to reduce the duration, intensity and/or extent of impacts that cannot be completely avoided, as far as is practically feasible.
3. Restoration: If avoidance and minimization are not possible, measures taken to assist the recovery of ecosystems that have been degraded, damaged, or destroyed. Involves altering an area in such a way as to re-establish an ecosystem's composition, structure, and function, usually bringing it back to its original (pre-disturbance) state or to a healthy state close to the original.
4. Offset: As a last resort, if avoidance and minimization and restoration are not possible, measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse impacts on biodiversity arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is no net loss or a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function, and people's use and cultural values associated with biodiversity.

Mixing Zone

A volume of surface water or groundwater containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters or groundwaters has been legally permitted and where water quality is allowed to exceed otherwise specified standards.

Source: Adapted from US Environmental Protection Agency.

Modified Habitat

Areas that may contain a large proportion of plant and/or animal species of non-native origin and/or where human activity has substantially modified an area's primary ecological functions and species composition (this excludes habitat that has been converted in anticipation of the project). Modified habitats may include areas managed for agriculture, forest plantations, reclaimed coastal zones, and reclaimed wetlands.

Source: IFC. 2012. Performance Standard 6.

Multi-Criteria Alternatives Analysis

Generally, a process to identify and objectively and rigorously assess the potential impacts and benefits (including environmental, technical and socio-economic aspects) of different options so that an informed decision regarding a final option can be made. For IRMA purposes, it refers to a process to assess options for locating tailings or other waste facilities, and for selecting the site-specific best available technologies and practices for managing wastes throughout the life cycle. Technologies and practices may need to be reassessed during different stages of the life cycle, for example if there is a proposed expansion that requires additional waste storage and processing.

Sources: Adapted from: Environment Canada, 2016. Guidelines for the Assessment of Alternatives for Mine Waste Disposal, Chapter 2; and Mining Association of Canada. 2017. Guide to the Management of Tailings Facilities.

N

Natural Habitat

Areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.

Source: IFC. 2012. Performance Standard 6.

Natural forest

A forest that is a natural ecosystem. Natural forests possess many or most of the characteristics of a forest native to the given site, including species composition, structure, and ecological function. Natural forests include:

- Primary forests that have not been subject to major human impacts in recent history.
- Regenerated (second-growth) forests that were subject to major impacts in the past (for instance by agriculture, livestock raising, tree plantations, or intensive logging), but where the main causes of impact have ceased or greatly diminished and the ecosystem has attained much of the species composition, structure, and ecological function of prior or other contemporary natural ecosystems.
- Managed natural forests where much of the ecosystem's composition, structure, and ecological function exist in the presence of activities such as:
 1. Harvesting of timber or other forest products, including management to promote high-value species.
 2. Low intensity, small-scale cultivation within the forest, such as less-intensive forms of swidden agriculture in a forest mosaic.
- Forests that have been partially degraded by anthropogenic or natural causes (eg, harvesting, fire, climate change, invasive species, or others) but where the land has not been converted to another use and where degradation does not result in the sustained reduction of tree cover below the thresholds that define a forest or sustained loss of other main elements of ecosystem composition, structure, and ecological function.

Source: The Accountability Framework Initiative, 2024. <https://accountability-framework.org/use-the-accountability-framework/definitions>

Natural Regenerating Forest

Forest predominantly composed of trees established through natural regeneration; it includes any of the following:

- a) forests for which it is not possible to distinguish whether planted or naturally regenerated;
- b) forests with a mix of naturally regenerated native tree species and planted or seeded trees, and where the naturally regenerated trees are expected to constitute the major part of the growing stock at stand maturity;
- c) coppice from trees originally established through natural regeneration; or
- d) naturally regenerated trees of introduced species

Source: European Union Deforestation Regulation (EUDR) (Regulation (EU) 2023/1115 of the European Parliament and of the Council)

Natural Seep/Spring

A natural seep is a moist or wet place where water reaches the earth's surface from an underground aquifer. Seeps are usually not of sufficient volume to be flowing much beyond their above-ground location.

A natural spring is a discharge of water formed when the side of a hill, a valley bottom or other excavation intersects a flowing body of groundwater at or below the local water table, below which the subsurface material is saturated with water. A natural spring is differentiated from a seep in that water flows at a greater rate from an aquifer to the earth's surface.

Source: Adapted from USGS and others.

GLOSSARY

Near-Miss Incident

An unexpected event that disrupts regular work activity and there was the potential for injury, ill health, fatality or damage to property or the environment, but no actual harm occurred. Also known as a 'close calls', 'injury-free event', 'near accident'.

No Net Loss and Net Gain (of biodiversity)

Targets for development projects in which the impacts on biodiversity caused by the project are balanced or outweighed by measures taken to first avoid and minimize the impacts, then to undertake on-site rehabilitation and/or restoration, and finally to offset the residual impacts (when necessary) so that biodiversity values are returned to or beyond (exceeding) baseline levels. No net loss, in essence, refers to the point where biodiversity gains from targeted conservation activities match the losses of biodiversity due to the impacts of a specific development project, so that there is no net reduction overall in the type, amount, and condition (or quality) of biodiversity value over space or time. A net gain (sometimes referred to as net positive impact) means that biodiversity gains exceed a specific set of losses.

Noise Receptor

A point of reception or (human) receptor may be defined as any point on the premises occupied by people where extraneous noise and/or vibration are received. Examples of receptor locations may include permanent or seasonal residences; hotels/motels; schools and daycares; hospitals and nursing homes; places of worship; and parks and campgrounds, and similar public spaces and commons. For wildlife, receptor locations may include wildlife habitat for sensitive animal species.

Source: Adapted from IFC. 2007. Environmental, Health, and Safety Guidelines. Section 1.7. Noise Management.

Non-Replicable Cultural Heritage

Cultural heritage that (i) is unique or relatively unique for the period it represents, or (ii) unique or relatively unique in linking several periods in the same site.

Source: IFC. 2012. Performance Standard 8. Guidance Note.

O

Occupational Exposure Limit (OEL)

An upper limit on the acceptable concentration of a hazardous substance in workplace air for a particular material (e.g., gases, vapors and particles). It is typically set by competent national authorities and enforced by legislation to protect occupational safety and health.

Sources: ILO and others.

Offset

An activity undertaken to counterbalance a significant residual impact.

Operating Mine

A site where mining activities take place, i.e. activities being undertaken for the purpose of extracting mineral resources, including the running and management of facilities and infrastructure required to support the activities, and the ongoing legal, environmental, social and governance activities necessary to maintain the business endeavor. Includes extraction of minerals in solid (e.g., rock or ore) and liquid (e.g., brine or solution) forms.

Operating Mineral Processor

A site where mineral processing activities take place, i.e. activities being undertaken for the purpose of processing mineral resources, through separating valuable and non-valuable minerals and converting the former into an intermediate or final form required by downstream users. In the context of this Standard, this includes all forms of physical, chemical, biological, and other processes used in the separation and purification of the minerals.

Operation

The set of activities being undertaken for the purpose of extracting and/or processing mineral resources, including the running and management of facilities and infrastructure required to support the activities, and the ongoing legal, environmental, social and governance activities necessary to maintain the business endeavor.

Other Effective Area-Based Conservation Measures (OECMs)

Sites of other effective area-based conservation measures (OECMs) are “A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values” (IUCN, 2024). This could include IUCN Green List Sites that are not protected areas, Indigenous and Community Conservation Areas (ICCAs), Private Protected Areas (PPA), Conservancies, Communal Reserves, Flora and Fauna Sanctuaries, Marine Conservation Areas, Areas of Responsible Fishing (ARF), and areas managed under land-use rights in fisheries, amongst other conservation areas.

Source: IUCN

Overtime

Overtime refers to all hours worked in excess of the normal working hours. Acknowledging that definitions used in practice may differ between jurisdictions, in the context of this Standard the threshold used for identification of overtime is made up by the contractual working time.

Source: Adapted from ILO, 2019, ‘Overtime work: A review of literature and initial empirical analysis’.

P

Peak Particle Velocity

The instantaneous sum of the velocity vectors (measured in millimeters per second) of the ground movement caused by the passage of vibration from blasting.

Pit Lake

Lake formed in a mine pit when mine dewatering pumpage ceases.

Points of Compliance

For IRMA purposes, points of compliance are the physical locations where water quality must meet IRMA used-based standards (See IRMA Water Quality By End-Use Tables in Annex 4.3-A). The locations of these points of compliance will be determined based on the following scenarios:

- Surface water points of compliance are located where point-source discharges enter surface waters. Points of compliance for non-point-source discharges are located downstream of, but as close as practicable to, known mine-related non-point sources.
- Treated effluent is a point of compliance and should be sampled in the treatment plant or where it is discharged to the environment.
- Groundwater points of compliance are located outside the groundwater capture zone (which extends from the land surface to the depth at which groundwater is not affected by mining activities) or area of hydrologic control for mine facilities or sources, including locations: 1) as close as practicable to the sources; and 2) downgradient of those proximal locations and upgradient of receptors.
- Stormwater points of compliance are located in industrial and non-industrial stormwater collection impoundments or conveyances when water is present.
- If a mixing zone is used, as a last resort, the point of compliance is at the downstream or downgradient edge of the mixing zone. The edge of the mixing zone is where the diluted plume meets background water quality.
- If a mine is providing water to another ENTITY for a designated use, the water must meet IRMA use-based standards, or legal documentation must be received from the ENTITY verifying that they will be responsible for treating water to meet use-based standards.

Political Contribution

Financial or in-kind support given directly or indirectly to political parties, their elected representatives, or persons seeking political office. More specifically, indirect political contribution is defined as financial or in-kind support to political parties, their representatives, or candidates for office made through an intermediary organization such as a lobbyist or charity, or support given to an organization such as a think tank or trade association linked to or supporting particular political parties or causes. Financial contributions can include donations, loans, sponsorships, retainers, or the purchase of tickets for fundraising events. In-kind contributions can include advertising, use of facilities, design and printing, donation of equipment, or the provision of board membership, employment or consultancy work for elected politicians or candidates for office.

Source: GRI

Politically Exposed Person

A *politically exposed person* (PEP) is an individual who is or has been entrusted with a prominent function by any political administration, a State, a multi-lateral or international body. PEPs include, but are not limited to:

- Heads of state, heads of government, ministers, and deputy or assistant ministers
- Members of Parliament (MPs)
- Members of courts of auditors or of the boards of central banks
- Ambassadors, chargés d'affaires and high-ranking officers in the armed forces
- Members of the administrative, management or supervisory bodies of State-owned enterprises
- Members of supreme courts, constitutional courts or other high-level judicial bodies whose decisions are not generally subject to further appeal, except in exceptional circumstances

PEPs also include:

- The person's family members
- Close business associates
- Beneficial owners of the person's property (see *Beneficial Owner*).

Many PEPs hold positions that can be abused for the purpose of laundering illicit funds or other predicate offences such as corruption or bribery.

Sources: UK Law Society, Financial Action Task Force (FATF)

Pollution

Contamination that results in or can result in adverse biological effects to human or ecosystem health. All pollutants are contaminants, but not all contaminants are pollutants. See also 'Contamination'.

Source: Chapman, P. 2006. "Determining when contamination is pollution," *Environ. Int.* <https://doi.org/10.1016/j.envint.2006.09.001>

Post-Closure

The period after reclamation and closure activities have been completed, and long-term management activities (e.g., ongoing monitoring and maintenance of slope stability, water quality and biodiversity restoration etc., adaptive management, and, if necessary, water management and treatment) are occurring to ensure that a site remains stable and ecological restoration objectives continue to be achieved. This phase continues until final sign-off of site responsibility and relinquishment of post-closure financial assurance can be obtained from the regulator.

Potentially Affected Indigenous Peoples

Indigenous Peoples who have traditionally owned, occupied, or otherwise used or acquired lands, territories, and/or resources that may be affected by mining-related activities.

Potential Human Rights Impact

An adverse impact on human rights that may occur but has not yet done so. (May also be referred to as human rights risk).

Source: Adapted from UN Office of the High Commissioner for Human Rights. 2012. *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*.

Practicable

Practicable means giving equal weight to environmental, social, and economic benefits and costs. This is not a technical definition. It is the discussion between the affected parties on the balance between these interrelated costs and benefits that is important.

Predictable

In reference to grievance mechanism, means providing a clear and known procedure with an indicative time frame for each stage, and clarity on the types of process and outcome available and means of monitoring implementation.

Source: Ruggie, J. 2011. Guiding Principles on Business and Human Rights.

Preliminary Design

A design performed to a level of detail sufficient to determine the differences between viable designs that adopt different external loading design criteria in terms of required footprints, volumes and drainage requirements.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Primary Forest

Naturally regenerated forest of native tree species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.

Source: European Union Deforestation Regulation (EUDR) (Regulation (EU) 2023/1115 of the European Parliament and of the Council)

Priority Ecosystem Services

Ecosystem services are considered priority under the following circumstances: (i) operations are likely to result in a significant impact on the ecosystem service; the impact will result in a direct adverse impact on affected communities' livelihood, health, safety and/or cultural heritage; and the ENTITY has direct management control or significant influence over the service; or (ii) the operation directly depends on the service for its primary operations; and the operation has direct management control or significant influence over the service.

Source: IFC. 2012. Performance Standard 6.

Private Security Personnel

In the context of this Standard, this term encompasses both the Entity's own security personnel and any private security forces used/contracted in relation to the site, its associated facilities, and transportation routes.

Process Water

Water that is used to process ore using hydrometallurgical extraction techniques. It commonly contains process chemicals.

Source: Lottermoser, B. 2010. Mine Wastes: Characterization, Treatment and Environmental Impacts.

Project

The development phases before a mining or mineral processing operation can begin (e.g., exploration, pre-feasibility, feasibility, conceptual design, planning, permitting). Includes all desk-top and field-based activities, including exploration activities, needed to inform and develop a project proposal, support the environmental and social impact assessment of a proposal, generate information necessary to fulfill regulatory and permitting requirements, engage with stakeholders and rights-holders, and maintain the ENTITY's business endeavor.

Project Development

Baseline environmental data collection, stakeholder engagement related to proposals for mining or mineral processing projects, proposed operations level FPIC determination, project designs, pre-feasibility, and feasibility study.

Project Permitting

Permit application and environmental social impact assessment, permit finalization; both for mining and mineral processing projects.

Project-Level Information

In the context of Chapter 1.7, and as per EITI, a project refers to operational activities that are governed by a single contract, licence, lease, concession or similar legal agreement, and form the basis for payment liabilities with a government (or competent authority). However, in some jurisdictions, projects may encompass a set of operationally- and geographically-integrated contracts, licenses, leases or concessions or related agreements with substantially similar terms that are signed with a government. Where this is the case, disclosures of payments may reflect this aggregation. Alternatively, some jurisdictions may only require that payments be made at the ENTITY level, rather than the project level. In such cases, disclosures may be made at the ENTITY level, with a rationale provided.

Protected and Conserved Area Management Categories (IUCN)

A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. The definition is expanded by six "protected area management categories" (one with a sub-division), summarized below:

- Ia Strict nature reserve: Strictly protected for biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are controlled and limited to ensure protection of the conservation values.
- Ib Wilderness area: Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, protected and managed to preserve their natural condition.
- II National park: Large natural or near-natural areas protecting large-scale ecological processes with characteristic species and ecosystems, which also have environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.
- III Natural monument or feature: Areas set aside to protect a specific natural monument, which can be a landform, sea mount, marine cavern, geological feature such as a cave, or a living feature such as an ancient grove.
- IV Habitat/species management area: Areas to protect particular species or habitats, where management reflects this priority. Many will need regular, active interventions to meet the needs of particular species or habitats, but this is not a requirement of the category.
- V Protected landscape or seascape: Where the interaction of people and nature over time has produced a distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.
- VI Protected areas with sustainable use of natural resources: Areas which conserve ecosystems, together with associated cultural values and traditional natural resource management systems. Generally large, mainly in a natural condition, with a proportion under sustainable natural resource management and where low-level non-industrial natural resource use compatible with nature conservation is seen as one of the main aims.

Source: Dudley. 2008. Guidelines for Applying Protected Area Management Categories. IUCN.

Psychosocial Hazard

Hazards that can have an impact on the psychological health or mental or emotional wellbeing of a person.

Publicly Available

Data and information are publicly available when they are, at least: 1) available online on a webpage or online portal/repository, so that they are easily discoverable and accessible in one place; and 2) released free of charge and without mandatory registration, allowing users to choose to download data without being required to identify themselves.

Publicly Accessible

A document or piece of information is “publicly accessible” if: 1) the means of accessing the information is communicated to all relevant stakeholders; and 2) the data is both publicly available and made accessible without any kind of physical or psychological barrier, e.g.: published without clear and public announcement, hidden away in portals, in obscure formats, in language/s that are not adapted, with titles, labels or headers that are wrong, etc.

R

Reasonable Accommodation

“Reasonable accommodation” means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms. In the workplace, it may mean making changes to the work environment to allow persons with disabilities to work safely and productively.

Source: UN Global Compact Guide for Business on the Rights of Persons with Disabilities (2017).
<https://unglobalcompact.org/library/5381>

Receptor

Any human, plant, animal, habitat, ecosystem, or structure which is, or has the potential to be, affected by the release or migration of contaminants.

Reclamation

The process of achieving stability, hydrologic balance and converting disturbed land and/or water resources to a productive post-mining (or post-mineral processing) land use, or establishing the potential for productive use. Components of reclamation may include: removal or isolation of hazardous material and waste, decommissioning and removal of buildings and other structures, removal and disposal of polluted soils, adjustment and stabilization of landforms (e.g., earthwork including backfilling, grading, recontouring, stormwater controls), creation of suitable conditions for the introduction of desired flora and fauna (topsoil placement, revegetation, ecological restoration), and any other planned mitigation (e.g., wetlands construction, water diversion, other).

Release

An unintentional, unpermitted emission of mine-influenced water to the environment. See also ‘Discharge’.

Remediation/Remedy (including in relation to human rights impacts or grievances)

Remediation and remedy refer to both the processes of providing remedy for an adverse impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of further harm through, for example, injunctions or guarantees of non-repetition.

GLOSSARY

Remediation (Groundwater)

See Groundwater Remediation.

Remediation (Soil)

See Soil Remediation.

Replacement Cost

In the context of land acquisition, the market value of assets acquired or affected by a project / operation plus transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account. Market value is defined as the value required to allow affected communities and people to replace lost assets with assets of similar value.

Source: IFC. 2012. Performance Standard 2.

Replicable Cultural Heritage

Tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures. Archeological or historical sites may be considered replicable where the particular eras and cultural values they represent are well represented by other sites and/or structures.

Source: IFC. 2012. Performance Standard 8. Guidance Note.

Resettlement

Resettlement is the "comprehensive process of planning for and implementing the relocation of people, households and communities from one place to another for some specific reason, together with all associated activities, including: (a) the provision of compensation for lost assets, resources and inconvenience; and (b) the provision of support for livelihood restoration and enhancement, re-establishment of social networks, and for restoring or improving the social functioning of the community, social activities and essential public services."

Source: Vanclay, F. 2017. "Project-induced displacement and resettlement: from impoverishment risks to an opportunity for development?" Impact Assessment and Project Appraisal, 35:1, 3.

Resettlement Action Plan

A plan designed to mitigate the adverse impacts of displacement by providing for the relocation of people. These plans typically involved: identifying livelihood restoration opportunities; developing a resettlement budget and schedule; and establishing the entitlements of all categories of affected people (including host communities). Such a plan is required when resettlement involves physical displacement of people.

Source: Adapted from IFC. 2012. Performance Standard 5, paragraph 19.

Residual Impacts

Impacts that remain after on-site mitigation measures (avoidance, minimization, restoration) have been applied.

Restoration

Measures taken to assist the recovery of ecosystems that have been degraded, damaged or destroyed. Involves efforts to re-establish an ecosystem's composition, structure and function, intended to bring it back to its original (pre-disturbance) state or to a healthy state close to the original.

Restoration

Measures taken to assist the recovery of ecosystems that have been degraded, damaged or destroyed. Involves efforts to re-establish an ecosystem's composition, structure and function, intended to bring it back to its original (pre-disturbance) state or to a healthy state close to the original.

Retrenchment

The elimination of a number of work positions or the dismissal or layoff of a number of workers by an employer, generally by reason of plant closing or for cost savings. Retrenchment does not cover isolated cases of termination of employment for cause or voluntary departure. Retrenchment is often a consequence of adverse economic circumstances or as a result of a reorganization or restructuring.

Source: IFC. 2012. Performance Standard 2, Guidance Note GN 48.

Revegetation

Revegetation is the task of reseeding or replanting forbs, grasses, legumes, and other plants (sometimes including shrubs and trees) so as to provide cover to decrease erosion, provide for soil stability, and provide forage for wildlife or livestock or to otherwise return the site to a useable state.

Rights-Compatible

In reference to grievance mechanism, means ensuring that outcomes and remedies accord with internationally recognized human rights.

Rights Defenders

See *Human Rights, Land, Environmental, and Labor Rights Defenders*.

Rights-holders

Rights-holders are individuals or social groups that have particular entitlements in relation to specific duty bearers (e.g., state or non-state actors that have a particular obligation or responsibility to respect, promote and realize human rights and abstain from human rights violations). In general terms, all human beings are human rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose rights (human rights and other rights) are not fully realized, respected or protected. More often than not, these groups tend to include women/girls, ethnic minorities, Indigenous Peoples, migrants and youth, for example. A human rights-based approach does not only recognize that the entitlements of rights-holders needs to be respected, protected and fulfilled, it also considers rights-holders as active agents in the realization of human rights and development – both directly and through organizations representing their interests.

Source: UNESCO

Risk (OSH Risk)

In the context of occupation safety, health and wellbeing, a risk is the likelihood of a hazard causing harm. Risk is characterized by reference to potential "events", their "consequences", and their "likelihood" to occur.

Source: Adapted from ISO 45001:2018.

Risk Control

An action, object (engineered), or system (combination of action and object) put in place to prevent or reduce the likelihood of an unwanted event, or to minimize or mitigate the negative consequences if an unwanted event occurs.

Source: See Critical Control definition.

Root-Cause Analysis

Root-cause analysis seeks to identify the primary cause of a problem that allowed a non-compliance/non-conformity to occur. By identifying the root cause, the non-compliance/non-conformity can be more effectively addressed and recurrence can be avoided.

S

Safety Data Sheet

A document giving information on the properties of hazardous chemicals and how they affect health and safety in the workplace.

Source: RJC. <https://www.responsiblejewellery.com/wp-content/uploads/RJC-COP-2019-V1.2-Standards.pdf>

Scope 1

Direct GHG emissions that occur from sources that are owned or controlled by the site, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment. This also includes emissions from land use changes and reductions in land carbon stock arising from the site's direct activities.

Source: Adapted from GHG Protocol

Scope 2

GHG emissions from the generation of purchased electricity consumed by the site. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the site. Scope 2 emissions physically occur at the facility where electricity is generated.

Source: Adapted from GHG Protocol

Scope 3

All other indirect emissions. Scope 3 emissions are a consequence of the activities of the site, but occur from sources not owned or controlled by the site. Some examples of Scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services.

Source: Adapted from GHG Protocol

Scoping

The process of determining potential issues and impacts and producing information necessary to inform decision-making regarding whether additional evaluation and actions are necessary.

Secondary Containment

Requires that areas be designed with appropriate containment and/or diversionary structures to prevent a release in quantities that may be harmful.

Serious Human Rights Abuses

Includes: i) any forms of torture, cruel, inhuman and degrading treatment; ii) any forms of forced or compulsory labor, which means work or service which is exacted from any person under the menace of penalty and for which said person has not offered himself voluntarily; iii) the worst forms of child labor (as per ILO Convention 182); iv) other gross human rights violations and abuses such as sexual violence; v) war crimes or other serious violations of international humanitarian law, crimes against humanity, or genocide.

Source: OECD. 2016. Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Significant Change

In the context of this Standard, a significant change is a change to the project/operation (due to a major modification, e.g., design, physical footprint, area of influence, new infrastructure or associated facility), to the operational context (e.g. due to climate change or other external factors), or to model predictions, that could create new significant risks or change the scope, magnitude, duration, or probability of existing adverse impacts on the health or safety of workers or communities, human rights, the rights or interests of Indigenous Peoples, cultural heritage, livelihoods, biodiversity or the environment.

GLOSSARY

Site

An area that is owned, leased, permitted, managed, or otherwise controlled by the ENTITY and where the activities relevant to the IRMA Standard are proposed or are taking place (i.e., mineral exploration activities, project development and permitting activities, mining, mineral processing, reclamation, closure and post-closure activities), including any associated facilities. *See also 'Associated Facility'.*

Soil Remediation

The treatment of polluted soils to remove contaminants or convert them to harmless products using physical, chemical and biological processes. Ex-situ and in-situ remediation of soils are both commonly applied methods. Soil remediation may also include removal and deposition in repository.

Stakeholders

Individuals or groups who are directly or indirectly affected by a project/operation, such as rights-holders, as well as those who may have interests in a project/operation and/or the ability to influence its outcome, either positively or negatively.

Storativity

The storage capacity of an aquifer is referred to as the storativity, S . The older term, storage coefficient, is also used to describe the same aquifer storage property. Storativity describes the capacity of an aquifer to store or release water. It is defined as the volume of water removed or stored per unit change in head normal to the earth's surface over a unit area. Storativity is dimensionless and is expressed as a decimal.

Source: William W. Woessner and Eileen P, "Hydrogeologic Properties of Earth Materials and Principles of Groundwater Flow", available through The Groundwater Project.

Stormwater

Industrial stormwater (also known as contact water) is runoff of rainfall, snow, or snowmelt that has contacted mined or mineral processing materials (e.g., waste rock, tailings, mine openings, mine processing facilities, and associated mining roads). Non-industrial stormwater (also known as non-contact water) is runoff of rainfall, snow, or snowmelt from land and impervious surface areas that do not contain mined or mineral processing materials.

Subsidence

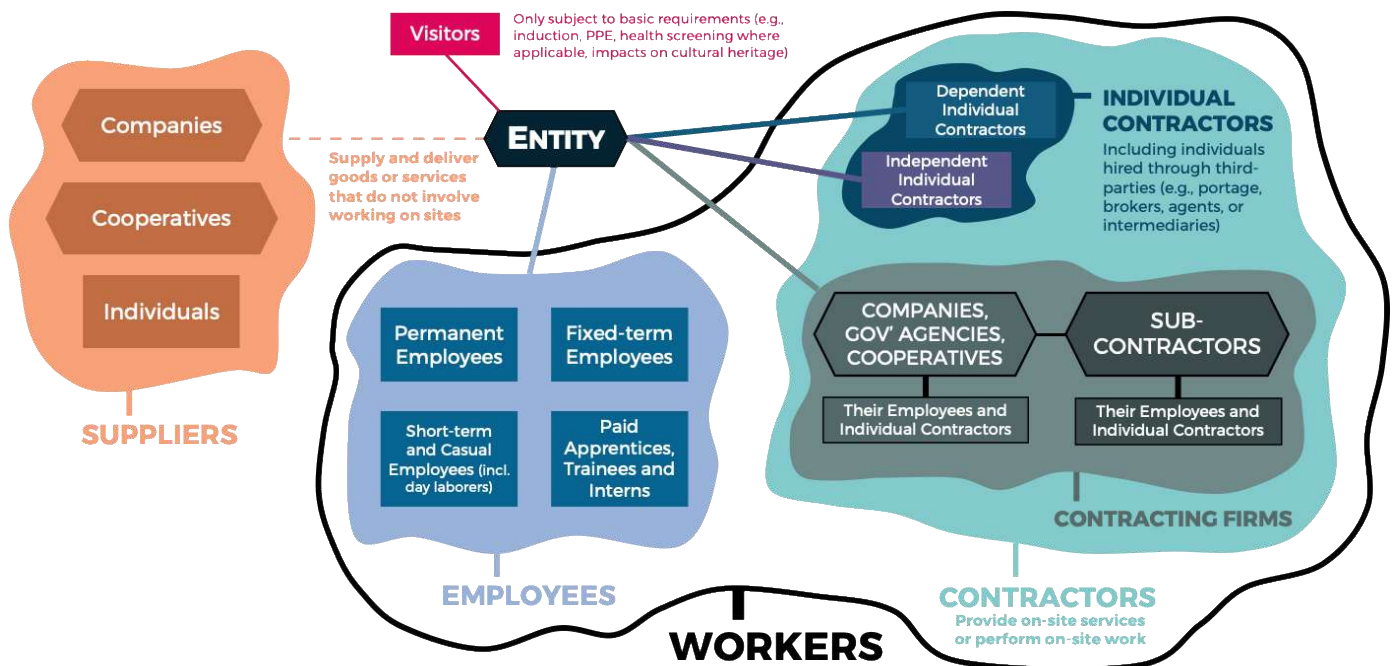
Subsidence is a sinking of the ground surface that results in a fracture of the surface which could change surface water hydrology, or pose a threat to human health or property.

GLOSSARY

Suppliers

Individuals or organizations that are providers of goods, services, or materials to a project/operation, and that do not involve working on sites. See Figure G5 below.

FIGURE G5. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors



Source: adapted from ILO ICSE-18-A

<https://ilostat.ilo.org/methods/concepts-and-definitions/classification-status-at-work/>

System

A set of interconnected elements (processes, people, resources, technology, documentation and measurement) that work together to achieve a common goal.

T

Table Top Discussion

In the context of this Standard, a discussion-based session in which participants talk through their roles and responses, and brainstorm or identify potential issues and decision-making points, for one or more example emergency scenarios.

Tailings

The waste stream resulting from mineral processing (see *Mineral Processing*). Tailings are typically sand to clay-sized materials that are considered too low in mineral values to be treated further. They are usually discharged in slurry form to a final storage area commonly referred to as a tailings storage facility (TSF) or tailings management facility (TMF).

Source: Global Acid Rock Drainage Guide and others.

Tangible Cultural Heritage

A unique and often non-renewable resource that possesses cultural, scientific, spiritual, or religious value, and are considered worthy of preservation for the future. Includes moveable or immovable objects, sites, structures, groups of structures, natural features, or landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural value.

Temporary Transitional Resettlement

Temporary transitional resettlement occurs when entities permanently acquire lands and clear people from those lands before providing them with replacement lands and/or residential structures, thus requiring them to move to a transitional temporary location until their permanent location and/or assets are ready.

Tentative List for World Heritage Site Inscription

The list of sites that relevant state parties are formally considering for nomination as a World Heritage Site in the next five to ten years.

Territory

A territory is a geographic area of land, sea, or space that is connected to a particular country, community or group, person, or animal. A territory is distinct from land, which is a geographical notion. Most land is claimed by a state, and so is territory, but there could be unclaimed land or land that is contested between two states and/or non-state actors. In the context of this Standard, territory is understood as a socio-political concept that includes the idea of belonging and customary, political, and/or jurisdictional, authority. Territory is also distinct from “property” and “ownership” (i.e. as framed and understood in many legal and regulatory instruments). Regarding territory of Indigenous and Tribal Peoples, the UNDRIP and ILO Convention 169 recognize that Indigenous peoples do not have rights only to the land they directly cultivate or inhabit, but to the broader territory, encompassing the total environments of the areas which they occupy or otherwise use, inclusive of natural resources, rivers, lakes, and coasts. Jurisprudence of the Inter-American Commission on Human Rights has established that the special relationship between Indigenous and Tribal Peoples and their territories means that “the use and enjoyment of the land and its resources are integral components of the physical and cultural survival of the Indigenous communities and the effective realization of their human rights more broadly.” It also established that, given that the foundation of territorial property lies in the historical use and occupation which gave rise to customary land tenure systems, Indigenous and Tribal Peoples’ territorial rights “exist even without State actions which specify them” or without a formal title to property.

Sources: IACHR, Norms and Jurisprudence of the Inter-American Human Rights System https://cidh.org/countryrep/Indigenous-Lands09/Chap.V-VI.htm#_ftnref5; IBEI, University of Leuven, CCC, “Borders, sovereignty and self-determination” research project - Euborders Working Paper 05.

Threatened (and Endangered) Species

Species that meet the IUCN (2001) criteria for vulnerable, endangered, or critically endangered, and are facing a high, very high or extremely high risk of extinction in the wild. These categories may be re-interpreted for IRMA purposes according to official national classifications (which have legal significance) and to local conditions and population densities (which should affect decisions about appropriate conservation measures).

Source: Adapted from IUCN. 2001. IUCN Red List Categories and Criteria: Version 3.1.

Top Management

Top management, sometimes called senior management is a person or group of people who direct and control an organization at the highest level. Top management is the people who hold the resources, authority and decision-making power of an organization and are the ones who control what changes occur within the organization. Top Management has the power to delegate authority and provide resources within the organization. This includes, but is not limited to: Boards of directors, C-level executives, presidents, vice-presidents, and equivalent denominations.

Source: ISO 9000:2015 Quality Management Systems – Fundamentals and Vocabulary

Traditional Knowledge

A cumulative body of knowledge, innovations, practices, and representations maintained and developed by peoples with extended histories of interaction with the natural environment.

Trafficking in People

The recruitment, transportation, transfer, harboring, or receipt of a person by means of the threat or use of force or other means of coercion, or by abduction, fraud, deception, abuse of power or of a position of vulnerability, or by the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation includes, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, servitude or the removal of organs. Women and children are particularly vulnerable to trafficking practices. See also 'Forced Labor'.

Source: UN Convention against Transnational Organized Crime and the Protocols. Article 3(a).

Tree plantation

A forest predominantly composed of trees established through planting and/or deliberate seeding that lacks key elements of a natural forest native to the area, such as species composition and structural diversity.

Tree plantations generally have one or a few tree species and tend to include one or more of the following characteristics:

- planted on cleared land
- harvested regularly
- trees are of even ages
- products from the plantation are managed and processed for commercial production

Tree plantations can consist of trees planted for timber, pulp, non-timber forest products (e.g., rubber latex), or ecosystem services (e.g., soil stabilization). Plantations dominated by agricultural species (e.g., fruits or oil palm) are considered agriculture, not tree plantations.

Source: The Accountability Framework Initiative, 2024 <https://accountability-framework.org/use-the-accountability-framework/definition>

Trigger Action Response Plan (TARP)

A tool to manage risk controls, including critical controls. TARPs provide pre-defined trigger levels for performance criteria that are based on the risk controls and critical controls of the tailings storage or mine waste storage facility. The trigger levels are developed based on the performance objectives and risk management plan for the facility. TARPs describe actions to be taken if trigger levels are exceeded (performance is outside the normal range), to prevent a loss of control. A range of actions is predefined, based on the magnitude of the exceedance of the trigger level.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Trigger Level

A concentration between baseline or background values and IRMA water quality criteria or other applicable compliance limits that can warn of mining- or mineral-processing-related effects to water quality and trigger adaptive management or corrective measures to improve water or soil quality.

U

Uncontacted Indigenous Peoples

Indigenous Peoples or segments of Indigenous Peoples who do not have or do not maintain sustained contacts with the majority non-Indigenous population, and who generally reject any type of contact with any person who is not part of their own people. They may also be peoples or segments of peoples previously contacted and who, after intermittent contact with the non-Indigenous societies, have returned to a situation of isolation and break the relations of contact that they may have had with those societies (i.e. living in “voluntary isolation”). In practice Uncontacted Indigenous Peoples find themselves in highly vulnerable situations, and many of them are in grave danger of disappearing completely. For those living in “voluntary” isolation, the decision to remain in isolation can be a survival strategy resulting in part from outside pressures. This absence of sustained contacts is an expression of the autonomy of these peoples as holders of human rights, including their right to self-determination, and as such must be respected. As of 2024, it is estimated that there are over 150 distinct groups of Indigenous Peoples living Uncontacted or in Voluntary Isolation, though there may be over 200. The majority live in Brazil but many others in Peru, Bolivia, Paraguay, Ecuador, Colombia, and Venezuela. There are also Uncontacted Peoples living in Indonesia, in the Andaman Islands of India, and New Guinea. There is also some indication of the presence of other Uncontacted Indigenous Peoples living in Guyana, Suriname, French Guiana, Thailand, Malaysia and some parts of Central Africa.

Sources: Inter-American Commission on Human Rights. Rapporteurship on the Rights of Indigenous Peoples.

“Indigenous Peoples in voluntary isolation and initial contact in the Americas: Recommendations for the full respect of their human rights.” <https://www.oas.org/en/iachr/indigenous/docs/pdf/Report-Indigenous-Peoples-Voluntary-Isolation.pdf>.

Inter-American Commission on Human Rights. 2013. Indigenous Peoples in Voluntary Isolation and Initial Contact in the Americas: Recommendations for the Full Respect of Their Human Rights.OEA/Ser.L/V/II. Doc. 47/13. 30 December 2013. Paras 12 and 17.

<https://www.oas.org/en/iachr/indigenous/docs/pdf/report-indigenous-peoples-voluntary-isolation.pdf>; and Survival International.

Underserved and/or Marginalized People

Underserved and/or marginalized populations include people who experience social or economic discrimination and/or oppression of any kind, and encounter barriers (e.g., racial, ethnic, religious, gender, sexual orientation, economic, cultural, and/or linguistic) to accessing public and private services, recognition, protection and respect of their rights, jobs, and/or wellbeing. They thus receive fewer and lower quality public and private services; tend to have a lack of familiarity with engagement and recourse systems; and lack access to rights protection systems, engagement and job opportunities, as well as to quality systems of care. Various groups and individuals have been historically underserved and/or marginalized within societies and continue to be disproportionately exposed to risk, harm, and violation of their rights. When underserved and/or marginalized people share some specific characteristics that, due to social biases, historical oppression/control processes or cultural norms make them: 1) more susceptible to health, safety, and security risks and impacts; and/or 2) more susceptible to lack of economic opportunities; and/or 3) have access to a resource endowment that is inadequate to provide sufficient income from any available source to ensure decent living conditions; they can be referred to as a ‘group’ (i.e. underserved and/or marginalized group). Depending on the context, underserved and/or marginalized groups may include, but are not limited to, one or several of the following categories: women, Indigenous Peoples, Afro-descendants and other customary land-rights-holders, households headed by women or children, persons with disabilities, disabled communities with particular attention to sensory challenges (Deafblind, Blind, Deaf, Hard of Hearing), poor people, elderly people, at-risk children and youth, ex-combatants, internally displaced people, asylum-seekers and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, Rights Defenders, migrant workers, sex workers, itinerant/travelling groups, nomadic peoples, people of the “Global Majority”, and LGBTIQ+ persons (Lesbian, Gay, Bisexual, Transgender, Intersex, Queer/Questioning, Asexual, and other gender identities).

Source: Adapted from IFC 2002 ‘Handbook for Preparing a Resettlement Action Plan’, FAO and World Bank approaches to ‘Vulnerable Groups’, and Health Equity and Policy Lab, University of Pennsylvania.

GLOSSARY

UNESCO Global Geoparks

UNESCO Global Geoparks (UGGp) are single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development. These geoparks certified by the UNESCO Global Geoparks Council as meeting all the requirements for belonging to the Global Geoparks Network (GGN).

Unwanted Event

A situation or condition where there may be or is a loss of control of a hazard that leads to harm.

Source: Adapted from the Government of Western Australia, Department of Mines, Industry Regulation and Safety.

<https://www.dmp.wa.gov.au/Safety/What-is-a-hazard-and-what-is-4721.aspx>

V

Voluntary Displacement:

Displacement that occurs as a result of voluntary land transactions (i.e., market transactions in which the seller is not obliged to sell, and the buyer cannot resort to expropriation or other compulsory procedures sanctioned by the legal system of the country of operation if negotiations fail) that lead to the relocation of willing sellers.

Vulnerable Worker

While there is no generally accepted definition of “vulnerable worker”, in the context of this Standard, the term is used to refer to workers for whom employment is precarious, poorly paid and sometimes dangerous, and/or who often suffer from some form/s of discrimination. Their vulnerability is often related to their gender or age. Vulnerable groups therefore include women, young workers below the age of 18 and under-age child workers. Older workers may also be vulnerable to certain risks in the workplace because of poorer general health, and may be more prone to injury compared to younger adult workers. They are often economically, socially and/or politically marginalized, for instance those subject to forced labor and migrant workers. They may work in geographical, social or cultural isolation, which can include workers from ethnic minority groups. When determining and identifying vulnerable workers, particular attention should be paid to workers who are disabled, including those who have sensory challenges (DeafBlind, Blind, Deaf, Hard of Hearing). Vulnerable workers may be subject to discrimination, psychosocial pressures, abuse or harassment. They are also often at greater risk of work-related accidents and ill-health. And they are often poorly organized and represented by trade unions or other workers’ organizations, if at all.

Source: ILO, ILO Curriculum on Building Modern and Effective Labour Inspection Systems, Module 9: Dealing with vulnerable groups of workers

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_dialogue/@lab_admin/documents/genericdocument/wcms_856569.pdf

W

Waste Facility

In the context of this Standard, an area or site where wastes are stored, treated or disposed. For wastes derived from mining and mineral processing, these may include, but are not limited to: tailings impoundments, waste rock dumps, slag heaps, heap and dump leach piles, open pits, pit lakes, and underground working. For other wastes generated at projects/operations, these may include, but are not limited to: hazardous waste storage, treatment or disposal sites, solid waste landfills, sewage treatment plants.

GLOSSARY

Waste Mitigation Hierarchy

A ranking of waste management options according to what is best for the environment. The priority order is to prevention, reduction, reuse, recycling (including composting), recovery (e.g., of energy from waste; if energy recovery can occur without generating significant air quality impacts on health and safety, ecosystems or the environment) and disposal, with prevention being the most preferred option and the disposal at the landfill being the least preferred option.

Waste Rock

Barren or mineralized rock that has been mined but is of insufficient value to warrant treatment and, therefore, is removed ahead of the metallurgical processes and disposed of on site. The term is usually used for wastes that are larger than sand-sized material and can be up to large boulders in size; also referred to as waste rock dump or rock pile.

Water Balance

An accounting of the inflow to, outflow from, transfers and storage changes of water over a fixed period.

Source: Adapted from Global Acid Rock Drainage Guide Glossary.

Water Quality Criteria

Numerical concentrations or a narrative statement recommended to support and maintain a designated water use. Criteria are based on scientific information about the effects of water pollutants on a specific water use.

Source: Adapted from UNEP. 2015. Compendium of Water Quality Regulatory Frameworks: Which Water for Which Use?

Water Quantity

For IRMA purposes, water quantity refers generally to the amount of water present or passing a certain location in water bodies that exist on the earth's surface, such as lakes, ponds, rivers, streams, etc., (i.e., referred to as surface waters) and water present in water bodies that exist underground (i.e., groundwaters). It also includes the amount of water that originates underground but expresses itself at the surface (e.g., natural springs or seeps). Water quantity measurements may be expressed as volumes, however, for IRMA's purposes measurements for rivers, streams and natural springs/seeps maybe expressed as a flow (in ft³/sec or m³/sec), while measurements for lakes and groundwater may be expressed as a level or elevation (e.g., feet or meters above a reference point such as sea level).

Whistleblower

A person who raises concerns regarding the unlawful or unethical activity or behavior of a person or organization.

World Heritage Site

A site/property inscribed on the World Heritage List, which has outstanding universal value and meets the conditions of authenticity and integrity. The World Heritage property includes within its borders all of the attributes that are recognized as being of outstanding universal value.

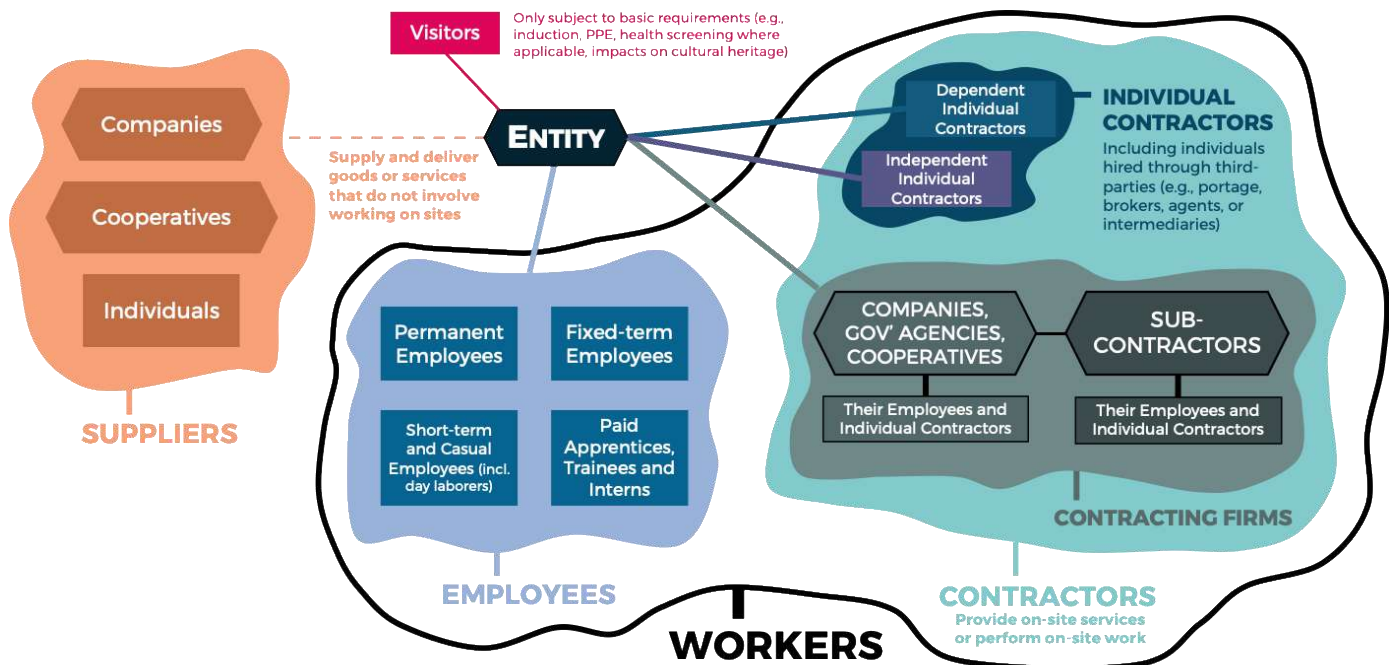
Source: UNESCO.

GLOSSARY

Workers

All staff, regardless of management level, working either as a direct employees of the ENTITY or as contractor/s providing on-site services or conducting on-site work. See Figure G6 below. See also definitions of *Contractors* and *Employees*.

FIGURE G6. Scope and Terminology related to Employees, Contractors, Suppliers, and Visitors



Source: adapted from ILO ICSE-18-A

<https://ilostat.ilo.org/methods/concepts-and-definitions/classification-status-at-work/>

Workers' Health and Safety Representative

A worker chosen to facilitate communication with senior management on matters related to occupational health and safety, and to participate in and/or have access to information on health and safety risk assessments, monitoring, inspections and investigations. A representative is selected by other workers, or in unionized facilities may be selected by recognized trade union.

Workers' Organizations

Typically called trade unions or labor unions, these organizations are voluntary associations of workers organized on a continuing basis for the purpose of maintaining and improving their terms of employment and workplace conditions.

Source: Adapted from SA8000 Guidance and IFC. 2012. Performance Standard 2.

Workers' Representative

A worker chosen to facilitate communication with senior management on matters related to working conditions or other workers' concerns. A representative is selected by other workers, or in unionized facilities may be selected by a recognized trade union.

Source: Adapted from SA8000 Guidance.

Z

Zoonotic Spillover

Transmission of a pathogen from a vertebrate animal to a human. "Zoonotic spillover of pathogens from animals to humans is recognized as the predominant cause of emerging infectious diseases and as the primary cause of recent pandemics."

Source: WHO, <https://www.who.int/publications/m/item/prevention-of-zoonotic-spillover>

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