IRMA

Initiative for Responsible Mining Assurance

EXCERPT FROM THE

IRMA Standard

for

Responsible Exploration, Extraction, and Processing of Minerals

2nd DRAFT

for public consultation

CHAPTER 2.1 – **Socio-Environmental Baseline and Ongoing Impact Assessment**

IRMA Standard v2.0 DRAFT 2

July 2025

English Version

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 full version of the document (see below). 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.

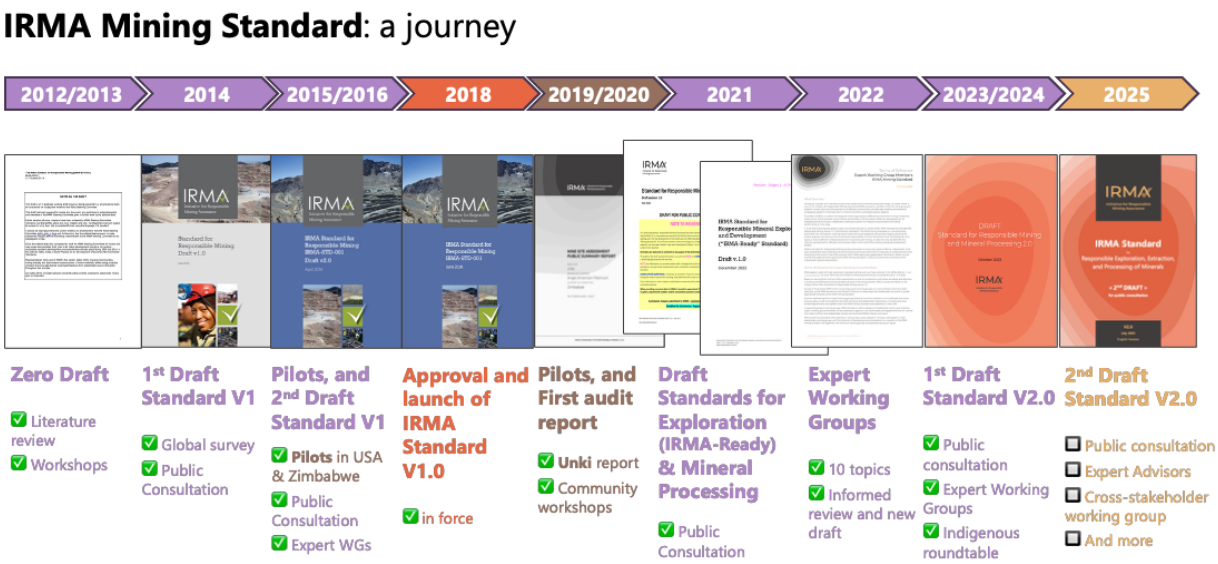
This document provides only one chapter excerpt from the IRMA Standard v2.0 DRAFT 2.

The full version contains 27 Chapters, click here to view it.

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.



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.

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 than 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 a 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 affected rights-holders and stakeholders 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 inter-changeable 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 affected rights-holders and stakeholders, 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 start[1].

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.[2]

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 practices[i], as articulated in the IRMA Standard for example. Existing operations can gradually fill the gaps by implementing a robust and rigourous 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 Diversity[3], 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, USA[4]). 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

D P

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:

a. The avoidance of adverse impacts to soils is considered and documented by competent professionals in the selection of the project location;

b. The potential to locate the project, including any associated facility, on an existing brownfield site is evaluated; and

c. 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]

E1 E2 E3

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:

a. Starts after an exploration plan for the project has been sufficiently developed (see Annex 2.1-A)[5], and is completed prior to starting proposed exploration activities;

b. 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;

c. 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;

d. 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);

e. 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;

f. Includes a rationale as to why an initial assessment of social and environmental impacts is or is not necessary for the proposed exploration project[6]; and

g. The rationale is made and maintained publicly accessible, and is proactively shared with affected rights-holders and stakeholders[7], in accordance with Section 1.2.3[8].

2.1.3 Initial Planning for Projects and Modifications Proposed after June 2018

E1 E2 E3 D M P

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:

a. Is completed prior to starting any of the proposed site-disturbing activities;

b. 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

c. 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 impacts[9].

E1 E2 E3 D M P

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:

a. 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;

b. 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-holders[10] and stakeholders, in accordance with Section 1.2.3; and

c. 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

E1 E2 E3 D M P

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:

a. 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;

b. 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 Peoples[11];

c. Includes spatial identification and mapping of the **area of influence** of the project/modification, considering direct, indirect and cumulative impacts and risks[12].

d. Includes a review of existing environmental and social baseline data[13] for the project/modification's area of influence;

e. 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

f. 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.

E1 E2 E3 D M P

2.1.4.2 The scoping process also includes:

a. 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;

b. 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

c. 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)[14], 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.

E1 E2 E3 D M P

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 receptors[15], 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 impacts[16], 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 areas[17]; and

f. Options to mitigate and/or adapt to climate change effects identified in 2.1.4.2.c[18];

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 languages[19].

E1 E2 E3 D M P

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 report[20] 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 Collection[21]

E1 E2 E3 D M P

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 social[22] context in which the project/operation takes place are collected by competent professionals[23];

b. They are collected using credible methods[24];

c. They are collected with an appropriate level of detail and disaggregation[25] 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

E1 E2 E3 D M P

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:

a. Is carried out and documented by competent professionals;

b. Evaluates and predicts in detail the characteristics of the significant environmental and social risks and impacts identified during scoping[26];

c. Includes differential risks and impacts on rights-holders and stakeholders of different genders, ages, ethnicities, and on potentially underserved and/or marginalized people;

d. Defines the criteria used to identify levels of significance of risks and impacts;

e. Addresses adaptation to climate change effects identified in 2.1.4.2.c[27]; and

f. Evaluates options to optimize potential positive impacts.

E1 E2 E3 D M P

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 follows[28]:

a. By first evaluating the technically feasible alternatives to avoid/prevent significant adverse risks and impacts[29], avoiding a priori assumptions and judgements about alternatives;

b. Then, where avoidance or prevention is not possible, by evaluating options to minimize predicted significant adverse risks and impacts;

c. As a last resort, where minimization is not possible, by evaluating strategies available to restore conditions after impacts occur.

d. 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.

E1 E2 E3 D M P

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 rationale[30] 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 studies[31].

E1 E2 E3 D M P

2.1.6.4 Once affected rights-holders and stakeholders have provided their comments on this draft report (see 2.1.8), a finalized report[32] 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 Plans[33]

E1 E2 E3 D M P

2.1.7.1 For all projects/operations, the ENTITY has systems in place to ensure that relevant management plans[34] 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.

E1 E2 E3

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 indicators[35], and monitoring measures to enable evaluation of the effectiveness of mitigation measures, and of measures taken to optimize positive impacts, over time[36];

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 recordkeeping[37];

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

E1 E2 E3 D M P

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 people[38]; 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.

E1 E2 E3 D M P

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 finalized[39], 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.

E1 E2 E3 D M P

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 2.1.8.2[40];

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

E1 E2 E3 D M P

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:

a. The initial impact assessment scoping process, and the draft and finalized versions of the scoping report (see Section 2.1.4);

b. Initial baseline data collection (see Section 2.1.5); and

c. The initial risk and impact assessment, and the draft and finalized versions of the initial impact assessment report (see Section 2.1.6).

E1 E2 E3 D M P

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:

a. Relevant monitoring and evaluation processes;

b. Relevant review and continuous improvement processes; and

c. The ongoing socio-environmental impact assessment process required in 2.1.11.

2.1.10 Monitoring and Evaluation[41]

E1 E2 E3 D M P

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 training[42].

2.1.11 Ongoing Impact Assessment and Continuous Improvement

E2 E3 D M P

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:

a. Any minor changes to the operation[43];

b. Any changes in the operating context[44] that have occurred in the past year; and

c. Any updated knowledge related to climate change, including increased frequency, duration, or severity of weather events in the operating area.

E2 E3 D M P

2.1.11.2 For all projects/operations, the review required in 2.1.11.1 is informed by:

a. The preferences of affected rights-holders and stakeholders for post-closure end-uses of potentially affected areas;

b. Information and feedback obtained through relevant grievance mechanisms and engagement processes with rights-holders and stakeholders; and

c. Results and outcomes of relevant monitoring and evaluation processes.

E2 E3 D M P

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 process[45]; and

c. If necessary, additional studies are conducted and documented by competent professionals to inform the evaluation process.

E2 E3 D M P

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 programs[46].

E2 E3 D M P

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 years[47]:

a. By competent professionals, using credible methods;

b. With an appropriate level of detail and disaggregation[48] 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 Reporting[49]

E1 E2 E3 D M P

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 maintains[50] 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 analyses[51]; 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).

E2 E3 D M P

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 maintains[52] 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.

[1] 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.

[2] 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

[3] Convention on Biological Diversity, http://www.cbd.int/convention/text/default.shtml

[4] 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 nº 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

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

[6] 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.

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

[8] 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.

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

[10] 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.

[11] 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.

[12] This must include consideration of social, cultural and environmental receptors, including Indigenous Peoples.

[13] 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.

[14] 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.

[15] 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.)

[16] 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.

[17] 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/decree the post-closure end uses. See also requirement 2.7.1.1 in Chapter 2.7.

[18] 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 chance 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.

[19] Including national languages, and Indigenous languages if applicable.

[20] 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.

[21] To reliably determine appropriate topic-specific baselines, the Entity must to 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.

[22] Including the legal, socio-economic, human rights, and political context,

[23] 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.

[24] 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.

[25] 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.

[26] 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).

[27] E.g., enhance adaptive capacity, strengthen resilience, and reduce vulnerability of human, biological, and physical systems to climate change.

[28] 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 ESIAs, 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.

[29] 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.

[30] E.g., economic, technical, social and environmental.

[31] 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.

[32] 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.

[33] 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.

[35] Indicators should be quantitative to the greatest extent practically possible, but qualitative at a minimum.

[36] 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).

[37] 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.

[38] 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.

[39] 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.

[40] 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.

[41] 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.

[42] 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.

[43] 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.

[44] E.g., legal, social, political, human rights, economic, environmental.

[45] 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).

[46] 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.

[47] In addition to the annual ongoing review and update process required in 2.1.11.1 to 2.1.11.4.

[48] 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.

[49] 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.

[50] 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.

[51] 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.

[52] 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 surveys[i]
    - 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 area of influence?	1.2, 1.3, 2.2
	Are there any Indigenous Peoples outside the direct area of influence 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 area of influence?	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 workers 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 LGBTIQA+ persons, or violence or exploitation of women, children, or other potentially underserved and/or marginalizedpeople?	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 underserved and/or marginalized people?	2.5
Infrastructure (e.g., Transportation, Communications, Health, Energy)	Is there potential that in-migration of workers 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 workers 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 workers' 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 workers (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 workers? • 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 workers needing to be trained, changes in climate or extreme weather events that alter working conditions, etc.)?	3.2
	Is there the potential for industrial accidents or incidents, including spills or releases of chemicals or hazardous materials, that could put workers at risks?	3.2, 2.6
	Are there differential risks to particular workers (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, marine environments, 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 acid rock drainage (ARD), 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 workers' rights	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: • 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	4.4, 3.3, 2.7
	Are there potential cumulative impacts on fauna? For example: • 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.)	2.1, 4.4
	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 [x]	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

[x] 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

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