



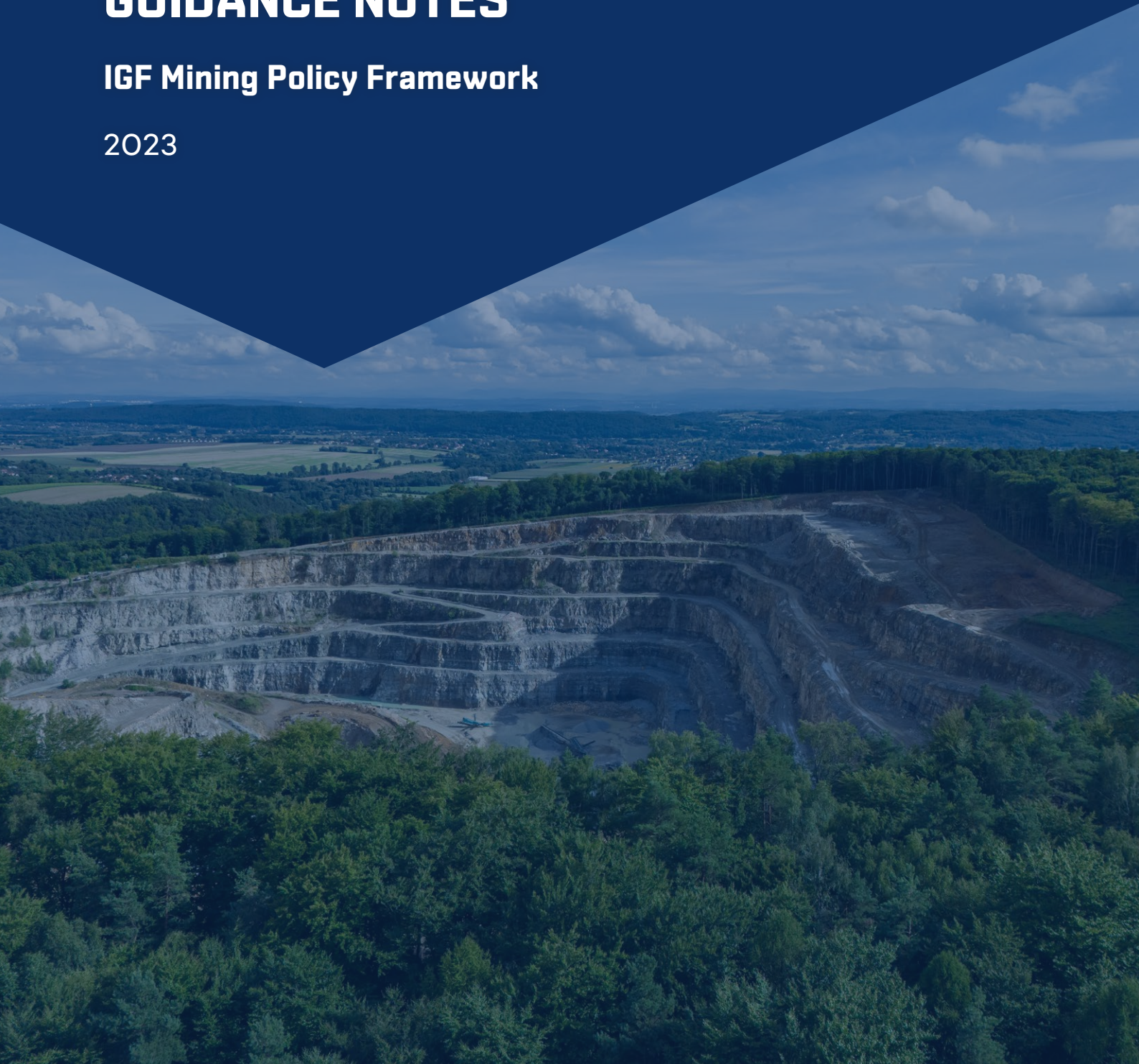
IGF

INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development

GUIDANCE NOTES

IGF Mining Policy Framework

2023



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The Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) supports its more than 80 member countries in advancing their sustainable development goals through effective laws, policies, and regulations for the mining sector. We help governments take action to develop inclusive and gender-equitable practices, optimize financial benefits, support livelihoods, and safeguard the environment. Our work covers the full mining life cycle, from exploration to mine closure, and projects of all sizes, from artisanal mining to large-scale operations. Guided by our members' needs, we provide in-country assessments, capacity building, technical training, publications, and events to advance best practices, peer learning, and engagement with industry and civil society. The International Institute for Sustainable Development has hosted the IGF Secretariat since October 2015. Core funding is provided by the governments of Canada and the Netherlands.

This document supports implementation of the IGF's [Mining Policy Framework](#), a compendium of good practices to help governments ensure their mining sectors contribute to sustainable development.

GUIDANCE NOTES:
IGF Mining Policy Framework
2023

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Pillar I – Laws, Policies, and Institutions

Introduction

Pillar I establishes the basis of a modern mining legal framework for sustainable development. It covers domestic and international law, institutional settings, the generation of geological information, as well as the details of the permitting system. Pillars II to VI establish the objectives and requirements that underpin such a framework.

Legal frameworks for mining activities provide a roadmap, aligned with good international practice, for government and other stakeholders to minimize the negative impacts and optimize positive contributions of the mining sector. The roadmap includes a robust set of laws, policies, regulations, guidelines, and the means by which governments should ensure their implementation from prospection and exploration to post-mining transition.

The legal framework should be based on laws and policies that are consistent with the countries' mining endowment and based on available geological information. Institutional capacity, expertise, and resources are also necessary to make informed and timely decisions regarding mine permitting, management of operations, and effective monitoring and enforcement.

Objectives

- To ensure that mining activities at all stages and scales are effectively regulated to minimize their potential harm to the environment and society, while maximizing their benefits for nations and communities.
- To encourage governments to enhance their understanding of their mineral endowment, undertake geological data collection, and leverage their geological endowments to strategically utilize mineral resources.
- To provide a template for national and subnational laws and policies related to the mining sector, aiming to align them with good international practices.
- To ensure that mining legal frameworks provide a clear and transparent permitting system, aligned with good international practice.
- To ensure governments and their institutions have the capacity, expertise, and resources to effectively regulate and monitor mining operations, ensuring compliance with environmental and social standards.

In keeping with the commitment of IGF members to ensure that mining activities within their jurisdiction are compatible with the Sustainable Development Goals (SDGs), implementation of Pillar I's recommendations advance the following SDGs:

- SDG 1 (Poverty Reduction) by promoting better opportunities for mining communities.



- SDG 3 (Good Health and Well-Being) by requiring mining entities to address community health impacts.
- SDG 5 (Gender Equality and Women’s Empowerment) by enacting laws and policies that pursue gender equality in the mining sector and ensuring women’s full and effective participation at all levels of decision-making.
- SDG 6 (Clean Water and Sanitation) by requiring mining entities to submit comprehensive environmental and social impact assessment (ESIA) to protect water resources and monitoring its compliance.
- SDG 10 (Reduced Inequalities) by championing inclusivity through requiring mining entities to identify opportunities for different groups within mining communities.
- SDG 11 (Sustainable Cities and Communities) by strengthening efforts to protect and safeguard the world’s cultural and national heritage and by promoting land-use planning.
- SDG 12 (Responsible Consumption and Production) by promoting mining companies public reporting of sustainability impacts.
- SDG 15 (Life on Land) by requiring mining entities to submit comprehensive ESIA to protect natural habitat and monitoring its compliance.
- SDG 16 (Peace, Justice and Strong Institutions), by promoting the rule of law and promoting non-discriminatory laws and policies for sustainable development, ensuring responsive, inclusive and participatory decision-making and protecting fundamental freedoms in accordance with national legislation and international agreements; by preventing conflict through thorough consultations and restricting mining in conflict areas.
- SDG 17 (Partnerships for Goals) by requiring mining entities to share exploration data to be included in geological information, and by encouraging trust between communities, mining entities, and government.

Scope of Application

This Pillar is applicable to:

- The entire life cycle of the mine from prospection, exploration, exploitation through to mine closure, and post-mining transition. With some exceptions, this also applies to mineral processing.
- Medium- to large-scale new or existing mining operations, as well as closed and abandoned mines across all mineral and metal commodities. Some recommendations of this Pillar are relevant for the artisanal and small-scale mining sector; however, ASM is primarily covered in Pillar VI.
- Mines operated by any entity including public, private, and state-owned businesses.
- All relevant laws, regulations, policies, strategies, and agreements related to (or impacting) the mining sector governance in a country.
- All relevant institutions involved in the management of mineral development within a given jurisdiction.



Guidance to Implement Pillar I – Laws, Policies, and Institutions

MPF RECOMMENDATIONS	GUIDANCE
1.1 Generation and access to geological information	
<p>1.1.1 Generate baseline geological, geophysical, topographical, and other information relevant for national land-use planning, mineral development, and environmental and social protections.</p>	<ul style="list-style-type: none"> • The country should have a consolidated and comprehensive geological, geophysical, and topographical database consistent with the Geographic Information System (GIS) that includes known mineralogical occurrences and identified mineral resources across the entire country. • The geological database should be linked to databases used for national land-use planning, including mining cadasters. • The geological information should be regularly updated by integrating exploration results of mining entities and latest geological interpretations both from mining entities and national geological surveys or mining cadasters (Refer to recommendation 1.1.3). • The government should encourage research collaboration between the national geologic survey, specific public research bodies, and the mining companies. • The government should establish and maintain a geological department equipped with up-to-date mainstream GIS and interpretation software and skilled geologists and technicians to operate them. Operators benefit from regular training to maintain their expertise. • The geological database should use the United Nations Framework Classification for Resources (UNFC) developed by the UNECE to classify and disclose its geological potential.
<p>1.1.2 Provide access to geological and cadastral information to companies, individuals, communities, and other civil-society actors to ensure that consultations between different parties can take place on an equal footing.</p>	<ul style="list-style-type: none"> • Geological and cadastral information should be publicly available and free. This information should be available to a wide range of stakeholders: individuals, mining entities (including ASM operators), communities, and other civil-society actors including women, Indigenous peoples, and other under-represented groups in their engagement with mining entities and local authorities. Databases should provide the same level of information to all interested stakeholders seeking to do mineral exploration and mining development. • Information should be presented in a timely manner and in a format that is accessible and easy to understand. • Cadastral database should include: <ul style="list-style-type: none"> ◦ Geographic locations of areas open for mining activities. ◦ Geographic location and nature of mining titles open for attribution and attributed, including ownership, date of and expiration, number of renewable periods available, commodity for which the title has been granted.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> ◦ Geographic location of areas with specific legal constraints (legally protected areas, Indigenous people’s lands, urban areas, existing communities, and areas reserved for specific non-mining activities). • The evaluation process and criteria used to assess each mine permit application should also be available, as well as permits approved and denied, renewed, suspended, withdrawn, and other major non-mining-related permits. • Geological data made available should include: <ul style="list-style-type: none"> ◦ Geological maps ◦ Geographical location of exploration workings (soil sampling, trenches, pits, drilling) with geochemistry results from sample taken ◦ Geophysical results (both airborne and land-based). <p>For further reference refer to EITI Standard 2023, Requirement 2, which provides additional details on the disclosure of cadastral information, and Requirement 3.1, which supports the disclosure of mineral reserves and GRI Sector Standards for Mining Projects.</p>
<p>1.1.3 Require mining entities to share geological data, in a timely and comprehensive manner, with the government agency in charge of mineral development to improve the understanding of the country’s mineral resources potential.</p>	<ul style="list-style-type: none"> • Mining entities should share with the government, in a timely manner, and in a usable format agreed upon with the government agency: <ul style="list-style-type: none"> ◦ Exploration results including: (i) geographical location of all exploration (including near mine) work performed, (ii) geochemistry results of all samples collected, for all elements tested, not only those for which the mining title has been granted (iii) geophysical surveys, and (iv) updated geological interpretations. ◦ 3D models of deposits and geological interpretations at regional and mine-site level. ◦ Technical and financial studies in relation to any deposit developed or expected to be developed from mining titles, as soon as they are available, including those formalized under global resource classification systems (e.g., JORC, Ni 43-101, SAMREC), including feasibility and pre-feasibility studies, preliminary economic assessments, scoping studies, and any new or updated resource estimate. ◦ Physical duplicates of samples sent for analyses should also be sent to the corresponding public entity at the expiration of the mining title. • The information should be sent to the national geological survey to feed their national geological database.



MPF RECOMMENDATIONS	GUIDANCE
1.2 Institutional frameworks and capacities	
<p>1.2.1 Define and coordinate roles and responsibilities of government institutions involved in the governance and management of mining.</p>	<ul style="list-style-type: none"> • Effective governance of the mining sector often requires the involvement of multiple government agencies. Where requirements are issued by multiple governmental agencies, care should be taken to ensure that obligations and procedures are aligned and do not conflict and result in unnecessary duplication or inefficiencies. This also ensures accountability. Therefore: <ul style="list-style-type: none"> ◦ Internally – Roles and responsibilities should be clearly outlined in laws or procedures for all aspects of the mining project life cycle. ◦ Externally – Information about the responsibilities and relations between different institutions and their mandates should be publicly disclosed and accessible. • There should be coordination among government institutions for inspections, enforcements, auditing procedures, and sharing of information.
<p>1.2.2 Establish robust monitoring and enforcement mechanisms with appropriate sanctions and resources to ensure compliance with laws and regulations.</p>	<ul style="list-style-type: none"> • Government institutions should have an effective oversight role in ensuring that laws and regulations are implemented by mining entities throughout the life cycle of the mines with clear rules and expertise in institutions responsible for mining and mechanisms. • Monitoring and enforcement mechanisms and agencies should be sufficiently resourced, financially, and with human resources and equipment. These activities could be funded by mining revenues or paid for by mining entities and designed in a way that does not compromise government agencies' independence. • As part of its monitoring activities, governments should conduct ad hoc inspection visits to mine sites. Government should use external technical experts when it lacks internal capacity to audit technical activities, such as management or closure plans, to validate risk assessments, and/or activities associated with high-risk elements. • Violations, breaches, and non-compliance of laws, regulations, and agreements should be subject to adequate sanctions. Sanctions should be non-arbitrary, enshrined in laws and regulations, and commensurate with the level of violation to fairly and effectively uphold the law while serving as a deterrent. • Governments should provide guidelines and/or promote participatory monitoring mechanisms for the management of environmental and social issues as an effective way to build credibility and trust among stakeholders. Mechanisms should include women (especially women's organization and other grassroots NGOs) and other under-represented groups. Appropriate resources should be allocated to enable participatory monitoring.



MPF RECOMMENDATIONS	GUIDANCE
<p>1.2.3 Strengthen institutional capacities and allocate resources to enhance expertise, transparency, and accountability.</p>	<ul style="list-style-type: none"> • Ongoing training and mentorships programs should be in place to enhance technical skills and knowledge of government officials. • Partnerships with: <ul style="list-style-type: none"> ◦ Universities, international organizations, and other experts should be established for government officials to access specialized knowledge and good international practices in mining governance. ◦ Mining entities can facilitate the training of government officials, enabling the transfer of knowledge and technical skills in mining and innovative technologies. These partnerships could materialize through internships, apprenticeships, or on-the-job training within mining entities. • Governments institutions should have diversified sources of funding to avoid budget shortfalls, such as requiring companies to pay into a fund for independent reviews, inspections, and/or audits, etc. • Institutions should consider gender equality in the recruitment and retention of employees. Local and national government agents should be trained on gender equality and how to respond to occurrences of gender-based harassment or violence.
<p>1.3 Mining policies, codes, agreements, and standards</p>	
<p>1.3.1 Regularly revise and update mining codes, statutes, regulations policies and standards to reflect changing knowledge and good international practice. Ensure domestic law is consistent with international law, commitments, and norms.</p>	<ul style="list-style-type: none"> • Mining policies, codes, agreements, and standards (“Mining PCA&S”) should reflect current knowledge and good international practices, including those that promote sustainable social and economic development, gender equity and social inclusion, environmental protection, climate change mitigation and adaptation, post-mining transition, management plans, and monitoring. • There should be appropriate balance between the need for modifications and the need to avoid frequent changes that may generate perceptions that the legal regime is unpredictable. At the same time, laws and regulations should consider the desired outcomes and facilitate innovation. • Domestic laws, mining contracts, and international commitments should be consistent, aligned, and non-conflicting including across national and subnational legal frameworks. • Mining PCA&S, including application decrees, should be accessible to the public (such as via the ministry website) in a user-friendly and accessible format (such as PDF). • Stabilization of the mining legal regime should not be automatic. If chosen, it should: <ul style="list-style-type: none"> ◦ Be based on demonstrable commercial need and limited in time and scope with the option for review and renegotiation. ◦ Exclude stabilizing environmental and international tax changes, and human rights including gender equality. ◦ At the minimum, follow the recommendations of the OECD Guiding Principles for Durable Extractive Contracts.



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	<ul style="list-style-type: none"> • If the country’s legislation does not require mining agreements, these should be comprehensive and responsive to current realities to obviate the need for contracts. • If the country’s legislation requires mining agreements: <ul style="list-style-type: none"> ◦ There should be appropriate interaction between the mining PCA&S and the mining contract. ◦ Roles and conditions for negotiating a mining contract should be clear. • The country should adhere to or ratify up-to-date international treaties and conventions relevant to the mining sector reinforcing the country’s commitment to sustainability covering a wide range of issues from human rights, environment, gender equality and protection of women’s rights, labour conditions, hazardous and toxics chemicals, etc. Refer to UN Nations Treaty Collection, ILO NORMLEX, and Basel Conventions, among others. Outdated conventions and legal instruments should be denounced or replaced. • Government should encourage mining entities to adhere to voluntary standards that are robust, transparent, independent, and relevant to their projects, mined commodities, and responsible mining. Relevant standards can play a significant role in promoting responsible and sustainable mining practices. Among others, available standards include IFC Performance Standards on Environmental and Social Sustainability, EITI Standard 2023, IRMA Standard for Responsible Mining (2018), Global Industry Standard on Tailings Management (2020), ISO Standards, Voluntary Principles on Security and Human Rights, UN Global Compact, Guiding Principles on Business and Human Rights, and Global Reporting Initiative (GRI) Standards.
<p>1.3.2 Ensure mining codes, agreements, and standards address mining activities of all sizes, minerals, and metals from prospection through to closure and the post-mining transition.</p>	<ul style="list-style-type: none"> • Mining PCA&S should be comprehensive with requirements for regular review, updating, monitoring, and enforcement. • Mining PCA&S should include: <ul style="list-style-type: none"> ◦ Categories of mining titles with rights and obligations adapted to the size of the mine operation including, where applicable, large-scale, medium-scale, small-scale, artisanal-scale mining. ◦ Where necessary, special provisions for specific minerals, including non-metallic mining or strategic minerals. ◦ Provisions covering from prospection, exploration, construction, development and production, closure, post-mining transition and processing. ◦ Different permits for exploration and development activities. ◦ Comprehensive closure plan and post-mining transition rules.



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<p>1.3.3 Ensure mining codes, agreements and/or permits require mining entities to provide data and reports for review by authorities in order to make informed decisions.</p>	<ul style="list-style-type: none"> • Mining PCA&S should provide guidelines relating to regular reporting obligations, including submissions of feasibility plans and project financial models, as well as their analysis during the permitting process. • Mining PCA&S should include all the data that entities must submit as part of the permitting process. • Data and reports provided by mining entities should be reviewed by authorities and effectively used to make decisions regarding specific mining operations or the mineral sector or economy in general. • Mining PCA&S could require public reporting of significant impacts on economies, environments, and people, and how these impacts are managed. For further guidance on public reporting please refer to GRI Standards.
<p>1.3.4 Ensure mineral agreements are negotiated by multidisciplinary teams with the capacity and knowledge to effectively translate the country's mining policy and priorities into actionable provisions. Seek knowledge on how agreements are developed in other jurisdictions.</p>	<ul style="list-style-type: none"> • There should be regulations in place to negotiate mineral agreements with clear limits in the discretion of the negotiating team, as well as transparency and accountability mechanisms to help protect from arbitrary decisions. • Negotiating teams should include officials of different institutions – including mining, tax/financial, environment, labour, social/gender, national/regional/local planning – to ensure implementation of the agreement based on technical expertise and knowledge of mining sector and national priorities. Communities impacted by mining operations participate in negotiations. • Government should establish mechanisms for independent review and assessment of mining contracts and agreements. This can involve engaging qualified and competent experts or third-party consultants to evaluate the economic, fiscal, social, and environmental implications of the contracts, ensuring fairness and alignment with national development goals. • Government should ensure mining contracts and agreements incorporate provisions for equitable benefit-sharing between mining entities, host countries, and affected communities. This includes mechanisms for revenue-sharing, local employment opportunities, capacity-building, and infrastructure development to maximize the positive impact on local economies. • The agreement should outline monitoring and compliance mechanisms to ensure both parties adhere to the terms of the agreement. This may involve regular reporting, audits, and inspections. • The contract should clearly define the rights and obligations of both the government and the mining entity. • Stabilization clauses can restrict a government's policy space and limit its ability to implement new laws or regulations that reflect national priorities, international commitments, or changing global standards. Where these clauses are used in mining agreements, government should establish a mechanism for periodic review of the stabilization clause to assess its effectiveness, relevance, and alignment with the country's development objectives. Refer to EITI Standard 2023 for additional guidance on mineral agreements and contract consultation.



MPF RECOMMENDATIONS	GUIDANCE
<p>1.3.5 Promote transparency, disclosure, and public access to mineral agreements.</p>	<ul style="list-style-type: none"> • Access to mineral agreements should be open, public, and in a user-friendly and accessible format (e.g., PDF) so citizens can understand contractual rights and obligations of mining entities. Transparency of mineral agreements include: <ul style="list-style-type: none"> ◦ The procedure selected to award the contract and the process of negotiation. ◦ The disclosure of agreements and information of the negotiation processes to the public. • Where agreed to by the parties/signatories, benefit-sharing/community development agreements should be made public. • Ensuring accessibility to contract also contributes to participatory monitoring contractual obligations. Refer to Requirement 2.4 of EITI Standard 2023 for further guidance.
<p>1.3.6 Respect the spirit and intent of current and future international agreements and normative language on human rights, gender equality, cultural heritage, and on Indigenous Peoples where applicable.</p>	<ul style="list-style-type: none"> • Governments should sign and ratify international agreements and commitments relevant to the mining sector, including key international conventions, declarations, and commitments related to human rights, gender, Indigenous peoples, and cultural heritage. • Government should ensure that, in enforcing the law, its officials respect the intent of international commitments. • Government should ensure, through monitoring, auditing and enforcement, that mining entities respect the country’s international commitments. • Government should ensure gender impacts and other aspects are considered, where necessary, in mining laws and policies.
<p>1.3.7 Require mining entities to act in accordance with national and international laws and implement responsible business-conduct standards.</p>	<ul style="list-style-type: none"> • Government should: <ul style="list-style-type: none"> ◦ Ensure mining entities conduct their business in the country in accordance with national and international laws – including international human rights and humanitarian law – and in a responsible manner by enacting robust laws and regulations and enforcing them, including ensuring their activities are inclusive and gender-responsive. ◦ Encourage mining entities to make positive contributions to economic, environmental, and social progress, and to minimize adverse impacts from their operations. OECD Guidelines for Multinational Enterprises offer guidance on how mining entities should act as responsible businesses in host countries; DCAF-ICRC Addressing Security and Human Rights Toolkit offers guidance on addressing security-related risks, and the GRI Standards define how mining entities can publicly report impacts. <p>This enhances citizens’ acceptance to foreign mining entities’ presence, especially in mining communities.</p> • Governments should conduct due diligence on the mining entity, require it to supply information on its business, and require its management and directors to verify the entity’s legitimacy to help minimize the risk of liability to the host country.



MPF RECOMMENDATIONS	GUIDANCE
<p>1.4. Permitting and licensing process</p>	
<p>14.1.a Require mining entities to consult with affected communities and other stakeholders during the preparation of their permit application and during each stage of the mine cycle, providing them with an opportunity to express their views on project risks and impacts, and to be consulted on the development of mitigation measures. The nature and results of consultations are documented.</p>	<ul style="list-style-type: none"> • Government should require mining entities to engage with local communities and other stakeholders in the area of influence of the project during the permitting process and address concerns and to maintain engagement throughout the life of the mine. The process of engagement and consultation should be in line with good international practice, and as recognized in applicable national and international laws. Community consultation should be also required on an ongoing basis through the mining life cycle. • Governments and mining entities should make demonstrable efforts to include encourage equitable consultations with men, women, Indigenous peoples, and historically under-represented groups, where applicable. Institutional capacities should be strengthened to enhance the expertise of government agents responsible for the oversight of the community consultation process. • Mining project ESIAs are made available, including the existing mine-site footprint with maps of affected, or potentially affected, areas from existing or projected mines. • The legal framework for consultation and engagement should align with provisions similar to those in the 1998 Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. The Aarhus Convention addresses timelines, responses to requests for information, types of information to protect and disclose, and government decision reporting requirements, among others. • Government should require mining entities to regularly communicate, in an accessible and culturally appropriate format, at all stages of the assessment and planning process with potentially affected communities for which a permit is sought. • At a minimum, a general description of the consultation program, plans for engaging both men and women, and a report on the results of the engagement program, disaggregated by gender, should be documented in the permit application. • For further guidance, refer to IFC's Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts, IGF Guidance for Governments: Improving legal frameworks for environmental and social impact assessment and management and IRMA Standard for Responsible Mining, Chapter 2.1, Environmental and Social Impact Assessment and Management, and 2.3, Obtaining Community Support and Delivering Benefits.
<p>14.1.b Require mining entities to consult with Indigenous peoples when mining activities may affect them, obtaining free, prior and informed consent, when applicable. The nature and results of consultations are documented.</p>	<ul style="list-style-type: none"> • Government should require mining entities to establish a process of engagement and consultation with Indigenous people apart from the mining permitting process, and seek to obtain their free, prior, and informed consent when applicable, with conditions such the ones described in IFC Performance Standards 7: Indigenous Peoples. • When Indigenous peoples have engagement protocols in place, these protocols should be respected and implemented. If no protocols are in place, an engagement process should be mutually agreed upon and implemented. • Indigenous peoples have special and protected rights under international law and declarations such as the International Labour Organization Indigenous and Tribal Peoples Convention 169 (ILO Convention 169) (1989), the United Nations Convention on Biological Diversity (1992), and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (2007).



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	<ul style="list-style-type: none"> The UNDRIP, jurisprudence of the Inter-American Court of Human Rights, recommendations from UN supervision agencies and Special Rapporteurs, IGF Case Study: The Importance of Consultation and Engagement in Environmental and Social Impact Assessments, IRMA's Planning and Managing for Positive Legacies, Chapter 2.2, Free, Prior and Informed Consent, IFC's Performance Standard 7: Indigenous Peoples, and ICMM's Indigenous Peoples and Mining: Good Practice Guide offer good international practice on how to meaningfully consult the public and uphold Indigenous rights. Outcomes of engagement and consent processes should be captured in agreements or demonstrate established processes to respond to and resolve any present or future concerns and grievances that might arise.
<p>14.1.c Require mining entities to submit an integrated environmental and social impact assessment that includes a description of baseline social and environmental conditions, potential risks and impacts of the mining activities, and proposed mitigation measures and management plans.</p>	<ul style="list-style-type: none"> Government should require an integrated ESIA prior to approval of a mine or expansion of an existing mine that has the potential to cause significant adverse social and environmental effects. Refer to the IGF Guidance for Governments: Improving legal frameworks for environmental and social impact assessment and management for good international practices in legal frameworks for ESIA's and related management plans for large and small-scale mines. The scope of the assessment should: <ul style="list-style-type: none"> Describe the proposed mine and any new infrastructure and activities needed to support the project, such as powerlines, roads, or port facilities. Describe all physical (air, land, and water), biological (aquatic and terrestrial), social (infrastructure, services, and community well-being), economic (jobs and the local economy), human health, and heritage components. Depending on the context, human rights, labour rights and conditions, and gender equality should be considered in defining the scope of the assessment. Describe the current direct and cumulative impacts of climate change and those anticipated over the life of the mine, disaggregated by gender, and consider any long-term risks from climate on the stability of permanent facilities. Describe components of the environment and communities that are of importance/value to communities. Consider alternative aspects of the project, potential effects from accidents and malfunctions, and potential effects of the environment on the project. Cover the period from construction through post-closure when no further potential effects are expected. Socio-economic data should ideally be disaggregated by gender to understand, assess, and mitigate gender-based impacts. The ESIA process should include meaningful consultation with local communities, women and other under-represented groups, Indigenous peoples, and other potentially affected stakeholders (see recommendation 14.1.a). The legal framework should provide a reasonable timeline for government's ESIA review. The timing should consider the complex nature of ESIA reports for large-scale mines, public engagement and consultation, time frames for input of technical experts, and coordination and availability of human resources to undertake the review.



MPF RECOMMENDATIONS	GUIDANCE
<p>14.1.d Require mining entities to address potential social impacts including but not limited to cultural heritage, community health, safety and security, and resettlement and economic displacement.</p>	<ul style="list-style-type: none"> • A social and economic assessment should be required as part of the integrated ESIA permitting process and identify impacts, if any, on cultural heritage, community health, safety and security, and resettlement and economic displacement – noting any disproportionate or differential impacts by gender. • Cultural heritage resources (both tangible and intangible) should be identified in baseline studies and impact assessments. Community members and Indigenous peoples of all genders should be actively consulted and involved in identifying cultural heritage resources and in the development of strategies to safeguard heritage and address or mitigate any potential adverse impact. Strategies should consider present and future custodians and management of cultural heritage. Refer to ICMM Good Practice Guide to Indigenous Peoples and Mining and UNESCO Guidance and Toolkit for Impact Assessments in a World Heritage Context for further guidance. • Mining entities should be required to address both potential positive and adverse effects of mining operations on community health, safety, and security. The assessment should require direct engagement with potentially affected communities. For more information on community health, safety, and security, refer to Pillar III – Socio-economic Benefits, the IFC’s Performance Standard 4: Community Health, Safety, and Security Voluntary Principles on Security and Human Rights. Refer also to IRMA Standards for Responsible Mining, Chapter 3.3, Community Health and Safety; Chapter 3.4, Mining and Conflict-Affected or High-Risk Areas, and Chapter 3.5, Security Arrangements. • Any involuntary resettlement requires diligent planning and oversight. The IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement provides an international standard and IFC’s Handbook for Preparing a Resettlement Action Plan provides good international practice and guidance for resettlement. Any involuntary resettlement should entail an assessment of the socio-economic risks and impacts for communities and required consultation with community members, including women, youth, and other historically under-represented or marginalized groups. Strategies should be adopted to address or mitigate any potential impacts on those affected, particularly to women or other groups negatively affected.
<p>14.1.e Require mining entities to identify opportunities and propose programs in permit submissions that lead to the creation of sustainable, equitable and inclusive benefits during and beyond the life of the mine.</p>	<ul style="list-style-type: none"> • Mining entities should be required to identify and quantify opportunities for sustainable benefits during each phase of the mining project from exploration to closure, and in consultation with local communities, national and local government leaders, and other key stakeholders. • Benefits of social and economic programs and activities should be aligned with national, regional, and local development plans and strategies and government should evaluate such benefits during the permitting processes. • Socio-economic benefits and opportunities may include, but are not limited to jobs, infrastructure, entrepreneurship, improved health services and nutrition, increased gender equality, development and growth of local business and service providers, skills development and education, development of local projects, and funds and foundations. • Government should encourage mining entities to innovate and adopt practices in their operations that improve energy efficiency (e.g., reducing greenhouse gas emissions by using renewable energy sources and/or improving energy efficiency), reduce waste and water consumption, adopt new technologies, recycle, and return the project to a usable land use after closure. For further guidance, refer to IFC Performance Standard 3: Resource Efficiency and Pollution Prevention. • Governments are encouraged to consult with local NGOs, women’s associations, and Indigenous groups to develop strategies for equitable distribution of benefits, for both women and men of different socio-economic and demographic backgrounds, youth, Indigenous peoples, and other historically under-represented or marginalized groups.



MPF RECOMMENDATIONS	GUIDANCE
<p>14.1.f Require mining entities to include robust plans for the closure of the mine, and the provision of adequate financial assurance to fund the closure and ongoing monitoring. Only consider the permit application to be complete when closure plans are submitted.</p>	<ul style="list-style-type: none"> • Government should require a preliminary closure and post-mining transition plan, including the environmental, social, and economic aspects of mine closure, to be submitted as part of the ESIA process and as a condition of approval prior to mine development. Government requires a rehabilitation plan as a condition of approval of exploration activities. • There should be a condition in the permitting system that states that closure plans must be regularly updated and include the methodology and details for costing and financial assurance. • Closure plans should account for the differential impacts of closure and the post-mining land use of affected community members, including women and Indigenous peoples. • The regulatory frameworks should anticipate changes to closure costs and provide clear rules for keeping financial assurance current to ensure it will be sufficient to cover closure and post-mining activities, including residual risks management at any point in the life of the mine to accommodate temporary or early closure. Refer to Pillar V (Closure and Post-Mining Transition) for further guidance on measures and recommendations.
<p>14.2 Review original permit conditions on a regular basis to ensure conditions are being met and update as needed to reflect any material changes.</p>	<ul style="list-style-type: none"> • Government should set expiry dates, renewal policies, and thresholds for change to ensure that permits and authorizations continue to provide effective controls to protect the environment and communities. • Government should regularly track and review permits to ensure that terms and conditions are appropriate for the current conditions. Regular reviews should be complemented by regular inspections to verify the current conditions and compliance performance.
<p>14.3 Ensure the permitting process is managed in a timely, transparent, non-arbitrary and consistent manner.</p>	<ul style="list-style-type: none"> • Permits should be issued in a reasonable timeline expressed by the law. This timeline should balance the expectations of the investors with the amount of time needed to review ESIA's and other permitting documents. • The permitting process should be easily understood and transparent to all stakeholders, avoiding and resolving any ambiguities and treating all stakeholders in a fair and consistent manner. Women and other historically under-represented or marginalized groups should be given equal access to the permitting process and mining permits. • There should be clear guidelines to reduce the scope of discretion given to officials when dealing with applications. • Management of the mining cadaster should be transparent, efficient, and non-discriminatory.
<p>14.4 Do not issue permits for a deposit to be mined in an area of active armed conflict.</p>	<ul style="list-style-type: none"> • Government should not allow mining entities to develop a new mine in an area of conflict. Prohibiting issue of permits in areas of active armed conflict is imperative to promoting rule of law and preventing violence and prioritizing the safety of workers and their families. Refer to the IFC Performance Standard 4: Community Health, Safety, and Security, the Voluntary Principles on Security and Human Rights, and OECD Due Diligence Guidance for Responsible Supply Chains of Minerals in Conflict-Affected and High-Risk Areas for further guidance. • Governments should require completion of a comprehensive social assessment as part of the ESIA to identify and develop mitigation and management plans that include tools and programs that reduce the risk of potential disputes. Governments should engage with mining entities to promote respect for international human rights and international humanitarian law, and address issues that may give rise to security concerns before issuing permits and allowing mine development. In instances where mining entities are already operating in an area of active conflict, government should consider revoking existing permits, and mining entities should develop a responsible exit strategy.



Pillar II – Financial Benefits

Introduction

Pillar II of the MPF focuses on designing and administering mining fiscal regimes, as well as on distributing the financial benefits therefrom, in a way that maximizes the value to society of the resources mined and supports the sustainable development of the nation.

For this Pillar, the term “fiscal regime” includes all mandatory payments to the government, such as mineral royalties, income taxes, import and export duties, VAT, and other levies, as well as commercial interests from which governments derive revenue. This often includes state equity in mining projects, production-sharing or other contractual arrangements, or direct operational involvement from state-owned enterprises (SOEs).

Financial benefits, specifically revenues, are widely considered a primary benefit of resource extraction. Governments are responsible for creating and implementing a robust fiscal regime. This requires balancing the goal of optimizing government revenues with other policy goals such as attracting investment.

As part of delivering on the sustainable development agenda, revenues must be collected and distributed in a manner that benefits present and future generations. This requires a strong macro-fiscal framework supported by strong institutions that defines what proportion of revenues are saved or spent, how they are spent, and how the savings are managed.

In addition, governments must ensure revenues are equitably distributed, including to host communities, and that investors conduct their operations in accordance with national laws and international good practices. This places importance not only on the regimes or systems that secure these revenues, but also on the administrative capacity to do so, including comprehensive disclosure of information across the mining value chain.

Objectives

- To design and administer a fiscal regime that maximizes government revenues from mining, subject to other policy goals such as attracting private investment, obligations related to local content, domestic processing, environmental and social cost mitigation, gender impact, health and safety, and energy efficiency.
- To increase transparency and accountability of mining revenue collection and management.
- To manage and distribute financial benefits from mining to benefit the host country’s present and future generations.



In keeping with the commitment of the IGF members to ensure that mining activities within their jurisdiction are compatible with the Sustainable Development Goals (SDGs), implementation of Pillar II's recommendations advance the following SDGs:

- SDG 1 (No Poverty) by establishing fiscal mechanisms to enable mining communities to benefit financially from mining activities.
 - SDG 5 (Gender Equality) by ensuring women are involved in decision-making regarding financial disbursement in communities.
 - SDG 10 (Reduced Inequalities) through inclusive and gender-responsive community engagement when developing fiscal mechanisms to benefit mining communities.
 - SDG 16 (Peace, Justice and Strong Institutions) by increasing transparency and accountability at all levels.
 - SDG 17 (Partnerships for the Goals) by strengthening domestic resource mobilization and improving domestic capacity for tax and other revenue collection.
- Scope of Application

Scope of Application

This Pillar is applicable to:

- Large-scale mining activities across the mining life cycle. While there is some overlap with the taxation of artisanal and small-scale mining, the unique policy objectives and the involvement of different actors in ASMs require a distinct approach and is covered in Pillar VI.
- Metallic and non-metallic mining.



Guidance to Implement Pillar II – Financial Benefits

MPF RECOMMENDATIONS	GUIDANCE
2.1 Fiscal regime design	
<p>2.1.1 Design a fiscal regime that is based on law and on a qualitative and quantitative analysis that optimizes government revenues across mining projects, and that is subject to the country's economic and social policy.</p>	<ul style="list-style-type: none"> • In designing its fiscal regime, the government should incorporate all aspects of its mining policy and mining law. In particular, the fiscal regime should consider goals such as attracting private investment and the government's obligations related to local content, domestic processing, environmental and social cost mitigation, gender impact, health and safety, and energy efficiency. Refer to the IGF/ATAF guide The Future of Resource Taxation: 10 policy ideas to mobilize mining revenues. • Government should use an economic model to assess the total economic impact of all royalties, fees, taxes, and other fiscal instruments applicable to the industry sector, as well as the costs associated with its other policy goals. For example, the International Monetary Fund's Fiscal Analysis of Resource Industries (FARI) Methodology (2016). • The fiscal regime should benchmark against other comparable jurisdictions – those with similar mineral endowments, investment environments, institutional and administrative settings – while considering the country's comparative advantages.
<p>2.1.2 Adjust how much revenue the government collects according to the profitability of mining projects.</p>	<ul style="list-style-type: none"> • The average effective tax rate of profitable mining projects should be at least in the range of 40–60%. Tax rates may be higher as long as mining investments' rates of return allow a country to reach its mining investment policy objectives. Refer to the IMF's Fiscal Regime for Extractives Industries – Design and Implementation. • The average effective tax rate should be progressive, being higher for more profitable mining projects than for less profitable ones.
<p>2.1.3 Ensure the fiscal regime is clear and simple for both investors and the government administration.</p>	<ul style="list-style-type: none"> • The mining fiscal regime should be clearly laid out in the mining law, a dedicated mining tax law, and/or the general tax/revenue code. • Government should publish all regulations and administrative guidance required to interpret the law. • There should be a limited number of royalties, fees, taxes, and other fiscal instruments applicable to the mining industry – in general, fewer than ten. • Government should publish on a website and through other media (e.g., EITI reports) a clear summary in plain language of all royalties, fees, taxes, and other fiscal instruments that apply to the mining industry. • There should be a transparent process for investors to seek clarity on any element of the fiscal regime from the administration.



MPF RECOMMENDATIONS	GUIDANCE
<p>2.1.4 Limit opportunities for investors to engage in tax avoidance; adopt measures against base erosion and profit shifting in the domestic law and international legal instruments.</p>	<ul style="list-style-type: none"> • The mining fiscal regime should include measures against tax avoidance. In particular, it has provisions to: <ul style="list-style-type: none"> ◦ Monitor the quantity and quality of mineral production and exports. ◦ Clear ring-fencing rules. ◦ Provisions to limit excessive interest deductions; refer to the IGF/OECD's Practice Note Limiting the Impact of Excessive Interest Deductions on Mining Revenue. ◦ Deal with tax treaty abuse, the manipulation of transfer pricing, and the taxation of offshore indirect transfers of mining assets; refer to the Platform for Collaboration on Tax's The Taxation of Offshore Indirect Transfers – A Toolkit. • The country's tax code should include strong anti-tax avoidance measures that apply to the mining sector. The country may wish to adopt the OECD BEPS actions or other international standards to protect against base erosion and profit shifting. • The tax code should align with international good practices in transfer pricing, such as the OECD or the UN Transfer pricing guidelines. • The tax treaty policy should align with international good practice, such as the OECD or the UN model provisions, and adapted to protect countries' right to tax mining income (refer to the IGF's Protecting the Right to Tax Mining Income Tax: Tax treaty practice in mining countries).
<p>2.2 Fiscal regime administration</p>	
<p>2.2.1 Ensure that government officials have the technical capacity to effectively administer the fiscal regime.</p>	<ul style="list-style-type: none"> • Government officials should ensure the administration of the fiscal regime have the technical competencies, qualifications, training, and access to resources needed to: <ul style="list-style-type: none"> ◦ Understand and interpret mining tax laws and regulations. ◦ Undertake complex transfer pricing audits, which often require long and complex investigations. Refer to IMF's Administering Fiscal Regimes for Extractive Industries: A Handbook.
<p>2.2.2 Implement the necessary administrative mechanisms to monitor the value and volume of minerals produced and exported.</p>	<ul style="list-style-type: none"> • Government should investigate the risk of mining entities deliberately undervaluing their mineral exports prior to deciding on the appropriate policy response. • Government should invest equal resources on mineral sampling and mineral testing. • If the risk of undervaluation is low (e.g., for minerals widely traded globally with transparent price indices) and if the mining entity has quality controls that comply with international standards – such as the Australasian Joint Ore Reserves Committee (JORC) Code or the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code) 2016 Edition – the government can monitor the mining entity's internal export valuation processes rather than undertake direct measurement.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • If the mining entity cannot prove that its sampling and mineral testing accord with international standard, an independent assessor should be contracted and paid by the mining entity. • Government should have a mineral laboratory and it should comply with international standards. Refer to the IGF/OECD's practice note Monitoring the Value of Mineral Exports: Policy options for governments.
<p>2.2.3 Ensure coordination between government agencies responsible for implementing the fiscal regime.</p>	<ul style="list-style-type: none"> • Regardless of the government agency or division (e.g., audit, legal, risk assessment) to which they belong, mining and tax government specialists should work together to ensure coordination and implementation of the fiscal regime. • Clear roles and responsibilities of those involved in the administration of the fiscal regime for the purpose of cooperating or exchanging information should be defined (e.g., in a Memorandum of Understanding). • At a minimum, exchange of information between agencies should include: <ul style="list-style-type: none"> ◦ Mining taxpayer identification numbers ◦ Changes of licence interests ◦ Areas in which mining holders are operating ◦ Determining if these are ring-fenced and/or subject to the terms of special mining contracts. <p>Refer to IMF's Administering Fiscal Regimes for Extractive Industries: A Handbook.</p>
<p>2.3 Management and distribution of financial benefits</p>	
<p>2.3.1 Adopt a transparent revenue management and distribution system.</p>	<ul style="list-style-type: none"> • Government should strictly adhere to budget preparation and publication cycles, with mechanisms for public participation in the budgeting process. • The government should publish the distribution of royalty payments between central and subnational governments, where applicable and where possible, including owners or bona fide occupants of land subject to mineral rights. • The government should deploy technology for more efficient revenue administration. • Where warranted by the economic importance of the mining sector and economic circumstances particular to the country's national strategy, the government should establish a resource revenue fund with: <ul style="list-style-type: none"> ◦ Clear investment rules ◦ Transparent governance structures ◦ Mechanisms for public oversight.



MPF RECOMMENDATIONS	GUIDANCE
<p>2.3.2 Provide oversight mechanisms for the management and use of mining revenues, and transparent rules regulating revenue-allocation decisions.</p>	<ul style="list-style-type: none"> • Government should mandate the publication of mining revenues, including where they are allocated, the rules governing decisions on when, where, and how the revenues are allocated. • Government should periodically trigger independent audits to be conducted and reported. • There should be a clear delineation between the role of the oversight government agencies, and the decision-makers in the sector ministry, the finance ministry, and other relevant agencies with potential conflict of interest. Refer to NRG's 2015 briefing Primer: Revenue Management and Distribution.
<p>2.3.3 Establish systems to manage macroeconomic volatility; those systems should include robust fiscal rules.</p>	<ul style="list-style-type: none"> • Government should apply one or a combination of fiscal rules such as: <ul style="list-style-type: none"> ◦ The budget balance rule – restricting the budget deficit as a proportion of GDP (e.g., Chile introduced a version of the rule in 2001). ◦ The debt rule – restricting the level of debt that can be taken on as a proportion of GDP or as a proportion of government revenue (e.g., Namibia). ◦ The expenditure rule – limiting public expenditure to a proportion of GDP (e.g., Australia in 2009). ◦ The revenue rule – restricting the ability to raise revenue from taxation beyond defined limits, as a proportion of GDP (e.g., Kenya in 1997). <p>Refer to the IMF 2017 background paper Fiscal Rules at a Glance.</p> • Where applicable, the government should consider the adaptation of more specific fiscal rules that have been successfully applied for the management of petroleum revenues, such as: <ul style="list-style-type: none"> ◦ The introduction and deployment of a resource revenue fund. ◦ The bird-in-hand rule – placing the entire resource income in a sovereign wealth fund and having strict rules for accessing it (e.g., Norway). ◦ The benchmark pricing rule – setting a benchmark price beyond which surplus earnings are to be saved, and below which earnings shortfalls are to be met from previous savings (e.g., Nigeria).
<p>2.3.4 Establish fiscal mechanisms to enable mining communities to benefit financially from mining activities.</p>	<ul style="list-style-type: none"> • Government should introduce measures to localize financial benefits to host communities, such as: <ul style="list-style-type: none"> ◦ A community development turnover tax for the purpose of investing in public shared infrastructure in affected mining communities; refer to Chapter 12 of the IGF/ATAF guide The Future of Resource Taxation: 10 policy ideas to mobilize mining revenues. Community development agreements will be prescribed in regulation or prepared in a model agreement by the government (e.g., in Argentina, Ghana, Uganda). ◦ Ensuring that community representatives, including women, are involved in decision-making regarding financial disbursement in communities.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> Government should provide inclusive and gender-responsive community engagement when developing fiscal mechanisms to benefit mining communities, and when identifying areas of financial investment, including services such as education, health, finances, and programs supporting gender equality and social inclusion. Refer to Requirement 5.2c and 6.1a of the EITI Standard 2023.
<p>2.4 Fiscal transparency</p>	
<p>2.4.1 Ensure comprehensive public disclosure of:</p> <p>(i) all fiscal charges paid by mining entities and received by the government.</p>	<ul style="list-style-type: none"> Government should mandate the publication of all mining-related payments or fiscal charges that it receives (e.g., payments or fiscal charges can include, but are not limited to, corporate income taxes, royalties, levies, any other taxes, dividends, or revenue received from a mining entity). For further guidance refer to Requirement 4.1 of the EITI Standard 2023. Mining entities should include mining companies, SOEs, joint ventures and any other legal person carrying out mining activities as defined by the mining law. The relevant payments should be published on a project-by-project level for each mining company. For further guidance refer to Requirement 4.7 of the EITI Standard 2023. Government should ensure that this information is published in a format, language, and publicly available platform accessible to men, women, and under-represented groups. For further guidance refer to Requirement 4.1 of the EITI Standard 2023.
<p>2.4.2 Ensure comprehensive public disclosure of:</p> <p>(ii) the distribution of mining revenues, subnational transfers, and revenue management and expenditures.</p>	<ul style="list-style-type: none"> The government should disclose a description of the distribution of revenues from the mining industries. For further guidance refer to Requirement 5.1 of the EITI Standard 2023. This disclosure includes revenues collected in both cash and in kind and must indicate if the revenue is reflected in the national budget. Where the revenue is not reflected in the national budget, the allocation and value of each revenue stream must be comprehensively accounted for. Where the national laws mandate revenue transfers between national and subnational government entities, all material transfers should be disclosed, including disclosure of the applicable revenue-sharing formula where one exists. Where a revenue-sharing formula is used, the government should also disclose and account for any discrepancies between the expected transfer in accordance with the formula and the actual amount that was transferred. For further guidance refer to Requirement 5.2 EITI Standard 2023. Government should disclose all relevant projections pertaining to future revenues including the economic rationale for projected production volumes, projected commodity prices where they exist, as well as the projected costs.



MPF RECOMMENDATIONS	GUIDANCE
<p>2.4.3 Ensure comprehensive public disclosure of: (iii) The rules regarding the financial relationship between the government and state-owned enterprises, and the latter's role in mining revenue collection, distribution, and spending.</p>	<ul style="list-style-type: none"> • Government should make public the governing framework regulating the relationship between itself and SOEs, as well any joint ventures or subsidiaries of SOEs. • The government should regulate and publishes the rules relating to SOEs: <ul style="list-style-type: none"> ◦ Operating and capital expenditures ◦ Procurement processes ◦ Subcontracting capacity ◦ Corporate governance framework. • The subsisting ownership arrangement between the government and any SOEs, including any details of the terms associated with the equity stake, should be publicly available. Any changes to the ownership arrangement should be documented and disclosed, as well as the details of any loans or loan guarantees given by government and SOEs (Requirement 2.6 EITI Standard 2023). • Government should disclose the revenues generated from the sale of the state's share in mineral resources or other revenues collected in kind including the volume of minerals received. The government should also disclose the exact amount it receives from these transactions (Requirement 4.2 EITI Standard 2023). These disclosures must be disaggregated at the company level for each purchase made from the state. • Government should legislate the reporting process applicable to SOEs including rules relating to the disclosure of material payment to SOEs and transfers between government, its agencies, and SOEs (Requirement 4.6 EITI Standard 2023). • Government should ensure that expenditures undertaken by SOEs on behalf of the government from mining proceeds are publicly disclosed, particularly where these are not reflected in the budget (Requirement 6.2 EITI Standard 2023). Refer to Chapter 7, State Equity Participation in the Mining Sector of The Future of Resource Taxation: 10 policy ideas to mobilize mining revenues.



Pillar III – Socio-Economic Benefits

Introduction

Pillar III focuses on the social and economic benefits of mining which, when carried out in accordance with laws and good international practices, can create employment, initiate local economic development through local procurement of goods and services, provide access to shared mining education and infrastructure and services, and improve opportunities for women and other historically under-represented or marginalized groups. These benefits should continue beyond mine closure and into the post-mining transition.

To achieve this, governments must design and implement robust policies and regulations that require environmental and social impact assessments (ESIA) and plans, promote responsible mining practices, and ensure fair labour practices, security, and occupational health and safety (OHS) standards. Such policies and regulations must be designed in consultation with communities to ensure inclusive decision-making processes and to safeguard the rights, safety, and well-being of workers, including women and other historically under-represented groups who often face increased risks of marginalization, violence, and exclusion due to cultural norms and customs.

Revenue optimization on its own, in the absence of matching investments in other productive sectors, has not yielded significant economic benefits. As a result, many resource-rich countries remain challenged by undiversified economic structures with weak industrial bases. Mining can provide economic growth and long-term sustainable development opportunities to mining communities and the economy as a whole.

Objectives

- To ensure mining entities' initiatives and activities are consistent with national social and economic development objectives and that these benefits continue beyond mine closure.
- To ensure mining activities contribute to long-term development of mining regions.
- To ensure mining activities create social and economic benefits, and linkages for mining communities and the country's citizenry as a whole.
- To leverage mining activities to enhance social and economic benefits and minimize risks for local communities living around mining operations.



In keeping with the commitment of the IGF members to ensure that mining activities within their jurisdiction are compatible with the Sustainable Development Goals (SDGs), implementation of Pillar II's recommendations advance the following SDGs:

- SDG 1 (No Poverty) by creating a supportive and inclusive business environment to support local economic development.
- SDG 3 (Good Health and Well-Being) by promoting workplace health and safety.
- SDG 4 (Quality Education) by promoting universal education and vocational training without discrimination in mining communities and resource-rich countries.
- SDG 5 (Gender Equality) by promoting strategies for gender equality in mining policies through private-sector investment and initiatives with local and grassroots women's organizations in host communities that train women in leadership roles in the mining sector.
- SDG 7 (Affordable and Clean Energy) by promoting clean energy infrastructure in mining operations and shared with communities.
- SDG 8 (Decent Work and Economic Growth) by promoting public/private partnerships to enhance local employment and economic local development.
- SDG 9 (Industry, Innovation and Infrastructure) by promoting partnerships for better infrastructure and by developing industries in mining communities.
- SDG 10 (Reduced Inequality) by promoting partnerships between mining entities and local businesses that provide economic opportunities at the local, regional, and national levels.
- SDG 11 (Sustainable Cities and Communities) by integrating policies and plans for more sustainable outcomes.
- SDG 12 (Responsible Production and Consumption) by integrating sustainability information into company reporting.
- SDG 13 (Climate Action) by working with local communities and mining entities to design, construct, operate, and close mining operations that incorporate local adaptation measures to climate change.
- SDG 16 (Peace, Justice and Strong Institutions) by protecting fundamental freedoms in accordance with national legislation and international agreements, and by promoting the rule of law and preventing violence.
- SDG 17 (Partnerships to Achieve the Goal) by promoting public/private partnerships for sustainable local development.

Scope of Application

This Pillar is applicable to:

- Large- and medium-scale mining activities, including the activities of subcontractors and other related businesses and services across the mining life cycle.
- Government regulations applicable to mine workers, affected communities, populations living in sub-regions, and where applicable, to all citizens.
- Metallic and non-metallic mining.



Guidance to Implement Pillar III – Socio-Economic Benefits

MPF RECOMMENDATIONS	GUIDANCE
LOCAL ECONOMIC BENEFITS	
3.1 Local economic development	
<p>3.1.1 Integrate mines and mining activities into local, regional, and national development plans.</p>	<ul style="list-style-type: none"> • Government should put into place policies that align mining with other economic sectors; long-term national, regional, and local development plans; and environmental and land-use plans including climate adaptation plans, protection of biodiversity and rehabilitation of ecosystems and landscapes. • Government should require mining entities to provide a socio-economic plan, informed by consultations with affected stakeholders, and with due consideration of how the mine may affect and benefit communities, the economy, and the environment now and in the future. Critical gender issues should be identified and understood including how constraints and opportunities differ for people from different genders. • Government should review all plans prior to approving a mining permit. Mining entities should update such plans (e.g., where there is a material change) during the full mine life cycle. • Government should put into place a national policy or strategy to optimize socio-economic benefits of mining activities including strategies to promote: <ul style="list-style-type: none"> ◦ Local content ◦ Local employment ◦ Local sourcing of goods and services ◦ Value addition and economic diversification ◦ Use of mining infrastructure ◦ A successful post-mining transition. <p>Refer to IGF Guidance for Governments: Local content policies (2018) for further guidance.</p> <ul style="list-style-type: none"> • As part of its mining development planning process, the government should promote strategies for gender equality and advance socio-economic benefit-sharing for historically under-represented groups and Indigenous people. Refer to the Initiative for Responsible Mining Assurance (IRMA) Standard for Responsible Mining (2018); International Council on Mining and Metals Good Practice Guide: Indigenous Peoples and Mining (2015); and the University of Queensland, Centre for Social Responsibility in Mining (CSR) Mining and Local-Level Development: Examining the gender dimensions of agreements between companies and communities (2014) for further guidance.



MPF RECOMMENDATIONS	GUIDANCE
<p>3.1.2 Develop a supportive business environment to support local economic development.</p>	<ul style="list-style-type: none"> • Government should provide a business environment that enables the development of local businesses. This includes appropriate fiscal incentives for local businesses, funding and accompanying measures to enable access to finance, simplifying the formalization process of mining cooperatives and associations, and/or by providing accessible guidance through government offices, websites, and social media. Special attention should be paid to small businesses, young entrepreneurs, women-owned businesses as well as those owned by other under-represented groups. • Government should promote partnerships with mining entities as well as between mining entities and local businesses that provide opportunities for the local, regional, and national supply of goods and services. • Government should invest in or encourage private investment in local women's organizations whose mandates are to support and accompany women entrepreneurs in a manner that contributes to their long-term independence, accountability, and transparency. Refer to the ILO resolution and conclusions concerning small and medium-sized enterprises and decent and productive employment creation (2015), ILO Strategy on Promoting Women's Entrepreneurship Development (2008), and the Women's Entrepreneurship Development Assessment (2020) for further guidance. • The government should develop plans for how infrastructure can be used to develop and expand business opportunities and economic linkages during and beyond the life of the mine.
<p>3.1.3 Encourage mining entities to procure goods and services from local communities and regional and national providers, including from historically under-represented groups.</p>	<ul style="list-style-type: none"> • Government should require mining entities and their subcontractors, as part of their socio-economic plan, to include a plan for local and national procurement of goods and services, and where possible, from affected communities, women, Indigenous people, and other historically under-represented groups. Refer to the IGF Guidance for Governments: Local content policies (2018); Africa Mining Vision (2009) for further guidance. • Where gaps exist in the supply of goods and services, mining entities and government should collaborate on the development of national and local supplier initiatives and provide training, in particular to local affected communities on how to develop and manage small businesses that can fill these gaps where possible. • Government should encourage mining entities to negotiate agreements with local communities for the supply of goods and services. Particular attention should be given to strengthen the capacity of women and historically under-represented groups to become suppliers. Refer to the International Bar Association Model Mining Development Agreement (2011), Clauses 20-24 and Annex C, for further guidance on development agreements.
<p>3.1.4 Require mining entities to monitor, report, and manage the impacts of mining operations on local communities and regularly update socio-economic plans, including those for employment and procurement.</p>	<ul style="list-style-type: none"> • Government should put into place mechanisms to facilitate communication and coordination among stakeholders including communities, governments (at national, regional, and local levels), and industry. • Government should set up monitoring and enforcement mechanisms as part of employment and local content policies and regulations, to ensure accountability and to track progress. Where possible, monitoring reports should be made publicly available. Monitoring mechanisms should be participatory and gender-responsive. • Government should require mining entities to provide monitoring reports that verifies socio-economic impact predictions and the effectiveness of mitigation measures and should include any assumptions. Monitoring reports should include information obtained during consultations and regular stakeholder engagement and, where appropriate, should be made publicly available.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Data should be collected and disaggregated by gender and other identity factors, such as ethnicity, religion, age, disability status, socio-economic status, or any other factor that is culturally and contextually relevant to account for and measure any disproportionate impact or benefit on a specific community group. • Refer to the IGF Guidance for Governments on Local Content Policies (2018), EITI Standard 2023, the IRMA Standard for Responsible Mining (2018), the Mining Local Procurement Reporting Mechanism (2017), ICMM Social and Economic Reporting: Framework and Guidance (2022), and the Global Reporting Initiative (GRI) for further guidance. • Governments should be able to limit, withhold, or withdraw exploration or operating permits if socio-economic plans are not regularly updated and/or if input from consultations are not duly considered.
<p>3.2 Labour rights, employment, training, and skills</p>	
<p>3.2.1 Work collaboratively with the mining industry and institutions of academic and vocational education to develop curricula consistent with current and future local and national mining needs.</p>	<ul style="list-style-type: none"> • Government should provide technical and vocational training that is consistent with future local and national mining needs. • Academic curricula and skills development plans should consider the impacts of technology on future skills needs and contribute to the establishment of an innovative and competitive local workforce by collecting occupational data that is disaggregated by gender, and is updated to emphasize science, technology, engineering, and mathematics (STEM) and digital skills, with particular attention to improve women's enrollment in and graduation from STEM-related fields. Refer to the IGF's Women and the Mine of the Future Global Report (2023) for further guidance. • Government should promote and support private-sector investment and initiatives with local and grassroots organizations in host communities that train women, Indigenous people, and other under-represented groups in leadership roles in the mining sector.
<p>3.2.2.a Require mining entities to respect workers' rights, prohibit the use of forced and child labour in the mine operation and their supply chains, and to provide workers with access to a grievance and redress mechanism.</p>	<ul style="list-style-type: none"> • Government should ensure that workers' rights are respected through the enforcement of national labour law and international commitments and have adopted the International Labour Organization's Conventions. • Forced labour and child labour should be prohibited by law and government must monitor forced and child labour practices in mining operations and their supply chains. • Mining entities should develop and implement a grievance and redress mechanism for its workers. The mechanism should enable them to register concerns and grievances and subsequently facilitate resolution. It should be provided at no cost, without retribution, and should not preclude or impede access to judicial or administrative remedies. It should address concerns promptly and effectively, be culturally appropriate and accessible to all employees and subcontractors, allowing for confidential complaints and those that need special protection measures such as gender-based violence. It should ensure that workers do not face retaliation related to any grievance submitted.



MPF RECOMMENDATIONS	GUIDANCE
<p>3.2.2.b Optimize employment opportunities by providing employment for local communities and nationals, including increasing levels of managerial responsibility as an objective.</p>	<ul style="list-style-type: none"> • Government should require mining entities and their subcontractors to provide a plan for the recruitment and training of local workers. Plans should include, for example, employment opportunities for nationals, with a preference for workers from mining communities, and with quotas for women and Indigenous peoples, in all occupations, at various skills and responsibility levels, and plans for replacing expatriates with local staff. Refer to IGF Guidance for Governments: Local content policies (2018); Africa Mining Vision (2009) for further guidance. Government requires mining entities to provide equal remunerations for men and women at equivalent positions to retain workers. • Government should ratify and implement ILO Conventions for the principles and rights at work and conventions on decent work. Refer to the ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up, adopted in 1998 and amended in 2022; ILO Employment Policy Convention, 1964 (No. 122); and the ILO Centenary Declaration for the Future of Work (2019) for further guidance.
<p>3.2.2.c Require that mining entities increase the participation of women and of Indigenous peoples in the mining workforce at all levels of occupations and with all levels of skills.</p>	<ul style="list-style-type: none"> • Government should require mining entities to increase the participation of women and Indigenous peoples in the mining workforce, at all levels of occupations, and with all levels of skills. • Government should require that employers not discriminate on the basis of gender, race, nationality, ethnic, social and Indigenous origin, religion or belief, disability, age, or sexual orientation. This applies to the recruitment and hiring, compensation (including wages and benefits (i.e., equal pay for equal work)), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. Refer to the IFC Performance Standards on Environmental and Social Sustainability, Standard 2 Requirement 15 (2012), for further guidance. • Government should require mining entities to disclose data on the number of people employed at all occupational levels, disaggregated by gender and indigeneity. Companies are encouraged to conduct regular pay equity reviews and disclose the difference in average earnings between male and female, and Indigenous employees. Refer to the EITI Standard 2023, Requirement 6.3, the Global Reporting Initiative's GRI 405: Diversity and Equal Opportunity 2016 and the IGF's 2023 Women and the Mine of the Future: Global Report for further guidance.
<p>3.2.2.d Require mining entities to develop and implement training, skills development programs for workers, thereby ensuring transfer of skills and knowledge to local workers.</p>	<ul style="list-style-type: none"> • As part of the localization plan, government should require mining entities to provide training programs that offer men and women equal opportunity to participate in on-the-job training, upskilling and re-skilling; provide mentorship programs to local workers to support skills transfer to local workers, and train local staff to replace foreign workers. The plan should be inclusive of women, Indigenous peoples, and other historically under-represented groups in mining communities. Refer to the IGF Guidance for Governments: Local content policies (2018); Africa Mining Vision (2009); ILO Human Resources Development Recommendation, 2004 (No. 195), for further guidance. • Government may require mining entities to fund training schemes for workers and local communities that may be undertaken by other training institutions, with a view to ensure workers' employability. • Government should require mining entities to provide infrastructure and services on mine sites (e.g., child care, incentives for transportation) that support women to take advantage of training opportunities and skills development programs. • Government should collaborate with mining companies to provide targeted funding for joint educational and research programs to promote knowledge-sharing between mining companies and local businesses.



MPF RECOMMENDATIONS	GUIDANCE
<p>3.2.3 Plan the maintenance, management, and transfer of educational infrastructure facilities and human resources during and beyond the mine life.</p>	<ul style="list-style-type: none"> • Government should identify opportunities to collaborate and coordinate actions with mining entities, and other relevant actors, when plans to construct educational infrastructure facilities are being considered in the region. These plans must be consistent with national development and educational plans, national human resource policies, and with the recruitment of competent human resources recognized by national authorities. • Government should ensure that physical infrastructure and human resources for education are provided and maintained to achieve adequate and equal access to education for women, girls, boys, and men. • Government should develop strategies and measures to ensure that educational facilities can be transferred from the mining permit-holder to the appropriate institutions to continue to maintain and manage beyond the mine life.
<p>SOCIAL BENEFITS</p>	
<p>3.3 Community engagement</p>	
<p>3.3.1.a Require mining entities to undertake meaningful and inclusive consultations with affected communities and stakeholders in the design of community development activities, document the consultation process, and make the results accessible to communities.</p>	<ul style="list-style-type: none"> • As part of the permitting process and throughout the life of the mine, government should require mining entities to regularly consult with affected communities, including men and women, Indigenous peoples, and other under-represented groups on the design of community development activities. Consultation must be inclusive, accessible, and culturally appropriate. • The legal framework for consultation mechanisms should be accessible, culturally relevant, and supportive of gender equality and inclusiveness, aligned with good international practices. Refer to the ICMM Mining Principles and the EITI Standard 2023 for guidance. • Government requires mining entities to document the consultation processes and make the results accessible to communities in local languages and in a timely manner. To promote transparency, mining entities should share consultation agendas, meeting minutes, and summaries of issues and concerns with actions and mitigation. • Results of consultations should be integrated into any agreements that may be negotiated with affected communities. • A register of commitments should be maintained to ensure high-priority issues are considered, addressed, and discussed to optimize engagement, mitigate tensions, and prevent conflict. Refer to the IFC Performance Standards on Environmental and Social Sustainability (2012), the Mining Association of Canada's Indigenous and Community Relationships Protocol (2021), and the IRMA Standard for Responsible Mining (2018) for further guidance.



MPF RECOMMENDATIONS	GUIDANCE
<p>3.3.1.b Establish grievance mechanisms to receive and facilitate resolution of grievances for affected communities.</p>	<ul style="list-style-type: none"> • Government should require entities to establish a grievance mechanism prior to issuing a mining permit or approval. • The grievance mechanism should enable affected communities and other stakeholders to register concerns and grievances and subsequently facilitate resolution. The grievance mechanism should be provided at no cost, without retribution, and should not preclude or impede access to judicial or administrative remedies. It should address concerns promptly and effectively, be culturally appropriate and accessible to all community members, and allow for confidential and anonymous complaints and those that need special protection measures such as gender-based violence. Refer to ICMC's Handling and Resolving Local-level Concerns and Grievances: Human rights in the mining and metals sector, the World Bank's Good Practice Note Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing Involving Major Civil Works, IFC's Good Practice Note Addressing Grievances from Project-Affected Communities, IFC's publication Unlocking Opportunities for Women and Business: A Toolkit of Actions and Strategies for Oil, Gas, and Mining Companies for further guidance.
<p>3.3.1.c Require mining entities to provide fair compensation and improvement of living conditions for involuntary resettlement and/or economically displaced due to mining.</p>	<ul style="list-style-type: none"> • Government should require mining entities to avoid the involuntary physical or economic displacement of families and communities. Where avoidance is not possible, government requires mining entities to implement actions or remedies that address residual adverse impacts to restore or improve livelihoods and standards of living of displaced people. • Government should develop standards and regulations that ensure fair and equal compensation for both men and women. The compensation process should include women in the decision-making processes regarding land sales, and should safeguard collective rights, including Indigenous peoples' rights which include land and natural resources used and owned collectively. • Government should provide clear rules and guidelines to mining entities on compensation mechanisms and procedures as well as the conditions of resettlement. Refer to the 2012 IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement, the 2015 ICMC Land Acquisition and Resettlement: Lessons learned, and the Mining Association of Canada's 2023 Safe, Healthy, and Respectful Workplaces Protocol for further guidance.
<p>3.3.2 Respect the protected rights, interests, and perspectives of Indigenous peoples and obtain free, prior, and informed consent when applicable.</p>	<ul style="list-style-type: none"> • Indigenous peoples have protected rights under international law and declarations. Government should be compliant with regional and international norms on Indigenous rights, including the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (2007), ILO Indigenous and Tribal Peoples Convention, 1989 (No. 169) and the United Nations Convention on Biological Diversity (1992). • Government should lead consultations with Indigenous peoples when a government decision affects them. • As part of the mining permitting and approval process, government should require mining entities to establish a process of engagement and consultation with Indigenous people where adverse impacts are likely to occur related to land, territories, and resources disturbance, where physical relocation of people may occur, traditional livelihoods may be disrupted, or critical cultural heritage may be impacted.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Government and mining entities, in consulting with Indigenous peoples, should obtain their free, prior, and informed consent when applicable. Refer to the UNDRIP, jurisprudence of the Inter-American Court of Human Rights; recommendations from the UN Special Rapporteur on Indigenous Peoples; the IGF Case Study: The Importance of Consultation and Engagement in Environmental and Social Impact Assessments; IRMA's Planning and Managing for Positive Legacies, chapter 2.2, Free, Prior and Informed Consent (FPIC); IFC Performance Standard 7: Indigenous Peoples, and ICMM's Indigenous Peoples and Mining: Good Practice Guide for further guidance on how to meaningfully consult the public and uphold Indigenous peoples' rights. • Outcomes of consultation and FPIC processes should be captured in any community agreements.
<p>3.4 Community health, safety, adaptive capacity, and security</p>	
<p>3.4.1 Work with mining entities to ensure the protection of human rights, safety, and security during and beyond the mine life. In the event of an active conflict, governments and mining entities should protect human rights and ensure the safety of miners, their families, and communities.</p>	<ul style="list-style-type: none"> • Government should require detailed procedures and management plans to avoid, minimize, and manage health, safety, and security concerns and protect human rights, in line with good international practice. Refer to the IFC Performance Standards on Environmental and Social Sustainability (2012), the OECD's Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (2016), and the International Code of Conduct for Private Security Service Providers (2021) for further guidance. • Prior to issuing mining permits or approvals, government works with mining entities to ensure there is a mechanism or procedure to address potential security issues. • If conflict breaks out during the development or operation of a mine, government and mining entities should work together to protect human rights and ensure the safety of miners, their families, and communities. • Government should assess the quality and capacity of community providers of services to victims of gender-based violence to identify potential gaps. Adequate funding should be allocated to support services for women such as counselling, women's shelters, and rehabilitation programs throughout all stages of the mining operation. • Government should ensure there is a process to conduct investigations for allegations of human rights violations and activities that endanger the safety and security for affected communities, including women, girls, and other under-represented groups. Refer to the UN Guiding Principles on Business and Human Rights, 2011, and the United Nations Declaration on the Rights of Indigenous Peoples, 2007, for further guidance.
<p>3.4.2 Work with local communities and mining entities to design, construct, operate, and close mining operations that incorporate local adaptation measures to climate change.</p>	<ul style="list-style-type: none"> • Mining operations should be designed, constructed, operated, and closed in a manner that incorporates local adaptation measures to climate change. Potential impacts from climate change could include rising temperatures, excessive rainfall and rising sea levels, drought, and natural disasters, and thus could result in damage or interruption of community infrastructure, competition for resources with mining entities for water and energy, property loss, and an increase in migration which could contribute to social unrest, famine, disease, and an overall decline in the quality of life. • ESAs and environmental management plans should assess climate risks based on accepted scientific modelling and contain measures to mitigate and manage risks in mining operations. Government should review and approve these documents prior to issuing a mining permit or approval.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Mining entities should work with communities on designing climate adaptation measures. • Mining entities should engage with affected communities on developing and regularly testing emergency preparedness and response plans that include responses to climate change risks (see Pillar IV Environmental Management – 4.5, Emergency Preparedness and Response). Refer to the Mining Association of Canada’s Guide on Climate Change Adaptation for the Mining Sector for further guidance.
<p>3.4.3 Require mining entities to include community health considerations in social impact assessments, management plans, and monitoring.</p>	<ul style="list-style-type: none"> • As part of the permitting process, government should require that mining entities include community health in their baseline socio-economic assessments. Community health data should be disaggregated by gender to enable the design of adequate gender-specific support measures. • Mining entities should work with government and other actors (e.g., NGOs) to make substantial contributions to the availability and quality of local health services, particularly in remote and rural areas. Health services must address the differentiated impact of mining on gender and age, for example, maternal and infant health. • Government should collaborate with mining entities to address sexual and reproductive health to promote proactive and preventive healthcare actions that will maintain and improve community health. Refer to the ILO Social Security (Minimum Standards) Convention, 1952 (No. 102) and the Social Protection Floors Recommendation, 2012 (No. 202). In addition, see IFC Performance Standards on Environmental and Social Sustainability (2012) – Performance Standard 2, Labour and Working Conditions, and 4, Community, Health, Safety, and Security – for further guidance.
<p>3.4.4 Plan the maintenance, management, and transfer of health infrastructure and human resources for health facilities during and beyond the mine life.</p>	<ul style="list-style-type: none"> • Health services developed with the support, including financial, of mining entities represent an important, yet fragile, asset that requires substantial government commitment to maintain beyond the life of a mine. Government should develop strategies to ensure that there is a plan to maintain, manage, and transfer health infrastructure and human resources for health facilities to other actors in order to continue to offer affordable health services beyond the mine life with minimum disruption.
<p>3.5 Occupational health and safety</p>	
<p>3.5.1.a Require mining entities to provide occupational health and safety training and equipment to reduce hazards; minimize risk of accidents, injury, and disease, and create a safety-conscious work environment.</p>	<ul style="list-style-type: none"> • The right to safe and healthy working conditions is a human right. Government should set standards for occupational health and safety for men and women through law and policy, including the adoption of ILO Safety and Health in Mines Convention, 1995 (No. 176), as well as guidelines. Legal requirements should be established and enforced through appropriate incentives (to promote an incident-free workplace), reporting, inspections, and sanctions. • Government should conduct health and safety inspections as well as ongoing monitoring and enforcement of the laws. Refer to the ILO Safety and Health in Mines Recommendation, 1995 (No. 183) for further guidance. • Government should require mining entities to educate workers on health and safety practices and engage them to develop and regularly test emergency response plans.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Government requires mining entities to assess health and safety risks, develop a mitigation and management plan, monitor, and revise plans and practices as necessary. Government should also monitor on an ongoing basis. Results should be disaggregated by gender. • Government should require mining entities to provide personal protective equipment that is gender-appropriate and fit-for-purpose and provide separate washrooms, changing facilities, and locker rooms for male and female employees. • Mining entities should be required to identify and address the specific health concerns of workers, such as women, especially those who are pregnant, nursing, or are exposed to health and safety risks. Refer to the IGF 2023 Women and the Mine of the Future Global Report; ILO Maternity Protection Convention, 1919 (No. 3); ILO Maternity Protection Convention, 2000 (No. 183), and the Gender Equality and Gender-Based Protections in Large Scale Mining: IRMA's approach in its Standard for Responsible Mining Protections for further guidance.
<p>3.5.1.b Require mining entities to develop and implement corrective action plans to address failures in occupational health and safety performance.</p>	<ul style="list-style-type: none"> • All accidents and near-miss incidents should be investigated, corrective actions developed and implemented to address failures in occupational health and safety. Mining entities should share lessons learned and conduct safety drills with its workers. Government requires mining entities to report on occupational health and safety accidents and incidents. • Government should have in place a system of penalties in case of the absence of mechanisms to prevent OHS failure that includes the revocation of operating permits. Refer to ILO Safety and Health in Mines Convention, 1995 (No. 176), ILO Safety and Health in Mines Recommendation, 1995 (No. 183), ILO codes of practice Safety and Health in Underground Coalmines (2006) and Safety and Health in Opencast Mines (1991) for further guidance.
<p>3.5.1.c Ensure mining entities to design and implement policies to eliminate all forms of discrimination, harassment, exploitation, and abuse including gender-based violence.</p>	<ul style="list-style-type: none"> • Government should adopt policies and legislation to address all forms of discrimination, harassment, exploitation, and abuse. Government should ratify ILO Violence and Harassment Convention, 2019 (No. 190). • Government should ensure programs and actions minimize mining's negative impacts on women and other under-represented groups. • Government should require mining entities to design and implement policies that promote a workplace free from all forms of discrimination including gender-based violence, harassment, exploitation, and abuse. Refer to the ICMM Position Statements on Diversity, Equity and Inclusion (2023); the IGF's Women and the Mine of the Future: Global Report (2023) and the IFC Performance Standards on Environmental and Social Sustainability, Standard 2, Requirement 15 (2012); UN Guiding Principles on Business and Human Rights (2011), and the World Bank Good Practice Note Addressing Sexual Exploitation and Abuse and Sexual Harassment in Investment Project Financing Involving Major Civil Works (2022) for further guidance. • Government should ensure that relevant authorities in charge of oversight, inspection, and monitoring are trained to deal with gender-based violence, harassment, exploitation, and abuse in the workplace. • Government should provide guidance for mining entities to train and provide information to workers about violence and harassment in the workplace, their rights, measures for the prevention and protection, and how and where to access grievance mechanisms.



Pillar IV – Environmental Management

Introduction

Pillar IV of the MPF focuses on five fundamental areas that governments need to manage for mining operations: (i) air and noise, (ii) water, (iii) biodiversity, (iv) mine waste, and (v) emergency preparedness and response.

The management of the natural resource base within ecosystems – soil, plants, animals, water, and air – is the continuous responsibility of any society seeking to become more sustainable. Mining deposits will always have an impact on ecosystems; therefore, their stewardship and extraction require governments to implement national laws and apply good international practice to avoid, minimize, and remediate negative impacts (direct, indirect, and cumulative), and make improvements when feasible. Good governance of environmental aspects of mining requires technical knowledge and competencies, clear and detailed laws and regulations, strict monitoring, and enforcement mechanisms.

Air can be affected by mines through land disturbance, equipment and vehicle emissions, mining and processing, and energy use. Air emissions need to be managed to minimize dust and other contaminants to protect worker health, the surrounding environment, and communities. In addition, mines can be large emitters of greenhouse gases (GHG) and emissions must be minimized through efficiencies (e.g., electrification of equipment, switching to renewable or low-carbon fuel sources) and, potentially, through the use of carbon offsets.

Mining can be a water-intensive industry, from mineral processing and slurry transport to dust suppression. Water use and conservation requires particular attention in arid regions or where mining competes with other uses such as irrigation for agriculture or domestic use. At the same time, high rainfall areas can pose challenges for soil and tailings stability due to potential accelerated erosion and contamination of downstream waters and sediments.

Local and national biodiversity and ecosystem services can be influenced by mining operations from land-use change and deforestation to pollution, greenhouse gas emissions, and the unintended introduction of invasive species. Governments must ensure the application of the mitigation hierarchy (avoid, minimize, restore/rehabilitate, and offset) to protect biodiversity and ecosystem services.

Mining operations generate waste (e.g., overburden, waste rock, tailings). The technical complexity of the management of waste materials must be adequate for their volume and composition. Mine waste storage facilities need to be designed and managed to minimize risks such as instability (potential for landslides) or pollution of surface or groundwater from leaching of newly exposed or disturbed material.

Lastly, governments must ensure that all potentially affected stakeholders, including companies, communities, and all levels of relevant authorities, understand the potential for emergency situations across the mine life cycle and be prepared to address and respond to them. Emergency preparedness planning and practice is essential within the boundaries of the mining operation as well as wherever supplies for (e.g., acid, explosives) or products from the mine travel (i.e., rail cars, trucks, or barges).



Objectives

- To ensure good international practices are applied to every aspect of environmental management.
- To set standards for mining to protect the environment.
- To ensure the potential effects of mining operations on air, water, land, and biodiversity are assessed and mitigated through proper management.
- To ensure mine emergency preparedness and response plans are in place.
- To monitor and enforce compliance with laws governing environmental management, including through transparency.

In keeping with the commitment of the IGF members to ensure that mining activities within their jurisdiction are compatible with the Sustainable Development Goals (SDGs), implementation of Pillar IV's recommendations advance the following SDGs:

- SDG 6 (Clean Water and Sanitation) by helping reduce pollution, eliminate dumping, minimize the release of hazardous chemicals and materials, reduce untreated wastewater, and by enhancing transboundary cooperation, by managing water holistically and monitoring its quality.
- SDG 7 (Affordable and Clean Energy) by requiring the improvement energy efficiency in mine operations.
- SDG 11 (Sustainable Cities and Communities) by planning land use carefully, mindful of protected areas and heritage sites.
- SDG 12 (Responsible Consumption and Production) by reducing waste through requiring accountability for the design, construction, operation, and management of mine waste facilities; ensuring mine waste facilities are managed and monitored throughout the life of the mine and after mine closure, and by requiring mining entities to have an emergency preparedness and response program.
- SDG 13 (Climate Change) by supporting the reduction of greenhouse gas emissions through setting targets and reporting requirements for mining activities.
- SDG 14 (Life Below Water) by acting to avoid or minimize impacts to life under water, refraining from disposal of tailings/waste and by requiring mining entities to apply the mitigation hierarchy.
- SDG 15 (Life on Land) by halting loss of biodiversity and integrating ecosystem and biodiversity values into national and local planning, development processes, and poverty reduction strategies.
- SDG 17 (Partnerships for the Goals) by promoting that emergency plans and responses are planned together with communities and local governments.

Scope of Application

This Pillar is applicable to:

- Large- and medium-scale mining; exceptionally applies to ASM.
- Metallic and non-metallic mining.
- The entire life cycle of the mine from prospection, exploration, exploitation, all the way to mine closure, post-mining transition, and post-closure.



Guidance to Implement Pillar IV – Environmental Management

MPF RECOMMENDATIONS	GUIDANCE
4.1 Air and noise	
<p>4.1.1 Adopt standards for controlling and reducing greenhouse gas emissions to meet national commitments to international climate change goals.</p>	<ul style="list-style-type: none"> Government should enact legislation that requires mines to operate within greenhouse gas emissions limits and to report on their compliance. Such legislation should be in accordance with national and international commitments national and regional legal frameworks, as appropriate, and should follow guidance provided by the Paris Agreement, Task Force on Climate-related Financial Disclosures (TCFD) and the Intergovernmental Panel on Climate Change. Where no national commitments exist, governments should follow good international practices.
<p>4.1.2 Adopt standards for air quality and noise, to protect people and the environment.</p>	<ul style="list-style-type: none"> Government should put in place air quality and noise guidelines for mining entities to protect workers, surrounding communities, and the environment, e.g., the IFC's Environmental, Health and Safety Guidelines for Mining (2007).
<p>4.1.3a Require mining entities to minimize contributions to climate change by improving energy efficiency and reducing greenhouse gas emissions and to report on results.</p>	<ul style="list-style-type: none"> Government should standardize greenhouse gas emission calculations and reporting requirements such as the TCFD's Guidance on Metrics, Targets, and Transition Plans. As part of the environmental assessment process, government should require mining entities to estimate greenhouse gas emissions and implement mitigation and management measures to minimize emissions. In doing so, they can adopt renewable and sustainable energy sources. Mining entities should follow guidance provided by industry organizations such as the International Council of Mining and Metals (ICMM) in its 2019 guidance Adapting to a changing climate: Building resilience in the mining and metals industry and the Mining Association of Canada's (MAC) Towards Sustainable Mining – Protocols & Frameworks. Government should require mining entities to consider climate change risks on the mining project and implement measures to manage the risk.
<p>4.1.3b Require mining entities to manage noise and other airborne emissions, to protect people and the environment.</p>	<ul style="list-style-type: none"> As part of the environmental assessment process, government should require mining entities to assess and implement mitigation measures to minimize noise and airborne emissions such as, but not limited to, dust, particulate matter, and sulphur dioxide. Government should require mining entities to prepare and implement plans to manage impacts of noise and airborne emissions.



MPF RECOMMENDATIONS	GUIDANCE
<p>4.1.4 Establish robust mechanisms for monitoring air emissions that include regular inspections and analysis of emissions reports; enforce standards with appropriate sanctions to ensure compliance with laws and regulations.</p>	<ul style="list-style-type: none"> • Government should establish regulations or permitting processes for air emissions that involve diligent monitoring and enforcement. • Government should assign competent professionals or recruit independent technical reviewers for on-site inspections and review reports submitted by mining entities. • Government should impose sanctions for non-compliance through an established method of determining sanctions, with escalating violation categories. The regulatory framework should enable government agencies to legally apply pre-defined, objective sanctions. • Governments are encouraged to establish an accountability mechanism that is accessible and culturally appropriate where mining community members can file a complaint and seek resolution.
<p>4.2 Water</p>	
<p>4.2.1 Adopt water management standards for the use of surface and ground water.</p>	<ul style="list-style-type: none"> • Government should adopt, in regulation, a legal framework for water management standards for the mining sector, according to good international practices, to reduce pollution, eliminate dumping, minimize the release of hazardous chemicals and materials, and help to reduce untreated wastewater. Refer to the IGF's Guidance for Governments: Environmental management and mining governance. • Water management standards and plans should consider international and national standards regarding access to safe and drinking water and traditional livelihoods of mining communities and should consider any current or expected needs for water by community members, including women, Indigenous peoples, and other under-represented groups. Refer to ICMM's Indigenous Peoples and Mining: Good Practice Guide. • Government should establish standards for tailings storage facilities following good water management practices consistent with the Global Industry Standard on Tailings Management (2020).
<p>4.2.2 Implement planning at the watershed level, considering the protection of water sources for potential users and risks posed by climate change.</p>	<ul style="list-style-type: none"> • Government should develop an integrated watershed management approach to protecting water quality and quantity, including the management of conflicting human and commercial water use. Where possible, develop a watershed map for the whole country and management strategies for its various water basins (see the IGF's Mine Water Management: Case studies from Mongolia and Chile, 2021). This approach should be used as reference for mining entities when using water sources for their projects, including setting targets for integrated water resources management and transboundary cooperation.



MPF RECOMMENDATIONS	GUIDANCE
<p>4.2.3a Require mining entities to establish environmental management programs for the use of surface and groundwater. Minimize impacts on water quality and quantity beyond the mining site, including potential transboundary impacts.</p>	<ul style="list-style-type: none"> • Based on the potential risks and impacts (direct, indirect, and cumulative) identified in the mines’ environmental and social impact assessment (ESIA) and subsequent monitoring requirements, government should ensure that mining entities implement appropriate and comprehensive plans at the water basin level to minimize adverse impacts beyond the mining site, including transboundary impacts. • Mining entities should report on water use to promote transparency of their water dependencies and performance (in terms of risks, opportunities, and management response) to effectively engage with stakeholders and enable informed decision-making. Refer to ICMM’s Water Reporting: Good Practice Guide (2021). • Watershed models should be developed to manage water use by competing sectors, such as agriculture versus mining, and should also include climate change considerations. • Governments are encouraged to meaningfully engage with mining-adjacent communities, including women, Indigenous peoples, and other under-represented groups, to establish water management programs. Communities and Indigenous peoples are often the stewards of their territories and resources and can contribute traditional knowledge and management practices as well as participate in the implementation of such programs. • Governments should require mining entities to follow international standards, such as the 1998 Aarhus Protocol on Heavy Metals (governing emissions of lead, cadmium, and mercury), which is a protocol of the 1979 UNECE Convention on Long-Range Transboundary Air Pollution. • Regional agreements may also be developed, for example, to protect rivers and basins that are of concern to multiple countries. Governments may refer to the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses, and the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes for guidance.
<p>4.2.3.b Require mining entities to appropriately manage and treat the quality and quantity of mine effluent streams discharged to the environment to avoid potential adverse impacts.</p>	<ul style="list-style-type: none"> • Mining entities should be required to manage and treat mine effluent streams to avoid potential adverse impacts, improve water quality, and increase water availability in the basin. • Government should mandate ongoing monitoring by large- and medium-scale mining entities of the quality and quantity of mine effluent streams discharged to the environment, including stormwater, leach pad drainage, process effluents, and mine works drainage. Water or environmental protection legislation, and/or as part of the mine permitting process should include: <ul style="list-style-type: none"> ◦ discharge standards ◦ effluent quality limits ◦ surface water and groundwater quality guidelines. • Representatives from mining communities, including women and Indigenous peoples, should be included in monitoring committees wherever water management concerns them or their territories. Governments may wish to review the World Health Organization’s 2001 Water Quality: Guidelines, standards and health and the IFC’s 2007 Environmental, Health, and Safety Guidelines for Mining for further guidance.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> Government should establish and closely monitor effluent discharge levels, including effluent streams from artisanal and small-scale mining activity. Improper discharge, especially in the form of acid mine drainage, is difficult and costly to clean up. Issues can be identified before they become catastrophic through careful internal monitoring (see the IGF’s Surface Water Monitoring for the Mining Sector: Frameworks for governments, 2022). Proactive regulation of ASM activity will ensure that pollutants such as mercury (currently being phased out through the Minamata Convention on Mercury), cyanide, and tailings are not improperly deposited or discharged to the environment. Refer to Pillar VI for additional guidance on ASM.
<p>4.2.3c Require mining entities to protect groundwater from water-leaching or percolating waste dumps, tailings storage areas, and leach pads.</p>	<ul style="list-style-type: none"> As part of its environmental protection legislation and/or as part of its mine permitting process, government should require mining entities to ensure that water leaching or percolating waste dumps, tailings storage areas, and leach pads have sufficient protection, taking into consideration the impacts of climate change (e.g., increasing frequency and severity of weather events, such as flooding and drought). Waste dumps should be closely monitored because of the problems of acid drainage and stability, which are particularly important in areas that are prone to severe weather events and significant rainfall. The structural integrity of all dumps and storage areas should be closely monitored and protected, even after mine closure. Government should act to reduce pollution, eliminate dumping, minimize the release of hazardous chemicals and materials, and help to reduce untreated wastewater. Governments may refer to the International Council on Mining and Metals’ Tailings Governance Framework: Position statement (2016) and the IFC’s Environmental, Health, and Safety Guidelines for Mining for further guidance.
<p>4.2.4 Establish robust mechanisms for monitoring water quality and quantity, that include regular inspections and analysis of reports; enforce standards with appropriate sanctions to ensure compliance with laws and regulations.</p>	<ul style="list-style-type: none"> Government should establish regulations or permitting processes for the use of surface water and groundwater that involve strict monitoring and enforcement. Refer to the International Organization for Standardization (ISO) 14001 and Related Standards: Environmental management for suggested standards. Tailings storage facilities failures can have significant adverse impacts, hence, environmental management standards regarding the location, design, construction, operation, inspection, maintenance, and monitoring must be strictly enforced (see the IGF Guidance for Governments: Environmental management and mining governance, 2021). Government should assign competent professionals or recruit independent technical reviewers for on-site inspections and review of reports submitted by mining entities. Government should impose sanctions for non-compliance through an established method of determining sanctions, with escalating violation categories. The regulatory framework should enable government agencies to legally apply pre-defined, objective sanctions. Governments are encouraged to establish an accountability mechanism that is accessible and culturally appropriate where mining community members can file a complaint and seek resolution.



MPF RECOMMENDATIONS	GUIDANCE
<p>4.3 Biodiversity</p>	
<p>4.3.1 Adopt policies and plans, and ensure capacities are in place to manage biodiversity and ecosystem services.</p>	<ul style="list-style-type: none"> • Government should minimize adverse impacts to biodiversity through the development and implementation of policies and plans that focus on biodiversity protection, such as the establishment of legally protected areas where mining is prohibited. It is important to consider threatened species (both from a national list and the IUCN Red List) and sensitive habitats, such as wetlands (refer to the Ramsar Convention on Wetlands), peatbogs, sand dunes, sea cliffs, etc. Government agencies must have adequate institutional capacity including competent professionals, and a legal framework aligned with the UN Convention on Biological Diversity (1992). Further guidance can be found in IGF's Guidance for Governments: Environmental management and mining governance. • Government should avoid or minimize impacts to biodiversity by halting loss of biodiversity and integrating ecosystem and biodiversity values into national and local planning, development processes, and poverty reduction strategies. Refer to the World Bank's ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (2017). • In managing biodiversity, government should meet international commitments and consider ecosystem services including the vulnerability and livelihoods of local populations. • Additional publications and resources on biodiversity can be found at the International Association for Impact Assessment.
<p>4.3.2.a Require mining entities to identify and manage risks and impacts to biodiversity and ecosystem services by applying the mitigation hierarchy with the goal to achieve no net loss across all activities throughout the mine life cycle.</p>	<ul style="list-style-type: none"> • Government should require mining entities to submit an ESIA that identifies impacts to biodiversity and ecosystem services, not only to obtain a mining permit, but also when significant changes to the mine are planned (see the IGF Guidance for Governments: Improving legal frameworks for environmental and social impact assessment and management, 2020). Significant changes may include major technological changes, processing changes, and changes in the mine's expected life or footprint. • Government should ensure mining entities, as part of their ESIA, develop biological baseline studies tailored to the ecosystems in which the projects are located. Baseline studies and any related environmental management plans should involve affected communities and Indigenous peoples where applicable and ensure their knowledge of local biodiversity and ecosystem services is incorporated (see the UN Convention on Biological Diversity). • Government should require mining entities to apply the mitigation hierarchy ensuring that they avoid, and where avoidance is not possible, minimize, restore, and offset any projected impacts on biodiversity and ecosystem services, and require that they achieve no net loss or, when possible, a net positive impact. For offsets, it is important to consider ecological values of the habitats to offset, so that it is done in an ecologically equivalent manner (see the IGF case study Biodiversity and Mining Governance in Senegal and Turkey, 2022).
<p>4.3.2.b Require mining entities to avoid World Heritage Sites and respect legally designated protected areas.</p>	<ul style="list-style-type: none"> • Neither exploration nor development of new mines should be allowed in the zones prohibited for mining activities within legally designated protected areas or World Heritage sites. Land-use planning should reconcile the overlaps between protected areas and areas of mining interest. • Design and operation of mine sites should be compatible to the uses designated by law to specific areas within protected areas.



MPF RECOMMENDATIONS	GUIDANCE
<p>4.3.2.c Require mining entities to monitor and report on risks and impacts to biodiversity and ecosystem services throughout the mine life cycle as part of their environmental and social impact assessment and environmental management plan.</p>	<ul style="list-style-type: none"> • As a condition for obtaining an operating permit, and as a criterion for maintaining the permit, government should require an environmental management plan as part of the ESIA. • Environmental management plans (or supplementary biodiversity management plans) should: <ul style="list-style-type: none"> ◦ Be used to specify how the mining entity plans to avoid, minimize, rehabilitate, and offset negative project impacts on biodiversity. ◦ Involve local communities in monitoring efforts, which can include participatory monitoring and gathering geo-referenced data from communities, researchers, and other organizations via accessible technologies, such as smartphones, drones, and satellites (see the 2019 guidance note by the IFC and On Common Ground International Lessons of Experience and Best Practice in Participatory Monitoring in Extractive Industry Projects). • Government should ensure that sufficient financial assurance is in place to address any long-term risks to restoration and, if applicable, assure the sustainable finance mechanisms needed to meet long-term objectives of no net loss or net positive impact (NNL/NPI).
<p>4.3.3 Establish robust biodiversity management mechanisms for monitoring that include regular inspections and analysis of reports; enforce standards with appropriate sanctions to ensure compliance with laws and regulations.</p>	<ul style="list-style-type: none"> • Government should assign competent professionals or recruit independent technical reviewers for on-site inspections and review of reports submitted by mining entities. • For mining projects with local participatory monitoring committees, government should review and analyze monitoring reports from such committees as part of its compliance assessment (see the UNDP case study Participatory Environmental Monitoring Committees in Mining Contexts, 2019). • Government should ensure that mining entities publish biodiversity monitoring reports through printed material or other accessible and culturally appropriate means such as websites, television, or radio announcements. • Government should impose sanctions for non-compliance through an established method of determining sanctions, with escalating violation categories. The regulatory framework should enable government agencies to legally apply pre-defined, objective sanctions. • Governments are encouraged to establish an accountability mechanism that is accessible and culturally appropriate where mining community members can file a complaint and seek resolution.



MPF RECOMMENDATIONS	GUIDANCE
4.4 Waste	
<p>4.4.1 Enact standards and codes to ensure mine waste structures are appropriately and safely designed, operated, maintained, and closed.</p>	<ul style="list-style-type: none"> • Government should require accountability for the design, construction, operation, and management of mine waste facilities. • Government should require quality assurance and quality control to ensure: <ul style="list-style-type: none"> ◦ Good quality and safe construction of waste structures ◦ Effective maintenance to ensure proper operation ◦ Regular monitoring to ensure proper function ◦ Regular, periodic executive review ◦ Public environmental reporting. • Governments should review and consider the following benchmarks: <ul style="list-style-type: none"> ◦ For tailings management: The Global Industry Standard on Tailings Management. ◦ For mine waste management: IFC’s Environmental, Health and Safety Guidelines for Mining and the EU’s Directive 2006/21/EC on Management of Waste from Extractive Industries. <p>For additional examples of good legal frameworks for mine waste management refer to the IGF’s Mine Waste Management: Case studies from Ghana and Canada and Guidance for Governments: Environmental management and mining governance”.</p> • Governments should assess re-mining of waste materials during the feasibility study and before the complete sealing of waste dumps to mitigate the risk of attracting informal mining at the site post-closure.
<p>4.4.2.a Require mining entities to plan, design, construct and operate waste structures such that geotechnical, climate, and environmental risks are assessed and managed throughout the mine life cycle.</p>	<ul style="list-style-type: none"> • Decisions regarding the types of mine waste facilities and their locations should take into consideration: <ul style="list-style-type: none"> ◦ The potential impact on the health and livelihood of community members, including women and children ◦ Existing and potential climate change impacts ◦ Mine expansion forecasts ◦ Other environmental and social risk factors. • Mine waste structures should be designed to respond to emergencies such as power outages, seismic events, and major weather events (such as emergency and flood overflow spillways and channels). • Mine waste facilities must be managed and monitored throughout the life of the mine and after mine closure, including the ongoing management of geotechnical and geochemical risks and environmental impacts. • Government should ensure that the mining entity undertakes an alternatives assessment at the planning stage that takes into consideration alternative uses for the land post-closure.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Governments should ensure that sufficient financial assurance is in place to manage any post-mining physical and chemical stability risks from mine waste facilities. • Governments should ensure that community members are informed about mine wastes, pollutants, and potential sources of contamination. Laws, protection measures, and alternatives should be communicated in an accessible and culturally appropriate way to reach all concerned community members.
<p>4.4.2.b Require that mining entities commission independent technical reviews of tailings facilities for government approval prior to construction, when changes in design are proposed, and at regular intervals during the operating phase.</p>	<ul style="list-style-type: none"> • Government should require reviews of mine waste facilities by independent technical experts – an important component to manage risks and to build trust among the public and stakeholders and credibility of reported information. • Independent reviews should be required, not only in the permitting phase, but also at periodic intervals throughout the life of the mine, when material changes to the project are proposed, and as part of mine closure and relinquishment (i.e., required as part of the granting of an exit ticket or closure certificate).
<p>4.4.2.c Require mining entities to safely store and transport hazardous materials and manage hazardous waste.</p>	<ul style="list-style-type: none"> • Government should have standards and permit requirements for the storage and transport of hazardous materials that align with good international practices. For cyanide management, this includes adhering to the International Cyanide Management Code. • Government should require mining entities to dispose of hazardous waste at facilities designed and permitted for safe storage and disposal. If existing facilities are not available, mining entities should be required to provide design and permit disposal facilities that will safely store hazardous wastes in perpetuity. • During the environmental impact assessment process, government should require mining entities to identify, assess risks, and prepare management plans for hazardous materials and hazardous wastes associated with project development through closure. Refer to the World Bank Group’s Environmental, Health, and Safety Guidelines for good practice guidance on managing hazardous materials.



MPF RECOMMENDATIONS	GUIDANCE
<p>4.4.3 Establish robust waste-management mechanisms for monitoring by conducting regular inspections and analysis of reports submitted by mining entities; enforce with appropriate sanctions to ensure compliance with laws and regulations.</p>	<ul style="list-style-type: none"> • Government should track mine waste-management performance during construction, operation, and closure, including regular compliance reporting. Compliance reports should be complemented by periodic inspections to verify performance. • Compliance should be enforced to protect land and water resources, as well as worker and community safety. • Government should impose sanctions for non-compliance with legislation and approvals through an established method of determining sanctions, depending on violation categories. The regulatory framework should enable government agencies to legally apply pre-defined, objective sanctions. • Governments are encouraged to establish an accountability mechanism that is accessible and culturally appropriate where mining community members can file a complaint and seek resolution.
<p>4.5 Emergency preparedness and response</p>	
<p>4.5.1 Adopt and implement regional and national emergency preparedness and response programs to identify and minimize risks through hazard elimination, engineering controls, procedures, and education.</p>	<ul style="list-style-type: none"> • Government should have emergency preparedness and response plans and should require mining entities to develop emergency preparedness and response plans aligned with international standards that consider the differential impact of emergencies on women, girls, boys, and men. Further guidance can be found in IGF's Guidance for Governments: Environmental management and mining governance. • Government should put into place a framework that requires consultation and cooperation with local, regional, national, and as appropriate, transboundary stakeholders in the development and maintenance of emergency preparedness programs. • Government should endorse and promote good international practices. For example, the UN Environment Programme since 1988 has led the Awareness and Preparedness for Emergencies at Local Level (APELL) program, which outlines a 10-step plan in its handbook. • Government plans should be: <ul style="list-style-type: none"> ◦ Accompanied by adequate resourcing and capacity-building for responsible staff ◦ Periodically reviewed, tested, and revised to reflect the changing context ◦ Continuously communicated to the public in a format that is accessible to all. • Emergency plans should address the capacities of all genders and age groups to react and respond in a safe way in the face of an emergency. This should include consideration of restrictive gender norms, the mobility of children, older people, and people with disabilities, and any other factors that might increase vulnerability in the face of a crisis. • Emergency plans and services should address the increased security risks facing women and girls and be designed to minimize and respond to gender-based violence, exploitation, assault, and trafficking. The plans and services should be communicated to women and girls. • Government should put into place a system that coordinates emergency preparedness between mining entities, local authorities, and local populations.



MPF RECOMMENDATIONS	GUIDANCE
<p>4.5.2.a Require mining entities to develop an emergency preparedness and response program prior to construction.</p>	<ul style="list-style-type: none"> • Government should require all mining entities to have an emergency preparedness and response program as part of the environmental and social impact assessment and prior to commencing operations. The emergency preparedness and response program should include: <ul style="list-style-type: none"> ◦ A risk assessment ◦ Emergency management, response, and recovery plans ◦ Crisis communications strategies. <p>Government should ensure that emergency preparedness and response programs are developed in collaboration with local, regional, and national governments; local emergency responders; and local communities, including artisanal and small-scale miners, where present. Women, Indigenous peoples, and other historically under-represented groups should be equitably consulted. This helps increase institutional transparency, ensuring public access to information and promoting inclusive, participatory decision-making. Guidance for good international practice is provided in ICMM and UNEP's Good Practice in Emergency Preparedness and Response (2005).</p> <ul style="list-style-type: none"> • Government should require mining entities' emergency preparedness and response programs be reviewed, tested, and updated regularly. • Government should have a system in place to ensure that mining entities can respond to a broad range of local and regional emergencies such as severe weather events, earthquakes, or catastrophic incidents (e.g., explosions or fires) as well as the impacts of climate change. For example, power generators at water treatment plants can be used to continue operations through power outages. Emergency wastewater storage tanks below ground can be used to contain wastewater in the event of a malfunction in normal operations. Additional guidance and good practice may be found in the ICMM and UNEP guide Good Practice in Emergency Preparedness and Response.
<p>4.5.2.b Require mining entities to base all elements of the emergency preparedness and response programme on ongoing consultation and cooperation with local, regional, national and, if applicable, transboundary stakeholders.</p>	<ul style="list-style-type: none"> • Government should ensure that emergency preparedness and response programs are developed in collaboration with local, regional, and national governments; local emergency responders; mine employees and local communities, including artisanal and small-scale miners, where present. Women, Indigenous peoples, and other historically under-represented groups should be equitably consulted. This helps increase institutional transparency, ensuring public access to information and promoting inclusive, participatory decision-making. Guidance for good international practice is provided in ICMM and UNEP's Good Practice in Emergency Preparedness and Response. • All stakeholders should participate in monitoring emergency preparedness programs and should be aware of when and where to access reports that result from implementing monitoring and evaluation programs.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Environmental and social risk assessments should include emergency response plans, monitoring, and risk-reduction measures. The International Association for Impact Assessment provides guidelines on public consultation in social impact assessments. Refer to the ICMC Community Development Toolkit (2012) and Understanding Company–Community Relations Toolkit (2015), and its Indigenous Peoples and Mining: Good Practice Guide (2015) for further guidance. • Government should ensure that mining entities consider potential transboundary effects while developing their emergency preparedness and response programs, taking into account good international practices and treaties, such as the UN Convention on the Transboundary Effects of Industrial Accidents (1992).
<p>4.5.2.c Require mining entities to conduct drills to monitor the effectiveness of the emergency preparedness and response program, in cooperation with communities and all levels of government.</p>	<ul style="list-style-type: none"> • Government should ensure that emergency response plans are tested regularly and developed in collaboration with local, regional, and national governments; local emergency responders, and local communities, including artisanal and small-scale miners when present, particularly if they are located on lands that are unstable, subject to frequent weather events or otherwise high risk. • Emergency preparedness and response plans should cover the entire mine life cycle and should prioritize the elimination and mitigation of risks. • Government should require that mine employees are trained and periodically drilled on the emergency preparedness and response plan and any necessary improvements are undertaken in a timely fashion.
<p>4.5.3 Establish robust mechanisms for monitoring emergency preparedness and response requirements by conducting inspections and by reviewing reports submitted by mining entities; enforce with appropriate sanctions to ensure compliance with laws and regulations.</p>	<ul style="list-style-type: none"> • Government should require mining entities to regularly submit updates to their emergency preparedness and response plans, records of drills, and performance. • Monitoring should include testing the systems of both mining entities and government through coordinated tests and drills. • Government should impose sanctions for non-compliance through an established method of determining sanctions, with escalating violation categories. The regulatory framework should enable government agencies to legally apply pre-defined, objective sanctions. • Governments are encouraged to establish an accountability mechanism that is accessible and culturally appropriate where mining community members can file a complaint and seek resolution.



Pillar V - Post-Mining Transition

Introduction

Pillar V highlights the importance of planning for mine closure, undertaking the necessary activities after mining operations end, ensuring the availability of funds in case mining entities fail to close the mines, and managing mines that were inappropriately closed or abandoned.

Prior to issuing a mine permit, mining entities must submit a mine-closure plan. The plans must be developed through engagement with affected communities, governments, and other stakeholders; include a cost estimate to undertake closure and be approved by government with the support of independent experts, as needed. The mine-closure plan should be updated regularly during the mine life.

Mine-closure regulations should support progressive rehabilitation, require productive and environmentally sound post-mining land uses, and ensure that workers and communities are supported during the post-mining transition and into the subsequent relinquishment of the site to the next landowner. Clear legal regulations and guidelines are also needed to ensure financial assurance funds are available to government to cover the costs of closure if the mine operator fails to fulfill its obligations.

Abandoned mines are those that have not been properly closed and could pose a hazard to people, the environment, or businesses. It is imperative that government maintain an inventory and risk assessment of abandoned mines, develop and implement remediation plans in cooperation with communities to address any significant hazards at the site, seek opportunities for continued use of the site, and preserve values of benefit to people, wildlife, and the environment.

Objectives

- To ensure that comprehensive mine-closure plans, including a cost estimate, are developed and approved prior to mining, updated regularly during mine operation, and implemented through the mine life into the post-mining transition and relinquishment.
- To ensure government has the capacity and resources needed to manage mine closure internally and with independent experts.
- To require full financial assurance for mine closure across the entire mine life cycle that is readily available to government, if needed.
- To involve affected communities in the development and implementation of mine closure.
- To support workers and communities during the post-mining transition.
- To require productive and environmentally sound post-mining land uses.
- To develop an inventory and risk assessment of abandoned mines and remediation plans that address hazards, preserve values, and seek opportunities for continued use of the site.



In keeping with the commitment of the IGF members to ensure that mining activities within their jurisdiction are compatible with the Sustainable Development Goals (SDGs), implementation of Pillar V's recommendations advance the following SDGs:

- SDG 1 (End Poverty) by ensuring closure plans support the economic and social stability of communities during post-mining transition, and where possible, provide economic and social opportunities through the chosen post-mining land uses.
- SDG 5 (Gender Equality) by promoting strategies for gender equality in post-mining transition land uses and community engagement.
- SDG 9 (Industry, Innovation and Infrastructure) by ensuring that the closure of mine facilities is well-designed and executed.
- SDG 11 (Sustainable Cities and Communities) by ensuring post-mining land use is integrated into local or regional development plans.
- SDG 12 (Responsible Production and Consumption) by promoting well-designed post-mining land uses.
- SDG 13 (Climate Action) by ensuring closure plans provide for productive and environmentally sound and climate-resilient post-mining land uses.
 - SDG 15 (Life on Land) by restoring areas as soon as the disturbed area is no longer required.

Scope of Application

This Pillar is applicable to:

- Medium- to large-scale new or current mining operations and abandoned mines across all mineral and metal commodities. Specific criteria for quarries and non-metallic mines are specified.
- Mines from the design stage through operation to the post-mining transition and relinquishment. This Pillar also applies to abandoned mines. Aspects of this Pillar are also applicable to exploration sites such as rehabilitation requirements, financial assurance, and community engagement.
- Mines operated by any entity including public, private, and state-owned businesses.



Guidance to Implement Pillar V – Post-Mining Transition

MPF RECOMMENDATIONS	GUIDANCE
5.1 Mine-closure plans	
<p>5.1.1 Provide legal and regulatory frameworks and guidance documents for closure.</p>	<ul style="list-style-type: none"> • Government should put in place robust legal and regulatory frameworks for effective management of mine closure and the post-mining transition. The regulatory frameworks are supported by guidance documents for mining entities. Guidance should cover mine-closure plans and financial assurance and provide an outline of rehabilitation requirements for disturbance related to exploration. Refer to the Mine Closure Checklist for Governments (Asia-Pacific Economic Cooperation, 2018), Mine Closure: A Toolbox for Governments (World Bank, 2021), and Integrated Mine Closure: Good Practice Guide, 2nd Edition (International Council of Mining and Metals, 2019). • The regulatory framework should require closure plans and related risk assessment and monitoring to address climate change impacts and risks. • The regulatory framework should support the integration of gender equality across all aspects of mine closure and the post-mining transition as outlined in the IGF publication Integrating Gender Equality and Mine Closure: Actions for Governments (IGF, 2023).
<p>5.1.2 Maintain institutional capacity to monitor and enforce legal and regulatory frameworks.</p>	<ul style="list-style-type: none"> • Government, at all levels, should develop and maintain institutional knowledge and capacity to monitor and enforce legal and regulatory frameworks for the post-mining transition. This requires competent professionals in a variety of disciplines, coupled with continuing education and training and sufficient funding. Adequate budgets for regular and thorough inspections of mines are critical. • Where capacity is lacking, government should retain independent experts to support internal capacity-building and to ensure the enforcement of regulatory frameworks.
<p>5.1.3.a Require mining entities to, as part of development and mining permit applications for a new mine, provide a comprehensive closure plan that includes adequate financial assurance. As part of permit applications for new exploration, provide a rehabilitation plan.</p>	<ul style="list-style-type: none"> • A comprehensive closure and post-mining transition plan, including the environmental, social, and economic aspects of mine closure, should be provided and approved as a condition for a mine permit. The level of detail in the plan is commensurate with location, size, commodities, and the potential impact of the mine. As such, the closure plan for small-to medium-sized non-metallic quarries may be a scaled-down version of the more fulsome closure plan required for metallic mines or mines that have the potential for greater impact. Closure plans for exploration are generally focused on rehabilitating the area disturbed by exploration. • Closure plans should be developed based on broad-based engagement with government, affected communities, and other stakeholders. Initial closure plans are conceptual in nature, but as mining progresses, closure plans become more detailed and refined. Guidance on mine-closure plans can be found in the Mine Closure Checklist for Governments and Mine Closure: A Toolbox for Governments.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Adequate financial assurance to cover mine-closure costs should be required by law as a condition for a mining permit. Financial assurance may also be necessary for advanced exploration programs where the location and scope of disturbance is significant. • Closure cost estimates and financial assurance should be updated regularly by the mining entity in consultation with the appropriate regulatory agency to ensure that it is sufficient to meet the costs of closure at all stages of the mine life. The level of mine disturbance and related closure costs changes across the mine life – usually increasing over the early years of the mine and then decreasing as progressive rehabilitation activities are completed and closure approaches. For guidance see the IGF report Global Review: Financial assurance governance for the post-mining transition (2021).
<p>5.1.3.b Require mining entities to consult with communities and stakeholders in the development of closure objectives and plans.</p>	<ul style="list-style-type: none"> • Government should put in place a framework that requires mining companies to engage and consult with affected communities and other stakeholders in closure planning and post-mining transition activities. Such broad participation helps ensure that decisions are supported by stakeholders and are thus easier to implement and manage. • Government should require that mining companies consult with all members of communities about closure and the post-mining transition using gender-inclusive, accessible, and culturally relevant methods. Refer to the IFC's Tool Suite 3 in Unlocking Opportunities for Women and Business (2022) or Community Participation and Closure Planning on the University of Queensland's Sustainable Minerals Institute Mine Closure Hub for further guidance.
<p>5.1.3.c Require mining entities to contract independent experts to validate the risk assessments, studies and activities associated with high-risk elements such as tailings dams, waste dumps, and acid rock drainage.</p>	<ul style="list-style-type: none"> • Where internal capacities are lacking, the government should contract independent technical experts to validate risk assessments, studies, cost estimates, and activities associated with high-risk elements such as tailings dams, waste dumps, and acid rock drainage. The use of independent technical experts who have experience with international standards and practices is particularly important in post-mining transition plans given the need to adapt to the impacts of climate change and the very long-term horizons over which predictions must be made. It also lends greater credibility to the post-mining transition plan, resulting in a plan that is more broadly accepted and trusted by a wide range of stakeholders.
<p>5.1.3.d Require mining entities to regularly update closure plans, especially considering for mines with an expected short operating life, or as planned closure approaches.</p>	<ul style="list-style-type: none"> • Government should require mining entities to regularly update closure plans. Mine-closure plans start with conceptual designs during the mine permitting stage and must be revised and refined as mining progresses and closure approaches. Detailed engineering designs for closure must be finalized in the later stages of the mine life. Global approaches generally require updates to closure plans every five years at a minimum, with some jurisdictions requiring updates every two years. Closure plans should also be updated more frequently as closure approaches to ensure engineering designs and costs are current and can be implemented should the mine close early.



MPF RECOMMENDATIONS	GUIDANCE
<p>5.1.3.e Require mining entities, in order to reduce potential closure liabilities, embark upon progressive rehabilitation in mining and exploration areas as soon as the disturbed area is no longer required for its operation to reduce future closure liabilities and restore areas or minimize future environmental, economic, and social impacts.</p>	<ul style="list-style-type: none"> • Government should require that mining companies apply progressive rehabilitation approaches across the entire mine life, including during exploration. Progressive rehabilitation reduces the impact and footprint of mine disturbance and allows mine entities to test and assess different approaches to rehabilitation before final closure occurs. This approach is consistent with adaptive management and helps mining entities provide evidence to demonstrate that specific planned methods of restoration and rehabilitation are appropriate, and to identify aspects that may require additional planning or modified techniques. • The number and type of opportunities for progressive rehabilitation will vary greatly between mine types, climate zones, and individual projects. Mining entities should develop a restoration manual for detailed closure planning and costing that documents: <ul style="list-style-type: none"> ◦ Revegetation experience from the restoration of exploration drill sites or during construction for siltation, erosion control, and slope stabilization. ◦ Confirmation of construction design criteria for restoration and for additional trials during planned progressive rehabilitation. • Government's required levels of financial assurance can be reduced as progressive rehabilitation is completed and approved by the regulator.
<p>5.1.3.f Require mining entities to ensure closure plans provide for productive and environmentally sound, and climate-resilient post-mining land uses.</p>	<ul style="list-style-type: none"> • Governments should require mining entities to work with government, communities, and other stakeholders to define post-mining land uses that are productive, environmentally sound, and climate resilient. The post-mining land uses will define most other closure activities. Refinement or changes to proposed land uses should be revisited with each update to the closure plan based on changes in communities and the surrounding environment over the life of the mine. • A wide range of post-mining land uses should be considered, including reuse of the site for other economic activities that benefit the affected communities. Refer to Section 7 of the World Bank's Mine Closure: A Toolbox for Governments for further guidance on options and approaches to defining post-mining land uses. • Post-mining land uses should be integrated into local or regional development plans, and governments should play an active role in post-mining land-use decisions to ensure they support local communities and development plans. • Post-mining land uses can have differential impacts or benefits on women and men within the affected communities. Decisions on land uses should consider and assess these differences and ensure that women and all members of communities are included in post-mining land-use decisions. Refer to the IGF report Integrating Gender Equality and Mine Closure: Actions for Governments.



MPF RECOMMENDATIONS	GUIDANCE
<p>5.1.3.g Require mining entities to include in closure plans support for the economic and social stability of communities during the post-mining transition and, where possible, provide economic and social opportunities through the chosen post-mining land uses.</p>	<ul style="list-style-type: none"> • Government and mine entities should have processes to support communities during the post-mining transition. Mining communities often undergo considerable change with the closure of a mine, particularly if it is the primary economic driver of the region. Both mining entities and governments have a responsibility to support and assist communities during this transition. • Mine-closure planning by the mining entities should include supports such as, but not limited to: <ul style="list-style-type: none"> ◦ Severance payments ◦ Retraining ◦ Relocation allowances ◦ Donation of infrastructure ◦ Support for alternative business. • Governments could include supports such as, but not limited to, community social services, education, and economic development. <p>Governments should ensure that community social networks and support services are prepared for closure and should work with mining entities to support the transition of workers, including those in the indirect workforce such as suppliers.</p> • Mine closure can lead to social disruption, which can result in increased rates of domestic and gender-based violence. Mine entities and government should proactively provide awareness campaigns and support specifically for women.
<p>5.1.3.h Require mining entities to undertake an independent audit of completed closure activities against the closure plan prior to being granted approval of final closure and relinquishment of the mine.</p>	<ul style="list-style-type: none"> • Government should have a requirement for a final independent audit or inspection of completed closure activities prior to granting approval of final closure to ensure it meets the requirements and objectives and is performing as designed. The use of an independent auditor or inspector helps ensure there is no conflict of interest and that the audit was conducted in a fair and unbiased manner.
<p>5.1.4 Provide a legal process to discharge permits and relinquish the mine site to the post-mining landowner.</p>	<ul style="list-style-type: none"> • Government should have in place the legal framework, including criteria and clear requirements, for relinquishment (issuance of a closure certificate) prior to the transfer of rehabilitated mining lands to the post-mining landowner, which could include transfer to government. • Funding for residual risks, including monitoring and maintenance costs and to cover unforeseen events, should be in place prior to relinquishment along with a plan to manage the funds and residual risks. Refer to the IGF publication Relinquishment of Closed Mine Sites: Policy steps for governments for additional guidance.



MPF RECOMMENDATIONS	GUIDANCE
5.2 Financial assurance mechanisms	
5.2.1 Adopt legislation, regulations, and guidelines for financial assurance.	<ul style="list-style-type: none"> • Government should put in place robust legal and regulatory frameworks, supported by guidance materials, for financial assurance to ensure: <ul style="list-style-type: none"> ◦ The responsibility to conduct and bear the cost for closure and rehabilitation remain with the mining entities, not the government. ◦ Funding is available to cover all closure costs in the event that the mine operator fails to fulfill its closure obligations.
5.2.2 Enact regulations on the types of financial assurance that are appropriate for mine closure, including their specific details and conditions.	<ul style="list-style-type: none"> • Government regulations and guidance provide details on the forms of financial assurance (like bonds, insurance, and letter of credit) that are accepted, and the legal details and conditions for each form. Templates and examples, such as a letter of credit template, should be provided to mining entities to ensure financial assurance meets the requirements of government. • In choosing the forms of financial assurance, government should take into account the mechanism’s efficiency to be executed, the mining entity’s financial constraints, and government’s capacity to control and easily access the available funds, if needed.
5.2.3.a Require mining entities to provide an adequate level of financial assurance based on realistic estimates to cover the cost of all outstanding closure work programs at any time, by third-party contractors, including those that are premature and/or temporary, in the event that the mine operator fails to fulfill their closure obligations.	<ul style="list-style-type: none"> • Governments should require mining entities to have a fully costed closure plan. Costing should: <ul style="list-style-type: none"> ◦ Take into account that work will be managed and completed by a third-party contractor. ◦ Include realistic and risk-adjusted estimates to cover all outstanding closure work. Refer to the IGF report Global Review: Financial assurance governance for the post-mining transition (2021) and Integrated Mine Closure: Good Practice Guide, 2nd Edition (ICMM, 2019). • The costed closure plan should be regularly reviewed and as needed, supported by a third-party review to ensure accuracy. • Governments should require the use of costing models and templates to ensure consistent and complete costing using realistic rates and costs for the jurisdiction and location of the mine. • The following provides examples of costing models: <ul style="list-style-type: none"> ◦ Reclaim 7.0 User Manual: Mining version used in northern Canada. ◦ Standardized Reclamation Cost Estimator used in Nevada. ◦ Estimated Rehabilitation Cost Calculator used in Queensland.



MPF RECOMMENDATIONS	GUIDANCE
<p>5.2.3.b Require mining entities to provide financial assurance that is issued or held only by qualified and approved financial institutions, insurance companies, or other appropriately regulated institutions.</p>	<ul style="list-style-type: none"> • Government should ensure that financial assurance is held only by a qualified and approved financial institution, insurance company, or other appropriately regulated institution. Those institutions must have sufficient capital to fulfill the requirements of the financial assurance. If the financial assurance is held by an institution outside of the country, the government should ensure it will be able to readily access the funds to carry out closure or rehabilitation work. Government should require regular independent audits of these institutions. • In the event government holds the funds, the funds should be placed in separate designated accounts that can only be accessed to cover closure costs in the event the mine operator fails to fulfill its closure obligations and should ensure accountability through independent oversight.
<p>5.2.3.c Require mining entities to, in the event that the mining entity cannot fulfill its closure obligations, providing government the right to gain immediate and unencumbered access to the full amount of the financial assurance to cover the costs of all outstanding work programs.</p>	<ul style="list-style-type: none"> • Government should provide clear procedures related to the management and access to, or release of, the financial assurance that ensure the full amount of the funds are made available immediately in the event the mining entity cannot fulfill its closure obligations.
<p>5.2.3.d Require mining entities to allow for draw-down or release of a portion of financial assurance as progressive or other closure activities are completed and approved.</p>	<ul style="list-style-type: none"> • Regulations should authorize the partial release of financial assurance as progressive reclamation is undertaken and outstanding closure costs are reduced. Reductions in financial assurance should be commensurate with demonstrated completion of progressive reclamation activities and closure criteria. • Governments should regularly review the fully costed closure plan and require appropriate adjustments to the cost estimate accordingly.



MPF RECOMMENDATIONS	GUIDANCE
5.3 Orphaned and abandoned mines	
<p>5.3.1 Develop an inventory of and tracking tool for abandoned mine that identifies potential hazards and impacts as well as opportunities and values.</p>	<ul style="list-style-type: none"> • Government should have an inventory of and tracking tool or mechanism for abandoned mines and exploration sites within their jurisdiction. The inventory should identify hazards and potential impacts at the site, as well as opportunities for future beneficial use of the site. • Refer to the following resources for additional guidance: <ul style="list-style-type: none"> ◦ Simplified Guide for Closed/Abandoned Mining Waste Facilities Risk Assessment, Government of Spain ◦ Risk and Prioritisation Framework for Abandoned Mine Management and Remediation, 2021, Government of Queensland, Australia ◦ Pasivos Ambientales Mineros: Manual Para el Inventario de Minas Abandonadas o Paralizadas, Asociación de Servicios de Geología y Minería Iberoamericanos, on how to develop an inventory of abandoned mines.
<p>5.3.2 Undertake a risk assessment for abandoned mines that considers likelihood and consequence of risks to people, the environment, and property.</p>	<ul style="list-style-type: none"> • Government should undertake a risk assessment of abandoned mines and exploration sites. The risk assessment quantifies the probability of occurrence of hazards at the site and the consequence of those hazards impacting people, the environment, and property. • Based on the risk assessment, develop a risk-ordered list of abandoned mines that identifies high-risk sites that require the development of remediation plans. • Refer to the following for additional guidance: <ul style="list-style-type: none"> ◦ Risk and Prioritisation Framework for Abandoned Mine Management and Remediation, Government of Queensland, Australia ◦ Application of Risk Management to Abandoned Mine Sites in the Canadian North, by Nahir et al. (2006).
<p>5.3.3 Engage and involve communities in the identification and assessment of abandoned mines.</p>	<ul style="list-style-type: none"> • Government should engage and involve communities in identifying and assessing abandoned mines, as well as in developing their remediation plans. Communities, through their lived experience, often have information about the nature of hazards and/or potential consequences of hazards and can contribute input on opportunities to reuse the site for social or economic benefits as part of the mine’s remediation. • Communities can also participate in the implementation and monitoring of the mine’s remediation activities. Government should ensure women and other under-represented groups are included and represented in order to mitigate differential impacts and where possible, enhance opportunities.



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<p>5.3.4 Develop remediation plans for abandoned mines that are consistent with risks and with regulations in mine closure, and that consider the redevelopment of abandoned mines or the preservation of values beneficial to people, wildlife, climate resilience, and the environment.</p>	<ul style="list-style-type: none"> • Government should work with communities and external organizations, as needed, to develop remediation plans for abandoned mine and exploration sites with a focus on high-risk sites. The remediation plans should be consistent with the jurisdictional requirements and leading standards for mine closure and rehabilitation. Refer to the Abandoned Mine Site Characterization and Cleanup Handbook by the U.S. Environment Protection Agency for further guidance. • Remediation plans should include, where possible, plans for reuse of the site and preservation of values that are beneficial to people, wildlife, climate resilience, and the environment.



Pillar VI – Artisanal and Small-Scale Mining

Introduction

Pillar VI includes mining policy governance for the subsector of mining focused on artisanal and small-scale mining (ASM) operations.

ASM is different from large-scale mining in that it is usually done with simplified forms and methods of exploration, exploitation, processing, and transformation, and is often performed by local communities. It is more labour-intensive and less professional. In many countries, ASM is carried out informally and is often associated with poverty, illegality, poor environmental and social practices, and gender inequality. The subsector is difficult to manage due to the nature of its environmental and social issues, competing priorities, lack of political voice for ASM workers, and the lack of alternative means of livelihood. However, it is generally understood that the mineral endowment of countries cannot be managed sustainably if ASM activity is occurring unchecked.

Governments should holistically address the ASM subsector – from the regulatory system and its economic aspects to its environmental and social impacts – with the intention of making it a driver for sustainable development.

Objectives

- To promote good practices in the ASM sector, as well as its benefits.
- To mitigate the social and environmental impacts of ASM operations and deter unacceptable practices.
- To integrate ASM into the legal and economic systems.

In keeping with the commitment of the IGF members to ensure that mining activities within their jurisdiction are compatible with the Sustainable Development Goals (SDGs), implementation of Pillar VI's recommendations advance the following SDGs:

- SDG 1 (No Poverty) by supporting the well-being of ASM workers, formalization strategies, providing technical training to ASM workers and by identifying areas for ASM operations.
- SDG 3 (Good Health and Well-Being) by developing ASM worker and community health programs, including developing environmental regulations to safeguard their health, by ratifying the Minamata Convention, and by reducing mercury use.



- SDG 4 (Quality Education) by providing basic standards of education for ASM workers and communities.
- SDG 5 (Gender Equality) by promoting strategies for gender equality, investing in capacity-building for women, and developing financial mechanisms equally accessible to women.
- SDG 8 (Decent Work and Well-Being) by developing ASM workers programs and trainings.
- SDG 9 (Industry, Innovation and Infrastructure) by regulating ASM, developing a framework and increasing access of small-scale industries and enterprises to financial services, and integrating them into value chains and markets; through programs to improve labour standards, including combating forced and child labour.
- SDG 10 (Reduced Inequalities) by supporting supply-chain initiatives, training and financial mechanisms that are inclusive and accessible.
- SDG 12 (Responsible Production and Consumption) by promoting sustainable supply chains.
- SDG 14 (Life Below Water) by developing environmental regulations for ASM and eliminating the use of mercury in ASM processes.
- SDG 15 (Life on Land) by requiring ASM operators to mitigate biodiversity impacts and deforestation, protect the ecosystem services around communities, and develop remediation plans for abandoned mines.
- SDG 16 (Peace, Justice and Strong Institutions) by promoting the rule of law.
- SDG 17 (Partnerships to Achieve the Goal) by promoting collaboration between ASM and large-scale mining, encouraging ASM workers associations, and developing supply-chain initiatives.

Scope of Application

This Pillar is applicable to:

- Small-scale mining and artisanal mining.
- ASM activities regardless of their formality and legality, seasonality, or permanence.
- Metallic and non-metallic mining, but some recommendations are only applicable to metallic mining.
- Extraction, processing, commercialization, and simplified exploration of ASM minerals.



Guidance to Implement Pillar VI – Artisanal and Small-Scale Mining

MPF RECOMMENDATIONS	GUIDANCE
6.1 ASM in the legal system	
6.1.1 Develop specific legal frameworks to manage ASM operations.	<ul style="list-style-type: none"> • Government should consider ASM in general mining laws in order to include all types of mining. Government should also develop specific legal frameworks (for example, through regulations) and permits to deal with the specificities of ASM including its size/scale, type of minerals exploited, and the capacities of ASM workers to comply with legal requirements. The legal framework should simplify complex procedures and obligations and provide multiple types of ASM licenses to incentivize ASM workers to legalize their operations. • ASM legal frameworks should align with national policies and strategies for rural development. Governments may choose to promote and regulate ASM as a form of rural development and job creation, and/or pursue complementary alternative livelihoods. • ASM workers and communities should be consulted regarding legislation that may affect their livelihoods and well-being, and government should ensure that men and women are equitably consulted. • Legal frameworks should be part of a wider strategy/policy for the ASM sector and should include, but not be limited to: <ul style="list-style-type: none"> ◦ Streamlined environmental permitting that addresses all major risks and is appropriate for small operations and subsistence workers. ◦ Regulated access to property rights. ◦ Economic, environmental, social, health, and safety rights and obligations that are compatible with the size of the mine operation. ◦ Provisions to support women’s participation in the sector. ◦ Include a tax system compatible to the size of operations. ◦ A commitment to reduce and eventually eliminate the use of mercury in ASM mining. • Legislation should draw clear distinctions between large-scale mining, artisanal and small-scale mining, and illegal mining to avoid criminalizing legitimate ASM that are employing good practices. Permits should tailor boundaries of lawful conduct so as to clarify which activity is illegal and which is not. • Several countries have enacted specific legislation for the subsector, including Ghana, Peru, Philippines, and Honduras, or have included ASM in their general mining legislation, such as Tanzania and Colombia.



MPF RECOMMENDATIONS	GUIDANCE
<p>6.1.2 Develop appropriate strategies for different types of ASM to integrate ASM operators into the formal economy and legal system and manage its impacts.</p>	<ul style="list-style-type: none"> • Government should develop a strategy that defines specific goals to address the sector’s challenges, promotes opportunities, and details the instruments and initiatives it will employ to achieve those goals. An ASM strategy should: <ul style="list-style-type: none"> ◦ Develop a vision for responsible ASM by classifying practices as either unacceptable (are not going to be tolerated), poor (will try to eliminate dependent upon circumstances), or good (will be encouraged). ◦ Divide the ASM sector into subtypes according to their characteristics and prioritize them. ◦ Develop approaches to improve ASM practices for each subtype. ◦ Develop an implementation plan that includes monitoring. • The strategy might incentivize formalization – a complex and multidimensional process that moves the ASM sector toward more responsible mining practices where social, environmental, and economic risks are reduced. If so, a realistic process of formalization is a determinant for its success. In order to develop a long-term sustainable formalization strategy, the government’s process should use a bottom-up approach. The strategy should: <ul style="list-style-type: none"> ◦ Be inclusive of miners’ views and those of other ASM stakeholders and ensure the equal participation of women and other under-represented groups. ◦ Acknowledge the diversity of the ASM sector in terms of its type and size. ◦ Acknowledge and address reasons for the lack of formalization in existing artisanal production and trading systems. ◦ Be effective in monitoring and enforcing regulation. • The formalization strategy will require: <ul style="list-style-type: none"> ◦ Legal frameworks that remove barriers to formalization and are supportive and accessible rather than punitive. ◦ Streamlined licensing processes that make it easy, cost-effective, and rewarding to obtain a license. ◦ Technical and financial support to meet the licensing requirements and, once licensed, continue to improve performance. <p>Refer to the IGF's Guidance for Governments: Managing artisanal and small-scale mining.</p>
<p>6.1.3 Support ASM operators to meet regulatory requirements.</p>	<ul style="list-style-type: none"> • When enacting new ASM regulations, governments should develop a plan to train ASM workers on the new requirements and provide them lead time and incentives to comply. • Government should ensure that training and guidance are inclusive, accessible, and culturally appropriate to reach male and female ASM miners and communities, including those who have been historically under-represented or marginalized. • Training should cover technical aspects, environmental regulations, and potential environmental and health hazards associated with ASM.



MPF RECOMMENDATIONS	GUIDANCE
<p>6.1.4 Establish robust mechanisms for monitoring ASM sites and for enforcement with appropriate sanctions when practices are unacceptable, to ensure compliance with laws and regulations. Integrate local governments in monitoring and enforcement activities.</p>	<ul style="list-style-type: none"> • Governments should monitor compliance with regulations through inspections, spot-checks, and supplementary methods, such as sampling pollution concentrations around mining sites. • Local governments should be entrusted to carry out monitoring of ASM activities in rural areas. Monitoring should be conducted at regular intervals as well as ad hoc when imminent situations, such as accidents, require government presence. • Unacceptable practices such as the use of child labour, paying armed groups, polluting key freshwater resources, and/or illicit financial flows linked to ASM should be deemed illegal and should be classified as criminal offenses. Such practices must not be tolerated under any circumstance and should be phased out. A phase-out approach can help prevent the creation of a “black market” that could result from an outright and immediate ban and can prevent furthering the precarity and marginalization of ASM stakeholders in vulnerable situations. Refer to the IGF Guidance for Governments: Managing artisanal and small-scale mining. • Government agents responsible for monitoring should administer sanctions (e.g., warnings, fines, and denial of assistance) not connected to criminal law. Law enforcement agents should assist in administering sanctions, and directly administer sanctions connected to criminal law, including shutting down operations. All agents should act in accordance with their responsibilities to protect and respect human rights as outlined in the UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials and the Voluntary Principles on Security and Human Rights. They should also be trained to respond to gender-based violence using a survivor-centred approach. • Monitoring mechanisms should capture and respond to instances of gender-based violence in and around ASM sites and communities.
<p>6.2 ASM in the economic system</p>	
<p>6.2.1 Map and update existing ASM activities so authorities can make informed decisions.</p>	<ul style="list-style-type: none"> • Government must fully understand the context and dynamics of the domestic ASM sector including the key minerals, stakeholders, geographies, economics, and conflicts associated with ASM within the country. In mapping ASM activities, government should overlay these activities with Indigenous lands, protected areas, mining permits, timber permits, and other land rights. • Government should map and update existing ASM activities by conducting and regularly updating the following: <ul style="list-style-type: none"> ◦ Scoping study: Provides an overview of the ASM sector and informs the design of further research. ◦ Sector assessment: Documents the techniques used by ASM operations and the economic characteristics of the ASM sector in a gender-disaggregated manner, allowing the ASM strategy to be set within the context of existing skills, practices, and power dynamics in the sector. ◦ Impact assessment: Determines the impacts of each type of ASM in a gender-disaggregated manner so that appropriate responses can be incorporated into the ASM strategy.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> ◦ Political economy analysis: Maps and assesses the objectives, capacities, and activities of relevant stakeholders in and outside the government in relation to ASM, in order to factor political realities into its proposed measures. ◦ Supply-chain mapping. ◦ Geological and land-use mapping: detailed in the next recommendation. <ul style="list-style-type: none"> • When ASM data is not available in country, international databases can be used. Refer to the World Bank's Delve database. • Government should collect and report on the sector's data and identify blind spots. For further reference go to the EITI Requirement 6.3, Coverage of ASM in EITI Reporting.
<p>6.2.2 Generate and provide access to geological information and identify areas with potential for ASM operations.</p>	<ul style="list-style-type: none"> • Geological information helps ASM operations identify where to establish mines and how to operate them efficiently. Without access to geological data, those working in the ASM sector are often left with little to drive their activities except trial and error. This often results in low yields, loss of investment, and increased environmental degradation. Geological information can also be used as collateral in financing ASM operations. • Government should establish whether there are gaps in the geological data available to ASM miners and determine how these gaps can be addressed. • Government should compile and analyze data on potential reserves and land use (including ASM) in mineral- and metal-rich areas (see recommendation 1.1.1). This research should be conducted on a periodic basis and used to update current information and inform future policy-making. • Based on geological information, government should identify areas with significant mineral potential for ASM operations. After identification it should decide, for each mineral and metal, whether it should allocate land for ASM, and if so, how much land, and where. • Government should ensure that the geological information is provided in an accessible and inclusive manner that enables the integration and empowerment of women-owned or -led mining operations as well as those of historically under-represented or marginalized groups and promote their integration in the ASM sector.
<p>6.2.3 Provide technical training to improve productivity through efficient processes that protect the environment and the health, climate resilience, and safety of ASM workers.</p>	<ul style="list-style-type: none"> • Government should provide technical training to ASM workers to improve the recovery and processing of minerals, and promote the use of affordable and user-friendly processes, equipment, and techniques that reduce environmental, health, and social risks. • Refer to the IGF's Global Trends in ASM: A review of key numbers and issues for further guidance on technical interventions in ASM. For gold processing, Governments can refer to the UNEP's Reducing Mercury Use in Artisanal and Small-scale Gold Mining: A Practical Guide or the United States' EPA guides to Artisanal and Small-scale Gold Mining Without Mercury. • Training can also be offered to ASM operations in exchange for their application for licences and compliance with regulations. Conditional assistance can be withdrawn if an operation loses its licence or ceases to comply with regulations.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Where possible, government should adopt a "train the trainers" approach, so that key members of local communities can share their knowledge with other ASM stakeholders when they return to their communities. • A major challenge for ASM workers is a lack of adequate equipment and/or resources to replicate or adapt mining techniques. To increase access to equipment for those in the ASM sector, equipment should: <ul style="list-style-type: none"> ◦ Be simple in design ◦ Be able to be produced locally ◦ Be affordable to individual miners ◦ Combine both manual and mechanized processing techniques. <p>In addition, purchase loan schemes and centralized processing centres can enable alternative access to equipment.</p>
<p>6.2.4 Encourage and facilitate the creation of ASM associations.</p>	<ul style="list-style-type: none"> • Government should encourage ASM workers to form cooperatives and associations in order to reach economies of scale in their operations, meet regulatory requirements, and improve their practices towards sustainability. For example, cooperatives can: <ul style="list-style-type: none"> ◦ Better negotiate purchase prices for supplies and minerals ◦ Attract investment and financing ◦ Organize group training ◦ Apply for certifications ◦ Better organize formalization activities ◦ Reach larger markets for their minerals (e.g., Ivorian artisanal mining cooperative). • Regulations should provide an enabling fiscal environment for the cooperatives and ensure fair governance structures. Cooperatives in other industries can provide lessons when developing regulations for mining cooperatives. Refer to ILO's Think. Coop for further guidance on developing and implementing mining cooperatives. • Government should support the establishment of women's cooperatives and associations to support greater involvement of women. Refer to the IGF's Women in ASM: Challenges and opportunities for greater participation for further guidance on policies to improve women's participation in ASM, including their role in cooperatives.



MPF RECOMMENDATIONS	GUIDANCE
<p>6.2.5 Promote financial literacy and facilitate access to the financial system including for women and other stakeholders facing barriers to financing.</p>	<ul style="list-style-type: none"> • Government should develop a framework to ensure that ASM workers have access to financial services and capacity-building that encourages savings, investment, and responsible financial management. Financing for ASM may be regulated in ways that create more access to credit, with specific measures for women and other historically under-represented or marginalized groups. • Measures may include increasing access of small-scale miners to financial services. Access to bank accounts and credit are often very difficult for ASM workers as they are often considered high-risk clients due to the informal nature of their work, non-legal status, or debt and poverty concerns. Access to finance can be incrementally addressed by promoting partnerships with international cooperation agencies and local banks to create ASM specific financial mechanisms. For example, in Peru Caja Los Andes and PlanetGOLD partnered to create financial mechanisms for artisanal and small-scale gold mining. Innovative financial mechanisms include microcredits, using geological information as collateral for loans, grants, and government loan facilities. • Capacity-building regarding financial management and project economics should be provided to ASM workers, including women, to improve savings and investments. • Grant and loan schemes should be equally accessible for women and men, and should address specific challenges women face in accessing financial services and financing their participation in ASM.
<p>6.2.6 Design transparent systems for collection of revenue that are appropriate for the size and economic capacities of ASM operations.</p>	<ul style="list-style-type: none"> • Revenue should be collected from ASM (taxes, fees, and royalties), as appropriate for the size and economic capacity of the ASM operation. When unregulated or improperly regulated, ASM revenue collection may exacerbate issues such as corruption. The financial sharing model should be adapted to the context of ASM and should be designed in a way that incentivizes formalization. • Revenue collection and management policies and systems should be transparent and include clear procedures to identify and address any mishandled funds.
<p>6.2.7 Encourage, when applicable, responsible supply-chain initiatives to promote responsible management of ASM.</p>	<ul style="list-style-type: none"> • Government should support supply-chain initiatives through: <ul style="list-style-type: none"> ◦ Raising awareness among miners and mining operations. ◦ Providing supportive legal and policy frameworks. <p>Promoted initiatives should be viable and realistic, selected for each type of ASM.</p> • Government should encourage the ASM sector to work through such supply-chain initiatives to improve the ASM sector's economic, environmental, and social performance. Some supply-chain initiatives can be inaccessible to most workers due to barriers to entry, and if participation is mandated by the government, miners may be discouraged from participating – thereby preventing their entry into the formal economy. Government should carefully assess which initiative is better for its sector following the recommendation of the IGF Guidance for Governments: Managing Artisanal and Small-Scale Mining. The initiatives should consider barriers for women's participation for women and design initiatives to be inclusive and accessible.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Certification can be a great incentive to legalization and formalization of the ASM sector. Ethical certification programs, such as the Alliance for Responsible Mining and Fairmined certification aid in promoting voluntary compliance with technical, social, labour, environmental, and other requirements, and have strong provisions on gender equality and women's empowerment, including national regulations. Certified minerals can charge a price premium on the market and may be favoured by large, downstream commodity buyers. Responsible, conflict-free sourcing standards are increasingly being adopted such as the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, and integrated into law such as the European Union's Conflict Minerals Regulation. Tools such as the Code of Risk-mitigation for ASM Engaging in Formal Trade (CRAFT) and IGF Guidance for Governments: Managing Artisanal and Small-Scale Mining can be used to assist governments and other stakeholders in implementing international good practices.
<p>6.2.8 Encourage mining entities to collaborate with ASM operators and establish conflict-resolution mechanisms when ASM is present or can be anticipated to follow the development of a mine.</p>	<ul style="list-style-type: none"> • Government should require mining entities to describe any ASM activity on their mine sites and provide a plan for collaboration or partnerships with ASM workers (e.g., for mineral processing). Collaboration may involve providing an area where ASM is permitted, allowing the use of shared infrastructure, encouraging the development of complementary sustainable economic livelihoods, building legal partnerships, and implementing a mechanism for ongoing dialogue. Encouraging and enabling good relationships between ASM and large-scale mining can reduce conflicts, improve environmental management, and encourage productive economic relationships. • Provide a conflict-resolution mechanism that is inclusive and accessible to workers and communities. • The IRMA Standard offers recommendation on ASM and large-scale mining (LSM) interactions, and the World Gold Council's 2022 report Artisanal and Small-scale Gold Mining offers a series of models for better managing the interactions between ASM and LSM.
<p>6.3 Social and environmental protections in ASM</p>	
<p>6.3.1 Develop, disseminate, and enforce regulations to safeguard water sources, manage waste, minimize habitat loss, and rehabilitate sites associated with ASM.</p>	<ul style="list-style-type: none"> • Government should develop specific environmental regulations for the ASM sector, adapted to its context, size, and impacts. Providing environmental permits or licenses to ASM operators and ensuring compliance with required environmental management plans, can help safeguard the environment from negative impacts. Regulation should include safeguarding water resources from impacts of ASM operations to prevent water degradation. • Government should ensure that mine waste facilities are designed, operated, and closed with full consideration given to site-specific conditions and risks, following international good practices such as imposing strict conditions in the disposal of residual stockpiles and tailings. Cumulative impacts should also be considered where operations work in close proximity. Mine waste facilities should be managed and monitored throughout the life of the mine and after mine closure. • Government should determine if there are ASM operations in high conservation value areas and require ASM operators to provide a plan for mitigating biodiversity impacts and deforestation, as well as protect the ecosystem services around communities.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Government should require ASM operators, through the implementation of management plans, to rehabilitate disturbed sites during the entire mine cycle. Government should assist operators in designing and adapting the rehabilitation methods. • Government should educate ASM workers, specifically targeting women and Indigenous workers, on environmental regulations.
<p>6.3.2 Take steps to reduce and, where possible, eliminate, the use of mercury, and other toxic substances from ASM processes.</p>	<ul style="list-style-type: none"> • Government should map, monitor, and apply sanctions regarding the use of mercury and other toxic substances such as lead, cyanide, arsenic, zinc vapour, and cadmium in mineral exploitation and processing. It should also provide awareness of the impacts on health, especially women and children, and provide training to ASM workers in safe use through “closed loop” systems. • Government should require ASM operators to adopt a progressive approach to eliminating the use of hazardous chemicals. • Government should ratify the Minamata Convention on Mercury, and develop a National Action Plan (NAP) to control and reduce trade in mercury and, where feasible, eliminate its use. NAPs must be integrated into national legislation. Government should draw upon resources such as PlanetGOLD and UNEP Environment Chemicals and Waste Branch with the Global Mercury Partnership to reduce mercury use in ASM, with the aim of eliminating the mercury from the ASM mining process. • Government should be knowledgeable about toxic-substances-free technology and promote clean and efficient small-scale mining practices following international best practices like the International Cyanide Management Code on safe use, transport, and disposal of cyanide in artisanal and small-scale gold mining. It should ensure that clean and safe practices are accessible to men and women and other historically under-represented or marginalized groups.
<p>6.3.3 Develop an inventory of abandoned and orphaned ASM sites and undertake remediation measures of those sites.</p>	<ul style="list-style-type: none"> • Government should have an inventory of and tracking tool or mechanism for abandoned ASM sites within their jurisdiction. The inventory should identify hazards and potential impacts at the site, as well as opportunities for future beneficial use of the site. • Government should work with communities and external organizations, as needed, to develop remediation plans for abandoned mines with a focus on high-risk sites. The remediation plans should be consistent with the jurisdictional requirements and leading standards for mine closure and rehabilitation. • Remediation plans should include, where possible, plans for reuse of the site and preservation of values that are beneficial to people, wildlife, and the environment.



MPF RECOMMENDATIONS	GUIDANCE
<p>6.3.4 Coordinate with ASM operators and local government on efforts to address economic, social and health impacts on ASM communities.</p>	<ul style="list-style-type: none"> • Local governments should have the capacity to understand the challenges faced by their communities. ASM operations can alter the dynamics of a community and care must be taken to address social and health impacts on ASM communities, such as in-migration to communities that can lead to social impacts including gender-based violence and prostitution. Government should develop a strategy with local governments and other stakeholders – such as large-scale mine operators – to map ASM activities and communities and help identify victims and survivors of gender-based violence. • When a mine deposit is discovered, mining revenues can attract illegal armed groups or groups performing illegal activities. Mine authorities should exert early control in these areas and implement preventive measures to address illegal activities. In cases where these groups are present, it should work with law enforcement agents to ensure successful interventions. • The use of mercury in ASM operations has negative impacts on community members through water and soil contamination and can impact women’s sexual and reproductive health and lead to congenital diseases and health issues in children. Providing technical assistance and facilitating the use of alternative processes and equipment is recommended.
<p>6.3.5 Develop programs to improve health and safety standards and provide access to quality education to ASM workers and their families.</p>	<ul style="list-style-type: none"> • Government should develop programs to improve ASM worker and community health. ASM typically employs poor health and safety standards and practices and can cause harm to worker health and the environment. • Government should address key issues through programs and monitoring of: <ul style="list-style-type: none"> ◦ Use of hazardous substances (e.g., mercury, zinc vapour, cyanide, or other acids) ◦ Blasting and drilling activities, which can be inefficient and dangerous ◦ The use of explosives, which is linked to illegal trading and possession ◦ Lack of knowledge on pit construction ◦ Obsolete and poorly maintained equipment ◦ Lack of ventilation ◦ Rockfalls and collapses. • Government should develop incentives, training, and programs that help workers implement safer practices and save costs. • Women face particular challenges regarding safety, including the risk of sexual violence. In addition to health and environmental standards, governments should adopt safety standards that prohibit and address gender-based violence on ASM worksites and ensure that gender-based protection services (e.g., women’s counselling centres, shelters, etc.) are available, accessible, and staffed within the vicinity of ASM communities. • Governments should develop national programs that provide basic standards of education to ASM workers and their families. Providing subsidized or free basic levels of education to ASM workers and communities can have positive social impacts. Vocational schooling can also have a direct economic impact and can potentially steer ASM workers into alternative livelihoods that diversify local economies and lessen environmental impacts. Special attention should be paid to the education of women and girls in ASM communities.



MPF RECOMMENDATIONS	GUIDANCE
<p>6.3.6 Strengthen, monitor, and enforce labour laws and laws that prohibit forced and child labour in ASM.</p>	<ul style="list-style-type: none"> • Government should develop programs to improve labour standards. ASM can pose risks such as the use of forced labour, particularly among vulnerable groups such as immigrants, women, and children. Forced labour can include unpaid work, human trafficking, and forced illegal activities like smuggling and prostitution. Government should ensure laws prohibiting forced labour are implemented through regular monitoring and inspections; these laws should be complemented by education and incentives. Government should ratify the ILO CO29 – Forced Labour Convention, 1930 (No. 29) and refer to the Alliance for Responsible Mining Addressing Forced Labour in Artisanal and Small Scale Mining: A Practitioner's Toolkit for further guidance. • Work performed by children in ASM is generally considered hazardous and falls within the definition of “worst forms of child labour” under ILO Convention No. 182. Government should ensure labour laws and laws that prohibit child labour are implemented through regular monitoring and inspections and are complemented by education and incentives. • Government should develop programs that reduce and eliminate child labour and provide families with viable income alternatives that are part of broader community development strategies. Child labour is a complex issue and, in some circumstances, can be linked to a women’s ability to earn a living and child care. If the laws do not have an incremental approach, they may compound existing issues and result in worse child labour situations. Law enforcement should be accompanied with strong educational campaigns and development programs that provide other viable economic alternatives. • Educational infrastructure, including early child care, should be implemented or improved, if necessary, to protect children’s health and well-being and provide stronger incentives for families to send their children to school. • Public education campaigns should be used to increase public knowledge regarding the dangers of forced and child labour in ASM. • The country has ratified international conventions aimed at protecting freedom of work and the rights of children, such as the United Nations Convention on the Rights of the Child, ILO Convention No. 182, and ILO CO29 – Forced Labour Convention, 1930 (No. 29), and the rights of workers and children are protected under the country’s national laws and constitution.
<p>6.3.7 Strengthen the capacity of women working in ASM, and provide access to resources that promote their health, safety, and security.</p>	<ul style="list-style-type: none"> • Government should provide women with legal protections against issues such as unlawful discrimination and exploitation, including both statutory laws and customs. Governments consider the ratification of ILO Convention No. 190, monitor instances of discrimination and exploitation, and regularly reassess the needs for further standards, guidance, or resources to support women’s health, safety, and security. • In many countries, women make up at least half of ASM workers, yet many face discrimination, which results in a lack of access to resources, credit, tenure, pay, and health services. However, women often use the wealth they generate in ways that have a direct and positive impact on their families and broader social and economic development. Governments should take this into consideration when creating and revising laws and policies on ASM to encourage the participation of women in ASM while ensuring their rights and security in the process.



MPF RECOMMENDATIONS	GUIDANCE
	<ul style="list-style-type: none"> • Government should invest in capacity-building for women to ensure their active and equal participation in ASM, including: <ul style="list-style-type: none"> ◦ Technical, administrative, financial, and management training ◦ Training on understanding their rights ◦ Accessing information on geological data, markets, financial services, and networks ◦ Navigating licensing processes. <p>Refer to the IGF Case Study: Skills Building for Women in Artisanal and Small-Scale Mining for additional good practice in Mongolia, Zambia, and Zimbabwe to empower women’s meaningful participation in the sector.</p>



List of Acronyms

APEC	Asia-Pacific Economic Cooperation
APELL	Awareness and Preparedness for Emergencies at Local Level
ASM	Artisanal and Small-scale Mining
CRAFT	Code of Risk-mitigation for ASM Engaging in Formal Trade
CSR M	Centre for Social Responsibility in Mining
EITI	Extractive Industries Transparency Initiative
EPA	U.S. Environmental Protection Agency
ESIA	Environmental and Social Impact Assessment
FARI	Fiscal Analysis of Resource Industries
FPIC	Free, Prior and Informed Consent
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GIS	Geographic Information System
GRI	Global Reporting Initiative
ICMM	International Council of Mining and Metals
IFC	International Finance Corporation
IGF	Intergovernmental Forum on Mining, Minerals, and Metals
IISD	International Institute for Sustainable Development
ILO	International Labour Organization
IMF	International Monetary Fund
IRMA	Initiative for Responsible Mining Assurance
IUCN	International Union for Conservation of Nature
JORC	Joint Ore Reserves Committee
LSM	Large-scale Mining
MAC	Mining Association of Canada
MPF	Mining Policy Framework
NAP	National Action Plan
OHS	Occupational Health and Safety



PCA&S	Policies, Codes, Agreements, and Standards
SAMREC	South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves
SGD	Sustainable Development Goals
SOE	State-Owned Enterprises
STEM	Science, Technology, Engineering, and Mathematics
TCFD	Task Force on Climate-related Financial Disclosures
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFC	United Nations Framework Classification for Resources



Glossary

Abandoned and orphaned mines – Abandoned or orphaned mines are those mines for which the owner cannot be found or for which the owner is financially unable or unwilling to carry out clean-up. They pose environmental, health, safety, and economic problems to communities, the mining industry, and governments in many countries. ([National Abandoned/Orphaned Mines Initiative](#))

Adaptation – Human-driven adjustments in ecological, social, or economic systems or policy processes, in response to actual or expected climate stimuli and their effects or impacts. (UN, [Framework Convention on Climate Change](#), undated)

Base erosion and profit shifting – Refers to tax-planning strategies used by multinational enterprises that exploit gaps and mismatches in tax rules to avoid paying tax. ([Organisation for Economic Co-operation and Development](#) (OECD) undated)

Baseline studies – Work done to collect and interpret information on the condition/trends of the existing environment. ([International Association for Impact Assessment](#))

Child labour – Work that deprives children of their childhood, their potential, and their dignity, and that is harmful to physical and mental development. It refers to work that: (i) is mentally, physically, socially, or morally dangerous and harmful to children; and/or (ii) interferes with their schooling by: depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work. (ILO, [What is Child Labour](#), undated)

Compensation – Direct and indirect monetary and non-monetary rewards to employees. ([OECD](#), undated).

Disaggregated data – The separation of compiled information into smaller units to elucidate underlying trends and patterns. Compiled data may come from multiple sources (the public/private sectors and national/international organizations) and have multiple variables or “dimensions”. To enhance understanding of a situation, the data is grouped by dimension, such as age, sex, geographic area, education, ethnicity, or other socio-economic variables. ([Pan American Health Organization](#), 2020)

Economic displacement – The loss of assets or access to assets that leads to loss of income sources or other means of livelihood. (IFC, [Performance Standard 5: Land Acquisition and Involuntary Resettlement](#), 2012)

Environmental and social impact assessment (ESIA) – The process of identifying, predicting, evaluating, and mitigating the environmental, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made. ([International Association for Impact Assessment](#), 2009).

Financial assurance for mine closure and rehabilitation – Financial assurance is a written agreement under which a mining company agrees to pay a certain amount of money if it does not perform certain activities properly at closure (e.g., restoration) (Government of Canada, 2013b). This is an insurance mechanism, an element of governance, a solution to the bankruptcy or failure of the operator and any resulting abandoned mines, a question central to the post-mine issues, and a question of responsibility for future generations. ([IGF Global Review: Financial assurance governance for the post-mining transition](#), 2021)



Fiscal transparency – "Looking through" an entity and attributing profits and losses directly to the entity's members. The profits of certain forms of enterprises are taxed in the hands of the members rather than at the level of the enterprise. Often occurs in the case of a partnership for example. (OECD, [Budget Transparency Toolkit](#), 2017)

Forced labour – All work or service which is exacted from any person under the threat of a penalty and for which the person has not offered himself or herself voluntarily. (ILO, [What is Forced Labour, Modern Slavery, and Human Trafficking](#), 1930)

Free, prior, and informed consent – There is no universally accepted definition for free, prior, and informed consent (FPIC). The UN Declaration on the Rights of Indigenous Peoples requires states to consult and cooperate in good faith with the Indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them. "Free" implies that there is no coercion, intimidation, or manipulation. "Prior" implies that consent is to be sought sufficiently in advance of any authorization or commencement of activities and respect is shown to time requirements of Indigenous consultation/consensus processes. "Informed" implies that information is provided that covers a range of aspects, including the nature, size, pace, reversibility and scope of any proposed project or activity; the purpose of the project as well as its duration; locality and areas affected; a preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks; personnel likely to be involved in the execution of the project; and procedures the project may entail. (United Nations Human Rights Office of the High Commissioner, [Consultation and Free, Prior and Informed Consent](#), 2018)

Gender – The roles, behaviours, activities, and attributes considered appropriate for women, men, and gender-diverse people in different cultural contexts. Gender influences how they perceive themselves and others and how they act and interact. There is considerable diversity in how people understand, experience, and express gender since categories are socially constructed, specific to a given place and time, learned through socialization processes, and change over time. (Canadian Institutes of Health Research, [What is Gender? What is Sex?](#))

Gender-based violence – Umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed differences between women, men, and gender-diverse people. GBV can include sexual violence, sexual exploitation and abuse, domestic violence, trafficking, forced or early marriage, female genital mutilation, honour killing, etc. The violence can be physical, verbal, sexual, psychological, and socio-economic. (Global Protection Cluster, [Gender-Based Violence](#))

Gender equality – The equal rights, responsibilities, and opportunities of women, men, and gender-diverse people. Equality does not mean that all genders will become the same, but that each gender has the same capacity to access opportunities and exercise their rights. It implies that the interests, needs, and priorities of women, men, and gender-diverse people are taken into consideration. It is a human rights issue and a precondition for sustainable and people-centred development. (IISD, [Gender Equality](#))

Gender-responsive – Acknowledges and recognizes gender roles and inequalities articulating measures, policies, or initiatives to address the different needs, aspirations, and capacities of women and men. (UNESCO, [Gender-Sensitive Resources](#), 2019)



Good international practice – Appropriate laws, techniques, methods, processes, or technologies that keep people safe and protect the environment. The outcome should be a mining sector that employs the most appropriate practices under the same or similar circumstances globally or regionally.

Grievance – An issue, concern, problem, or claim (perceived or actual) that an individual or community group wants a mining entity or government to address and resolve. Synonymous with complaint. (Office of the Compliance Advisor/Ombudsman, [A Guide to Designing and Implementing Grievance Mechanisms for Development Projects](#), 2008)

Grievance mechanism – An institutionalized and organized method consisting of specified roles, rules, and procedures for systematically resolving complaints, grievances, disputes, or conflicts. Synonymous with dispute resolution system. (CAO, [A Guide to Designing and Implementing Grievance Mechanisms for Development Projects](#), 2008)

Human rights – Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work and education, and many more. Everyone is entitled to these rights, without discrimination. (UN, [Human Rights](#))

Involuntarily resettlement – Both physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) as a result of project-related land acquisition and/or restrictions on land use. (IFC, [Performance Standard 5: Land Acquisition and Involuntary Resettlement](#), 2012)

Leach pad – “Large engineered structures, lined with an impermeable layer of plastic (referred to as a geosynthetic membrane) and placed over a prepared surface that is typically a compacted soil layer. Ore is placed (heaped) on the lined pad and treated with chemicals to dissolve (leach) a metal of interest while protecting the environment. The plastic liner placed at the bottom and around the sides of the pad prevents chemicals from leaking into the soil and contaminating groundwater.” ([Nevada Division of Environmental Protection](#), undated)

No net loss – Point at which project-related impacts on biodiversity are balanced by measures taken to avoid and minimize the project’s impacts, to undertake on-site restoration, and finally, to offset significant residual impacts, if any, on an appropriate geographic scale (e.g., local, landscape-level, national, regional). (IFC, [Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources](#), 2012)

Tailings – “A by-product of mining, consisting of the processed rock or soil left over from the separation of the commodities of value from the rock or soil within which they occur” (IGF, [Guidance for Governments: Environmental management and mining governance](#), 2021)

Mine life cycle – All mine phases including mine planning, construction, operations, closure, and post-mining transition.

Mitigation hierarchy – Tool designed to help users limit, as far as possible, the negative impacts of development projects on biodiversity and ecosystem services (BES). It involves a sequence of four key actions – ‘avoid’, ‘minimize’, ‘restore’ and ‘offset’ – and provides a best practice approach to aid in the sustainable management of living, natural resources by



establishing a mechanism to balance conservation needs with development priorities. (Cross Sector Biodiversity Initiative, [Mitigation Hierarchy Guide](#), 2015)

Post-mining transition – Post-mining transition refers to “the period after the completion of all works needed to implement the closure of the site” and includes monitoring and maintenance activities. Monitoring and maintenance are required to maintain and manage infrastructure and rehabilitation until relinquishment is possible, and to check environmental and socio-economic performance against success criteria (ICMM, 2019a, p. 68). This phase can last a few to several years depending on monitoring and maintenance needs and associated environmental commitments made during the ESIA and closure plan development. (ICMM, [Integrated Mine Closure: Good Practice Guide](#))

Relinquishment – “When ownership, residual liabilities and responsibility for a former mine site can be returned to the corresponding jurisdiction or original owner, or transferred to a third party, following completion of closure activities, and satisfying any agreed success criteria. If ongoing maintenance and management is required [in continuation of post-mining transition activities], the responsibility for this under relinquishment would also transition to the new responsible party” (ICMM, [Integrated Mine Closure: Good Practice Guide, Element 10](#)) (ICMM, 2019a, p. 59)

Responsible business conduct – (RBC) It sets out an expectation that all businesses – regardless of their legal status, size, ownership, or sector – avoid and address negative impacts of their operations, while contributing to sustainable development in the countries where they operate. (OECD, [Guidelines for Multinational Enterprises on Responsible Business Conduct](#), 2023)

Stakeholder – A stakeholder is either an individual, group, or organization that's impacted by the outcome of a project. Stakeholders have an interest in the success of the project and can be within or outside the entity that's sponsoring the project. Stakeholders typically include governments, communities, industry, academia, and civil society. (Dictionary)

Stakeholder engagement – Sustainable development requires mining entities to engage with stakeholders at various levels to understand the context in which activities occur and the implications of decisions made. Most important is engagement with local stakeholders to ensure they are involved in decisions likely to affect them, and to be able to cooperate and participate in the achievement of sustainable benefits during and after mining. These are essential to societal acceptance of mining. (ICMM, [Stakeholder Engagement, Principle 10](#))



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