



IGF

INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development



Navigating Global Sustainability Standards in the Mining Sector

Introduction

This briefing note provides an overview of the current landscape of responsible mining standards and voluntary sustainability initiatives. It examines the latest developments and trends, highlighting their roles in supporting responsible mining practices. While this note offers a general and concise overview, it does not aim to provide an exhaustive review or update of initiatives like the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development's (IGF's) 2018 report on standards and the extractive economy (Turley et al., 2018), which remains the most recent IGF reference for deeper analysis of the characteristics of various standards operating in the sector. Instead, this note is designed to guide policy-makers and researchers with a more synthetic approach to understanding how these standards and

initiatives can contribute to sustainable mining practices, including through complementing national regulations.

The global mining sector has evolved dramatically in recent years, with a growing recognition of the critical need for responsible mining practices. Responsible mining is not just about minimizing environmental harm but also ensuring that mining activities foster social development, promote human rights, and contribute to long-term economic sustainability. The growing demand for minerals and metals, especially critical minerals, driven by the transition to renewable energy technologies and digital infrastructure, underscores the urgency of adopting higher standards to mitigate the environmental and social risks associated with extraction.



Global responsible mining standards offer a framework for addressing a wide array of specific issues. They influence mining operations' performance, including reducing the sector's environmental impact by managing key issues such as waste, water use, and emissions. These standards aim to enhance governance and transparency, fostering better decision-making processes that may include local communities to ensure they also benefit from mining operations. By addressing disputes over land use and improving labour conditions, responsible mining practices that mining standards support can contribute to social inclusion and more equitable distribution of mining benefits, ultimately creating more stable operating environments and attracting responsible investment.

However, the diverse array of standards—each with unique scopes, whether commodity-specific, scale-specific, or topic-specific—can pose compliance challenges and make it difficult for stakeholders to identify the most relevant standards, potentially diminishing their effectiveness. To address this, initiatives like the Consolidated Mining Standard Initiative (CMSI) aim to harmonize multiple frameworks into a single standard, simplifying compliance, reducing reporting fatigue, and promoting broader industry adoption.

Acknowledging that voluntary standards cannot and should not replace robust regulatory frameworks, the note outlines the following key recommendations for governments to leverage the work of standard-setting bodies and align standards development with their sustainability goals:

1. **Engage in Standards Development:** Governments should actively engage with voluntary sustainability standard-setting bodies during the development and revision of standards, ensuring that national regulatory priorities and specific challenges are reflected from

the outset, thereby supporting national sustainability goals.

2. **Strengthen Regulations Using Voluntary Standards:** Governments should leverage voluntary standards to enhance national regulatory frameworks, using their frameworks and metrics as models for areas where regulations may lag. In sectors with limited regulatory capacity, referencing voluntary standards in guidelines can promote adherence to best practices without legal mandates.
3. **Promote Transparency and Data Sharing:** Governments should advocate for data-sharing agreements that allow compliance data and audit findings from voluntary standards to be shared with regulatory authorities. This approach provides governments with valuable insights into industry practices, strengthens oversight, and enhances regulatory effectiveness, supporting public trust and continuous improvement across jurisdictions
4. **Align Regulations With Emerging Sustainability Issues:** Governments should monitor emerging sustainability issues identified in voluntary standards to anticipate the sustainability requirements of investors, actors downstream in the value chain, and destination countries. Addressing these issues in regulations can help to de-risk investment decisions and attract foreign direct investment, positioning countries as secure, reliable mining jurisdictions and partners of choice.

In summary, the document underscores that the alignment of voluntary standards with national regulations fosters a stable and predictable operating environment. Such a coordinated approach will support the mining sector's evolution in line with global sustainability goals.



Understanding Responsible Mining Standards and Voluntary Sustainability Initiatives

What Are Responsible Mining Standards?

Mining standards are frameworks or guidelines developed to ensure ethical, sustainable, and transparent practices in the mining sector. These standards address environmental, social, and governance (ESG) concerns and provide a structured approach for companies to minimize negative impacts while aligning with global best practices.

They serve to promote sustainable mining and alignment with the Sustainable Development Goals, helping the sector contribute to broader societal objectives. By offering voluntary or semi-voluntary guidelines, standards encourage mining companies to operate more responsibly while enabling governments and stakeholders to monitor their activities effectively.

TABLE 1. General categorization of mining standards

<p>Supply chain due diligence standards</p>	<p>Focus on identifying and mitigating risks along the supply chain, ensuring minerals are sourced responsibly.</p> <p>Examples: Kimberley Process Certification Scheme (KPCS),¹ LBMA Global Precious Metals Code²</p>
<p>Performance/compliance standards</p>	<p>Focus on measurable performance or benchmarks at the facility level, ensuring that mining operations meet specific targets related to environmental impact, worker safety, or social responsibility.</p> <p>Examples: Initiative for Responsible Mining Assurance (IRMA) Standard for Responsible Mining,³ Aluminium Stewardship Initiative (ASI) Performance Standard⁴</p>
<p>Principle-based standards</p>	<p>Offer broad, flexible guidelines that companies can adopt to guide responsible behaviour. They are often sector-agnostic and focus on overarching ethical principles.</p> <p>Examples: UN Guiding Principles on Business and Human Rights,⁵ International Council on Mining and Metals (ICMM) Performance Expectations⁶</p>

Source: ISO, 2024.

¹ For more on the Kimberley Process, see: <https://www.kimberleyprocess.com/en/kpcs-core-document>

² The LBMA Global Precious Metals code is available here: <https://cdn.lbma.org.uk/downloads/GPMC/Global-Precious-Metals-Code-2022.pdf>

³ Find the IRMA Standard for Responsible Mining here: <https://responsiblemining.net/>

⁴ Find the ASI Performance Standard here: <https://aluminium-stewardship.org/asi-standards/performance-standard>

⁵ Find a description of the UN Guiding Principles here: <https://www.business-humanrights.org/en/big-issues/un-guiding-principles-on-business-human-rights/>

⁶ ICMM's Performance Expectations can be downloaded here: <https://www.icmm.com/en-gb/our-principles/mining-principles/mining-principles>



Mining standards can be categorized in several ways, each with a specific focus and purpose. The International Organization for Standardization (ISO) proposes a general classification, outlined in Table 1.

The ISEAL Code of Good Practice for Sustainability Systems⁷ provides a framework for effective and credible sustainability systems. It could be referenced as the “standard for standard development,” focusing on guiding essential components or processes such as standard-setting, assurance for compliance assessments, robust monitoring and evaluation processes, and claim management.

What Do They Cover?

Mining standards cover crucial areas such as **environmental protection, waste management, health and safety, worker rights, social responsibility, transparency, and ethical business conduct**. They provide companies with a structured approach to addressing critical issues like pollution control, biodiversity conservation, and fair labour practices, ensuring that operations align with global sustainability goals. By setting clear expectations for responsible

behaviour, these standards guide companies in improving their practices and performance and demonstrating their commitment to sustainable operations.

What Is Their Scope?

Standards can be general or focus on a specific scope. See Table 2 for examples.

How Do We Ensure the Credibility of Mining Standards?

The credibility of any responsible mining standard lies in several critical elements: its governance model and stakeholder engagement, conformity assessment or assurance, and transparency and traceability

- **Governance Model and Stakeholder Engagement:** Standards that are governed through multistakeholder approaches—where governments, civil society, industry, and other affected parties are included in decision-making—tend to have greater legitimacy. These standards reflect a broad range of interests, making them more likely to address key concerns from various stakeholders.

TABLE 2. Scope and coverage of mining standards

Sector	Standards can be general with application to the mining sector or mining-sector specifics.
Commodity	Standards may target specific commodities (e.g., gold, copper, diamonds) or be broad-based and applicable to various minerals.
Operational	Standards can cover different stages of the value chain, from extraction to processing to trading.
Topic	Standards may address all ESG topics or focus on specific issues, such as environmental protection, human rights, or transparency.
Size/scale	Some standards distinguish between large-scale mining and artisanal and small-scale mining (ASM).

Source: Author.

⁷ See more here: <https://www.isealalliance.org/defining-credible-practice/iseal-code-good-practice>



How the standard-setting organization engages with various stakeholders and affected parties in standard design and adoption is also relevant.

- **Conformity assessment:** Standards that require independent third-party certification to assess whether a mining company or site has respected the standard requirements can ensure that mining operations are assessed more objectively. Third-party audits give confidence to stakeholders—including communities, investors, governments, and civil society—that a company’s compliance is being verified rigorously.
- **Transparency and Traceability:** A transparent standard allows stakeholders to see how decisions are made, what criteria are used for conformity assessments, and how the results are reported. Transparency helps build trust among users and can prevent greenwashing. Standards that publicly disclose their processes and assessment results set higher benchmarks for accountability. A standard that also requires companies to establish traceability systems can help to ensure that material from a mine site can be traced and tracked until the end product, enabling disclosure of product sustainability information along its supply chain.

Why Are Mining Standards Useful?

Responsible mining standards help to build trust among stakeholders, including local communities, investors, and environmental organizations, who view these standards as an essential addition to strong legislation to mitigate a range of risks and ensure that mining activities contribute positively to society. Internally, they can help align company practices with

global best practices, promoting ethical conduct within operations. Externally, they serve as assurance mechanisms, allowing companies to demonstrate compliance with international benchmarks. They can bring multiple benefits to the sector, including the following:

- They enhance accountability and transparency by providing structured frameworks for assessing ESG performance.
- They promote continuous improvement, urging companies to go beyond basic compliance and adopt more sustainable practices.
- They ensure comparability across regions, as companies adhere to uniform data reporting, making performance assessments easier.
- By aligning with global best practices, standards help de-risk investments and improve companies’ attractiveness to investors.

What Drives the Adoption of Sustainability Standards?

Mining companies adopt sustainability standards for diverse reasons. Market demand is a major factor, as companies must meet customer requirements for socially and environmentally responsible practices to stay competitive. Strategic advantages include positioning themselves as leaders in sustainability or mitigating future regulatory risks. Adopting standards also helps manage reputational risks, protecting companies from negative publicity related to environmental or social issues.

Other motivations include reducing operational costs and risks, such as energy or water use, and addressing supply chain vulnerabilities. Companies also seek regulatory benefits, either to comply with existing laws or to pre-empt future regulations. Standards can also strengthen a



company’s social licence to operate, gaining trust from local communities. Additionally, companies adopt standards to meet investor and lender requirements, enhance employee satisfaction, or align with their corporate values of social responsibility.

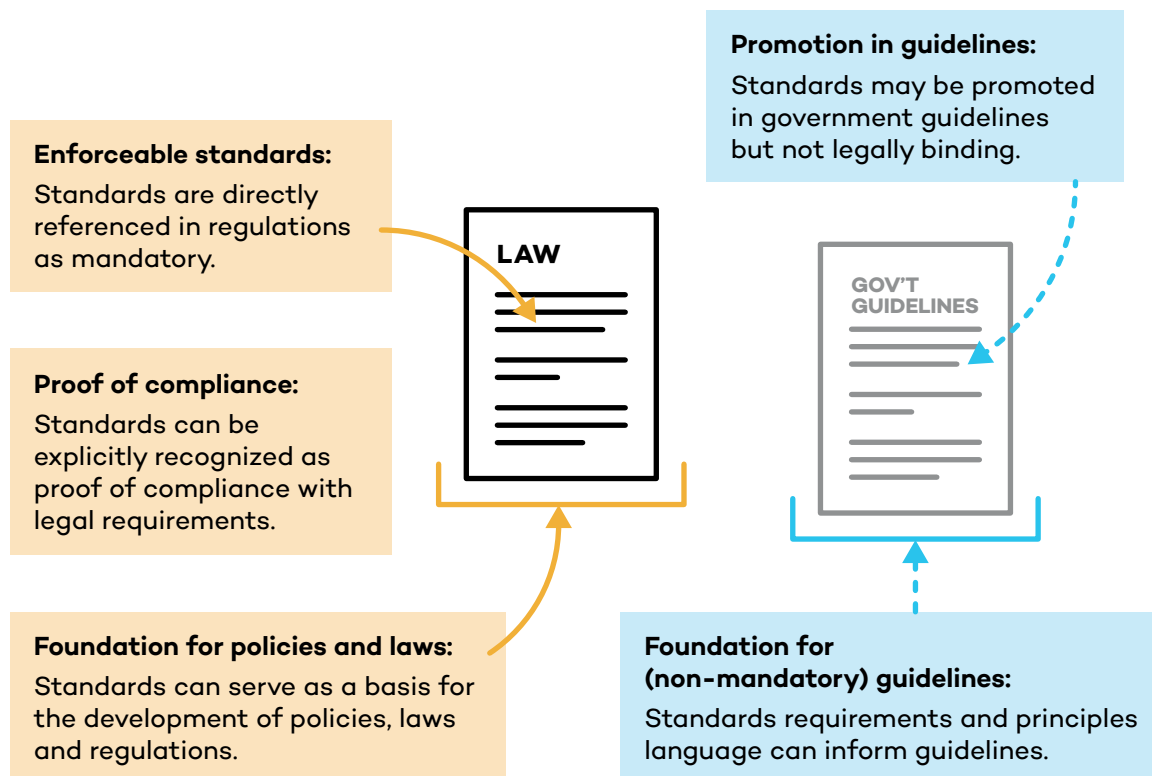
How Can Standards Complement Regulations?

It is important for policy-makers to consider the interplay between regulations and standards, as mining standards can emerge in contexts where domestic regulations are either lacking, such as in the enforcement of human rights, or expanding, for example, to comply with new environmental laws. Additionally, mining standards can complement regulations by addressing complex areas that are challenging to regulate effectively, such as effective management systems for tailings.

Policy-makers can have different uses for mining standards, from mandatory compliance with a standard to a complementary role, such as referencing them as good practice in implementing national laws. Their use operates at various levels (from most enforceable to least enforceable):

- **Enforceable Standards:** In some cases, standards are directly referenced in regulations as mandatory, making them enforceable and allowing for dynamic updates to legal requirements without the need for lengthy legislative processes.
- **Foundation for Regulations:** Standards can serve as a basis for the development of policies, laws, and regulations, providing a proven framework for responsible mining that can be adapted to national contexts.

FIGURE 1. How standards can complement regulation



Source: Author.



- **Foundation for (Non-Mandatory) Guidelines:** The language used for standards requirements and principles can inform guidelines for the mining sector on the best practices the government aims to see without making them mandatory.
- **Promotion in Guidelines:** Different standards might also be promoted in parts of government guidelines, where they are recommended to be used but not legally binding. This allows for dynamic updates of guidelines without the need to amend them.
- **Proof of Compliance:** Standards can be explicitly recognized as proof of compliance with legal requirements.

These mining standards often fill regulatory gaps, especially in regions with weaker legal frameworks or where enforcement is lacking. They encourage best practices that go beyond legal requirements, pushing for continuous improvement in mining operations. Moreover, they provide evidence of feasibility for certain practices, which can later be integrated into formal regulations.

Main Responsible Mining Standards, Voluntary Sustainability Initiatives, and Current Developments

The landscape of responsible mining standards and voluntary sustainability initiatives is constantly evolving. Several prominent initiatives are currently undergoing significant developments, which will have an impact on the future of responsible mining.

One major initiative is the **CMSI (2024)**, which brings together several existing standards that shape sustainability and responsible practices in the industry. These standards are developed by four major organizations that are also the four partners in the consolidation initiative:

- **ICMM:** The ICMM is a global industry association that brings together mining and metals companies committed to sustainable development. ICMM members are required to meet a set of Performance Expectations focused on environmental stewardship, human rights, and socio-economic development (ICMM, 2022).
- **The Copper Mark:** The Copper Mark is a voluntary assurance framework focused on the responsible production of copper and, more recently, other metals such as molybdenum, nickel, and zinc. It provides third-party certification on a range of ESG practices, emphasizing transparency, human rights, and environmental stewardship (The Copper Mark, 2024).
- **Towards Sustainable Mining (TSM):** TSM, an initiative by The Mining Association of Canada, sets standards to promote social and environmental responsibility at mine sites. Known for requiring independent verification, TSM evaluates company performance against specific criteria to ensure transparency and accountability. Originally developed for Canada, TSM has been adopted by several countries, expanding its influence on responsible mining practices worldwide (The Mining Association of Canada, 2024).



- **World Gold Council (WGC):** The WGC developed the Responsible Gold Mining Principles to promote responsible practices in gold mining. Built around environmental stewardship, ethical conduct, human rights, and transparency, the Responsible Gold Mining Principles guide companies in integrating sustainable practices across the gold value chain, from extraction to processing (WGC, 2024).

The CMSI is built on four pillars: ethical business practices, worker and social safeguards, social performance, and environmental stewardship. It aims to create a unified standard that simplifies compliance for mining companies and allows for inclusion by extending the standard reach to new companies that do not usually report on sustainability issues. Assessment and independent certification will take place at the mine-site level. The final version is not expected to be released before 2025, following public consultations.

Another important standard is the **IRMA**, which is set to release its updated Standard 2.0 by the end of 2024. The IRMA standard provides independent, third-party evaluations for large-scale mining operations at the mine-site level. It reflects a multistakeholder governance model, including the private sector, local communities, civil society, and workers. The first version of the standards was developed over 10 years with input from more than 100 companies and organizations, and it enables mining companies to immediately engage with the standard through self-assessment. The current update will include new requirements for improving environmental and social outcomes in mining operations, particularly in areas like water management, labour conditions, and community engagement (IRMA, n.d.-b).

Sustainability initiatives also include guidelines aimed at governments, such as

the **Mining Policy Framework** developed by the IGF and updated in 2023. It represents the practices required for good environmental, social, and economic governance of the mining sector, as well as the generation and equitable sharing of benefits in a manner that will contribute to sustainable development. Its thematic pillars include (i) law, policies, and institutions, (ii) financial benefits, (iii) socio-economic benefits, (iv) environmental management, (v) post-mining transition, and (vi) ASM (IGF, 2023).

At the international level, the UN Secretary-General has launched the **High-Level Panel on Critical Energy Transition Minerals** (United Nations, n.d.), which has developed seven guiding principles that emphasize key areas for responsible mineral value chains. These principles include (1) placing human rights at the forefront, (2) protecting the environment and biodiversity, (3) ensuring justice and equity, (4) fostering development through value addition and diversification, (5) promoting responsible investments, finance, and trade, and (6) ensuring good governance through transparency and anti-corruption. Lastly, (7) multilateral cooperation should be the foundation for global action. To operationalize these principles, the panel recommended five actions: (1) the establishment of a High-Level Expert Advisory Group to enhance benefit-sharing and responsible trade, (2) a global traceability framework for accountability in the mineral value chain, (3) a Global Mining Legacy Fund to address abandoned mines, (4) initiatives to empower artisanal and small-scale miners, and (5) equitable targets for material efficiency and circularity (UN Secretary-General's Panel on Critical Energy Transition Minerals, 2024).

Some standards are not directly mining-related, but either have relevant requirements for the sector or are widely applicable enough to be used by mining companies. One could mention the



IFC Performance Standards, which are mandatory for all projects seeking funding from the International Finance Corporation (IFC). These standards provide sustainability requirements that cover key areas, such as environmental protection, labour conditions, and community engagement (IFC, 2012). Even for non-IFC-funded projects, the standards are often referenced by other financial institutions or governments when allocating funds or granting licences, making them a valuable tool for guiding responsible mining practices across a range of contexts.

A non-exhaustive list of major sustainability standards is proposed as an appendix to this note. Among them, we can highlight the **Extractive Industries Transparency Initiative** (n.d.), a multistakeholder initiative focusing

on transparency as a tool to improve the governance of natural resources (oil and gas and minerals). The **Responsible Jewellery Council** (2023) sets certification standards for the jewellery supply chain, emphasizing responsible sourcing that focuses on human rights, labour standards, and environmental performance. The **ASI** (2024) establishes standards for aluminum production. In the realm of ASM, **Fairmined** (2024) certification promotes responsible gold production by improving environmental protection and labour conditions, thereby supporting local communities. Similarly, the **CRAFT Code** (n.d.) helps small-scale miners enhance their safety, environmental, and social practices, offering a structured path to formal inclusion in responsible supply chains.

Trends Affecting the Standards Landscape

One key trend is the widespread adoption of Free, Prior, and Informed Consent (FPIC), which has become a cornerstone of responsible mining. 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” (UN Human Rights, n.d.). Initially introduced as part of the IFC Performance Standards in 2012, FPIC has since become mainstream in standards expectations.

Another trend is the focus on tailings management, which has gained prominence following major disasters such as the Brumadinho dam collapse in Brazil. The Global Industry Standard on Tailings

Management, developed by ICMM, the UN Environment Programme, and Principles for Responsible Investment, has emerged as the reference framework for safe tailings management, and it has been incorporated into several other mining standards (Global Tailings Review, n.d.). This focus on safety is a reminder that regulation is often driven by catastrophic events.

The decarbonization of the mining industry is also a growing trend, with an increasing emphasis on reducing greenhouse gas emissions and aligning standards with global climate goals. As the mining sector plays a crucial role in the supply of critical minerals for renewable energy technologies, reducing its carbon footprint is becoming an industry priority.



Challenges in the Global Standards Landscape

While responsible mining standards and voluntary sustainability initiatives have brought notable benefits to the sector, their rapid development and increasing number also present significant challenges. As the global standards landscape evolves, issues such as reporting fatigue, fragmentation, and the interplay between

voluntary standards and regulations are becoming more prominent. Addressing these challenges is crucial to ensuring the continued advancement of responsible mining practices. Table 3 outlines key challenges facing the sector today and highlights their implications for both companies and policy-makers.

TABLE 3. Key challenges in the global mining standards landscape

Reporting fatigue	<ul style="list-style-type: none"> • The burden on companies to comply with multiple overlapping standards and reporting requirements • Resource implications, particularly for smaller companies • The risk of spending more time and financial resources reporting on ESG rather than acting on it
Proliferation of standards	<ul style="list-style-type: none"> • The risk of fragmentation and confusion due to the large number of standards • Difficulties in comparing and aligning different standards
Potential undermining of regulatory efforts	<ul style="list-style-type: none"> • Concerns that reliance on voluntary standards might dilute the push for stronger regulatory enforcement • The challenge of ensuring that standards are sufficiently rigorous and not seen as a substitute for regulation
Governance privatization	<ul style="list-style-type: none"> • Existing democratic deficit of self-regulation (few real multistakeholder governance standards)

Source: Author.

The Role of Standards in the Future of Mining

Mining standards play a crucial role in shaping the future of sustainable practices in the sector. As these standards evolve, they will need to be more agile, integrated, and responsive to emerging environmental and social expectations. Standards must not only guide best practices but also promote continuous improvement, enhance harmonization between them, and encourage global uptake, particularly in regions with weaker regulatory frameworks. Below are some key areas in which standards

should continue to drive progress in the mining industry.

Promotion of Continuous Improvement

Mining standards are not static—their purpose is to drive continuous improvement within the industry. As research evolves and new societal expectations emerge, standards provide flexibility for mining companies to adjust and meet higher environmental and social benchmarks.



Continuous improvement is at the core of the IFC Performance Standards, which are built on the idea of incremental performance enhancement. They are also key components of the IRMA assessment process, including providing for corrective action periods during the assessment cycle and requiring the preparation of corrective action plans (IRMA, n.d.-a). The pursuit of continual improvement is also central to ICMM requirements in relation to social or environmental performance (ICMM, 2024). This dynamic approach has allowed companies that adopt these schemes to stay ahead of regulatory changes while mitigating social and environmental risks.

These standards push companies to demonstrate gradual progress in meeting specific environmental and social goals. In the future, the ability of standards to evolve rapidly and adapt to new challenges, such as the decarbonization of mining operations or ensuring communities' agreements, such as through FPIC, will be critical to ensuring that mining contributes positively to global sustainability goals.

Integration and Harmonization: The interoperability of standards

The current proliferation of mining standards and voluntary sustainability initiatives can create confusion and reporting fatigue, particularly for smaller companies. In 2018, a report by the IGF identified 158 mining-related sustainability standards (Turley et al., 2018). Recognizing this challenge, an ISO working group (IWA45) concluded in August 2024 that there is no need for new ISO standards in the upstream and downstream segments of the minerals and metals sector, emphasizing the importance of avoiding duplication (ISO, 2024). This decision aligns with a broader trend toward interoperability among existing standards, which seeks to establish connections between different initiatives. Such interoperability is crucial for

minimizing reporting burdens and enhancing efficiency for companies navigating multiple frameworks.

Moreover, the increasing focus on harmonization is driven by stakeholders seeking to simplify compliance processes and enhance the effectiveness of sustainability initiatives. By developing clearer pathways for mutual recognition of different standards, companies can reduce the reporting overload while meeting various regulatory and stakeholder expectations. These efforts can also help standardize performance metrics, making it easier for companies to benchmark their progress against industry norms and societal expectations. A set of reporting tools such as those developed by the Global Reporting Initiative, which is widely used for ESG reporting across sectors, including mining, is central in aligning sustainability standards. Its structured approach provides consistent metrics for transparency and facilitates interoperability, helping companies meet stakeholder expectations and reduce redundancies in reporting.

The growing call for greater integration and harmonization culminates in efforts like the CMSI, which aims to combine existing standards like TSM, ICMM, WGC, and The Copper Mark into a single framework. This would help reduce overlap and simplify compliance for companies, making it easier to meet the expectations of multiple stakeholders.

By harmonizing and integrating various standards, these initiatives aim to create a more streamlined and coherent framework, enabling companies to focus more on implementation than managing the complexity of overlapping requirements. For policy-makers and actors downstream in the value chain, this also reduces the risk of regulatory misalignment, ensuring that national frameworks can build on internationally recognized standards without creating unnecessary duplication. To truly



benefit the mining sector, interoperability and harmonization efforts should be careful not to lower sustainability ambitions by defaulting to the lowest common denominator. Instead, these efforts present an opportunity to elevate industry standards, making today's leading practices the norm and setting a high bar for the sector's sustainable future.

Strengthening and Informing Legal Frameworks

Voluntary mining standards often serve as a stepping stone toward stronger, more enforceable regulations. Governments can adopt mining standards as part of their regulatory frameworks, ensuring that responsible mining practices are mandatory rather than optional. For example, Extractive Industries Transparency Initiative standards have been integrated into the legal frameworks of several countries to enforce transparency in payments from mining companies to governments. By embedding these standards into national law, countries can ensure that companies are held accountable for their environmental and social impacts.

Another example is the Global Tailings Standard, for which UN Environment Programme member countries have recognized the need for broader adoption and implementation through United Nations Environment Assembly Resolution 5/12 (2022). By incorporating the requirements of this standard into their national mining regulations, countries can ensure that robust tailings management becomes a

fundamental regulatory obligation, rather than remaining merely a voluntary initiative.

Promoting Uptake in Emerging Economies

In many developing and emerging economies, regulatory frameworks for responsible mining are still in their early stages, and associated enforcement capacity is only nascent. International standards can help bridge this gap by providing a robust framework that encourages responsible practices even in regions with weaker governance. This requires a tailored approach, recognizing both the potential benefits and the unique challenges these regions face. Rather than focusing on governance limitations, the focus should be on capacity building, knowledge sharing, and fostering local ownership of sustainability initiatives.

International organizations, such as the IGF, play a crucial role by offering technical assistance and capacity building to help emerging economies strengthen their environmental and social governance frameworks. For instance, IGF's Mining Policy Framework provides guidance to countries on how to integrate sustainable development principles into their mining regulations.

By fostering strong partnerships and supporting capacity development, the international community can help emerging economies transition toward more sustainable and responsible mining practices.



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Appendix A. A Non-Exhaustive List of Major Mining Sustainability Standards

TABLE A1. Mining-specific sustainability standards

Initiative	Organization developing the standard
Aluminium Stewardship Initiative (ASI) Performance standard	Aluminium Stewardship Initiative
Artisanal and Small-Scale Cobalt Framework	Responsible Cobalt Initiative, the Global Battery Alliance's Cobalt Action Partnership, and the Fair Cobalt Alliance
Bettercoal Code 2,0	Bettercoal
Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains	China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters
Cobalt Refiner Supply Chain Due Diligence Standard (Version 2)	Responsible Cobalt Initiative and Responsible Minerals Initiative
Copper Mark Assurance Framework	The Copper Mark
CRAFT Code	Alliance for Responsible Mining
Environmental, Social & Governance Standard	Responsible Minerals Initiative
Extractive Industries Transparency Initiative Standard	Extractive Industries Transparency Initiative
Fairmined Standard	Fairmined
Fairtrade Standard for Gold and Associated Precious Metals for Artisanal and Small-Scale Mining	Fairtrade
Global Industry Standard on Tailings Management	United Nations Environment Programme, Principles for Responsible Investment, and International Council on Mining and Metals
Global Precious Metals Code	London Bullion Market Association
Guidelines for Social Responsibility in Mining Investments	China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters
International Cyanide Management Code	The International Cyanide Management Institute
Kimberley Process	Kimberley Process Certification Scheme
Mining Principles	International Council on Mining and Metals



Initiative	Organization developing the standard
OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRAs	Organisation for Economic Co-operation and Development
Responsible Gold Mining Principles	World Gold Council
Responsible Minerals Assurance Process and Mineral Supply Chain Due Diligence	Responsible Minerals Initiative
Responsible Steel International Standard	Responsible Steel
Responsible Jewellery Council Code of Practices and Chain of Custody Standard	Responsible Jewellery Council
The International Tin Supply Chain Initiative (ITSCI)	ITSCI Joint Industry Traceability and Due Diligence Programme
The Standard for Responsible Mining V1	Initiative for Responsible Mining Assurance
Tin Code	International Tin Association - Tin Code
TN CERA 4in1 Certification System	DMT GmbH & Co. KG
Towards Sustainable Mining Standard	The Mining Association of Canada, Towards Sustainable Mining
United Nations Resource Management System	The Expert Group on Resource Management

Source: Author.

TABLE A2. General sustainability standards

Initiative	Organization developing the standard
Global Reporting Initiative	Global Reporting Initiative Standards
IFC Performance Standards on Environmental and Social Sustainability	International Finance Corporation/World Bank Group
IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information; IFRS S2 Climate-related Disclosures	International Financial Reporting Standards Foundation
Sustainability Accounting Standards Board Standards	International Sustainability Standards Board
Task Force for Nature-related Financial Disclosure	Task Force for Nature-related Financial Disclosure
Task Force on Climate-Related Financial Disclosures	Financial Stability Board

Source: Author.



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