Responsible Mining Index

DRAFT METHODOLOGY

For public comment

Deadline for comments: 24 March 2017



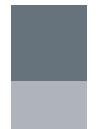
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Disclaimer: The content of this document does not necessarily reflect the personal opinions or professional positions of the RMF Advisory Council or Expert Review Committee members.



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Glossary of terms

Acid mine drainage – The outflow from a mine site of water contaminated through its exposure to sulphide-containing materials or minerals.

Artisanal and small-scale mining (ASM) – Mining activities with low levels of automation and technology and intense use of labour, on a scale below that of industrial mining, often conducted informally as a source of livelihood.

Beneficial ownership – A beneficial owner of a company is an individual who enjoys the economic benefits of the company's activities and/or exercises control over the company, for example through shares, voting rights or other means.

Due diligence – Management processes by which a company systematically identifies potential negative impacts of its decisions and activities, in order to avoid and mitigate these impacts.

Financial surety/assurance – Financial instruments used to ensure later availability of funds for a specific purpose.

Free, Prior and Informed Consent (FPIC) – The principle that specific groups (such as indigenous peoples), based on their defined rights and claims, have the right to give or withhold their consent to proposed projects that may affect them.

Grievance mechanism – A formal process through which people and groups can raise grievances and receive remedy.

Human rights defenders – People who act to protect human rights, especially those individuals whose work renders them vulnerable to harm, intimidation or discrimination.

Labour-sending area – A geographically distant area from which a mine site or other facility draws some of its work force.

Leading practice – Any business practice that has been identified as best embodying the expectations of society in a given area of interest, by virtue of its favourable comparison with other practices. Leading practice is a relative and time-bound term, as business practices continuously evolve.

Lifecycle management – Systems in place to provide a holistic approach to resource exploitation, which sees each stage of a mine's lifecycle, from exploration to post-closure, in its larger environmental, social and economic context.

Living wage – A wage sufficient to provide a decent standard of living for workers and their families.

Materiality – The risk-significance of a given issue to a company's performance.

Mine closure planning – Advance planning, throughout a mine's lifecycle, for the time following cessation of the mine's core operations, including planning for decommissioning and rehabilitation.

Mine site – All land and infrastructure assets related to a specific mineral deposit under exploration or exploitation, and the area of land occupied by the mining operation.

Mitigation hierarchy – An approach to addressing negative impacts via a hierarchy of prioritised steps that typically include, in order of priority, avoidance, minimisation and repair.

Open data – Digital data that is made available with the necessary technical and legal features (e.g. machine readability and open licence) for it to be freely used, reused, and redistributed by any user.

Operating company – The company primarily responsible for the mining activity at a particular mine site.

Post-closure – The phase of a mine's lifecycle that typically follows cessation of mining operations, decommissioning of infrastructure, and rehabilitation of land, during which management of the mine site is largely limited to monitoring residual effects on the environment and local communities.

Recourse – The ability of stakeholders affected by the activities of a mining company to raise concerns and have them addressed.

Remedy – Measures taken to counteract, compensate, or otherwise make good any negative human rights impacts or other harm that has occurred.

Responsible business conduct – Company behaviour that fulfils the expectations of society, primarily making positive contributions to sustainable development and avoiding negative impacts, while complying with legal requirements and international standards.

Responsible mining – Mining that demonstrably respects and protects the interests of people and the environment, and contributes discernibly and fairly to broad economic development of the producing country.

Salience – Importance or relevance of an issue to society in general. Salience in the context of issues such as human rights, environmental or community issues, stands in contrast to materiality as it considers importance from the perspective of people and the environment rather than importance from the perspective of businesses involved.

Tailings – Non-marketable ground rock and process effluents that are generated in a mine processing plant. The composition of tailings is directly dependent on the composition of the ore and the process of mineral extraction used on the ore.

Tailings dam – A surface structure in which slurried tailings from the mine processing plant are retained and managed. Tailings dams are generally constructed as conventional dams.



ASEAN	Association of Southeast Asian Nations	
ASM	Artisanal and small-scale mining	
СССМС	China Chamber of Commerce of Metals, Minerals & Chemicals Importers and Exporters	
CSO	Civil Society Organisation	
EMS	Environmental Management System	
ESG	Environmental, Social and Governance	
EESG	Economic, Environmental, Social and Governance	
EITI	Extractive Industries Transparency Initiative	
FPIC	Free, Prior and Informed Consent	
GHG	Greenhouse gases	
GRI	Global Reporting Initiative	
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome	
HIV/AIDS ICMM	, i	
	Immunodeficiency Syndrome	
ICMM	Immunodeficiency Syndrome International Council on Mining & Metals	
ICMM IFC	Immunodeficiency Syndrome International Council on Mining & Metals International Finance Corporation	
ICMM IFC ILO	Immunodeficiency Syndrome International Council on Mining & Metals International Finance Corporation International Labour Organization	
ICMM IFC ILO ISO	Immunodeficiency Syndrome International Council on Mining & Metals International Finance Corporation International Labour Organization International Organization for Standardization	
ICMM IFC ILO ISO M&E	Immunodeficiency Syndrome International Council on Mining & Metals International Finance Corporation International Labour Organization International Organization for Standardization Monitoring and Evaluation	
ICMM IFC ILO ISO M&E NGO	Immunodeficiency Syndrome International Council on Mining & Metals International Finance Corporation International Labour Organization International Organization for Standardization Monitoring and Evaluation Non-governmental Organisation	
ICMM IFC ILO ISO M&E NGO OECD	Immunodeficiency Syndrome International Council on Mining & Metals International Finance Corporation International Labour Organization International Organization for Standardization Monitoring and Evaluation Non-governmental Organisation Organisation for Economic Co-operation and Development	
ICMM IFC ILO ISO M&E NGO OECD RJC	Immunodeficiency Syndrome International Council on Mining & Metals International Finance Corporation International Labour Organization International Organization for Standardization Monitoring and Evaluation Non-governmental Organisation Organisation for Economic Co-operation and Development Responsible Jewellery Council	

See also page 68 for abbreviations used in Section 9.

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Introduction

Responsible Mining Index

The overarching purpose of the Responsible Mining Index (RMI) is to see the full potential of minerals and metals mining positively benefit economic development, improve the lives of people and respect the environments of producing countries, particularly in some of the world's poorest regions, while ensuring that mining companies also benefit in a fair and viable way.

With this in mind, the specific goal of the Responsible Mining Index is to encourage continuous improvement in responsible mining by transparently ranking the performance of some of the world's largest mining companies on economic, environmental, social and governance (EESG) issues, and highlighting leading practice.

The Responsible Mining Foundation (RMF) defines responsible mining as mining that demonstrably respects and protects the interests of people and the environment, and contributes discernibly and fairly to broad economic development of the producing country.

The Index will be published every two years and will rank 30 of the world's largest mining companies. Their relative performance will be scored largely at corporate level, although a limited number of indicators will focus on the performance of approximately 150 mining operations. The Index will cover a range of publicly listed, state-owned, and private companies. The emphasis will be on leading practice and learning.

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Key characteristics of the RMI approach include the following:

- RMI is a relative ranking of companies, not a benchmark, certification or standard;
- RMI complements the work of related initiatives, standards, principles and reporting mechanisms;
- RMI is centred on affirming and encouraging leading practice;
- · RMI is independently funded and impartial in its assessment of companies; and
- · As a public good, the RMI report will be freely available and support open data principles.

Public comment process

This Draft Methodology of the Responsible Mining Index (RMI) is now published for a period of public comment, which forms part of a broader consultation process that the Responsible Mining Foundation has pursued over the past year. The comments and recommendations received from both individuals and organisations will be reviewed and carefully considered in the finalisation of the RMI methodology. The outcome of this public consultation on the RMI Draft Methodology will be made public through the RMI website: www.responsibleminingindex.org.

Comments are welcomed on any aspect of the methodology including, for example, the usefulness of the indicators, the clarity of the wording of the indicators, and the coverage provided by the entire set of indicators. Recommendations are also sought on several specific issues, as outlined on page 11.

This report will also be available in French, Spanish, Russian and Chinese on the RMI website.

Please send your comments and recommendations to: *consultations@responsibleminingindex.org* by Friday, 24 March 2017, together with the name of the individual or organisation, and contact information in the event of further clarification.

Context for the Index

Why focus on the mining sector?

Mining activity influences the development of economies and has become essential for almost every business sector, contributing significantly to the GDP of many countries. As the global population increases and living standards rise, demand for mining products continues to grow, while the imperative for sustainability remains.

Although mining activities can contribute significantly to the GDP of many resourcerich countries, this mineral wealth often fails to effectively translate into broader economic development or tangible benefits for producing country populations who often continue to live in poverty. Host communities tend to bear the brunt of the environmental degradation and social and economic disruption caused by mining operations. Host communities are also at risk from human rights abuses, corruption and conflict, particularly when mining operations are in remote impoverished areas and where governance is weak.

Globally, the mining industry is paying increasing attention to these issues. Growing numbers of companies are engaging with the various industry-led and multi-stakeholder initiatives on responsible mining that have emerged in recent years. Some companies have noticeably improved their social, environmental and governance practices, and are starting to track the outcomes of their efforts to global initiatives such as the Sustainable Development Goals. Producing country governments, for their part, have more access to the tools that allow them to leverage mining to foster long-term economic development and intergenerational equity. However, there is also recognition that the mining industry as a collective can do more as major actors in, and significant beneficiaries of, the exploitation of these non-renewable resources.

The Responsible Mining Index will measure company performance against what society expects from mining companies on economic, environmental, social and governance issues, based on a range of internationally agreed practices and principles.

Why a new initiative on responsible mining?

RMI complements existing efforts to measure and improve the performance of companies in the mining sector and beyond. These related initiatives include various reporting frameworks, standards, principles, certification mechanisms and industry guidelines. In developing the methodology, various iterations mapped RMI topics and indicators to those addressed in a wide range of related initiatives, in order to ensure that RMI provides both complementarity and added-value to the ongoing global effort to make mining more responsible.

The RMI approach aims to be:

- Systems-based, covering economic, environmental, social and governance topics from a management systems perspective as well as from an issuesbased perspective;
- Transparent, with the Index methodology and results to be made publicly and freely available;
- Inclusive, covering publicly-listed, state-owned, and private companies;
- Focused on company efforts to integrate EESG considerations as part of core business activities;

- Looking at on-the-ground reality, with indicators measuring how well a company's actions and processes are implemented across its different operations; and
- Focused on the *outcomes for society* that responsible mining can achieve.

How is RMF structured and funded?

The Responsible Mining Index will be published by the Responsible Mining Foundation (RMF), an independent non-profit organisation founded in The Netherlands in 2012. To ensure its independence, RMF does not accept funding or other contributions from the mining industry. An Advisory Council and an Expert Review Committee representing a broad range of expertise help guide the overall approach and methodology of the Index.

Who will use the Index results?

Information generated by the Index will be useful to a wide range of decision-makers, interest groups, opinion-makers, and other stakeholders. The RMI report will aid decision-making and policy-making, provide shared learning, and support the social discourse around accountability and responsible mining. Figure 1 highlights some of the main stakeholder groups who will have a direct interest in the Index results.

Figure 1 Stakeholders with an interest in RMI results



Methodology development process

The RMI methodology has been developed in a structured and iterative manner, involving interactions with numerous subject-matter and methodology experts and diverse other stakeholders. As part of this process, an ongoing series of consultations with civil society and industry has helped test and shape the methodology. These consultations have enabled RMF to share information on the Index and elicit feedback from a range of stakeholders including mining-affected community members, civil society leaders, researchers, mining company representatives, multilateral organisations, regulators, investors, governments and other groups. Round-table consultations have been held in Switzerland, Côte d'Ivoire, Peru, India, South Africa and the UK, with further consultations planned during the comment period in Mongolia and Indonesia.

The methodology development process began with a feasibility study and extensive consultations, through which four broad themes – economic, environmental, social and governance (EESG) – were identified as systemically related to responsible mining. The EESG themes were used to identify a number of topics considered key to responsible mining, based on a literature review, expert advice, key stakeholder interviews, and tested through wide-ranging conversations and consultations.

The resulting topics were grouped as six Issue Areas, namely:

- · Economic Development;
- · Business Conduct;
- · Lifecycle Management;
- · Community Wellbeing;
- · Working Conditions; and
- · Environmental Responsibility.

Comprehensive profiles were developed for the complete set of topics, to set out the relevance and importance of each topic for society at large, for producing countries and communities, and for mining companies. The profiles also established the alignment of each topic with the goal of the Responsible Mining Index. The topic profiles are included in Section 9 of this report.

Each topic in the Index is covered by one or more indicators. The indicator development process posed the following questions:

- What does society at large expect from mining companies on this topic?
- How does this indicator relate to the goal of the Responsible Mining Index?
- What information is needed to measure this indicator?
- · What might the evidence look like?
- If already measured elsewhere, can an existing indicator be used?
- Can the indicator be easily measured?
- · Can the indicator be readily assessed?
- Will this indicator require a feasible amount of effort in reporting and analysing data?

While the vast majority of RMI indicators have been developed to be applied at a corporate level, five indicators have been selected for application at a mine-site level. These mine-site indicators have been identified based on criteria such as:

- Is the indicator applicable to all mine types, all commodities and all geographies?
- Is the indicator useful as a proxy indicator of wider company responsibility and wider mine-site level performance?
- Is the information provided by the indicator important to local stakeholders?
- · Is the indicator objectively verifiable?
- Does the indicator allow progress to be measured over time, with longitudinal tracking of improvement?

One or more metrics are now being developed for each indicator. As with the indicators, these metrics are selected based on a number of criteria, including for example:

- Does the metric provide a useful insight into the extent to which a company is performing against the indicator?
- Can the metric be used to identify different levels of performance among companies?
- Does the metric deal with a specific question that is not already being addressed by other metrics?
- Taken together, do the metrics offer comprehensive coverage of the indicator in question?
- Will the metric enable the tracking of improvements from one Index to the next?

Following the current public comment period, the RMI methodology will be further refined and reviewed by the RMF Expert Review Committee, prior to publication of the final methodology report.

Publication of the first Responsible Mining Index is planned for the end of 2017.

Unresolved issues

The RMI team would appreciate input and recommendations on the following areas:

- Land use. The Index addresses land-use issues through many angles, including land rights, resettlement, and land rehabilitation. It is also the intention to look at the extent to which companies are supporting productive land use in and around their mine sites, for the benefit of local communities. This could include, for example, agriculture development or renewable energy production initiatives. Strategic approaches to productive non-mining land use is an emerging practice area with relatively less established benchmarks for expected practices. One problem is the difficulty in assessing the extent to which they are strategic (i.e. related to the core business of the company and local socio-economic viability). Suggestions for a reliable and workable indicator on strategic land-based development are therefore welcomed.
- Community/rights holders ownership. Under the Business Conduct Issue Area, the Index considers the extent to which companies disclose the beneficial ownership of each of their business entities (this indicator is listed on page 25). A separate but related issue is the level of benefits created from community-level ownership in mining operations. As yet no indicator relating to community ownership has been included. Feedback is welcomed on the applicability of such an indicator across different regulatory regimes (e.g. community ownership is a legal requirement in some countries) and the extent to which the provision for community ownership is a key issue in ensuring community benefits from mining.
- Mine-site indicators. The selection of a reasonably focused set of indicators for application at mine-site level is a challenge, given the large number of indicators that could potentially be applied at this operational level, the extensive list of issues that the consultation process highlighted as important to measure at individual mine level, and the practical limitations of assessing at mine-site level. The criteria used for mine-site indicator selection (as listed above) have been important in this respect. Suggestions for changing the mix of mine-site indicators, while following these criteria, would be welcomed. The current set of mine-site indicators is listed on page 24.

Scope of RMI

Mined commodities

The potential range of mined commodities covered by RMI will encompass most minerals and metals.

Coal is included in the Index. The decision to include coal mining companies and coal mine sites in the ranking is regarded by some as controversial, given the mounting consensus to phase out coal mining due to its significant contribution to climate change and its environmental and health implications. RMF is cognisant of these impacts and recognises the necessity to minimise the use of coal as part of the transition to a low-carbon economy, and acknowledges the excellent work done by those organisations that advocate in this regard.

However, the decision to include coal mining companies and coal mines in the RMI ranking has been made on the grounds that:

- Coal mining currently accounts for a large proportion of global mining production and is expected to remain a significant sub-sector of the mining industry in the short to medium term;
- In the transition to more renewable energy, coal is important in energy production, particularly in developing countries where millions of people have no access to energy and coal is readily available; and
- The negative health, safety and environmental effects of coal mining are long-lived and continue to impact on many societies.

Excluding coal from the Index would ignore these realities. More importantly, excluding coal would prevent RMI from looking at the negative impacts of coal mining (such as acid mine drainage and coal dust) and from encouraging continuous improvement among coal mining companies to ensure that where coal is mined it is done so as responsibly as possible.

Types of mining operations

The focus of RMI is on some of the world's largest mining companies, as these major actors account for a significant proportion (approximately 25 per cent) of global mining production and are highly influential in shaping current practices in the industry as a whole. While the Index includes 30 companies, it is hoped that

the focus on these high-profile and globally dispersed companies will enable the Responsible Mining Index report to positively influence the behaviour of many more of the 6,000 or so large-scale mining companies operating around the world.

Although artisanal and small-scale mining (ASM) operations are beyond the scope of the Index, the ranking will include two indicators to look at how large-scale mining companies interact with ASM operations near their mine sites. The engagement of RMI-ranked companies with ASM operations is considered a useful indication of the companies' commitment to community wellbeing, given the importance of ASM for local livelihoods and the potential assistance that large-scale mining companies can offer to these ASM enterprises.

Selection of mining companies and mine sites

Companies

The companies to be included in the Index will be selected from among the world's largest mining companies, as measured by value of production. The company scoping process will also take into account the geographic distribution of mining operations with a preference for companies that operate in low-income and lower-middle-income countries, where responsible mining has the greatest potential for contributing significantly to poverty reduction and inclusive economic development.

Mine sites

In addition to ranking companies' corporate-level performance, RMI will to a limited extent assess company performance at a mine-site level. Approximately five mine sites will be selected for each company. The mine sites will be selected from around 85 countries that have been identified based on, among other factors:

- The *level of mining* within the country: countries with very limited mining are excluded;
- The level of per capita income: countries classified by the World Bank as low-income economies or lower-middle-income economies are included; and
- The level of *inequality*: countries that do not meet the low per capita income criterion but have high levels of inequality (as measured by the Inequalityadjusted Human Development Index) are included.

The Index will cover approximately 150 mine sites in all and will apply only five indicators at this level (see page 24 for details). The scoping process to determine the specific mine sites will entail the following considerations:

- Maximising the number of countries covered by the set of mine sites;
- Ensuring a range of mined commodities; and
- Ensuring a range of mine types (e.g. open cast and underground).

It should be noted that the selection of mine sites will, by design, not take into consideration the presence or absence of incidents, controversies or performance issues. The primary concern will be to select a set of mine sites that will provide a representative cross-section of each company's operations, and collectively represent a wide geographic distribution.

Company and mine-site scoping is still ongoing and the results will be published in the final methodology report. Selected companies will be contacted directly by the RMI team.

Complementarity to other initiatives

As a ranking of mining companies, RMI aims to complement and amplify the work of other related initiatives, in order to minimise unnecessary overlap and avoid revisions to commonly accepted terminology and phrasing. To this end RMI maintains a comprehensive mapping and tracking exercise to systematically compare the topics and indicators of RMI to those found in existing principles, guidelines, standards and other related initiatives, for ease of reference and to facilitate the reporting requirements for companies. Section 9 includes lists of a select number of related initiatives that have content with substantial similarities to RMI indicators.

These initiatives include, for example:

- UN-led initiatives such as the Sustainable Development Goals and the UN Guiding Principles on Business and Human Rights;
- reporting initiatives such as the Global Reporting Initiative;
- guidelines and standards from international organisations such as ASEAN, the IFC and the OECD;
- ISO standards; and
- industry-led initiatives such as the 10 Principles and eight position statements
 of the International Council on Mining and Metals (ICMM), the guidelines
 for social responsibility published by the China Chamber of Commerce of
 Metals, Minerals and Chemicals Importers and Exporters (CCCMC), and the
 standards of the Responsible Jewellery Council (RJC).

In addition, a broader set of related initiatives has been studied and referenced during the development of the RMI methodology. The key referenced materials are listed in **Box 1**.

BOX 1 KEY REFERENCED MATERIALS

The development of RMI methodology has involved referencing a range of related initiatives (principles, standards, guidelines, etc.), including the following:

- · Africa Mining Vision
- · ASEAN Framework for Extractive Industries Governance in ASEAN
- CCCMC (China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters) Guidelines for Social Responsibility in Outbound Mining Investment
- CDP (Carbon Disclosure Project)
- · Corporate Human Rights Benchmark
- The EITI Standard 2016
- ARM (Alliance for Responsible Mining) Fairmined Standard for Gold from Artisanal and Small-scale Mining, including associated precious metals 2.0
- · GRI Global Reporting Initiative
- ICMC (International Cyanide Management Code for the Gold Mining Industry)
- · ICMM (International Council on Mining & Metals) 10 Principles and eight position statements
- IFC (International Finance Corporation) Environmental and Social Performance Standards and Guidance Notes
- ILO (International Labour Organization) Conventions 29, 87, 98, 100, 105, 111, 138, 169, 176, 182
- IRMA (Initiative for Responsible Mining Assurance) Draft Standard for Responsible Mining
- ISO (International Organization for Standardization) 14001 Environmental Management Systems
- ISO 26000 Social Responsibility and others
- NRC (Natural Resources Charter, Second Edition)
- OECD (Organisation for Economic Co-operation and Development) Development Policy Tools: Corruption in the Extractive Value Chain
- · OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractives Sector
- OECD Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- OECD Guidelines for Multinational Enterprises
- OHSAS (Occupational Health and Safety Assessment Series) 18001
- RJC (Responsible Jewellery Council) Code of Practices
- SASB (Sustainability Accounting Standards Board) Standards for Companies
- · Sustainable Development Goals
- · Towards Sustainable Mining Sustainability toolkit of the Mining Association of Canada
- · UN Declaration on the Rights of Indigenous Peoples
- · United Nations Global Compact
- UN Guiding Principles on Business and Human Rights (and Reporting Framework)
- · Voluntary Principles on Security and Human Rights

Draft methodology

Analytical framework

The RMI analytical framework is built around Issue Areas – six broad areas of interest of RMI that together provide comprehensive coverage of the main EESG issues related to mining. These Issue Areas are:

- **Economic Development**: the contribution of mining companies to economic development at subnational, national and regional levels;
- Business Conduct: the implementation of governance and management mechanisms to support positive EESG outcomes and safeguard against negative outcomes;
- Lifecycle Management: the planning and management of company operations to ensure the integration of EESG considerations from a lifecycle perspective;
- Community Wellbeing: the company's engagement with affected communities and contribution to local social and economic wellbeing while avoiding and mitigating any negative impacts;
- Working Conditions: company efforts to ensure decent, safe and healthy working conditions; and
- Environmental Responsibility: company efforts to address the environmental risks and impacts generated by their operations, and to bring positive benefits wherever possible.

Company performance on each Issue Area is examined through three Measurement Areas that look at the following aspects: (1) the commitments companies have made; (2) the actions and management measures they have undertaken; and (3) the effectiveness of these commitments and actions in ensuring company activities maximise potential positive outcomes for the people, the environment and the economies of producing countries.

Company performance in each Issue Area is examined across all three Measurement Areas, as illustrated in **Table 1**. Companies will be ranked relative to each other, not assessed against an absolute standard. More information on the scoring methodology is given on page 20.

Table 1 Analytical framework

Issue Area	Commitment	Action	Effectiveness
Economic Development	x	х	х
Business Conduct	Х	Х	х
Lifecycle Management	Х	Х	Х
Community Wellbeing	Х	Х	х
Working Conditions	Х	Х	х
Environmental Responsibility	Х	Х	х

Measurement Areas

The three Measurement Areas essentially offer three ways of measuring the extent to which companies are actively addressing responsible mining issues, by considering the following general questions:

- **Commitment:** can companies demonstrate their commitment to support responsible mining practices (e.g. through policies, resourcing and staffing)?
- Action: are companies systematically implementing measures that will improve and maximise the potential EESG benefits and/or mitigate the negative EESG impacts of their activities?
- Effectiveness: can companies demonstrate that their activities have contributed to positive outcomes? Are there any major negative outcomes that can be attributed to the company's activities?

Commitment

This Measurement Area will look at the commitments made by companies on specific issues, as well as related efforts taken to ensure effective delivery of these commitments, including for example the setting up of accountability mechanisms. Consideration will be given not just to whether a particular commitment has been made (e.g. through a policy statement and resourcing to support this), but also to the scope of the policy (in terms of the issues it covers) and the extent to which the commitment has been formalised and integrated into the company's business processes.

Action

The action Measurement Area, which covers the majority of indicators, looks at the practical measures taken by companies to address EESG in a responsible manner. The aim here is to look not only at whether the company is implementing a number of different measures, but also the extent to which the company has integrated these processes and procedures into a systematic approach. With this in mind, many of the action indicators are structured around a management systems framework, encompassing:

- Assessment: assessment of potential impacts and the identification of measures to avoid or minimise potential negative outcomes and optimise opportunities for positive outcomes.
- Planning and implementation: the development, resourcing and implementation of plans to manage the identified impacts.
- Engagement: engagement with internal and external stakeholder groups, to enable them to access relevant information and become involved in decision-making and implementation processes.
- Response and remedy: plans and processes to remediate any harm for which the company may be responsible, including for example worker grievance mechanisms, community grievance mechanisms, and emergency response plans.
- Monitoring and evaluation: the measurement and tracking of management measures implementation, including for example setting targets and indicators, and conducting performance monitoring, audits and assessments.

By using this management systems framework, RMI aligns with other related initiatives, including the human rights due diligence process of the UN Guiding Principles on Business and Human Rights, IFC Performance Standard 1 on assessment and management of environmental and social risks and impacts, and the ISO 14001 standard for environmental management systems.

Effectiveness

Measuring the effectiveness of companies' actions in addressing EESG issues is a key part of the RMI methodology, as it is through such measurement that the Index can assess the tangible impacts that companies make on communities, workers, economies and the environment, and encourage the most effective responsible mining practices.

http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusiness
HR EN.pdf Principles 17-24

https://www.ifc.org/wps/wcm/connect/3be1a68049a78dc8b7e4f7a8c6 a8312a/ PS1_English_2012.pdf

³ http://www.iso.org/iso/iso14000

The attempt to measure effectiveness has been warmly welcomed by many stakeholders. However, while the other two Measurement Areas are relatively straightforward to measure, effectiveness poses several important challenges. Among these are difficulties in quantifying and comparing outcomes generated by companies, and in attributing outcomes to the actions of a company. On the other hand, the mining sector is increasingly considering how to measure its EESG outcomes, as evidenced for example by recent work on the contribution of mining to the Sustainable Development Goals and related efforts.⁴

It is expected that the effectiveness Measurement Area will evolve over time as companies develop more sophisticated methods for measuring outcomes. At this stage, the measurement of a company's effectiveness will be based on assessing EESG outcomes – both positive and negative – generated in each Issue Area.

RMI will use a variety of data sources to assess companies' effectiveness in the respective Issue Areas. In addition to any information provided by the companies themselves, these sources will include a comprehensive database of news stories and public reports covering EESG issues in the mining industry, credible community and stakeholder feedback on company performance, and other public sources. To the degree that the methodology will consider controversies, they will only be taken into account if they meet the following criteria:

- There is verifiable evidence of negative EESG outcomes; and
- · Impacts are attributable to company activities.

Topics, indicators and metrics

Each Issue Area is organised into a number of topics that are considered priority areas of focus for RMI. The topics have been identified based on extensive consultations with stakeholders and experts and reflect a general consensus on the most salient issues relating to responsible mining. **Table 2** presents the list of RMI topics.

In addition, several transversal issues have been identified as requiring integration across a number of Issue Areas. These issues, such as gender and human rights, are addressed through a number of different indicators in several Issue Areas.

Mine-site indicators
will enable RMI to
shine a spotlight
on how companies
are tackling some
of the most
important issues
for local people, local
environments, and
local economies

Table 2 List of topics included in the Index

A. Economic Development

- A.1 Subnational, National and Regional Socio-Economic Development Planning
- A.2 Procurement and Employment
- A.3 Institutional Capacity Building
- A.4 Enhancing the Skills Base

B. Business Conduct

- **B.1 Business Ethics**
- B.2 Board Level and Senior Management Accountability
- **B.3 Contracts Disclosure**
- B.4 Beneficial Ownership
- B.5 Tax Transparency
- **B.6 Payments to Producing Countries**
- B.7 Lobbying Practices and Political Contribution
- **B.8 Bribery and Corruption**
- B.9 Responsible Contracting and Sourcing

Columbia Center on Sustainable Investment, Sustainable Development Solutions Network, United Nations Development Programme, and World Economic Forum (2016). Mapping Mining to the SDGs: An Atlas. World Economic Forum, Geneva Switzerland.

C. Lifecycle Management

- C.1 Mine Lifecycle Management
- C.2 Project Approval Process
- C.3 Community Viability Post-Mine Closure
- C.4 Mergers, Acquisition, and Disposal Due Diligence

D. Community Wellbeing

- D.1 Community and Stakeholder Engagement
- D.2 Economic and Social Viability
- D.3 Community Health
- D.4 Gender Equity
- D.5 Indigenous Peoples
- D.6 Free, Prior and Informed Consent
- D.7 Land Rights, Resettlement and Remedy
- D.8 Artisanal and Small-Scale Mining
- D.9 Human Rights
- D.10 Security
- D.11 Grievance and Remedy

E. Working Conditions

- E.1 Living Wage
- E.2 Occupational Health and Safety
- E.3 Collective Bargaining and Freedom of Association
- E.4 Worker Recourse
- E.5 Non-Discrimination and Equal Opportunity
- E.6 Elimination of Forced Labour and Child Labour

F. Environmental Responsibility

- F.1 Environmental Stewardship
- F.2 Tailings Management
- F.3 Air
- F.4 Water
- F.5 Noise and Vibration
- F.6 Biodiversity
- F.7 GHG Emissions and Energy Efficiency
- F.8 Hazardous Materials Management
- F.9 Emergency Preparedness

Company performance on each of these topics is measured through a set of 75 indicators (presented in Sections 8 and 9).

The indicators have been tested through several iterations with experts and various stakeholder groups. Each topic has one or more indicators, which have been selected as the most incisive means of measuring company efforts on the topic in question.

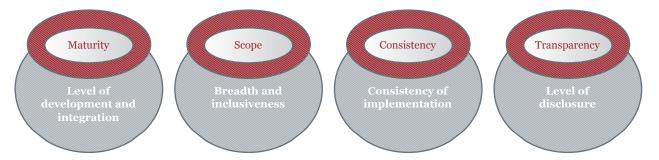
Most of the RMI indicators apply to company-wide policies or practice, i.e. they relate to the behaviour across the company as a whole. At the same time, five of the 75 indicators have been selected to be applied at a mine-site level, to provide information disaggregated to the level of individual mining operations. The inclusion of these mine-site indicators will enable RMI to shine a spotlight on how companies are tackling some of the most important issues for local people, local environments, and local economies. These indicators will also serve as points of verification to test how consistently companies are applying their policies and practices throughout their operations.

Metric Types

Each indicator will be assigned one or more metrics – specific questions, the answers to which will provide the basis for scoring. Metrics have been classified into four Metric Types, in order to provide a structured manner through which to assess company performance. The four Metric Types, illustrated in **Figure 2** are:

- Maturity: this Metric Type looks at the depth of maturity of a company's commitments or actions, including the extent to which these have been formalised and embedded in wider business processes and strategy.
- Scope: this Metric Type looks at the scope of coverage of a company's commitment or action, and the extent to which they are inclusive of different stakeholder interests such as gender and indigenous peoples' issues.
- Consistency: this Metric Type looks at how consistently measures are implemented throughout the company and across its mine sites.
- Transparency: this Metric Type looks at the level of disclosure provided by a company in relation to its commitments, actions and performance.

Figure 2 Metric types used in assessing company performance



Scoring, weighting and aggregation

Scoring will be based on data on company activities within a two-year period prior to the assessment. Scoring will be based on a range of performance, for both company-wide and mine-site indicators and metrics.

An overall score will be compiled for each Issue Area. Issue Areas will be weighted according to a range of factors in order to provide the overall aggregated company score. Company scores will then be used as the basis for the Index ranking. The assessment criteria used in determining these weightings include, for example:

Direct positive impact at the mine-site level:
 the extent to which the topics directly relate to
 the improvement of ethical behaviour, economic
 development, community wellbeing and
 environmental conditions around the mine.

- Multiplier effect: the potential for the topics to generate a larger change in terms of sustainable development for the producing countries.
- Intergenerational impact: the extent to which the topics will generate long-term impacts for future generations.

Accounting for exceptions

In general, RMI indicators have been designed to be relevant for, and applicable to, all large-scale mining companies, in order to ensure fair and comparable scoring of companies. At the same time, a small number of indicators, covering issues considered critical to the focus of RMI, will not be relevant in all contexts. These indicators include for example those relating to indigenous peoples and ASM. In these cases, scoring and weighting will take into account this variability. Essentially, companies to which these indicators do not apply will not be marked down.

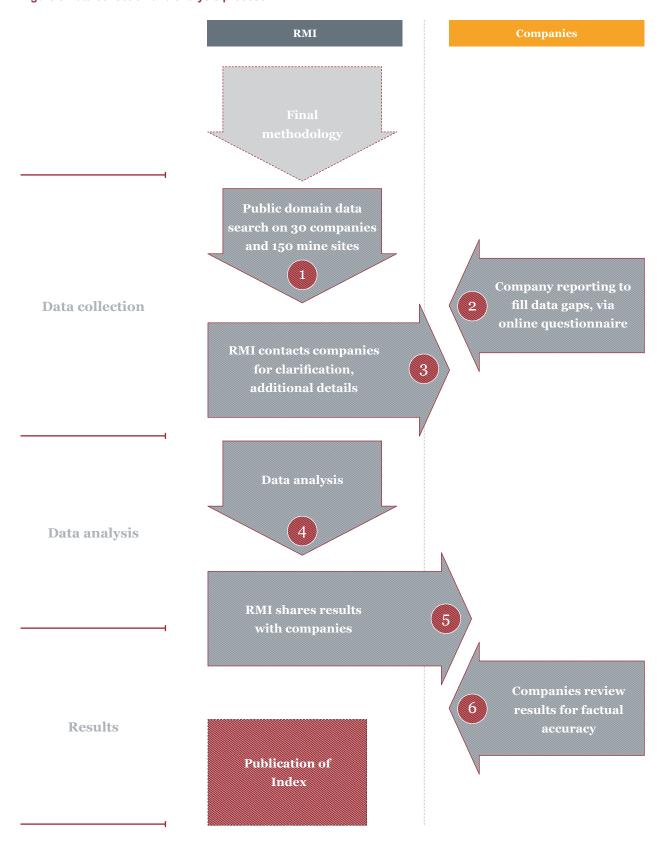
Data collection and analysis process

Following finalisation of the RMI methodology, data collection and analysis for the first RMI Index will commence. The general process that has been developed for implementing these activities is set out in **Figure 3**. The main steps involved include the following:

- Public domain data search. Data analysts undertake a search of public domain data sources on the 30 companies and 150 mine sites included in the Index and pre-populate the questionnaire that will later be sent to companies, with data relating directly to the metrics.
- 2. Company reporting. Companies are sent a personalised questionnaire, via a secure online platform, which includes: (1) specific questions (metrics) with basic guidelines on the kinds of evidence that would be considered relevant for each one; (2) pre-filled fields showing any data that have already been collected on each metric; and (3) any additional comments or questions from the data analysts relating to specific data gaps. Companies complete the questionnaire within a designated time frame.
- Review and finalisation of data. RMI reviews the responses of companies and where necessary contacts companies directly for any clarification or additional details.
- 4. **Data analysis.** On the basis of all data collected from company reporting and/ or public domain search, analysts assign scores for each metric and apply the weighting and aggregation algorithms to arrive at final scores for each company.
- 5. **Company review.** Prior to publication, companies review the results for factual accuracy and completeness.
- 6. **Publication of the Index.** RMI publishes the Index and the findings on each company's and mine site's performance.

For transparency purposes all information collected in the public domain and information provided to RMI by companies will be considered as public domain data.

Figure 3 Data collection and analysis process



Summary version: indicators

The complete set of 75 RMI indicators is listed in **Table 3**. The indicators are also presented in Section 9 together with full descriptions of the topics.

Company-wide indicators

Most of the company-wide indicators will look at the extent to which a company's commitments or actions on responsible mining are being implemented across its entire set of operations and throughout its business structure. A more limited number of company-wide indicators, largely within the Business Conduct Issue Area, will look specifically at headquarters-level performance.

Mine-site indicators

While the majority of RMI indicators will be applied at company level, five of the 75 indicators will be applied at mine-site level in order to assess on-the-ground performance of the 30 ranked companies. A total of 150 mine sites will be selected (approximately five per company) and the specific results obtained for each mine site will be included in the Index report.

The five mine-site indicators, presented on the following page, have been selected on the basis of a number of criteria (as outlined on page 11), with a strong focus given to identifying indicators that will address some of the mining-related EESG issues of highest importance to local stakeholders. In addition, this set of local-level indicators has been developed to touch on the main elements of a management systems approach (discussed on page 17), in order to test company performance across these different areas. These management system elements, and examples of the mine-site indicators which relate to them, include:

- Assessment: e.g. the indicator on assessments of impacts;
- · Planning and implementation: e.g. the indicator on local employment;
- Engagement: e.g. the indicator on engagement in emergency preparedness;
- Response and remedy: e.g. the indicator on grievance; and
- Monitoring and evaluation: e.g. the indicator on water quality monitoring.

Mine-site indicators

- MS 1: Assessments of impacts: The operating company
 actively and inclusively engages affected communities in regular
 assessments of its impacts and in sharing the results, throughout
 the life of the mine.
- MS 2: Local employment: The operating company has measures in place to support local employment opportunities, particularly for women and youth.
- MS 3: Grievance: The operating company can demonstrate implementation of a grievance mechanism and claimants' effective access to remedy.
- MS 4: Water: The operating company actively and inclusively engages local communities in decisions on water management and in implementing and sharing the results of water quality monitoring activities.
- MS 5: Emergency preparedness: The operating company engages local authorities, workers and communities in developing, communicating and testing its emergency preparedness and response plans.

Table 3 List of indicators

A. | Economic Development

A.1 Subnational, National and Regional Socio-Economic Development Planning

A.1.1

The company considers how its mining-related investments and business decisions (including those related to infrastructure, accommodation and influx management) contribute to subnational, national and regional socio-economic development, and aligns these with government planning processes.

A.2 Procurement

A.2.1

The company has measures in place to ensure equitable access to procurement opportunities, at subnational, national and regional levels.

A.3 Institutional Capacity Building

A.3.1

The company supports institutional capacity building, at subnational, national and regional levels.

A.3.2

The company supports capacity building on socio-economic research and development at subnational, national and regional levels.

A.4 Enhancing the Skills Base

A.4.1

The company has systems in place to support skills development and skills transfer, especially at technical, and mid and upper management level, in producing countries.

B. | Business Conduct

B.1 Business Ethics

- **B.1.1** The company promotes cross-departmental adherence to business ethics.
- **B.1.2** The company has a whistle-blowing mechanism in place for reporting concerns about unethical behaviour.

B.2 Board Level and Senior Management Accountability

- **B.2.1** The company holds individual board directors and senior managers accountable for responsible business conduct and environmental and social performance.
- **B.2.2** The company demonstrates respect for diversity and inclusivity by including a range of gender, expertise and stakeholder interests on its board and in its senior management.

B.3 Contracts Disclosure

B.3.1

The company publicly discloses all contracts, licences and agreements that grant it access to the extraction of mineral resources and associated projects.

B.4 Beneficial Ownership

B.4.1

The company publicly discloses the beneficial ownership of each entity within the company that bids for, operates or invests in extracting mineral resources.

B.5 Tax Transparency

- **B.5.1** The company practices tax transparency in all its tax jurisdictions.
- **B.5.2** The company publicly discloses all tax benefits and tax holidays it receives from local and national governments.

B.6 Payments to Producing Countries

B.6.1

The company publicly discloses all the payments that it makes to subnational and national governments, providing disaggregated data on a project-level basis.

B.7 Lobbying Practices and Political Contribution

- **B.7.1** The company publicly discloses its lobbying practices and positions.
- **B.7.2** The company publicly discloses its direct and indirect political contributions.

B.8 Bribery and Corruption

B.8.1 The company demonstrates commitment to prevent all direct and indirect forms of bribery and corruption, and it has systems in place to achieve this objective.

B.9 Responsible Contracting and Sourcing

B.9.1 The company incorporates requirements for responsible environmental, social, human rights and governance practices into formal agreements with contractors, subcontractors, suppliers and business partners, and has systems in place to ensure adherence.

C. | Lifecycle Management

C.1 Mine Lifecycle Management

- C.1.1 The company commits to adopt a lifecycle approach that integrates mine closure throughout project development and operations.
- C.1.2 The company provides financial surety for mine closure and post-closure liabilities. It publicly discloses corresponding arrangements, ensuring that these arrangements are perpetually accessible to communities.

C.2 Project Approval Process

C.2.1 The company integrates economic, environmental, social and governance factors into the stage-gating process at investment committee level.

C.3 Post-Closure Community Viability

- C.3.1 The company plans for land rehabilitation and post-mining land-use opportunities.
- C.3.2 The company designs and plans operations to ensure the transition and continued viability of livelihoods and company-funded shared infrastructure, both around the mine and in labour sending areas, where applicable.

C.4 Mergers, Acquisition and Disposal Due Diligence

C.4.1 The company performs due diligence on mergers, acquisitions and disposals, evaluating both historical and future development, to ensure environmentally and socially responsible conduct.

D. | Community Wellbeing

D.1 Community and Stakeholder Engagement

- D.1.1 The company has management systems in place to facilitate ongoing and inclusive stakeholder engagement activities and to enable participation of affected communities and rights holders, including women and youth.
- The operating company actively and inclusively engages affected communities in regular assessments of its impacts and in sharing the results, throughout the life of the mine.

D.2 Economic and Social Viability

- **D.2.1** The company conducts regular and ongoing social impact assessments to identify baseline conditions and changes, assess positive and negative impacts and identify measures to manage these impacts.
- **D.2.2** The company has measures in place to support local business development, and encourages entrepreneurship, particularly for women and youth.

- D.2.3 The company facilitates the participation of women and youth in the design, implementation, monitoring, evaluation, and reporting of measures to manage social impacts, including community development projects.
- D.2.4 The company publicly discloses its local development agreements and benefit sharing agreements.
- MS 2 The operating company has measures in place to support local employment opportunities, particularly for women and youth.

D.3 Community Health

- D.3.1 The company has systems in place to implement and document integrated community health and safety assessments and management plans.
- D.3.2 The company develops and implements policies, business practices and targeted initiatives to mitigate the impact of high-burden diseases such as HIV, Tuberculosis, Malaria and others that are applicable in the context of its operations.

D.4 Gender Equity

D.4.1 The company acts on the results of regular assessments of the impacts of its activities on women.

D.5 Indigenous Peoples

- D.5.1 The company identifies all indigenous peoples' groups located near current and potential mines and associated facilities, including those in potential areas to be affected by the mining operation (e.g. mine tailings dams). It identifies their particular rights, interests and needs through inclusive meaningful participation.
- D.5.2 The company implements a plan to address the particular rights, interests and needs of indigenous peoples' groups through inclusive meaningful participation.

D.6 Free, Prior and Informed Consent

D.6.1 The company supports the principle of free prior and informed consent (FPIC) through its policies and implementation guidelines.

D.7 Land Rights, Resettlement and Remedy

- D.7.1 The company has management systems in place, including assessment and planning, for avoiding, minimising and addressing the impacts of the physical and/or economic displacement of project-affected people.
- D.7.2 The company engages project-affected people, including women and youth, in land rights and resettlement decision-making and implementation, and evaluates the extent to which livelihoods, livelihood security and living standards have been improved or restored.

D.8 Artisanal and Small-Scale Mining

- D.8.1 Where applicable, the company establishes formal engagement agreements with artisanal and small-scale mining (ASM) communities and operations in and around mines to regulate the relationship between itself and ASM.
- **D.8.2** Where applicable, the company assesses and enables technical assistance programmes and/or alternate livelihood opportunities for ASM miners to encourage economic viability.

D.9 Human Rights

- D.9.1 The company seeks to enhance community wellbeing and to respect human rights, for example through alignment with the UN Guiding Principles on Business and Human Rights.
- D.9.2 The company publicly reports on human rights management and performance, in line with the UN Guiding Principles on Business and Human Rights.
- D.9.3 The company records and publicly reports, including to appropriate producing country government authorities, any credible incidents of human rights violations and any identified risks for human rights defenders in its areas of operation.

D.10 Security

- D.10.1 The company takes measures to minimise the risk of human rights abuses linked to its security management, in line with the Voluntary Principles on Security and Human Rights.
- **D.10.2** When operating in conflict-affected and high-risk areas, the company has specific systems in place for managing security risks for workers and communities.

D.11 Grievance and Remedy

- **D.11.1** The company has formal community grievance mechanisms in place for affected stakeholders to raise concerns in an easily accessible manner and have them addressed.
- **D.11.2** The company monitors and publicly reports on the effectiveness of the operational-level grievance and remedy mechanisms.
- MS 3 The operating company can demonstrate implementation of a grievance mechanism and claimants' effective access to remedy.

E. | Working Conditions

E.1 Living Wage

E.1.1 The company pays wages that meet or exceed verified living wage standards.

E.2 Occupational Health and Safety

- **E.2.1** The company commits to promote safe and healthy working conditions.
- E.2.2 The company has management systems in place which ensure a safe and healthy working environment for employees and contractors.
- E.2.3 The company regularly trains and tests its employees in good health and safety practices.
- E.2.4 The company provides for health and safety measures specific to women workers.

E.3 Collective Bargaining and Freedom of Association

E.3.1 The company respects the rights of workers to freedom of association and collective bargaining.

E.4 Worker Recourse

E.4.1 The company has formal grievance mechanisms in place for workers (and their organisations, where they exist) to raise workplace concerns in an easily accessible manner and have them addressed.

E.5 Non-Discrimination and Equal Opportunity

E.5.1 The company bases employment relationships on the principles of equal opportunity, and actively prevents all forms of discrimination in the workplace.

E.6 Elimination of Forced Labour and Child Labour

E.6.1 The company works to prevent all forms of forced, compulsory, trafficked and child labour at its mine sites and in its supply chains.

F. | Environmental Responsibility

F.1 Environmental Stewardship

F.1.1 The company has management systems in place to conduct assessments of environmental impacts through an integrated approach, and to disclose them.

F.1.2 The company has systems in place for monitoring, evaluating and reporting on the management of the environmental impacts of its operations.

F.2 Tailings Management

- **F.2.1** The company has systems in place for tailings management, including regular internal and external review and assurance processes.
- F.2.2 The company designs its tailings, waste and process facilities to prevent seepage and tailings dam failure and to protect the environment and communities from contamination and other impacts, including through the management of risks associated with potential changes.

F.3 Air

F.3.1 The company publishes mine-site level air quality monitoring data in a timely manner.

F.4 Water

- **F.4.1** The company implements a water management system that reflects its commitment and accountability to the rights and needs of the affected area, including the environment, communities, farmers, and water-dependent industries.
- F.4.2 The company publishes mine-site level water quality monitoring data in a timely manner.
- MS 4 The operating company actively and inclusively engages local communities in decisions on water management and in implementing and sharing the results of water quality monitoring activities.

F.5 Noise and Vibration

F.5.1 The company has systems in place to limit the impacts of noise and vibration on communities, properties, and wildlife.

F.6 Biodiversity

F.6.1 The company applies a mitigation hierarchy approach for biodiversity management.

F.7 GHG Emissions and Energy Efficiency

- F.7.1 The company monitors and minimises GHG emissions generated by its activities.
- **F.7.2** The company monitors and improves energy efficiency throughout its operations.

F.8 Hazardous Materials Management

F.8.1 The company systematically identifies and manages potential risks linked to the handling, storage, emission and disposal of hazardous materials.

F.9 Emergency Preparedness

- **F.9.1** The company has systems in place for developing and maintaining emergency preparedness and response plans.
- F.9.2 The company engages local authorities, workers and communities in developing, communicating and testing emergency preparedness and response plans throughout its operations.
- F.9.3 The company makes public all relevant information about financial assurance that is provided for disaster management and recovery.
- MS 5 The operating company engages local authorities, workers and communities in developing, communicating and testing its emergency preparedness and response plans.

Full version: indicators and context

This section lists the full set of 75 RMI indicators and presents full descriptions of the topics to which they relate. The listing also presents a selection of the results of the mapping exercise (described on page 14), showing some examples of the related initiatives that have content with substantial similarities to each indicator. The abbreviations of these initiatives are explained on page 68. The mine-site indicators are coded with prefix MS. The references for the topic descriptions are provided in Section 10.

The information in this section is displayed in the format as shown below.

Issue Area

Issue description

Topic title

Indicator code

Indicator description

(Related initiatives with similar content)

Topic description

A. | Economic Development

Large-scale mining projects bring with them the promise of significant broad-based and long-term economic and social benefits. Often, however, the promise is not fully realised. Instead, producing countries and communities find themselves overly dependent on temporary jobs and mineral revenues, with few long-term economic prospects.

While economic development is primarily the responsibility of producing country governments, mining companies can actively promote and facilitate sustainable economic outcomes for producing countries and affected communities in ways that are aligned with the UN Sustainable Development Goals (SDG). For example, the mining industry can contribute to the goal of ending poverty (SDG 1) through procurement strategies that build local capacity to provide goods, consumables and services beyond the mine (See A.2); by facilitating the development and transfer of skills and technologies to other sectors (See A.3 and A.4); and strengthening the capacity of producing country institutions to manage mineral resources and tax revenues so that the economic benefits of mineral development are widely shared and sustained (See A.3, B.5 and B.6).

Mining companies can also broaden economic opportunities by leveraging mine infrastructure to spur local and national growth (See **A.1**), which not only contributes to SDG1, but also promotes the building of resilient infrastructure, sustainable industrialisation and innovation (SDG 9).

Through collaboration with producing country stakeholders and strategic investments in economic, institutional and human capacity building, mining companies can develop mineral resources in a manner that alleviates poverty and promotes sustainable economic growth and social development.

A.1 Subnational, National and Regional Socio-Economic Development Planning

A.1.1

The company considers how its mining-related investments and business decisions (including those related to infrastructure, accommodation and influx management) contribute to subnational, national and regional socio-economic development, and aligns these with government planning processes.

(GRI G4-EC7; G4-EC8. IFC PS 1, 11)

In all countries, transport, water, energy, information and communications technology infrastructure are necessary for sustainable development and the maintenance of vibrant and resilient societies. However, in many developing countries infrastructure needs are vast, and out of reach for many citizens. In some regions there also may be little or no appropriate infrastructure (e.g. port, road or rail facilities, energy, water) in place to support a mine, resulting in reduced productivity and competitiveness of the operation.

Infrastructure development related to large mining projects provides a unique opportunity for developing countries to address weaknesses in their infrastructure sector, and for mineral infrastructures to be shared, leveraged and optimised for sustainable economic development. Infrastructure can be an important driver to 'dis-enclave' mining communities, and facilitate linkages that can support different types of local economic activities.

If not well planned and managed, however, the potential benefits from the development of a mine and associated infrastructure may not be realised, and may actually have negative impacts such as increasing environmental degradation, conflict and poverty.

The strategic development of shared infrastructure and collaborative planning on matters like potential in-migration (influx) can provide a win-win situation that enables a new mining project to efficiently and affordably move its product to market. High costs and capital exposure risks can be managed by partnering with governments and other stakeholders, while also enabling producing countries to maximise subnational, national and regional benefits of that infrastructure (e.g. to create new industrial hubs or corridors, better connect markets and improve the movement of goods, services, and people).

When mines are developed in a manner that harmonises with subnational, national or regional interests the contributions of the mining industry have the potential to be transformative by attracting and stimulating trade and investment, business development, and maximising the potential of other economic sectors.

A.2 Procurement

A.2.1 The company has measures in place to ensure equitable access to procurement opportunities, at subnational, national and regional levels.

(GRI G4-EC9. ISO 26000, 6.4.3.2; 6.8.7.2; 6.8.9.2. CCCMC 2.3.3; 2.8.9)

The development of a large-scale mine has the potential to contribute significant revenues and economic diversification opportunities in producing countries through mining company expenditures on supplies and services and procurement contracts. Often, however, a large share of the value of goods and services used by mining projects are imported. The requirement for highly technical or specialised inputs, difficulties in accessing finance, lack of relevant skills, and short lead-times are all factors that can constrain subnational, national or regional suppliers from meeting a mining project's needs.

Several countries have put regulations in place that require or incentivise companies to prioritise the use of local products, businesses, services and workers. Where no regulations exist, some mining companies are voluntarily creating procurement targets and initiatives to support subnational, national or regional suppliers, including by placing obligations on their own contractors to source 'locally'.

Initiatives such as building capacity within subnational, national or regional suppliers to meet a company's standards and specifications can take significant lead time, so companies should assess their procurement needs early in the project planning stage, and identify procurement opportunities for the various stages of mine development. Responsible procurement strategies can best be optimised when there is extensive collaboration between government, local communities and mining companies to develop approaches that align with local and national economic and social needs.

The benefits of enhancing procurement opportunities at the subnational, national or regional level are myriad. Prioritising local procurement and fostering related research and development (See **A.3**) can help build stronger economies though the creation of jobs, tax revenues, skills and technological capacities that not only benefit local communities, but also reach well beyond the mine. Also, by supporting new and established suppliers to meet high labour, environmental and social standards mining companies can strengthen the potential for local suppliers to diffuse their products and services beyond the mining sector, into regional or global supply chains.

Mining companies also realise strategic benefits from advancing the development of subnational, national and regional procurement such as reducing production costs, logistic costs and delivery times, facilitating secure access to critical goods and services, reducing the environmental footprint of their sourcing practices, and strengthening their social licence to operate.

A.3 Institutional Capacity Building

A.3.1 The company supports institutional capacity building, at subnational, national and regional levels.

(SDGs 16; 16.a. CCCMC 2.1.4)

A.3.2 The company supports capacity building on socio-economic research and development at subnational, national and regional levels.

(OECD MNE VIII.1)

Many mining companies are engaged in partnerships with governments and other stakeholders to help increase the ability of producing country and regional governments to better manage resource revenues and develop economic opportunities. By taking a collaborative approach in assessing needs and developing institutional capacities, companies can be more strategic with their investments, and avoid costly and time-consuming efforts that fail to create long-term value for the company or producing countries.

General efforts related to institutional capacity building may include strengthening policy development, providing adequate training and incentives to foster and retain skilled staff, and increasing managerial and oversight capabilities of government agencies, legislators and mining industry stakeholders.

More specifically, building capacity within subnational and national governments to develop fair tax structures, efficiently collect taxes, detect corruption or fraud, and manage tax revenues from extractives industries is an area of support that can greatly benefit many producing countries.

Also of paramount importance is the support of in-country research and development (R&D) programmes to foster socio-economic practices that are tailored to the needs and realities of the producing country but also have potential to be applied elsewhere.

The value of contributing to institutional and economic development in producing countries and affected communities is well understood by mining companies: strengthening institutional capacity can create more predictable tax and regulatory environments, building economic capacity in a country or region makes it more attractive to investment, and fostering innovation enables companies to be more competitive. Mining companies in turn benefit from interacting with more competent local government and communities, and doing business in a more effective, professional and predictable regulatory environment.

A.4 Enhancing the Skills Base

A.4.1 The company has systems in place to support skills development and skills transfer, especially at technical, and mid and upper management level, in producing countries.

(OECD MNE II.4. GRI G4-LA10; G4-LA11. CCCMC 2.5.7; 2.8.8)

Mining developments create the potential for economic and social benefits through the creation of procurement opportunities (See **A.2**), as well as employment opportunities. How a mining company responds to the short- and long-term skills needs of a project can have a significant impact on the skills base and employment levels in producing countries. If a company is over-reliant on imported labour, expertise and goods, skills are not transferred to the local population and there is little opportunity to enhance the national skills base or the development of a sustainable economy.

Most mining companies invest in employee training programmes to ensure the efficient running of their organisations and operations. Companies also develop 'upskilling' training, apprenticeship, mentoring and leadership programmes to help foster career advancement opportunities. A focus on mining skills development creates a local workforce to serve a company's mining operation, which helps companies meet producing country local employment expectations or targets, and reduces costs associated with expatriate transfers. Educating and training workers can also result in greater worker productivity, and reduce the potential for community conflicts that may arise if a mine is overly reliant on foreign labour, especially for higher paying jobs.

Increasingly, governments and companies are looking at how the mining industry can expand its efforts in relation to skills that are applicable or transferable to other sectors of the economy. For example, by mentoring or training mine suppliers and contractors (See A.2 and B.9) as well as supporting enterprises unrelated to mining, companies can foster the development of local and national businesses that reach far beyond the mine site. Mining companies can also help deepen the level of expertise in fields such as process control, construction and materials handling, which can be used in a wide number of economic sectors other than mining; and promote the development of highly transferable skills such as communications or competencies related to management and supervision.

Provision of skills training and support in a broad range of areas, including but not limited to those related to mining, helps companies foster a larger talent pool from which they can draw, while helping to positively integrate themselves at a national and regional level.

B. | Business Conduct

Mining companies, like other global businesses, are answerable to their owners and shareholders. They are also increasingly being held to account by stakeholders and the global marketplace, which expect companies to apply ethical business practices and sound systems of corporate governance and transparency to their operations. In response to this demand some mining companies have made commitments to more responsibly manage the economic, environmental, social and governance (EESG) aspects of their operations.

Just as a mining company's economic development efforts can contribute to the achievement of the UN's Sustainable Development Goals (SDG) (See Section A), responsible business conduct by mining companies can help producing countries progress toward these goals. For example, transparency of mining business practices, especially in countries with weak governance or corruption, not only helps to showcase a company's good practices, but also can contribute to greater producing-country accountability (SDG 16) and a higher potential for mineral wealth to reduce poverty (SDG 1) and provide benefits to the whole population.

Conducting businesses with integrity also enables companies to respect human rights, workers and the environment; protect against corruption; and create value for producing countries and affected communities affected by mining activities, all of which are important concepts within the SDG.

B.1 Business Ethics

B.1.1 The company promotes cross-departmental adherence to business ethics.

(ISO 26000, 4.4. OECD MNE III.5. CCCMC 1.7)

B.1.2 The company has a whistle-blowing mechanism in place for reporting concerns about unethical behaviour.

(ISO 26000, 6.6.3.2. CCCMC 2.2.2)

Business ethics is the application of ethical values to the conduct of a company or individuals within that company. The set of ethical values adopted by a company is discretionary, but often includes values such as: integrity, fairness, honesty, trustworthiness, freedom, respect and openness. These values can then be applied to relevant economic, environmental, social and governance (EESG) issues such as conflicts of interest; gifts and hospitality; political donations and lobbying; bribery and corruption; data privacy; use of social media; diversity; human rights; and treatment of or interactions with workers, communities and the environment.

Often, a company's values are laid out in codes of ethics or conduct (or similar documents), which outline the company's commitment to a particular ethical standard, and the expected behaviour of its governing bodies, employees, and even business partners. While boilerplate corporate codes of conduct are available, a company is more likely to be successful at conducting its business ethically if it develops a company-specific code that reflects a shared statement of purpose and values agreed between the organisation, its leaders and employees.

Additionally, ethical conduct is more likely to be achieved if: values are embedded in the company's culture and operations; expected behaviour is clearly communicated to all employees, relevant business partners and stakeholders; there are sanctions for breaches of conduct, but also incentives for achieving high ethical conduct; and monitoring mechanisms are in place to understand the extent to which the company is living up to its stated values. Reporting to employees and stakeholders is also important, to promote learning and accountability at all levels of the company, and provide a means to demonstrate that commitments made at the corporate level are being carried out at the mine operational level.

Companies should also have mechanisms in place that enable individuals from within or external to the company to raise concerns about unethical or unlawful conduct, including whistle-blowing or similar procedures for confidential reporting without fear of retaliation. Creating a culture of openness, where employees have the confidence to speak out about issues that concern them (and where protection is provided to those who speak out), is more likely to result in the early identification and prevention of unacceptable behaviours, enabling companies to protect their reputation, reduce financial losses, improve staff morale and reduce turnover.

B.2 Board Level and Senior Management Accountability

B.2.1 The company holds individual board directors and senior managers accountable for responsible business conduct and environmental and social performance.

(ISO 26000, 4.2; 4.4; 6.2.3.2. IFC PS 1, 6.; PS 1, 17. CHRB A.2.1)

B.2.2 The company demonstrates respect for diversity and inclusivity by including a range of gender, expertise and stakeholder interests on its board and in its senior management.

(GRI G4-EC6. ISO 26000, Box 2; 6.2.3.2. SDG 5)

Corporate sustainability is a concept that has been embraced by companies around the globe, and it is increasingly viewed as essential to long-term corporate success. It involves businesses respecting fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption, and taking actions to support and create value for societies around them.

Increasingly, companies are developing policies that demonstrate an understanding and intent of meeting social and environmental responsibilities. However, policies do not always translate into long-term positive changes in producing countries or a sustained shift in corporate culture and values toward more responsible behaviour.

Successful implementation of social and environmental policies typically requires commitment, leadership and accountability from corporate boards and senior managers (at corporate and mine-site levels), as well as dedicated personnel at the operational level to ensure that strategic decisions are applied throughout a company's operations. Achievement of corporate goals to protect environmental values and the health and wellbeing of communities can better be realised when businesses adopt internal accountability and incentive mechanisms for performance, which can be applied to corporate-level decision-makers as well as site-level managers and employees. Such actions can help to improve operational level performance and attitudes about the relevance of the economic, environmental and social commitments, and help embed it into the company's culture and values.

The composition of corporate boards can also have an effect on the successful implementation of environmental and social responsibility goals. Studies have shown that diversity on boards of directors or in senior management positions can lead to better overall financial performance, good corporate governance, greater adherence to global economic, environmental, social and governance (EESG) standards, better sustainability performance, enhanced innovation, better risk management, and an improved corporate reputation.

B.3 Contracts Disclosure

B.3.1 The company publicly discloses all contracts, licences and agreements that grant it access to the extraction of mineral resources and associated projects.

(CHRB D.3.2. ASEAN 3.4)

Producing countries issue licences to companies to explore or exploit mineral resources. Governments also sign agreements or contracts with companies to establish various terms and conditions related to mineral development, such as the financial benefits that a country will receive from taxes, profit-sharing and royalties, provisions related to critical infrastructure or other investments, as well as terms that can have implications for citizens such as environmental protection measures, or rights related to land use or the displacement of local communities.

Governments bear the responsibility of managing their country's resources in a manner that is in the interest of national development and the wellbeing of the people. Unfortunately in many cases, governmental corruption, lack of information or capacity challenges have prevented many countries from negotiating the best deals for their citizens – often resulting in the loss of millions or billions of dollars in potential revenue.

The contracts governing mining or other extractive projects may constitute the most significant rules governing the benefits received by producing countries and affected communities, and yet, too often they are hidden from public view. Contract transparency is increasingly being recognised as necessary to enable the responsible management and good governance of natural resources, and to promote growth and economic development.

By systematically making contracts publicly available, government officials have more tools and a stronger incentive to negotiate contracts that ensure that their countries receive an equitable share of the benefits from mining development. Contract transparency enables civil society to play a greater role in the debate over how developing countries manage their non-renewable resources, and can also help companies and governments demonstrate to citizens the value of mining projects, and realistic income expectations over time.

Despite some resistance, a growing number of mining companies and associations publicly support the practice of contract publication, arguing that it helps increase their social licence to operate and to more effectively manage citizen expectations.

B.4 Beneficial Ownership

B.4.1 The company publicly discloses the beneficial ownership of each entity within the company that bids for, operates or invests in extracting mineral resources.

(ISO 26000, 4.3. OECD CEVC Ch. 1, p. 17; Ch. 5, p. 86)

The identities of the people who ultimately own, control and reap the profits from a mining company's activities - the beneficial owners - are not always disclosed. In some cases they are hidden behind a chain of corporate or private entities that spans multiple countries.

When ownership of a company is opaque it creates avenues for corruption, tax evasion, money laundering and other types of financial misconduct, which can then lead to negative economic, environmental or social impacts. For example, an individual with an ownership stake in a company may be in a position to unduly influence the granting of government contracts or licences to unqualified companies, or approve overly lenient terms and conditions. Knowing the identity of the beneficial owners is important both to deter corruption and to ensure that a company that has obtained a licence has the intention and necessary financial and technical expertise to develop, operate and close a mining project in a responsible manner.

Governments, financial institutions, voluntary initiatives and even mining company executives are increasingly advocating for and moving towards increased transparency in the beneficial ownership of companies. For example, the Extractive Industries Transparency Initiative has put in place requirements that by 2020 "all implementing countries have to ensure that all oil, gas and mining companies that bid for, operate or invest in extractive projects in their countries disclose their real owners."

Proactive beneficial ownership disclosure by mining companies will place them ahead of the curve, and demonstrate a commitment to transparency and to the integrity of mineral licensing and contracting processes. It will also help to build greater trust from mining stakeholders, enable governments to better assess the credibility of mining proposals, and improve the investment climate for the mining sector globally.

B.5 Tax Transparency

B.5.1 The company practices tax transparency in all its tax jurisdictions.

(OECD CEVC Ch. 5, p. 80. SDG 1; 16.4)

B.5.2 The company publicly discloses all tax benefits and tax holidays it receives from local and national governments.

(GRI G4-EC4. OECD MNE II.5. SDG 1)

Mining-related taxes are a significant and critically important source of income for mineral-rich developing countries. Revenues from taxes allow countries to pay for essential public services and infrastructure. A solid tax base can reduce their reliance on foreign aid, enabling countries to have a greater say in their own development. If managed carefully, the taxes received over the lifecycle of a mine can reduce poverty and fund economic and social development initiatives that can sustain the country long after the mine has closed.

There is ample evidence showing that developing countries are failing to collect a significant proportion of taxes from extractive industries and others, especially those with operations in many countries. Companies are able to avoid paying taxes through questionable but nominally legal tactics, such as transfer pricing (by shifting profits to subsidiaries in low-tax or secrecy jurisdictions), trade mispricing (by under-declaring the value of products being exported) or through the use of complex ownership structures. Tax evasion may also occur via illegal activities, such as smuggling.

Developing countries may also lose out on tax revenues by offering incentives such as tax holidays or reduced tax rates. There are numerous examples showing that investment would have occurred even without tax incentives. In many cases, tax incentives in developing countries are not guided by proper cost-benefit analyses but are driven instead by the pressure to create a more attractive investment climate than the next country. Although not illegal, overly generous or ill-conceived tax incentives may be viewed with suspicion by some, create legitimacy issues for governments and companies, and do nothing to improve the investment climate.

Much work needs to be done in developing countries to establish tax policies, structures and enforcement capacity in a manner that both attracts investment and delivers economic benefits to the country. Some efforts are underway, however, companies can help to further these efforts by contributing to the country's knowledge base, for example, by disclosing their tax arrangements on a country-by-country basis (See **B.6**), and providing more detailed reporting on their tax strategies and information on tax havens.

Increasingly, global companies are recognising that tax-related policy commitments and proactive disclosure of tax strategies and practices are crucial to building and maintaining relationships and credibility with investors and producing countries, and fostering a stable investment climate in the developing countries where they operate.

B.6 Payments to Producing Countries

B.6.1 The company publicly discloses all the payments that it makes to subnational and national governments, providing disaggregated data on a project-level basis.

(GRI G4-EC1. OECD CEVC Ch. 1, p. 16. OECD MNE IV.5. CHRB D.3.2)

Governments grant mining companies the right to explore and exploit mineral resources, and, in exchange, companies may pay taxes, royalties, licence fees and bonuses, or make other contributions to compensate a country for the minerals being taken. The payments made by mining companies can be a significant source of revenue for developing countries, and have the potential to fuel economic growth and social development.

Information on payments to governments is often not publicly available. Greater transparency from mining companies would help governments and citizens know if companies are meeting their contractual obligations (See **B.3**), and it would enable companies to demonstrate their economic contributions to employees, local communities, and to the national economy at large.

It is generally agreed that transparency of payments made by extractive companies to governments can enhance good governance by removing conditions that enable corruption and misuse of revenues, which will better ensure that mineral revenues are managed in such a manner as to help reduce poverty and foster sustainable economies. Disclosure of payments is also a way to for countries to reduce political risk and create a more stable investment environment.

In the past decade, efforts to increase payments transparency have blossomed, from the voluntary Extractive Industries Transparency Initiative and Global Reporting Initiative, which have support from a broad range of stakeholders, to mandatory regulations in the European Union, Canada and other countries. As a result, many global companies are now required to report payments made to national and local government bodies, and to disclose such payments for each country where they operate.

Project-level disclosures are also becoming standard practice in many developed nations, and there are calls for similar project-by-project reporting in other regions, such as Africa. Communities located close to mines experience a wide range of social and environmental impacts, yet often they do not receive adequate funds to alleviate impacts and promote economic growth, even when they are legally entitled to a percentage of the revenue generated by mining projects. Access to both country-level and project-level revenue data allows local governments to better monitor company compliance with contract obligations, and enables local communities to track their entitlements and hold their governments accountable if revenues are not being appropriately allocated.

In countries that do not yet have project-level requirements, companies that demonstrate a willingness to disclose payments, including their social expenditures, can increase trust and support by enabling communities to see the full range of benefits that they are receiving from a mining project.

B.7 Lobbying Practices and Political Contribution

B.7.1 The company publicly discloses its lobbying practices and positions.

(ISO 26000, 6.6.4.2. OECD CEVC Ch. 1, p. 16)

B.7.2 The company publicly discloses its direct and indirect political contributions.

(GRI G4-S06. OECD CEVC Ch. 1, p. 16. OECD MNE II.11; VI.6)

In many countries lobbying plays a prominent role in policy-making. Private lobbyists, industry groups and civil society organisations work in a variety of ways to influence politicians and decision-makers.

Lobbying is a legitimate activity and an important part of the democratic process, yet in most countries it is highly unregulated, creating the potential for powerful interests to exert undue influence through corrupt or otherwise questionable practices.

The lack of transparency and accountability around lobbying creates suspicion that companies, either independently or through industry bodies, are advocating for rules that are not in society's best interest. There are documented examples of corporate lobbying affecting developing countries in a negative way, as well as cases where companies' lobbying efforts have been in direct contradiction to their own public commitments to environmental or social sustainability.

Mining companies can take proactive steps to help foster greater integrity and trust in public decision-making processes and elicit greater trust from stakeholders. Companies can enhance their voluntary disclosure of information related to lobbying policies and practices, such as lobbyist identities, subject matter of lobbying activities and outcomes being sought, the names of public officials or institutions being engaged, and direct and indirect spending on lobbying and political contributions, including through intermediaries such as trade associations.

Some mining companies have started to include information on lobbying and political contributions in their sustainability reports, although the breadth and detail of what gets reported varies greatly.

Increased transparency in lobbying is an important means to combat bribery and corruption (See **B.8**), and can benefit producing countries by creating a more attractive climate for investment. It can also help companies weed out bad actors and ensure that lobbying practices align with the core governance, environmental and social values of the company. Reporting on lobbying positions may also reveal where there is common ground with other stakeholders, and enable them to work together to develop public policies that can serve affected communities, producing countries, and the mining industry alike.

B.8 Bribery and Corruption

B.8.1 The company demonstrates commitment to prevent all direct and indirect forms of bribery and corruption, and it has systems in place to achieve this objective.

(GRI G4-SO3; G4-SO4; G4-SO5. ISO 26000, 6.6.3.2. OECD MNE VI.5)

In 2003, the UN General Assembly adopted the United Nations Convention Against Corruption. In the convention document, UN Secretary General Kofi Annan stated that, "Corruption hurts the poor disproportionately by diverting funds intended for development, undermining a government's ability to provide basic services, feeding inequality and injustice and discouraging foreign aid and investment. Corruption is a key element in economic underperformance and a major obstacle to poverty alleviation and development."

The mining sector is classified as one of the highest-risk sectors for corruption. Mining companies must obtain numerous licences and approvals to explore and develop mineral resources. Some government officials or others with enough political influence to block or delay mining projects may attempt to solicit bribes in exchange for facilitating or 'greasing' those processes. This practice is especially prevalent when mining operations are located in developing countries that have a weak regulatory environment and rule of law.

The problem, however, cannot be placed solely at the feet of unethical government officials and other intermediaries. Many mining companies admit that they would willingly make cash payments or give unethical gifts to help their business during financially difficult times. Also, companies may be indirectly and in some cases unknowingly implicated in bribery or corruption through their relationships with agents, consultants or joint-venture partners.

Bribery and corruption can be prevented or greatly reduced through implementation of robust and transparent anti-corruption due diligence and compliance programmes. Due diligence helps companies fight corruption within their own businesses, and reduce the potential of being associated with corruption through the actions of third parties such as agents, consultants, or suppliers. Anti-corruption due diligence is now an expectation in many countries, and companies are also taking voluntarily steps to minimise their risks.

Less corruption in a society will lead to a more predictable and stable investment environment for companies, and help producing countries demonstrably maximise the benefits from the development of their natural resources.

B.9 Responsible Contracting and Sourcing

B.9.1 The company incorporates requirements for responsible environmental, social, human rights and governance practices into formal agreements with contractors, subcontractors, suppliers and business partners, and has systems in place to ensure adherence.

(GRI G4-EN32; G4-EN33; G4-LA14; G4-LA15; G4-HR1; G4-HR10; G4-HR11; G4-SO9; G4-SO10. RJC 5.2. IFC PS 1, 9.; PS 1, 10.; PS 2, 24.; PS 2, 25.; PS 6, 30. ISO 26000, 4.4; 6.3.3.1; 6.4.3.2; 6.5.2.2; 6.6.6.2)

Increasingly, there is a global expectation that businesses not only demonstrate a high level of social and environmental responsibility in their own actions, but also demand the same of their business partners and supply chains. The International Council on Mining and Metals, for one, has recognised the value of mining companies improving the environmental, social and governance performance of the companies with whom they do business.

Mining companies often contract with firms to deliver specialised services such as welding repairs, mechanical work, and facility maintenance. In the past decade, labour shortages or cost-cutting efforts have increased the use of contracted workers for core mining operations as well.

The increasingly widespread use of contractors is controversial, as the practice can have negative consequences for local communities, the contract workers themselves, and producing countries. Trade unions argue that "the widespread use of contract or agency labour at mines can undermine the very notion of sustainable development by condemning current workers and future generations in many countries to poverty, sickness and disease."

The use of contracted labour also has implications for mining companies. Hiring workers via a contractor presents occupational health and safety challenges that must be managed. Also, poor labour, social or environmental practices by contractors create reputational and financial risks for mine owners. For example, discrepancies in wages and working conditions between contract workers and direct employees are not only of great concern for issues of inherent inequality, but have also led to violent protests and mine shutdowns.

Mining companies also face risks related to the practices of their suppliers or vendors, such as interruptions in supply and reputational damage resulting from accidents, labour challenges, community protests or legal actions related to supplier non-compliance with social or environmental regulations.

Companies can minimise risks to workers, communities, the environment and their own reputations by assessing the social, environmental and labour risks associated with suppliers and contractors, and ensuring that contractors and suppliers commit to and implement high social and environmental standards. This approach is increasingly being taken by leading mining companies.

Numerous mining companies have codes of conduct that apply equally to employees contractors, suppliers, vendors or other business partners, however, most of these codes are non-binding. As a result, some mining companies are now incorporating social and environmental requirements into bilateral contracts with contractors and suppliers to create legally binding obligations. Some companies also carry out audits to assess compliance and evaluate how well contractors and suppliers are managing the negative social impacts of their activities.

In addition to formalising expectations in agreements, mining companies are investing in the training of contractors and suppliers to help them meet the company's requirements. These programmes are mutually beneficial: mining companies reduce their labour and supply chain risks and create more stable, reliable, relationships; meanwhile, suppliers and contractors can reduce their own risks, build capacity and potentially gain access to more competitive supply chain finance.

Producing countries benefit, as well. Home-grown businesses that can meet high social and environmental standards will be better able to compete and integrate into responsible global supply chains. Moreover, if contractors and suppliers are held to high environmental, social and labour standards, such as ensuring safe workplaces and paying living wages, workers and their families will be better off, and mining will have greater positive benefits for local economies and communities.

C. | Lifecycle Management

The lifespan of a mine can be decades long, and there are a number of discrete lifecycle phases in the development and responsible closure of a mine. Generally, the initial phase – after a company has identified a viable ore deposit – is the design phase, where a company investigates the technical and financial feasibility of developing a mine. If a corporate decision is made to move forward with a project, and the appropriate regulatory approvals are received, the mine enters the development or implementation phase, which involves constructing and operating the mine. Finally, when the economically retrievable ore has been extracted, the mine enters a closure phase, which can last many years or even decades if there are long-term environmental issues remaining at the site.

During every lifecycle phase, a mining company should be carrying out due diligence to ensure that risks to the company and communities are minimised, and that safeguards are put in place to guarantee the sustained and long-term (post-mining) social and economic health of affected communities and protection of the environment.

In some cases, a single mining company will not shepherd a mining project through its entire lifecycle. Whenever there is a transfer of mine ownership, a due diligence process is necessary to ensure that risks and liabilities are disclosed and understood, and that adequate financial security is in place to prevent and manage social and environmental impacts.

C.1 Mine Lifecycle Management

C.1.1 The company commits to adopt a lifecycle approach that integrates mine closure throughout project development and operations.

(ISO 26000, 6.5.2.2. OECD MNE V.3. CCCMC 2.7.12)

C.1.2 The company provides financial surety for mine closure and post-closure liabilities. It publicly discloses corresponding arrangements, ensuring that these arrangements are perpetually accessible to communities.

(GRI G4-DMA (additional reporting); MM2; MM10. CCCMC 2.7.4)

The potential economic, environmental and social impacts and opportunities related to mining will vary over time. As is now widely recognised, sound environmental and social management requires that companies consider and address the full spectrum of issues throughout all stages of the mine lifecycle.

The lifecycle approach requires that systems be put in place to identify, assess and manage risks, impacts and opportunities in a structured way, on an ongoing basis, and with stakeholder engagement. Although mine closure is the end stage of the mine lifecycle, effective planning for closure will begin as early as the exploration phase, as simple changes early on can have profound implications for eventual site closure. The closure plan will regularly be updated to reflect changes in mine operations and environmental and social circumstances.

Leaving a positive post-mining legacy requires a significant investment. Rehabilitation costs alone can run into the tens or hundreds of millions of dollars, depending on the scale of the mining operation and issues that need to be addressed prior to closure. It is therefore in the interest of all stakeholders that companies are able to demonstrate that they have sufficient funds set aside to cover the costs of mine closure and any post-closure activities, and that the funds are quarantined from other company assets so that they will be available in the event of bankruptcy and/or government abuse. As financial surety can also be important in covering the social and economic aspects of mine closure, post-closure socio-economic financial assurance mechanisms can be proactively developed by mining companies in collaboration with affected communities and local governments, even where these are not required by government regulations.

When mining companies take a proactive and collaborative approach to planning, assessing, and managing for risks during all stages of the mine lifecycle, they demonstrate to communities, producing country governments, investors and other stakeholders that they are committed to responsible mining and delivering positive outcomes for communities. This can lead to greater trust from stakeholders, increased support for the mining operation, reduced long-term liabilities, lower mine closure costs, and greater access to financial resources.

C.2 Project Approval Process

C.2.1 The company integrates economic, environmental, social and governance factors into the stage-gating process at investment committee level.

(OECD CEVC, Ch. 4. CCCMC 2.8.1. RJC 31, 32.1)

Developing a mine is a capital-intensive endeavour. As a result, mining companies carry out comprehensive evaluations to determine whether or not to proceed with a project.

One of the most proven and effective ways to manage the complexity of capital projects in the mining industry is to take a stage-gate approach as a project moves through its lifecycle from concept to project approval. At each 'gate' a go/no-go decision is made based on information gathered during that stage. Information typically analysed may be of a technical nature (e.g. ore body characteristics), financial (the market for the particular mineral, the cost of regulatory compliance, the availability and cost of labour), or include other risk factors.

When mines are proposed, complex social and political issues are likely to affect company operations. However, most companies make capital investment decisions and operational choices that are based on a narrow definition of financial risk that relegates factors such as social or political risks as less critical to the success of the project. For example, whereas multiple assessments are conducted to develop various models with corresponding risk and opportunity profiles, social and political risk seldom receives a similarly rigorous approach. The threshold for social and political risk to influence project approval decision is often disproportionally high. Multiple anecdotal examples indicate that these factors were considered only if they were strong enough to shut down a project.

Rather than focusing narrowly on financial risk, mining companies can establish strong frameworks for evaluating and prioritising which projects to pursue. Ensuring that the best decisions are made requires that these frameworks should include rigorous analyses of economic, environmental, social, and governance (EESG) factors.

The ability to influence project success and enhance value is greatest at the start of project evaluation and rapidly declines as a project advances towards implementation. Early identification and analysis of EESG risks alerts company decision-makers to potential problems, and enables the planning of pre-emptive mitigation strategies that can produce significant project-related cost savings. Alternatively, the analyses may result in the avoidance of projects that present too much risk of impacts to communities or the environment.

Increasingly, finance institutions and private investment firms that may finance mining projects are integrating EESG factors into their own decisions. Aside from the clear inherent benefit of leaving a more positive legacy, mining companies that can demonstrate that they have evaluated the risks and have a clear strategy for mitigating environmental risks and potential impacts on workers and communities are more likely to be attractive places for investors to put their funds.

C.3 Post-Closure Community Viability

C.3.1 The company plans for land rehabilitation and post-mining land-use opportunities.

(RJC 40.1. GRI G4-DMA (additional reporting); MM10)

C.3.2 The company designs and plans operations to ensure the transition and continued viability of livelihoods and company-funded shared infrastructure, both around the mine and in labour sending areas, where applicable.

(GRI G4-DMA (additional reporting); MM2. ISO 26000, 6.4.7.2; 6.8.7.2. SDG 1; 4; 7.b.; 9.a)

Just as the construction and operation of a large-scale mine creates radical changes to the natural and socio-economic landscapes of a region, the closure of a mine also creates the potential for significant impacts. The economic and social viability of communities that host, neighbour or send labour to mines (i.e. labour sending areas) are often intimately tied to revenues from taxes, wages or mine-related procurement, as well as any infrastructure and services provided by the mining company (See D.2). Following the permanent or even temporary closure of a mine, the cessation of revenue streams and other mine-related benefits can have devastating and long-lasting effects on communities such as: outmigration; crumbling infrastructure; decline in social services; stagnation of local and regional economies; soaring unemployment; and increased levels of poverty and malnutrition.

The closure of a mine will always have impacts. However, when companies work collaboratively with communities to plan for mine closure at the outset of mining development many of the negative impacts, especially those deriving from an unhealthy economic or social dependency on the mine, can be avoided or mitigated. The early involvement of communities in planning for closure also increases the transparency, credibility and chances of successful outcomes. An effective mine closure planning process therefore involves local communities in the setting of closure goals, the development of actions plans, and estimation of the costs involved in achieving the desired outcomes.

Some of the potential strategies for minimising impacts include: putting programmes and systems in place to support a diverse economy (See **D.2**); building capacity and skills to manage and maintain services and infrastructure initially supported by the mine (e.g. health, education, water or energy facilities); and creating mechanisms to ensure that benefits established in Local Development Agreements (LDAs) or through other mechanisms will continue to accrue beyond the life of the mine.

In addition to socio-economic considerations, effective mine closure planning aims to ensure that the post-mined landscape is physically and ecologically safe and stable, that the risk of long-term pollution is minimised, and that surrounding water resources are protected. The rehabilitation of disturbed land, reintroduction of vegetation, and restoration or long-term maintenance of clean water supplies mean that communities will have access to resources that can be used to support and sustain alternative livelihood ventures in a post-mining era. To the extent possible, reclamation efforts should take place concurrent with mining operations. Not only does this reduce a company's long-term liabilities, it also demonstrates to stakeholders that the company is proactive in its approach to mitigating environmental impacts.

When mining companies leave behind negative socio-economic or environmental legacies, they discredit their own reputation as well as that of the industry as a whole. A portfolio of safe, stable and prospering closed sites and communities is more likely to engender support for a company's 'social licence to operate' in new areas. As a result, leading mining companies are increasingly integrating social and economic considerations in an operation's lifecycle planning to better ensure that mining projects will create long-term value for producing countries and affected communities both during mining and post-closure.

C.4 Mergers, Acquisition, and Disposal Due Diligence

C.4.1 The company performs due diligence on mergers, acquisitions and disposals, evaluating both historical and future development, to ensure environmentally and socially responsible conduct.

(OECD MNE X. OECD CEVC Ch. 3, p. 2. ISO 26000, 6.3.3.1)

The global mining industry is subject to frequent buying, selling and combining of companies and mining properties. Every mining company and mine project has unique characteristics that may create financial, legal or reputational risks for purchasers and sellers. The merger, acquisition or disposal of a company or project can also create environmental risks, and social, economic and human-rights risks for communities and workers. For example, restructuring that often follows mergers may result in layoffs and associated community impacts.

It is difficult to predict how a change in mine ownership might affect environmental protection or social and economic development. Past commitments to communities may be ignored or overhauled completely, perhaps leading to increased conflicts and environmental contamination; while in other cases, new owners can bring a stronger commitment to economic and social development, environmental protection and community relations.

Prior to carrying out mergers, acquisitions or disposing of mining properties, most companies undertake some due diligence to understand the inherited and future risks, and consider whether or not it is possible to adequately mitigate the risks before moving forward. Many companies now go beyond assessing financial risks, carrying out more detailed assessments of environmental, social and governance risks (ESG), such as those related to corruption or bribery (See **B.8**), into merger, acquisition or disposal decisions.

Full disclosure of existing and potential liabilities is often mandated by legislation. But companies can go beyond that, and integrate measures into sale and purchase agreements that ensure a high level of protection for the environment and communities. For example, prior to disposal companies can ensure that buyers have the technical expertise to responsibly operate a mine, and a demonstrated track record related to ESG; and that adequate financial securities will be in place after the sale to carry out environmental remediation.

ESG due diligence makes good business sense. Mergers and acquisitions have the potential to catapult companies into markets where legal regimes are not as protective; where economies are weak and services limited; where access to resources is more competitive; or where there is a history of poor relationships between the mining industry and communities. These situations can translate into high costs for companies in the form of legal actions, operational delays, staff time spent on mitigating unanticipated issues, reputational damage from conflicts with communities, and loss of confidence from investors.

Similarly, disposal of mining properties creates potential long-term liabilities for buyers, but also for sellers, governments and communities if purchasers do not have the technical expertise or financial wherewithal to adequately manage and remediate environmental liabilities.

D. | Community Wellbeing

Mining projects have the potential to transform communities in positive and negative ways. Some economic benefits may be created through the provision of jobs and opportunities for local businesses to supply services or products to the mine.

On the other hand, mining may also diminish or destroy natural resources that provide food, livelihoods and services to communities. The social character of a community may also shift with the influx of migrant mine labour, and mining-related income and benefits may be distributed in an inequitable manner, which can create conflicts within communities and even families.

As with any long-term relationship, company-community relationships are complex. Mining companies are often faced with the challenge of satisfying the wishes of disparate groups, and without thoughtful planning and interventions it is inevitable that conflicts will arise. Companies that approach communities early in the project lifecycle, and demonstrate a willingness to engage with all stakeholders in an open, respectful manner are more likely to build trust; and those that put in place effective systems to receive and remedy community complaints will be more likely to maintain positive relationships.

The creation of positive economic, environmental and social benefits requires active engagement with communities throughout the mine lifecycle. Through ongoing collaboration with women, men, youth, marginalised and vulnerable groups in the planning, design and implementation of mine-sponsored community investments and mining-related opportunities, mining companies can better ensure that they will leave behind healthy, viable communities when a mine closes.

D.1 Community and Stakeholder Engagement

D.1.1 The company has management systems in place to facilitate ongoing and inclusive stakeholder engagement activities and to enable participation of affected communities and rights holders, including women and youth.

(GRI G4-DMA (additional reporting). UNGP (RF) C.2.2. RJC 30.1)

MS 1 The operating company actively and inclusively engages affected communities in regular assessments of its impacts and in sharing the results, throughout the life of the mine.

(IFC PS 1: 15, 19. OECD SEEI, Steps 3, 6. CCCMC 2.4.4)

Mining is a technically challenging industry, though it has been said that managing the complex relationships with communities and stakeholders may be even more difficult than getting the materials out of the ground. This is due in part to the fact that the stakeholders for any mining project are diverse, and often hold vastly different opinions and interests in the potential benefits and impacts associated with mining.

Many mining companies, producing country governments and international financial institutions recognise that building relationships with those affected by or interested in a mining project can improve the identification and management of environmental and social risks, and long-term project viability. From the perspective of mining companies, the primary purpose of stakeholder engagement is to establish and maintain a constructive relationship with a variety of stakeholders over the lifecycle of a mine. However, developing relationships that are built on trust, mutual respect and understanding takes time and expertise. For this reason, many companies are beginning to engage with stakeholders from the earliest stages of project development, and are employing professional, dedicated staff to carry out engagement processes with appropriate management oversight and resources.

Stakeholder engagement is an ongoing process, which, depending on the mining project and the phase of mine development, may involve the following elements: stakeholder analysis and engagement planning; disclosure and dissemination of information; consultations related to project risks, impacts and mitigation strategies; community participation in project monitoring; a mechanism for raising complaints and ensuring remedy (See **D.11**); and reporting to stakeholders and affected communities.

The active participation of stakeholders in various impact assessments is key to ensuring that the interests, concerns and knowledge held by different stakeholders, particularly communities directly affected by a mining project, are adequately considered by the mining company. Stakeholder engagement in impact assessments will be most useful when communities are provided with timely and full information, to enable them to provide relevant input to the company. Also, efforts should be made by companies to create opportunities for two-way dialogue, so that stakeholders feel heard and can explore with the company how their concerns have been addressed.

There is a greater likelihood of meaningful engagement when companies collaborate with stakeholders to design culturally appropriate and accessible engagement processes, build stakeholder capacity, and remove barriers to participation. In particular, attention should be paid to enabling the participation of groups who may be disproportionately affected by a company's activities, such as women, youth, and marginalised or vulnerable groups within the affected communities.

Meaningful, proactive and ongoing community and stakeholder engagement can help a company gain and maintain a social licence to operate and reduce conflicts, thereby avoiding reputational risks and costs that may occur if stakeholder concerns are not identified and adequately addressed. It can also reduce time required to obtain approvals and negotiate agreements; improve corporate risk profiles; and increase access to capital on more favourable terms.

D.2 Economic and Social Viability

D.2.1 The company conducts regular and ongoing social impact assessments to identify baseline conditions and changes, assess positive and negative impacts and identify measures to manage these impacts.

(GRI G4-EC8; G4-DMA (additional reporting); G4-SO1; G4-SO2. CCCMC 2.8.1. SDG 10)

D.2.2 The company has measures in place to support local business development, and encourages entrepreneurship, particularly for women and youth.

(OECD SEEI Box 4. OECD MNE II.3; IV.5)

D.2.3 The company facilitates the participation of women and youth in the design, implementation, monitoring, evaluation, and reporting of measures to manage social impacts, including community development projects.

(ISO 26000, Box 2; 6.3.8.2. SDG 1.4; 5.a)

D.2.4 The company publicly discloses its local development agreements and benefit sharing agreements.

(OECD SEEI Box 1. SDG 1; 8)

MS 2 The operating company has measures in place to support local employment opportunities, particularly for women and youth.

(CCCMC 2.8.7. OECD MNE, II.4)

Mining projects have the potential to transform the economic and social character of affected communities, neighbouring communities and labour-sending areas. The social and economic viability of mining-affected communities can be enhanced through the creation of business opportunities such as local procurement contracts (See A.2), as well as the creation of direct and indirect jobs. The number of direct mine-related jobs for local workers can be significant, but many of those jobs are temporary, lasting only through the construction phase. During the mineral extraction phase jobs become more specialised, and without adequate training can end up going to skilled workers from outside of local communities or producing countries.

If not properly managed the influx of new income and in-migration of workers and others can threaten the social and cultural integrity of communities, create social conflicts, and disrupt traditional economic activities and the ecological services upon which communities depend. Social impact assessment (SIA) is an important tool for reducing potential impacts and enhancing the social and economic prospects associated with mining projects. SIA is an ongoing process to identify how the wellbeing of a community, or particular groups within the community, might change as a result of the mining project, and then develop strategies to avoid, mitigate and manage impacts throughout the lifecycle of the mine. SIA is more likely to produce reliable information and relevant strategies when it is started early in the mining project cycle, and undertaken as a collaborative effort between the company and affected community.

Additionally, companies can negotiate directly with communities to reach local development or community development agreements (LDAs or CDAs) to formalise how the benefits of mining projects will be shared. In addition to financial payments stemming from mineral production, or direct compensation for project impacts, these agreements often include company commitments related to local employment, procurement, capacity building, skills and business development and others. More and more, these agreements also include initiatives that are focused on stimulating and diversifying local economies to reduce long-term dependency on the mine, e.g. by supporting non-mining-sector activities and entrepreneurs through skills transfer, capacity-building and microfinance programmes; and working with communities to build and strengthen social services, infrastructure and institutions.

Some mining companies are developing employment policies that include local recruitment targets, as well as training and career advancement strategies focused on cultivating local mining professionals and supporting broader skills development (See A.4). These policies can help to ensure that local communities are able to benefit from both the direct and indirect job opportunities created as a result of mine development. However, employment policies and programmes often fail to deliver equitable benefits to all segments of a community. To overcome this, some employment strategies specifically target youth, women, and other potentially marginalised or vulnerable groups, including indigenous peoples.

Increased attention is also being paid to enhancing the participation of women in the choice and delivery of company-led community development initiatives. This movement has resulted from the widespread acknowledgement among development agencies and companies that the inclusion of women in decisions about social programmes or community development projects leads to poverty reduction and more broad-based and sustainable development outcomes. Decisions on investments related to economic and social development should also take into consideration the views of other potentially marginalised or vulnerable groups, such as youth and indigenous peoples.

SIAs and LDAs and other initiatives are most likely to deliver long-term social and economic benefits when they are developed through inclusive, participatory processes, provide transparency around terms and conditions, and include provisions for monitoring and evaluation (M&E) of the processes, outcomes and impacts. Local stakeholders will often have their own criteria for measuring the success or failure of social and economic initiatives, and as a result M&E programmes that include communities directly are more likely to build trust in the processes and enhance the credibility and effectiveness of social, health and economic outcomes.

When planned and implemented well, mining-related social and economic initiatives can improve the current and long-term economic prospects and social wellbeing of mining-affected communities, which can in turn benefit mining companies by supporting a healthier workforce and improving productivity of mines, strengthening community relations and company reputation, earning and maintaining a social licence to operate, and reducing conflicts that could lead to project delay or shutdowns.

D.3 Community Health

D.3.1 The company has systems in place to implement and document integrated community health and safety assessments and management plans.

(OECD MNE V.1.a. IFC PS 4, 5.; PS 4, 6.; PS 4, 8)

D.3.2 The company develops and implements policies, business practices and targeted initiatives to mitigate the impact of high-burden diseases such as HIV, Tuberculosis, Malaria and others that are applicable in the context of its operations.

(ISO 26000, 6.8.8.2. OECD SEEI Box 4. CCCMC 2.8.10. SDG 3.3)

Mining activities impact community health in various ways. Adverse health effects may result from being exposed to mine-related noise, contaminants in air, water or soil, or from the degradation of ecosystem services. Non-environmental factors such as traffic, the influx of migrant workers, or a mine's security arrangements can also influence the mental health and wellbeing of communities, both directly and indirectly.

The particular health risks associated with a mining operation will vary depending on the mine's location and the minerals being mined. For example, mining projects in conflict-affected areas may place additional stress on scarce local resources and exacerbate existing health problems. Also, there may be vulnerable groups of women, men, children, elderly, and persons with disabilities who are more susceptible to certain health risks.

Community health monitoring looks at the positive and negative impacts of the mining operation on community health, and can provide early warning of health problems at the community level. Monitoring includes both health outcomes, such as incidence of malnutrition, diseases or mental ill health, and health determinants, such as levels of air, water and soil pollution. Mining companies are increasingly partnering with communities and other stakeholders in the monitoring of community health, as well as environmental and social commitments more generally.

Although community health is primarily the responsibility of producing country governments, mining companies may, where appropriate, take a more proactive role in developing opportunities that complement governmental capacity, especially in developing countries where local health services may be lacking. Mining company investment in community health initiatives, such as health campaigns related to HIV/AIDS or other infections or communicable diseases or the development of infrastructure to provide potable water and sanitation, can create significant positive health benefits. Care must be taken, however, to ensure that any critical community health initiatives or infrastructure supported by the company can be sustained after mine closure (See C.3).

Health risks and impacts, both for mine workers and for those living near a mining project, are among the most important issues for local communities. A proactive approach to minimising health impacts and maximising community health and wellbeing can improve the financial and social performance of the company; lower the risk of community-led liability and litigation; increase access to international funding; reduce absenteeism and health care costs for employees and local communities; and improve general employee morale and community relations.

D.4 Gender Equity

D.4.1

The company acts on the results of regular assessments of the impacts of its activities on women.

(GRI G4-SO1. RJC 32.2. SDG 5)

The mining industry creates employment and economic opportunities and benefits, however, men are more likely than women to be directly employed by mining operations, and are also more likely to benefit from social programmes and projects supported by mining companies.

Women, on the other hand, often bear a disproportionate share of social, economic, and environmental risks related to mining. Yet women are often absent from mining stakeholder engagement processes, which skews the information received by the company regarding community interests and priorities. Within community decision-making processes, women also may be marginalised, giving them less of a voice in how resources from mining are allocated.

In recent years, the financial sector has highlighted the issue of gender inequity in the mining sector, and as a result some companies have begun to create more opportunities for women at the board and senior management levels (See B.2) and in core mining activities. However, numerous challenges persist for women mine workers, such as sexual harassment, lack of acceptance by male co-workers, physical constraints, lack of gender-appropriate facilities or protective equipment, balancing family responsibilities and shift work, and others.

More holistic approaches to risk management, including the involvement of women workers in occupational health and safety risk assessments, is needed to protect women workers and increase their participation in mining.

An emerging practice is the use of gender impact assessments to identify the impacts of mining projects on women and men (and the relationship between them), to develop strategies to mitigate the impacts, and to promote women's empowerment and participation. For example, gender impact assessments can help to inform decision-making on community development projects or compensation packages to ensure that these address women's needs and interests, in addition to those of men.

Mining companies that take a gender-equity approach to employment, impact assessment and engagement are likely to experience increased productivity at mining operations, stronger relationships with communities, and a decreased potential for conflicts, while women and their communities will experience greater economic opportunities and development benefits (See also **D.2**). Combined, these factors can result in financial and reputational benefits to the companies.

D.5 Indigenous Peoples

D.5.1 The company identifies all indigenous peoples' groups located near current and potential mines and associated facilities, including those in potential areas to be affected by the mining operation (e.g. mine tailings dams). It identifies their particular rights, interests and needs through inclusive meaningful participation.

(GRI MM5. IFC PS 1, 32.; PS 7, 8. CHRB A.1.3; D.3.5)

D.5.2 The company implements a plan to address the particular rights, interests and needs of indigenous peoples' groups through inclusive meaningful participation.

(IFC PS 1, 32.; PS 7, 9.; PS 7, 10.; PS 7, 18.; PS 7, 20. CCCMC 2.8.2. RJC 31.1)

There is no single authoritative definition of indigenous peoples. However, it is generally understood that the cultures and livelihoods of many indigenous peoples are strongly tied to ancestral territories and surrounding natural resources. As a result, extractives industries like mining, which often dramatically transform and degrade lands and resources, create a high potential for negative, and possibly devastating impacts on the lives, livelihoods and cultures of indigenous peoples.

It is now a global expectation that corporations respect the human rights of those affected by their activities (See **D.9**). Indigenous peoples have both individual and collective rights that may be affected by the development of a large-scale mining project, such as rights to participation, self-determination, and pursuit of their own priorities for developing natural resources, to rights related to property, culture, religion and health.

Many mining companies recognise the need to respect the rights and interests of indigenous peoples, including their right to free, prior and informed consent. (See **D.6**) It is commonly agreed that relationships between companies and indigenous peoples should be founded on respect, meaningful engagement and mutual benefit.

Companies seeking to operate within or near indigenous territories can start building trust with indigenous peoples by initiating early and inclusive engagement (See **D.1**) with all potentially affected communities. These communities should participate in identifying and assessing the potential impacts of the mining project on their rights and interests. To ensure the integrity and long-term reliability of engagement, companies should take deliberate steps to correct any significant imbalances of power and address barriers to meaningful participation. Proper engagement with indigenous peoples will also be based on full access to information about potential environmental and social impacts, technical and financial viability of proposed projects, and potential financial benefits.

If projects proceed, responsible mining requires that companies work with indigenous peoples to develop acceptable mitigation strategies, and involve them in long-term project monitoring. Companies can also demonstrate respect for indigenous peoples by making an effort to understand and protect the cultural heritage values that are integral to their beliefs, languages, customs, practices and identities, and ensuring that all company personnel understand that they have a responsibility to respect indigenous peoples' rights and cultural heritage.

Indigenous peoples worldwide continue to resist extractive industry projects for understandable cultural and environmental reasons. Companies that have a track record of working with indigenous peoples in a respectful manner will be more favourably received by other indigenous communities, and may find it easier to come to agreement with both indigenous peoples and national governments for access to natural resources. Companies with a poor reputation, on the other hand, are more likely to encounter conflict, delays and difficulties in negotiating and finalising agreements.

D.6 Free, Prior and Informed Consent

D.6.1 The company supports the principle of free prior and informed consent (FPIC) through its policies and implementation guidelines.

(GRI G4-DMA (additional reporting). IFC PS 1, 32.; PS 7, 11.; PS 7, 12.; PS 7, 14.; PS 7, 15.; PS 7, 16.; PS 7, 17.; PS 8, 14. ASEAN 2.3. CHRB A.1.3; D.3.5)

Free, Prior and Informed Consent (FPIC) is the principle of informing and consulting in advance of projects or major developments that may impact rights and interests, and providing the opportunity for collective approval or rejection of the development in a manner that is free from intimidation or coercion and prior to any activity taking place. FPIC is an internationally recognised right of indigenous peoples and a mechanism to ensure that their rights and interests will be respected.

The encroachment of mining into indigenous peoples' territories can generate social conflict and create significant and often irreversible impacts on their cultural values, rights, resources and livelihoods. FPIC provides an important means of balancing the power relationship between indigenous peoples and external actors (e.g. governments or corporations), and enables indigenous peoples to determine their development priorities, and more effectively negotiate community-level benefits and safeguards. It is now understood that when proposed mining projects may affect indigenous peoples or their territories, it is good practice for companies promoting the project to acquire the consent of the indigenous peoples concerned, even if not required to do so by producing country law.

FPIC from indigenous peoples is becoming a pre-requisite for companies to obtain financing through the International Finance Corporation and other international finance institutions. Demonstration of FPIC is also a requirement for companies participating in various voluntary certification programmes established for extractive industry sectors such as forestry, palm oil and mining.

Although FPIC was originally established as a principle applying only to indigenous peoples, this position has been shifting to include communities and groups other than those officially designated as indigenous peoples. Since 2009, regional and international bodies have begun to apply the general principles of FPIC to non-indigenous communities and constituencies, and various civil society organisations and industry associations have expressed support for a broader application of FPIC. In 2016 the UN Committee on the Elimination of Discrimination against Women recommended that governments obtain FPIC from rural women prior to the approval of projects affecting rural lands and resources.

Taking a proactive stance on FPIC signals to producing country governments, civil society and the investment community that a company respects the rights of communities and is strongly committed to building positive relationships with them. By incorporating FPIC into company policies and implementing FPIC systematically throughout the lifecycle of their operations, mining companies can reduce conflict, legal and reputational risks; establish positive relationships with communities and a social licence to operate; and experience a competitive advantage in project permitting and financing.

D.7 Land Rights, Resettlement and Remedy

D.7.1 The company has management systems in place, including assessment and planning, for avoiding, minimising and addressing the impacts of the physical and/or economic displacement of project-affected people.

(IFC PS 5, 19. CCCMC 2.4.3)

D.7.2 The company engages project-affected people, including women and youth, in land rights and resettlement decision-making and implementation, and evaluates the extent to which livelihoods, livelihood security and living standards have been improved or restored.

(IFC PS 5, 8.; PS 5, 9.; PS 5, 10.; PS 5, 14.; PS 5, 19.; PS 5, 20.; PS 5, 21.; PS 5, 22.; PS 5, 25.; PS 5, 27.; PS 5, 28. ISO 26000, 6.3.5.2. ILO 169 Art. 14, 1.; Art. 15, 1.; Art. 16, 4)

Mining operations typically involve the transformation of large areas of land. Acquisition of property or environmental damage related to mining may lead to the physical relocation (displacement) of people, or economic displacement as a result of lost access to subsistence or income-generating lands or resources. Both physical and economic displacement can violate human rights, and threaten the social, cultural, economic, physical and psychological health and wellbeing of individuals and communities.

Although any displacement of peoples can have devastating effects, mining-induced displacement and resettlement (MIDR) present additional challenges. Mining projects are often located in remote areas where governments are weak or unstable, people lack political power, land tenure is insecure, and alternative land or livelihood opportunities are limited. Studies of MIDR consistently reveal high levels of impoverishment among displaced people. Both the communities receiving displaced people and those being resettled face high risks of conflict, human rights violations, poverty and social instability.

In some countries proposed large-scale mines overlap with areas traditionally used for artisanal or small-scale mining (ASM). MIDR can have particularly severe impacts on ASM communities: it can be difficult to relocate ASM miners because opportunities to practice their traditional livelihoods are not easy to find; and because many ASM miners do not have legal rights to land and minerals they may not be compensated through resettlement processes for loss of livelihood.

Given the high potential for impoverishment and conflict, mining-induced displacement and resettlement should only take place under exceptional circumstances, and with sufficient safeguards to ensure that the living standards and livelihoods of affected peoples are maintained or improved. While avoiding resettlement is often viewed as a top priority for companies and lending institutions, it should be recognised that avoidance may not always provide the most positive outcomes for communities.

Some of the critical safeguards related to resettlement include: prioritising provision of land over cash compensation; basing all compensation on full replacement costs; providing a choice of options for adequate housing with security of tenure regardless of whether legal title to land and assets was previously held; restoring or improving livelihoods; and enabling displaced persons to share in a project's benefits.

Importantly, responsible mining requires that those likely to be adversely affected by resettlement be allowed to participate in all processes and decision-making related to resettlement, including: the evaluation of project alternatives; the assessment of impacts; planning of mitigation measures; implementation of resettlement programmes; and resettlement monitoring and evaluation. In order to ensure effective participation, engagement should be inclusive of women, youth, vulnerable groups including artisanal miners if relevant, and communities receiving displaced persons; and affected communities should be provided with free legal and technical assistance. Additionally, respect for human rights requires that grievance mechanisms be in place to enable affected peoples to raise concerns and seek appropriate remedy.

It is imperative that mining companies devote sufficient time and resources to planning resettlement programmes, and carry out monitoring and external evaluation of resettlement outcomes to ensure that they are making good on their commitments to improve livelihoods and standards of living. Failure to deliver positive outcomes for resettled communities creates high risks for companies including increased conflicts, reputational damage, higher operating costs, and reduced access to land.

D.8 Artisanal and Small-Scale Mining

D.8.1 Where applicable, the company establishes formal engagement agreements with artisanal and small-scale mining (ASM) communities and operations in and around mines to regulate the relationship between itself and ASM.

(RJC 33.1. CCCMC 2.8.8)

D.8.2 Where applicable, the company assesses and enables technical assistance programmes and/or alternate livelihood opportunities for ASM miners to encourage economic viability.

(CCCMC 2.3.4; 2.8.8. SDG 1. ISO 26000, 6.8.7.2)

Artisanal and small-scale mining (ASM) has been historically present in many countries, and is a traditional source of permanent or seasonal livelihood for vast numbers of people. ASM operations tend to exploit marginal or small mineral deposits; require low investment and low levels of mechanisation; are labour intensive; and have poor access to markets, low standards of health and safety and a significant impact on the environment.

ASM activities are often viewed negatively by governments, and viewed with concern by civil society and others due to issues such as child labour and forced labour (See **E.6**), environmental pollution, social disruption, conflicts, and the use of ASM revenues to finance conflict. However, artisanal and small-scale mining is also a poverty-alleviating activity, and can be critically important for many poor communities when there are few other livelihood alternatives.

Worldwide, ASM currently employs an estimated 20-30 million people. Despite the fact that artisanal mining can be risky, labour-intensive work, both the number of commodities being mined and the number of ASM workers continues to grow.

As ASM expands, so do the risks of conflict and violent interactions between ASM and large-scale mining (LSM) operations. ASM can also create reputational risks and undermine the LSM company's social licence to operate by creating environmental and public health problems, clashing with mine security forces, and disputing rights to land and ownership of the resources. These risks, in turn, threaten the viability of the LSM company's current and future projects. Consequently, many LSM companies, and others, are seeking ways to help reduce the social and environmental impacts of ASM, and enhance the potential for the ASM sector to become a catalyst for local economic growth.

The variability of the ASM sector prevents a one-size-fits-all solution, but there are some promising efforts that can be strategically applied by LSM companies. These include: engaging with ASM communities during the earliest stages of mining development and throughout the project lifecycle; promoting a strong legal and regulatory ASM framework; helping ASM to get organised and formalised; sharing a portion of the LSM mining leases with ASM; providing technical assistance to ASM; creating mine employment or employing ASM as subcontractors; promoting livelihood diversification; and supporting access to basic services.

ASM has great potential to offer sustainable livelihoods for poor and small-scale producers in developing countries. By focusing on relationship building, and providing real benefits through targeted initiatives, large-scale mining companies can reduce conflicts with ASM, and improve the livelihoods for ASM workers and local communities. All of these activities will provide reputational benefits for companies, and also help to create stronger local economies, and a more stable and attractive investment climate in producing countries.

D.9 Human Rights

D.9.1 The company seeks to enhance community wellbeing and to respect human rights, for example through alignment with the UN Guiding Principles on Business and Human Rights.

(RJC 6.1. CHRB A.1.1. CCCMC 2.4.1)

D.9.2 The company publicly reports on human rights management and performance, in line with the UN Guiding Principles on Business and Human Rights.

(GRI G4-HR9. UNGP C5.1)

D.9.3 The company records and publicly reports, including to appropriate producing country government authorities, any credible incidents of human rights violations and any identified risks for human rights defenders in its areas of operation.

(VPs Responses to human rights abuse (Public Security); Interactions between companies and private security (Private Security). UNGC P1, P2. UNGP (RF) C.3.2)

Mining operations have the potential to affect an array of human rights, ranging from those that are specific to workers, women or indigenous peoples to those applying to all people. Depending on the political, social and operational context of the mine, different human rights may be affected including the rights to health; safe water; an adequate standard of living; life, liberty and security of person; non-discrimination; safe work environment; freedom of movement; access to remedy; or others.

Globally, community members, indigenous peoples and human rights defenders who express opposition to mining projects are increasingly susceptible to human rights abuses, suffering stigmatisation, harassment, attacks, or worse. Global Witness recorded 185 killings of land and environmental defenders in 2015, with the mining industry being linked to more killings than any other sector.

There are three well-known frameworks that provide corporations with due diligence guidance on managing human rights risks and impacts in different contexts: the UN Guiding Principles on Business and Human Rights; the Voluntary Principles on Security and Human Rights (See **D.10**); and the OECD Due Diligence Guidelines for Mineral Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (See **D.10**). All three frameworks require that a company assess the risks to human rights from its own activities, or those that may be directly linked to its operations, products or services by its business relationships.

When risks to human rights are identified, companies are expected to take steps to prevent, mitigate and remediate impacts, including providing redress for victims. A company's actions should prioritise those human rights that are most salient to the mining operation, i.e. those that are a risk of creating the most severe negative impacts on people. Additionally, when a company becomes aware of credible cases of human rights violations in its area of operation, international norms require that the company should report those incidents to the relevant government authorities and international human rights bodies.

Other aspects of human rights due diligence include stakeholder engagement; having a mechanism for stakeholders to raise human rights related grievances; monitoring the effectiveness of the company's actions; and communicating how risks are addressed. Companies that undertake comprehensive human rights due diligence can experience financial and reputational benefits, and are more likely to contribute positively to the outcomes sought by the UN Sustainable Development Goals (i.e. ending poverty, protecting the planet and ensuring prosperity for all). Preventing, mitigating and remediating infringements on human rights increases the ability to retain the best employees by creating safe and secure work environments; enhances the health and wellbeing of communities; helps strengthen government institutions and accountability; and contributes to a more attractive investment climate, all of which help to foster sustainable development.

D.10 Security

D.10.1 The company takes measures to minimise the risk of human rights abuses linked to its security management, in line with the Voluntary Principles on Security and Human Rights.

(RJC 11.3. CHRB A.1.3; D.3.7. CCCMC 2.4.2)

D.10.2 When operating in conflict-affected and high-risk areas, the company has specific systems in place for managing security risks for workers and communities.

(VPs Conflict Analysis. ISO 26000, 6.3.4.1; 6.3.4.2. GRI G4-HR9)

Mining is a global industry. When mines operate in countries with weak governance, or in conflict-affected or high-risk areas, risks to the security of the operation and the potential for human rights violations are heightened. Many mines operating in such contexts rely on private or public security forces to protect their employees and property.

While security providers can help to maintain stability and safeguard the rule of law at mines, there is also a risk that a lack of oversight, inadequate training or other circumstances may lead to the inappropriate use of force and infringements of human rights by security providers. There are numerous examples where extractive companies have been accused of complicity in the violent repression of protests, sometimes leading to fatalities or including the sexual assault of local women. In certain cases, allegations have been made in relation to private security forces hired by extractives companies; in others, police or government military forces were the alleged perpetrators of human rights violations.

Governments bear the ultimate duties of maintaining law and order, and also of protecting their citizens from human rights abuses by third parties, but in some regions weak enforcement leaves people vulnerable to abuses. Regardless of whether or not producing country governments uphold their duty to protect the human rights of their citizens, there is a recognised global expectation that corporations must respect human rights throughout their operations. (See **D.9**) This includes taking action to prevent complicity in human rights abuses perpetrated by those linked in some way to their businesses, such as public or private security forces protecting their assets.

In 2000, the Voluntary Principles on Security and Human Rights (VPs) were developed through a multi-stakeholder initiative to provide guidance specifically for extractive industries on maintaining the safety and security of their operations within an operating framework that encourages respect for human rights.

The VPs encourage companies to: assess risks related to security, potential for violence, human rights records of security providers, rule of law, conflict and equipment transfers; investigate allegations of human rights abuses; train security forces on human rights; research past incidents and perform background checks; strengthen state institutions; monitor use of company equipment; and exchange information with others in a manner that protects human rights. Companies may also include provisions in contracts or memorandums of understanding that commit public security forces and private security providers to comply with international human rights law.

While not mandatory, the VPs are increasingly being supported by governments and adopted by mining and extractives companies who recognise that diligent management of security and human rights issues can contribute to: a reduction in production delays; maintenance of company reputation and social licence to operate; increased access to financing; and reduced risk of litigation.

D.11 Grievance and Remedy

D.11.1 The company has formal community grievance mechanisms in place for affected stakeholders to raise concerns in an easily accessible manner and have them addressed.

(ISO 26000, 4.4; 6.3.6.2. UNGP (RF) C.6.1. CHRB C.2; A.1.5. CCCMC 2.8.4)

D.11.2 The company monitors and publicly reports on the effectiveness of the operational-level grievance and remedy mechanisms.

(GRI G4-EN34; G4-HR12; G4-SO11. UNGP (RF) C.6.5. CHRB C.7; A.1.5. OECD SEEI 3. A)

MS 3 The operating company can demonstrate implementation of a grievance mechanism and claimants' effective access to remedy.

(GRI G4-S01. CHRB, C.2. CCCMC 2.8.4)

Large-scale mining has the potential to profoundly affect the lives, properties, environmental resources and rights of nearby community members and other stakeholders. It is inevitable, therefore, that questions, concerns and complaints will be triggered by either real or perceived impacts of a company's mining operations.

Operational-level (or project-level) grievance mechanisms are formal processes that enable individuals or groups to raise concerns and seek remedy for negative effects from a company's activities. Ideally, these mechanisms provide a process for receiving, evaluating and addressing minor concerns as well as more entrenched or serious issues, including the infringement of human rights.

Operational-level grievance mechanisms can be an effective means of providing remedy for a grievance if the mechanism meets certain criteria such as being: legitimate, accessible, predictable, equitable, transparent, and rights-compatible. Remedies will counteract or 'make good' any harms that have occurred, and may take the form of apologies, restitution, rehabilitation, financial or non-financial compensation, as well as measures to prevent recurrence of the harmful act. When there are allegations of serious human rights abuses, however, operational-level grievance mechanisms may not be the most appropriate means of providing remedy as this may require the involvement of state entities. Furthermore, utilising an operational-level grievance mechanism should not preclude complainants from accessing judicial or other non-judicial grievance mechanisms.

Operational-level grievance mechanisms will not serve their purpose if they are not used. By engaging with a diversity of affected stakeholder groups in the design, accessibility and performance of the grievance mechanism, mining companies can help ensure that it meets stakeholders' needs and is culturally appropriate, thereby increasing the likelihood that stakeholders will trust and use the process.

Complainants want to be sure that they are taken seriously, and treated fairly. Mining companies can promote confidence in the grievance process by involving stakeholders in the monitoring and verification of compliance with commitments made through the grievance mechanism, and creating ample opportunities for stakeholders to provide feedback on its effectiveness. Public reporting on grievances, such as the types of issues being raised, the number of complaints and the proportion resolved to the complainant's satisfaction, can help demonstrate that the company treats local concerns seriously.

There is an increasing global expectation that companies will implement operational-level grievance mechanisms. When they are effective, such mechanisms enable companies to identify minor concerns before they escalate into unmanageable conflicts; help avoid costly legal battles, protests or opposition to mining projects; and increase access to project finance. Information generated through the operational-level grievance mechanisms can also facilitate learning that can support better management of relations with communities over the long term.

E. | Working Conditions

Large-scale mining operations can provide jobs for hundreds of workers. However, 'decent work,' as defined by the International Labour Organisation, encompasses more than a steady job. It involves work that delivers a fair income; safety, health and security in the workplace; social protection for families; freedom for workers to express their concerns, organise and participate in the decisions that affect their lives; and equality of treatment and opportunity for advancement for all workers.

Many of these concepts are entrenched in internationally recognised core labour standards that protect the fundamental rights of workers. Globally, however, hazardous working conditions persist, child labour or forced labour can be found at mines and in mining supply chains, and discrimination and gender inequality remain a challenge at mining operations.

Some mining companies recognise that respecting the rights of workers and promoting decent work are good for business and society. Mine productivity improves when workers are physically well, and when they feel respected and supported in the work that they do. Additionally, through the creation of safe and secure jobs and training opportunities mining companies can help to reduce poverty and provide equitable opportunities for economic and social development.

E.1 Living Wage

E.1.1 The company pays wages that meet or exceed verified living wage standards.

(ISO 26000, 6.4.4.2. SDG 10.1. CHRB D.3.1)

A living wage – one that enables workers and their families to afford a basic but decent lifestyle, live above the poverty level, and be able to participate in social and cultural life – is a human right. A number of countries and regional governments have laws requiring that living wages be paid to citizens, and numerous benchmarking or standard systems that promote responsible environmental and social practices have integrated the living wage concept into their requirements.

While the living wage concept is being more broadly recognised, issues such as the measurement and definition of a living wage are often used as an excuse for not paying a living wage. Although there is no single method for calculating living wage there are several methodologies that can be drawn upon. The most important factor for mining companies is to ensure that relevant stakeholders, such as workers and community representatives, are involved in living wage discussions and assessments, so that companies ensure that wages are enough to provide for the needs of workers and their families in the specific local context.

Some mining companies are beginning to take leadership positions by incorporating living wage into company policies or commitments on wages paid to employees, contractors and suppliers.

Mining companies that proactively work to ensure that direct employees and contractors are paid a living wage are fulfilling their responsibility to respect the human rights of their workers. They can thus strengthen relationships with workers and increase their morale and productivity; and demonstrate to investors and stakeholders that they are fulfilling their responsibility to respect the human rights of their workers. Fair remuneration can help to avoid protests and associated reputational damage and financial losses.

E.2 Occupational Health and Safety

E.2.1 The company commits to promote safe and healthy working conditions.

(GRI G4-DMA (additional reporting); G4-LA8. ISO 26000, 6.4.4.2; 6.4.6.2. IFC PS 2, 23)

E.2.2 The company has management systems in place which ensure a safe and healthy working environment for employees and contractors.

(GRI G4-DMA (additional reporting); G4-LA5; G4-LA6; G4-LA7; G4-LA8. ILO 176 Art. 6; Art. 7; Art. 9; Art. 10; Art. 11; Art. 12; Art. 13, 1. ISO 26000, 6.4.4.2; 6.4.6.2. IFC PS 2, 23.; PS 2, 28)

E.2.3 The company regularly trains and tests its employees in good health and safety practices.

(RJC 21.5. ILO 176 Art. 10. ISO 26000, 6.4.6.2)

E.2.4 The company provides for health and safety measures specific to women workers.

(IFC PS 2, 23. ISO 26000, 6.4.6.2. CHRB A.1.3)

Mining is an inherently hazardous occupation. It is responsible for approximately 8% of fatal workplace accidents, even though the mining sector comprises just 1% of the global workforce. Workplace injuries, noise-induced hearing loss, impacts on mental health, and occupational illnesses and diseases from exposure to chemicals, heat, radiation, metals and particulates are also significant in the mining sector.

As technologies change, some mining operations are becoming less dependent on physical labour and are moving to the use of high-tech equipment and machinery that can be operated from remote control rooms. While such working conditions may offer better air quality, personal protective equipment and technical safeguards, accidents and incidents still occur; and these work environments may come with their own set of issues, such as repetitive injuries and stress.

Mining companies can address potential health and safety risks through an integrated occupational health and safety (OHS) management system that includes ongoing OHS risk assessment; development and updating of OHS risk management plans; health and safety trainings; workplace monitoring and worker health surveillance; regular inspections; reporting; investigation of incidents; provision of appropriate protective equipment at no cost to workers; and worker participation in health and safety management and decision-making.

Responsible mining requires that companies take a gender-equity approach to all aspects of their operations, including health and safety. During the assessment of risks and development and implementation of OHS measures, particular attention should be paid to the risks and health and safety needs of women workers, including provision of appropriate equipment and sanitation facilities. Women in the workforce often face issues around physical constraints, lack of gender-appropriate facilities or protective equipment, and others.

More holistic approaches to risk management, including the involvement of women workers in occupational health and safety risk assessments, is needed to protect women workers and increase their participation in mining. Additionally, when women are represented in the workforce, they should be included in health and safety decision-making.

A strong corporate occupational health and safety culture recognises that employees must be both physically and mentally healthy for a safe and productive environment to flourish. When such a culture exists, mining projects experience higher worker productivity, and companies are better able to attract and retain personnel as well as investors.

By reducing fatalities, accidents and injuries a company will experience reputational benefits, and reduce costs associated with accident investigations, worker compensation payments, increased insurance premiums and litigation.

E.3 Collective Bargaining and Freedom of Association

E.3.1 The company respects the rights of workers to freedom of association and collective bargaining.

(GRI G4-DMA (additional reporting); G4-HR4. OECD MNE IV.1.a. IFC PS 2, 10.; PS 2, 13.; PS 2, 14. UNGC P3)

The freedoms to associate and to bargain collectively are fundamental workers' and human rights that are now recognised in much of the world, although in some countries, mine workers and union representatives are still denied these rights, or are threatened or killed trying to exercise their rights.

Freedom of association is a right of both workers and employers to form or join organisations of their own choosing; and collective bargaining is the process by which workers, typically organised as a union, negotiate their terms of employment with mine management. The aim of collective bargaining is to form a joint, written agreement that governs the employment relationship, including wages and working time, and even issues such as job security, training, parental leave and equal opportunity. Collective bargaining provides a way to balance power and by so doing promote equity in the distribution of benefits from mining, and facilitate stability in employment relations.

Many mining companies have established policies and commitments to uphold the International Labour Organization's core labour conventions, which include the rights to freedom of association and collective bargaining, and increasingly they are placing the same expectations on their contractors and suppliers. Some companies have even signed international or global framework agreements (IFA or GFA) with global union federations, demonstrating a higher commitment to applying the same high labour standards globally within their subsidiaries and contractors, and along their global supply chain.

In many parts of the globe there is growing concern about the rise in income inequality, insecurity, social instability and slow economic growth. Collective bargaining can be a powerful tool for engagement between employers' and workers' organisations to address economic and social concerns, strengthen weak voices and reduce poverty and social disadvantage. This helps to contribute to an equitable and inclusive growth path.

For mining companies, in addition to fostering better relations with workers, collective bargaining agreements can lead to more stable and predictable operating environment; and may enhance a company's performance and competitiveness. Companies that fail to respect workers' rights to freedom of association and collective bargaining may find themselves facing strikes, protests and campaigns from labour organisations and shareholders.

E.4 Worker Recourse

E.4.1 The company has formal grievance mechanisms in place for workers (and their organisations, where they exist) to raise workplace concerns in an easily accessible manner and have them addressed.

(GRI G4-LA16. IFC PS 2, 20.; PS 2, 26. ISO 26000, 4.4; 6.3.6.2)

It is now an expectation that companies ensure that stakeholders have a means to file complaints and obtain remedy for business-related human rights abuses (See **D.11** and **D.9**), which includes the infringement of labour rights. For example, the United Nations and others recommend that companies establish mechanisms that enable them to hear and address complaints raised by stakeholders, including workers. In the workplace context, grievance mechanisms should enable workers to file complaints related to labour (human) rights or working conditions and terms of employment, and suggest workplace improvements.

Most mining companies have grievance mechanisms for workers, however, they are not equally effective. Operational-level grievance mechanisms will be most effective if they meet certain criteria such as being: legitimate, accessible to all workers, predictable, equitable, transparent, and rights-compatible. For example, in the labour context, an equitable mechanism would enable workers to have a colleague or representative from a workers' organisation present when they raise grievances, and provide access to training or advice to ensure that workers can participate effectively in the grievance process.

Another key issue is that grievance mechanisms should enable allow workers to file complaints confidentiality, if requested, and without fear of punishment or retribution. Also, any operational-level grievance mechanism available to workers should not prevent them from seeking remedy through labour tribunals or other judicial or non-judicial mechanisms.

As with grievance mechanisms designed for other stakeholders, worker grievance mechanisms will be most useful and effective if they are designed in a collaborative manner with workers or workers' representatives. Well-designed and implemented grievance processes can reduce conflicts with workers by providing a fair hearing and remedy process, so that workers are satisfied that their complaints have been heard and taken seriously, even if the outcome is not viewed as entirely optimal.

If a mining company does not provide an effective means of actively engaging with workers in the remediation of impacts it cannot fully meet its responsibility to respect human rights. Failing to identify grievances early and to address them effectively can also have significant negative ramifications for mining companies. These range from low morale, reduced productivity, high turnover, absenteeism, and illness among its workforce, to strikes or violent actions against the company. The subsequent reputational damage can harm a company's ability to win future contracts or realise new investment opportunities.

E.5 Non-Discrimination and Equal Opportunity

E.5.1 The company bases employment relationships on the principles of equal opportunity, and actively prevents all forms of discrimination in the workplace.

(IFC PS 2, 11.; PS 2, 15.; PS 2, 16. ISO 26000, Box 2; 6.3.7.2; 6.3.10.3; 6.4.3.2. GRI G4-LA1; G4-LA3; G4-LA12; G4-LA13; G4-HR3. SDG 8.5; 10.3)

Both non-discrimination and equal opportunity are rooted in the principle that all employment decisions should be based solely on the ability of the individual to do a job in question, and not personal characteristics that are unrelated to the inherent requirements of the work, that benefit from employment is equitable, and that no employees experience discrimination from either management or fellow workers. The concepts of non-discrimination and equal opportunity are enshrined in numerous international instruments, including conventions of the United Nations and the International Labour Organization.

Discrimination in employment may include the exclusion or preferential treatment of a person based or age, race, ethnicity, gender, religion, political opinion, indigenous or social origin, disability, sexual orientation or other characteristics. Discrimination may affect access to employment or specific occupations; it may be reflected in the terms and conditions of employment, or may be experienced in the workplace (e.g. via harassment or victimisation).

In the mining context, there may be vulnerable individuals, groups or communities that face a higher risk of being exposed to discrimination, such as women, indigenous peoples, persons belonging to ethnic or other minorities, migrant workers, or workers with HIV/AIDS or other diseases. Discrimination may be direct or indirect. For women workers in particular, numerous challenges persist, such as sexual harassment and lack of acceptance by male co-workers. Other, more indirect problems include balancing family responsibilities and shift work.

Many countries have laws that prohibit employment-related discrimination, however, these laws are often weak or limited in scope. In some producing countries, certain cultural behaviours and attitudes may be deeply entrenched, which create challenges for combating discrimination among workers.

Leading companies are increasingly going beyond legal requirements, and are making concerted efforts to eliminate discrimination and foster diversity and equal opportunity in the workplace. They are instituting clear and transparent recruitment practices that are based on qualifications and experience, not personal characteristics; developing and implementing of anti-harassment policies; providing confidential grievance mechanisms (See **E.4**); creating family friendly policies; providing cultural, religious, gender or other diversity trainings to supervisors and workers; training and recruiting under-represented groups; and implementing other initiatives.

Mining companies that adopt progressive anti-discrimination and equal opportunity approaches may derive a number of business advantages, including improved employee morale, a wider pool of talent from which to recruit, reduced exposure to legal challenges, and reputational benefits.

E.6 Elimination of Forced Labour and Child Labour

E.6.1 The company works to prevent all forms of forced, compulsory, trafficked and child labour at its mine sites and in its supply chains.

(GRI G4-HR5; G4-HR6. UNGC P4, P5. OECD MNE IV.1.b;c. CHRB A.1.2)

Forced or compulsory labour is any work or service performed against a person's will under the threat of punishment, and includes debt bondage, human trafficking and other forms of modern slavery. It is estimated that more than 20 million people worldwide are trapped in jobs that they cannot leave, condemning them to lives of poverty and servitude.

Child labour is work that deprives children under the age of 18 of their childhood, their potential and their dignity, and that is harmful to physical and mental development. Many child labourers never receive adequate education, and suffer lifelong physical or psychological damage. Despite recent gains in reducing child labour, there are still an estimated 168 million child labourers in the world today.

Both forced labour and child labour are violations of fundamental human rights. While there are some cases of forced labour alleged or found in large-scale mines, the vast majority of mining-related cases with both forced and child labour are associated with artisanal and small-scale mining. (See **D.8**) However, under certain circumstances large-scale mining companies may be complicit in child labour or forced labour through the actions of others, including contractors, suppliers or businesses associated with its mines.

It is now a global expectation that in order to fulfil their responsibility to respect human rights, all mining companies must carry out due diligence to eliminate human rights abuses, including child labour and forced labour, in their own operations, and seek to prevent these abuses in their supply chains. Due diligence involves taking proactive steps to identify, prevent, mitigate and account for how they address their impacts on human rights; as well as implement processes that enable the remediation of any adverse human rights impacts they cause or to which they contribute. (See D.9)

The elimination of child labour and forced labour remains a major challenge worldwide. However, progress in these areas leads to vast improvements in the quality of life of affected individuals and communities, and significant economic and social benefits in many countries. As awareness of the problems of child labour and forced labour in global value chains continues to grow, mining companies, like other businesses, are being pressured by investors, trade unions, non-governmental organisations (NGOs) and consumers to play a key role in the eradication of these practices.

When mining companies carry out the due diligence necessary to uncover and address issues of child or forced labour in their operations or global supply chains they may experience a competitive advantage, as they are likely to be viewed more positively by investors and, importantly, customers, who also face the same reputational risks of being associated with a company linked to human rights abuses. Companies that do not take child labour or forced labour seriously risk reputational damage, legal action, and targeted campaigns by civil society organisations or investors.

F. | Environmental Responsibility

Large-scale mining typically involves the removal of vegetation and soil, the diversion of watercourses, and the movement of massive amounts of rock. These activities create temporary impacts such as noise, and water and air emissions, and can permanently transform landscapes and ecosystems.

Where responsible environmental practices are in place, impacts are minimised, and the lands and waters disturbed by mining can subsequently be rehabilitated into functioning and productive ecosystems that support wildlife and human activities. When poorly managed, however, mining can have devastating impacts on the environment, in some cases creating pollution issues that can last hundreds of years, or destroying forever the resources upon which communities depend.

Responsible mine management requires that companies understand the important environmental values and take steps to avoid impacting threatened ecosystems and resources that are of high significance to social and economic wellbeing of communities. Where impacts are not preventable, responsible mining nevertheless requires that they be minimised to the greatest extent possible.

F.1 Environmental Stewardship

F.1.1 The company has management systems in place to conduct assessments of environmental impacts through an integrated approach, and to disclose them.

(ISO 26000, 4.3; 5.2.2; 6.5.2.2; 6.5.3.2. GRI G4-EN33; G4-SO1. CCCMC 2.1.3; 2.7.2)

F.1.2 The company has systems in place for monitoring, evaluating and reporting on the management of the environmental impacts of its operations.

(CCCMC 2.7.1; 2.7.5; 2.7.7. GRI G4-EN)

Environmental stewardship is the comprehensive understanding and effective management of critical environmental risks and opportunities related to climate change, emissions, waste management, resource consumption, water conservation, biodiversity protection and ecosystem services.

According to the UN Global Compact, traditional corporate environmental management approaches, based largely on compliance and narrow risk assessments, will not be sufficient to successfully address major 21st-century environmental challenges such as water scarcity, climate change and loss of biodiversity. Tackling such issues requires, instead, a comprehensive, cyclical approach to environmental management.

Companies are increasingly adopting a cyclical 'Plan, Do, Check, Act' management approach to environmental protection. Basic elements in this type of environmental management system (EMS) include: setting environmental objectives, assessing potential environmental impacts, preventing and mitigating adverse impacts, carrying out environmental monitoring and evaluation (M&E), and reporting on its actions and effectiveness. Environmental management plans should be developed to document and guide the necessary actions, and plans updated when M&E or changes in mining processes necessitate more effective strategies to meet environmental objectives.

While robust EMS processes are important, they are not necessarily enough to guarantee environmental protection that also meets the needs of affected communities. There is increasing recognition of the interconnectedness of the environmental, social and economic challenges confronting the world; and that solutions aimed at eradicating poverty and promoting environmental protection and sustainable economic growth require an integrated planning, assessment and management approach.

Environmental Impact Assessment (EIA) is a tool, often required by law but also used voluntarily by some companies, to assess the potential effects of a proposed project and alternative project designs on the environment, and to consider strategies for preventing or mitigating potential impacts. Increasingly, the scope of EIA has been expanding beyond the physical environment. Integrated assessments that combine health, social, economic, human rights, cultural and psychological wellbeing as well as the physical, biological and geochemical environments, provide a more holistic understanding of the complex interrelationships between the human and natural environments that affect environmental and human health and wellbeing. This awareness helps to ensure that, where possible, mitigation strategies avoid simply trading off one problem for another.

Stakeholder engagement is an essential component of credible, effective environmental management. Stakeholders, including members of affected communities and representatives from relevant government agencies, should be included in assessment processes, the development of appropriate mitigation strategies, and monitoring programmes. (See also **D.1** and **F.4**)

Together, the integration of environmental management with broader societal considerations, meaningful stakeholder engagement, and public disclosure of environmental management activities (including assessments, mitigation strategies and monitoring data), can enhance a company's accountability, and increase the likelihood that its efforts will support the health and livelihoods of communities and leave positive environmental legacies. Effective environmental stewardship, in addition to protecting environmental and social values, is likely to create improved stakeholder relations, increased employee engagement, financial benefits, and a competitive advantage for companies.

F.2 Tailings Management

F.2.1 The company has systems in place for tailings management, including regular internal and external review and assurance processes.

(TSM Tailings management performance.2)

F.2.2 The company designs its tailings, waste and process facilities to prevent seepage and tailings dam failure and to protect the environment and communities from contamination and other impacts, including through the management of risks associated with potential changes.

(GRI G4-DMA (MM additional reporting); G4-EN24. SDG 3.9; 6.3; 11.6; 12.4)

Mining operations generate enormous volumes of waste during the milling (beneficiation) process, when the minerals are extracted from the ore. The wastes, known as tailings, are composed primarily of pulverised rock, water and process chemicals. Typically, tailings are piped into large surface impoundments, where they are held in by earthen dams. The fluids are recycled, or they evaporate or drain out over time. When tailings storage facilities are full, the wastes undergo reclamation, such as the planting of vegetation, to stabilise the area.

There are a variety of risks and impacts associated with tailings storage facilities. Tailings usually contain residual chemicals and elevated levels of metals, and facilities are prone to seepage, which can result in the contamination of ground and surface water. Impoundments may cover areas that were previously productive farmland or wildlife habitat. Dry tailings can create serious dust problems for nearby communities. Finally, unstable tailings dams can fail catastrophically, releasing large quantities of waste that can smother rivers, bury homes, destroy livelihoods, and seriously impact the environment and local communities.

Recent high-profile tailings dam failures have prompted several mining industry reviews, which are expected to lead to improvements in practices that will help to prevent future disasters. For example, based on its tailings review, the International Council of Mining and Metals (ICMM) released a position statement in 2016 that commits its members to improving tailings-related management and practices.

In addition to ensuring that tailings facilities are planned, designed, constructed and managed to the highest standards by competent professionals, there are other critical management practices that can help prevent and minimise impacts from tailings wastes. These include: assigning accountability and responsibility for tailings management at the highest levels of the company; adopting the best available technology; conducting frequent internal reviews of tailings facility performance, and ensuring that corrective actions are implemented on schedule; and enabling independent review of site investigation and selection, design, construction, operation, closure and post-closure of tailings facilities, with public disclosure of the findings.

Furthermore, given that tailings management decisions can have long-term implications for the communities and natural resources, it is in the interest of all stakeholders that companies engage with potentially affected communities and external experts when assessing risks related to various tailing-facility designs, and in the planning, construction and monitoring of tailings waste facilities.

There is a strong incentive for mining companies to reduce the risks associated with tailings facilities. Failures, whether catastrophic dam bursts or the slow seepage of chemicals into water, can lead to significant health and safety risks for local communities, widespread environmental damage and high clean-up and remediation costs that often fall on producing country governments. Companies implicated in tailings facility mismanagement suffer huge financial losses, face legal action, loss of social licence to operate, and not only bring reputational damage to themselves, but to the mining industry as a whole.

F.3 Air

F.3.1 The company publishes mine-site level air quality monitoring data in a timely manner.

(GRI G4-DMA (MM additional reporting); G4-EN21. IFC PS 3, 10. ISO 26000 4.3; 6.5.3.2)

Over the past few decades, air pollution levels have decreased in Europe and North America, resulting in better public health and quality of life. Over the same time period, however, air pollution in many developing countries has increased, primarily due to rapid industrialisation and development.

Air emissions from mining and mineral processing may affect the environment on a local, regional and even global scale. Dust and particulate matter are the predominant air emissions associated with most mines. For nearby communities, dust is one of the major triggers for protests and opposition to mining activities. However, several gaseous contaminants are also released during mining and processing activities. Some of these contaminants, such as sulphur dioxide and nitrogen oxides, can diminish local and regional air quality, and contribute to climate change.

Mining-related air emissions can also impact the health of workers and communities, harm fauna and flora, and damage the food systems of indigenous peoples and other local communities.

The potential impacts of mining-related air emissions on the environment and on local communities are typically considered as part of a company's environmental impact assessment. As with any impact assessment, it is important that communities be offered the chance to provide input on their concerns and suggested mitigation strategies during the process. Dust or air quality management plans offer mining companies a way to systematically address or avoid issues identified through the assessment. Effective management also requires a well-structured system for monitoring, recording, quality checking and reporting information transparently and consistently.

Air quality monitoring is commonly required to establish baseline air quality conditions for the impact assessment, and it is conducted during mining operations, to ensure that emissions meet air quality regulations. Monitoring can also serve as an early-warning system to enable companies to take timely action to prevent significant impacts on communities or the environment.

By making air monitoring data openly and easily accessible to government agencies, communities, research institutions and other stakeholders, mining companies can provide a general understanding of a mine's contribution to local and regional air quality issues, and enable stakeholders to better understand whether or not there are risks related to specific air emissions from the mining operation. The mere act of disclosing data may also inspire companies to spend more time scrutinising their own emissions, and spur improvements in their environmental performance.

Effective engagement, management and transparency with respect to air quality can help to build community trust and reduce fears related to dust and air contaminants. This, in turn, can help to reduce complaints, community protests, mine shutdowns and regulatory interventions. Controlling air emissions can also help reduce costs by minimising mining hazards and wear-and-tear on mining machinery.

F.4 Water

F.4.1

The company implements a water management system that reflects its commitment and accountability to the rights and needs of the affected area, including the environment, communities, farmers, and water-dependent industries.

(IFC PS 1, 7.; PS 3, 6.; PS 3, 9. ISO 26000, 6.5.4.1; 6.5.4.2. CHRB D.3.8)

F.4.2

The company publishes mine-site level water quality monitoring data in a timely manner.

(SDG 2; 6.3. GRI G4-EN22; G4-EN26. IFC PS 3, 10)

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The operating company actively and inclusively engages local communities in decisions on water management and in implementing and sharing the results of water quality monitoring activities.

(ISO 26000, 6.5.3.2; 6.8.8.2. OECD SEEI, Box 1)

Water is a key issue for sustainable development and the growth of economies. It is essential for immediate survival and long-term food security, and is intertwined with the development of energy infrastructure. In addition to being a human right, clean water supports healthier and more productive populations and ecosystems.

Water is also a key issue for the global mining industry. Access to a stable water supply is critical for any mining operation, but securing access can be a challenge. As global concerns about water scarcity increase, and mines expand into more water-stressed areas, the competition for water resources can create intractable and sometimes violent conflicts between mining companies and communities. These conflicts are often associated with serious human rights abuses, disproportionately suffered by members of affected communities.

The sound management of water discharges, which is linked to responsible mine-waste and hazardous materials management (See **F.2** and **F.8**), is also critical at mines. Mining-related water management involves the assessment of risks to water in the immediate vicinity of a mine and in the broader catchment or watershed area; and the development and implementation of strategies to minimise the risks and impacts on water users and ecosystems. Water quantity and quality should be monitored at the mine site and at downstream locations to determine if mitigation strategies are effective, and whether or not corrective actions might be necessary to improve environmental outcomes.

Increasingly, the mining industry also acknowledges that effective water management relies on positive and transparent engagement with stakeholders. Ongoing dialogue helps communities understand the mine's water needs, and helps the mining company understand the community's water use requirements, as well as stakeholders' needs, expectations and priorities related to water use and water protection.

Transparency around water use and water quality impacts is becoming an expectation for mining stakeholders, and it is now standard practice for companies to report generally on water issues. Some companies, however, are demonstrating leadership around water transparency by making water monitoring data accessible to affected communities and the general public.

The fear of water contamination can create opposition to mining projects, and actual contamination events can damage livelihoods, destroy positive company-community relations and create short-and long-term costs and financial and legal liabilities for mining companies. Conflicts related to water bring reputational, operational, legal, humanitarian, and financial risks to mining projects. Mining companies that engage with communities in the planning, management and monitoring of water, and are transparent about their water impacts are more likely to establish the trust with communities that is necessary to avoid conflicts and secure the social licence to operate.

Implementing leading social and technical water management practices, such as increasing the efficiency of water use, can also help companies reduce operating costs and potential environmental fines, expedite permitting processes, facilitate mine expansions, secure access to resources (water, ore, land), and preserve or improve a company's reputation.

F.5 Noise and Vibration

F.5.1 The company has systems in place to limit the impacts of noise and vibration on communities, properties, and wildlife.

(ISO 26000, 6.5.3.2)

Noise is a common source of community concern related to mining. During a mine's operational phase, noise can be generated 24 hours a day, seven days a week, and a mine may operate for many years. Potentially significant sources of mining-related noise and vibrations include helicopters used during exploration, heavy equipment used during mine construction, drilling, blasting, loading and dumping waste rock, screening and crushing, and mineral transport (e.g. corridors for railways, roads and conveyor belts).

Noise may have adverse effects on human health, including stress-related illnesses, sleep disruption, high blood pressure, hearing loss and speech interference. Noise may also lead to social and behavioural effects, including annoyance, which is a widely accepted indicator of human health effects related to environmental noise. Additionally, vibrations from blasting and heavy truck traffic are often felt by nearby residents, and have been linked to, or suspected as the cause of, structural damage to homes located close to mine sites.

Wildlife may also be affected by anthropogenic noise. Mining or other industrial noise sources may cause an increase in stress, disruption of natural behaviours, temporary or permanent hearing damage, changes in breeding success, and avoidance of otherwise suitable habitat. The impacts on wildlife may, in turn, have implications for indigenous peoples or local communities whose food sources may be affected.

In order to address issues around noise and vibration, mining companies typically include noise assessments as part of their environmental and social impact assessments, and carry out baseline noise studies to gain an understanding of the pre-mining noise conditions in communities and the project's area of operation. Some national or subnational governments may regulate noise and vibrations. However, even in the absence of regulations, there are internationally accepted standards that can help mining companies gauge acceptable noise and vibration levels at nearby homes, schools, or other noise 'receptors'.

There are a variety of mitigation measures that can be employed to help minimise the effects of mining-related noise and vibrations on communities and wildlife, including limiting known sources of particularly loud noises or strong vibrations, such as blasting, to daytime hours, as well as methods for controlling noise and vibrations at their source.

Noise and vibration issues should be discussed during early engagement with stakeholders (See **D.1**), and throughout the mine lifecycle. Communities are more likely to be tolerant of mining-related noise and vibrations when companies are transparent and work with them to develop acceptable mitigation strategies. If community concerns are not adequately considered or addressed, these issues can provoke community opposition to mining operations, and create significant strain on community-company relationships.

While some noise and vibration mitigation strategies may require an upfront capital investment, they ultimately provide cost savings for the company through increased efficiency and improved occupational health and safety. Effective noise and vibration management also benefits the wider industry by improving community attitudes towards mining activities.

F.6 Biodiversity

F.6.1 The company applies a mitigation hierarchy approach for biodiversity management.

(GRI G4-DMA (MM additional reporting); G4-EN11; G4-EN12; MM2. IFC PS 1, 14.; PS 6, 7.; PS 6, 10.; PS 6, 14.; PS 6, 15.; PS 6, 17.; PS 6, 20. ISO 26000, 6.5.6.2. RJC 36.3)

Biological diversity – or biodiversity – refers to the variety of plants, animals and microorganisms that exist, the genes they contain, and the ecosystems of which they are a part. Ecosystems that are genetically diverse and species-rich are more resilient and adaptable to external stresses, and have a greater ability to recover from disturbances such as floods, fires and diseases. Biodiversity plays a role in stabilising the earth's climate, and supports human life by providing food, nutrients, medicines, habitat, and clean drinking water. It contributes to sustainable livelihoods and economies; and it creates conditions that enable cultural diversity to thrive. The maintenance of global biodiversity is particularly relevant for rural communities in developing countries and for indigenous peoples, whose survival may be highly dependent on the ecosystems services supported through biodiversity.

Mining companies, like other businesses and society as a whole, rely on ecosystems and the services they provide. However, mining also has the potential to affect biodiversity through the clearing of vegetation for roads, removal of soils to access ore bodies, and conversion of land or water-bodies into waste disposal sites. Planned or unplanned discharges of waste products to the environment may also lead to loss of biodiversity.

Growing awareness of potential biodiversity impacts and dependencies is leading many mining companies to engage in biodiversity assessments, and develop management systems and approaches to minimise their impacts on biodiversity. For example, several major mining companies have made commitments to forego exploration and mining in areas of outstanding global biodiversity value, such as World Heritage sites.

Some mining companies are also applying the 'mitigation hierarchy' as a means of managing biodiversity risks. The mitigation hierarchy is an internationally recognised framework that prioritises avoidance of impacts on biodiversity and ecosystem services, and, if that is not possible, moves to minimisation, restoration and, as a last resort, the offsetting of residual impacts. As with any responsible environmental management system, the identification of risks, development of effective mitigation strategies and monitoring plans includes the involvement of relevant stakeholders. Actions may also be designed or reviewed by experienced biologists and other specialists to ensure that mitigation is optimised in accordance with the hierarchy.

Increasingly, companies are commissioning independent external audits or oversight to verify whether their biodiversity management strategies are being effectively implemented. Such external oversight is a useful means of building stakeholder trust and confidence that mining activities are not posing significant threats to biodiversity and important ecosystem services.

The business case for responsible biodiversity management is strong. Companies that take a proactive approach to biodiversity management may experience a competitive advantage, as regulatory regimes in areas with increasing pressures on biodiversity shift to more protective policies. Those companies that demonstrate good biodiversity management practices, including application of the mitigation hierarchy and external audits of their management practices, may secure easier and less costly access to capital, land and resources. Strong approaches to biodiversity help to build trust with communities, non-governmental organisations, producing country governments and other stakeholders, thus strengthening the company's social licence to operate.

F.7 GHG Emissions and Energy Efficiency

F.7.1 The company monitors and minimises GHG emissions generated by its activities.

(GRI G4-EN15; G4-EN16; G4-EN17; G4-EN19. IFC PS 3, 7.; PS 3, 8)

F.7.2 The company monitors and improves energy efficiency throughout its operations.

(GRI G4-EN3; G4-EN6. IFC PS 3, 6. CCCMC 2.7.7. SDG 7.3; 12.2; 13)

Climate change is a global issue, but the effects are not equally distributed around the globe or even within individual countries. Developing countries are often disproportionately affected, and indigenous peoples, and poor and vulnerable groups within society are especially at risk from the impacts of climate change.

As global awareness of the negative effects of climate change has grown, so too has scrutiny of the mining industry's greenhouse gas emissions by investors and mine stakeholders.

Mining is an energy-intensive undertaking, and future energy consumption is predicted to increase in the mining sector as target ore deposits become deeper and lower-grade. At the mine level, energy use varies depending on a number of factors, including: the type of mine (e.g. open pit versus underground); the product being mined; processing methods; materials transport and handling methods; equipment; and the energy sources used.

In the metal mining sector, greenhouse gas emissions are directly tied to energy consumption, with emissions primarily produced through the burning of fossil fuels to power buildings, mining and processing equipment and vehicles. Coal mining creates additional greenhouse gas emissions such as the release of fugitive methane or carbon dioxide during mining, and subsequent greenhouse gas emissions generated from the burning of coal.

Many in the mining industry recognise the global challenges related to greenhouse gas emissions and climate change, and companies are increasingly monitoring and publicly reporting their energy use and greenhouse gas emissions. Companies are increasingly taking steps to reduce energy use and emissions by adopting renewable energy and low-emissions technologies, and improving energy efficiency.

There are many potential benefits for companies that proactively reduce energy consumption, greenhouse gas emissions and fossil fuel dependency. Those companies investing early in energy efficiency measures may enjoy a competitive advantage over those who lag behind, as increased efficiency can help protect companies from increased fuel costs, mitigate the impact of regulations that may limit or put a price on carbon emissions, and result in better market performance.

Additionally, mines proposed in regions that are vulnerable to climate change may be faced with scepticism by insurers and investors. Companies that are transparent about their greenhouse gas emissions and their reductions strategies, and are able to demonstrate a positive track record of reducing emissions and improving energy efficiency are more likely to be viewed favourably by insurers, investors, and the communities in vulnerable regions, or wherever they hope to operate.

F.8 Hazardous Materials Management

F.8.1 The company systematically identifies and manages potential risks linked to the handling, storage, emission and disposal of hazardous materials.

(IFC PS 3, 12.; PS 3, 13.; PS 4, 7. GRI G4-EN23; G4-EN25; G4-DMA)

Hazardous materials are those that represent a risk to human health and property, or to the environment due to their physical or chemical characteristics. There are a variety of potentially hazardous materials that are generated or used by mining operations.

Some hazardous substances, like mercury, arsenic or cadmium, may be made more available as a result of mining. For example, mercury, which is associated with some gold, silver, copper or zinc deposits, may be mobilised during roasting or smelting, or be leached or released into soils, water or air from tailings. Sulphuric acid, a chemical often used in ore processing and a by-product of mining sulphide-bearing ores, may result in acidic drainage and the release of heavy metals into the environment.

Other hazardous chemicals are used to extract metals and minerals from ore. For example, cyanide is commonly used for processing gold and silver, and may be a minor processing reagent at some base metal mines. Cyanide, if released in the workplace or environment, can be lethal to many living organisms. Nitric acid, ammonium nitrate and fuel oil are often used as blasting agents. In addition to being potential environmental pollutants, these explosives may present a security risk for companies, and should be managed accordingly.

All hazardous materials require sound management of occupational health, environmental and social risks throughout their lifecycles – including during sourcing, transport, storage, use, production, and disposal. Typically, responsible management of hazardous materials prioritises avoidance, such as through the substitution with less hazardous chemicals or processes. Where avoidance is not possible, the leading practice will be to minimise the use or production of hazardous materials, and prevent and control releases and accidents.

These objectives can be addressed through the ongoing assessment of hazards and preparation of hazards materials risk management plans. Further measures include the implementation of actions such as education and training programmes for workers, contractors and communities; equipment and facility inspections and maintenance; monitoring of the concentrations of hazardous materials in wastes; and the development of procedures to address residual risks that cannot be prevented or controlled.

If not properly managed, the release of hazardous substances into the workplace or the environment can have severe and long-lasting negative impacts on water quality, the health of ecosystems, workers and local communities. It may also have reputational and financial ramifications for companies or governments that must bear the costs of remediating contamination and provide compensation to impacted workers or community members.

F.9 Emergency Preparedness

F.9.1 The company has systems in place for developing and maintaining emergency preparedness and response plans.

(CCCMC 2.6.1. IFC PS 1. 20)

F.9.2 The company engages local authorities, workers and communities in developing, communicating and testing emergency preparedness and response plans throughout its operations.

(IFC PS 1, 21.; PS 2, 23.; PS 4, 11. ISO 26000, 6.5.3.2. GRI G4-DMA (additional reporting). RJC 35.1)

F.9.3 The company makes public all relevant information about financial assurance that is provided for disaster management and recovery.

(SDG 11.b)

MS 5 The operating company engages local authorities, workers and communities in developing, communicating and testing its emergency preparedness and response plans.

(GRI G4-DMA (Additional Reporting). RJC 35.1. CCCMC 2.7.3)

Large-scale mines carry significant operational risks. The release or spill of hazardous chemicals, tailings dam failures, explosions, fires and a range of other possible accidents pose risks to mine workers and nearby communities. Accidents may be related to human errors, equipment failure, or poor management of mine wastes or hazardous materials (See **F.2** and **F.8**). Natural forces, such as earthquakes, floods, cyclones or forest fires may also cause or compound emergencies at mining operations.

Mining-related accidents or incidents may lead to significant and long-lasting impacts, including environmental damage, property damage, injuries, loss of life, psychological trauma. They may also cause significant financial losses for communities, governments and companies, and damage to the image of the mining industry as a whole.

Despite best efforts, mining-related accidents and emergencies can never entirely be prevented. However, mining companies, in collaboration with local governments, workers and communities, can develop and implement crisis management and emergency preparedness policies, training programmes and procedures to minimise the negative consequences of such emergencies.

Guidance has been developed to help mining companies prepare themselves, their workers and local communities for mining-related emergencies. The United Nations Environment Programme and others have recommended that companies adopt a collaborative approach to emergency response planning that involves local authorities, emergency responders and community members in the identification of potential mining-related accidents; the development of strategies to reduce and manage identified risks; and the creation of emergency response plans. To increase the effectiveness of emergency response plans, mining companies may test them with potentially affected parties and communicate them to the community-at-large. This will increase the likelihood that all key actors are prepared to respond effectively to a range of emergency scenarios.

A collaborative approach to emergency response can help to reduce community fears about potential mining-related impacts, reduce the risks to vulnerable populations that are often hit hardest and longest by disasters and emergencies, and build greater confidence and trust between mining operations and communities. In the event of a mining-related accident, well-planned emergency response may reduce human casualties, limit impacts on property and the environment, and minimise financial losses to the company.

Financial preparedness is an additional component of responsible emergency preparedness. The leading practice is for companies to anticipate and insure against the cost of reparation for accidents or natural catastrophes, to ensure that funds are available to implement effective emergency response, pay compensation for damages, injury or loss of life, and for companies to fund recovery and reconstruction in a timely and efficient manner.

Abbreviations used in Section 9

ASEAN	The Framework for Extractive Industries Governance in ASEAN
СССМС	China Chamber of Commerce of Metals, Minerals & Chemicals Importers and Exporters, Guidelines for Social Responsibility in Outbound Mining Investment
CHRB	Corporate Human Rights Benchmark
GRI	Global Reporting Initiative
IFC PS	International Finance Corporation, Environmental and Social Performance Standards and Guidance Notes
ILO 169	International Labour Organization, Convention 169 – Indigenous and Tribal Peoples Convention, 1989
ILO 176	International Labour Organization, Convention 176 – Safety and Health in Mines Convention, 1995
ISO 26000	International Organization for Standardization, ISO 26000 – Social Responsibility
OECD CEVC	Organisation for Economic Co-operation and Development, Development Policy Tools: Corruption in the Extractive Value Chain
OECD MNE	Organisation for Economic Co-operation and Development, Guidelines for Multinational Enterprises
OECD SEEI	Organisation for Economic Co-operation and Development, Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractives Sector
RJC	Responsible Jewellery Council Code of Practices
SDG	Sustainable Development Goals
TSM	Towards Sustainable Mining (sustainability toolkit of the Mining Association of Canada)
UNGC	United Nations Global Compact
UNGP RF	UN Guiding Principles on Business and Human Rights (Reporting Framework)
VPs	Voluntary Principles on Security and Human Rights

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