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# GRI Sector Standards Project for Mining – Exposure draft

## Comments to be received by 30 April 2023

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### Background

Sustainability reporting using the GRI Standards enables an organization to publicly disclose its most significant impacts and how it manages these impacts.

The purpose of the GRI Sector Standards is to increase transparency by focusing attention on the sustainability issues that matter most within sectors. They will identify and describe a sector's most significant impacts from a sustainable development perspective and reflect the information needs and expectations of stakeholders.

The Mining Sector Standard is the fourth standard developed under the Sector Program and the first one following the pilot projects. More information about the Sector Program, including the full list of prioritized sectors prioritized for a Standard, can be found on the [program webpage](#).

### Public comment period

This exposure draft for mining is published for public comment by the [Global Sustainability Standards Board](#) (GSSB), the independent standard-setting body of GRI.

Any interested party can submit comments on this draft **by 30 April 2023** via [this online questionnaire](#). As required by the [GSSB Due Process Protocol](#), only comments submitted in writing and in English will be considered. Comments will be published on the GRI website and considered a matter of public record. Instructions to submit comments are outlined on the first page of the online questionnaire.

An explanatory memorandum preceding the exposure draft summarizes the objectives of the project and the significant proposals contained within the draft.

This draft is published for comment only and may change before official publication.

For questions regarding the exposure draft or the public comment period, please send an email to [mining@globalreporting.org](mailto:mining@globalreporting.org).

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# Explanatory memorandum

This explanatory memorandum sets out the objectives of the GRI Sector Standards Project for Mining. It also includes the significant proposals resulting from this project and summarizes the Global Sustainability Standards Board (GSSB)'s involvement and views on the development of the draft.

## Objectives for the project

Mining was identified by the Global Sustainability Standards Board (GSSB) in 2020 for prioritization for a reporting standard, due to its wide-ranging impacts on the environment, people, and economies on both local and global scales. The sector's activities and resulting impacts are also similar to the two other extractive sectors that have Sector Standards - oil and gas (*GRI 11: Oil and Gas Sector 2021*), and coal (*GRI 12: Coal Sector 2022*), offering synergies in the development process.

The primary objective of the project is to develop a Sector Standard that improves transparency of the impacts of mining to enable complete and consistent reporting across the sector.

The aim is for the Standard to identify and describe the topics that are likely to be material for reporting by mining organizations<sup>1</sup> based on the sector's most significant impacts, provide evidence and authoritative references on these impacts, and list relevant disclosures for reporting on these topics by the sector.

A 20-person multi-stakeholder [working group \(WG\)](#) was engaged to contribute to the development of the Sector Standard, as required by the GSSB's [Due Process Protocol](#).

For more information on the project, consult the [project proposal](#) and [terms of reference](#).

## Significant proposals

An exposure draft for mining has been developed in line with the project objectives set out above.

Notable inclusions as regards the likely material topics and related reporting in the exposure draft are summarized below:

**1. 25 topics identified as likely to be material for organizations in the mining sector to report.**

For each likely material topic, the sector's most significant impacts are described and disclosures listed to report information about the organization's impacts and approach in relation to the topic (see [Table 1](#) for the full list of likely material topics).

**2. Three of these likely material topics are new to the GRI Standards.**

Most of the likely material topics in the exposure draft correspond to those listed in *GRI 11: Oil and Gas Sector 2021* and *GRI 12: Coal Sector 2022*, however three topics have been introduced for the first time in the GRI Standards. Two of the topics, 'Tailings', and 'Conflict-affected and high-risk areas' are mainly based on contents that formed part of other topics in *GRI 11* and *GRI 12*, but were seen by the mining WG as salient enough to warrant independent treatment.

- [Topic 14.7 Tailings](#) expands on the contents and reporting that in *GRI 11* and *GRI 12* were part of topic 'Asset integrity and critical incident management'. The focus of the topic is on the safety of tailings facilities, which upon catastrophic failures can cause devastating impacts on the environment and people, including loss of life. The reporting disclosures listed are primarily based on and aligned with the multi-stakeholder developed *Global Industry Standard on Tailings Management*.<sup>2</sup>

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<sup>1</sup> 'Mining organizations' refers to organizations engaged in mining and quarrying activities. Please see page 18 of the exposure draft for more information on which organizations fall within the scope of this Standard.

<sup>2</sup> International Council on Mining & Metals (ICMM), United Nations Environmental Programme (UNEP), Principles for Responsible Investment (PRI), *Global Industry Standard on Tailings Management*, 2020.

- [Topic 14.25 Conflict-affected and high-risk areas](#) expands on the contents that in *GRI 11* and *GRI 12* were part of a topic called ‘Conflict and security’. The topic focuses on the importance of conducting robust due diligence when operating or sourcing from conflict-affected and high-risk areas, which present a heightened risk for severe human rights abuses and illicit financial flows. The reporting disclosures, and primarily draw from the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*.<sup>3</sup>
- [Topic 12.13 Artisanal and small-scale mining](#) has no corresponding topic or contents in previous Sector Standards. Individuals and communities engaged in artisanal and small-scale mining (ASM) are considered a key stakeholder group for many mining organizations. Impacts of these interactions range from disputes and incidents to impacts on ASM communities’ livelihoods. While ASM happens mostly on an informal basis, expectations are emerging for mining organizations to engage with ASM operators and, where legitimate, support them to formalize and improve their operations.

### 3. Most likely material topics list additional sector reporting recommendations.

The mining sector is subject to significant transparency expectations, and this is reflected the GRI Mining Sector Standard exposure draft. The vast majority of topics list supplementary disclosures. This additional sector reporting was identified by the WG as critical for reporting by the sector and the exclusion of this information from reporting would mean it was incomplete.

- Four topics do not list any disclosures from the GRI Topic Standards: [14.6 Tailings](#); [14.12 Land and resource rights](#); [14.13 Artisanal and small-scale mining](#); and [14.25 Conflict-affected and high-risk areas](#). For these topics, additional disclosures were developed by the WG or applied from other normative reporting instruments already used by reporting organizations in the sector to disclose their impacts.
- 17 topics that list disclosures from GRI Topic Standards also include additional sector reporting (see [Table 1](#) for the full list of topics with additional sector disclosures). For these topics, additional disclosures were developed by the WG or applied from other normative reporting instruments already used by reporting organizations in the sector to disclose their impacts.
- Four topics only list Topic Standards disclosures and no additional sector reporting. Of these, [topic 14.4 Biodiversity](#) lists disclosures from the revised [GRI 304: Biodiversity exposure draft](#), relevant to the mining sector’s impacts, aiming to solicit more accurate feedback on potential sector-specific gaps. The disclosures listed are subject to change based on the final revisions to *GRI 304*.<sup>4</sup>

### 4. Mine-site reporting included as a key expectation across several topics.

Due to the significance of impacts experienced locally from mining activities, the WG indicated the need for transparent, timely, mine-site level reporting of environmental, social, and economic information. While this will increase the extent and granularity of reporting, the relevance of this type of reporting to meaningfully understanding impacts was acknowledged. It was also noted that many organizations are already collecting information on a site level for internal and/or corporate reporting purposes. The exposure draft includes mine-site reporting for topics such as GHG and air emissions, tailings, closure and rehabilitation, community-related impacts, critical incident management, and payments to governments.

### 5. Impacts on and engagement with communities an emphasis throughout the Standard.

Due to the scale, long time frames and subsequent impacts of mining projects, obtaining the approval and support of local communities around mine sites is essential for mining organizations

<sup>3</sup> Organisation for Economic Co-operation and Development (OECD), *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, 2016.

<sup>4</sup> The Standard *GRI 304: Biodiversity* is currently being revised, with the exposure draft open for public comment from 5 December 2022 until 28 February 2023.

to secure a social license to operate. Impacts on communities manifest throughout the lifetime of a mine and span across economic, environmental, and social dimensions. These impacts are outlined across several topics in the exposure draft, including from the perspective of economic impacts and benefits; social, cultural, and health impacts; impacts in the context of resettlement and use of security personnel, and a specific focus on the rights of Indigenous Peoples.

Some the additional sector disclosures on community impacts developed for this exposure draft may also be relevant for other sectors. While these would generally be included as part of the final recommendations to the GSSB for further Topic Standards development, these additions were seen as essential to be included given the engagement and impact of the sector with local communities.<sup>5</sup>

**6. Importance of gender for the sector’s impacts established as a focus.**

Feedback from the WG and peer reviewers underscored the importance of gender-related impacts. While the inclusion of a standalone topic of gender was considered, ultimately a “mainstreaming” approach was adopted, where a gender lens is applied to relevant topics along with additional reporting recommendations.

**7. Impacts and reporting on climate change increasingly important for the sector.**

Addressing climate change impacts emerged as a key priority for the sector. Mining organizations have a role to play in the low-carbon transition, mitigating emissions across the value chain, supporting communities to adapt to physical impacts, and as providers of minerals necessary for new technologies. While the existing Topic Standards disclosures were not seen as always sufficient for reporting by the sector, given a review of GRI’s climate-related Standards is commencing in 2023, additional recommendations on reporting on climate-related impacts and issues will be considered as part of this broader process.

## Other outcomes from the development process

### Topic statement changes

Each likely material topic starts with a ‘topic statement’, which provides a brief general description of the topic and its boundaries. The topic statement reflects the definition and approach to the topic outlined in the Topic Standard, and is consistent across Sector Standards, wherever possible. A change to a topic statement in one Standard thus has implications for all other existing Sector Standards.

The mining WG submitted relevant feedback on a number of topic statements, which the Standards Division recommends implementing. The revision proposals for the ‘GHG emissions’ and ‘Local communities’ can be found in [Table 2](#).

### GSSB involvement and views on the development of this draft

The GSSB has been regularly updated on the content development process for mining through the Chief of Standards updates of Standards development projects in the public GSSB meetings.

The GSSB confirmed its support for contents of the exposure draft for mining when it voted to approve the draft for public exposure at its meeting on 24 January 2023. The recording of the meetings can be accessed on the GSSB website.

## Superseded publications

The GRI Sector Standard for Mining will be relevant for mining organizations previously using the G4 Mining and Metals Sector Disclosures. The content of these Sector Disclosures was not updated as part of the transition from the G4 Guidelines to the GRI Standards.

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<sup>5</sup> According to the draft GSSB work program 2023-2025, revision of community related Standards is planned to begin in 2024.

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## 2 Introduction

3 *GRI 14: Mining Sector 202X* provides information for organizations involved in mining activities about  
4 their likely material topics. These topics are likely to be material for mining organizations on the basis  
5 of the sector's most significant impacts on the economy, environment, and people, including on their  
6 human rights.

7 *GRI 14* also contains a list of disclosures for mining organizations to report in relation to each likely  
8 material topic. This includes disclosures from the GRI Topic Standards and other sources.

9 The Standard is structured as follows:

- 10 • [Section 1](#) provides a high-level overview of the mining sector, including its activities, business  
11 relationships, context, and the connections between the United Nations Sustainable  
12 Development Goals (SDGs) and the likely material topics for the sector.
- 13 • [Section 2](#) outlines the topics that are likely to be material for mining organizations and,  
14 therefore, potentially merit reporting. For each likely material topic, the sector's most  
15 significant impacts are described and disclosures to report information about the  
16 organization's impacts in relation to the topic are listed.
- 17 • The [Glossary](#) contains defined terms with specific meanings when used in the GRI  
18 Standards. The terms are underlined in the text and linked to the definitions.
- 19 • The [Bibliography](#) contains authoritative intergovernmental instruments and additional  
20 references used in developing this Standard, listed by topic. It also lists further resources that  
21 the organization can consult.

22 The rest of the Introduction section provides an overview of the sector this Standard applies to, an  
23 overview of the system of GRI Standards, and further information on using this Standard.

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## 24 Sector this Standard applies to

25 *GRI 14* applies to organizations undertaking any of the following:

- 26 • Exploration, extraction, including quarrying, and primary processing of all types of minerals, metallic and non-metallic, except for oil, gas, and coal.<sup>6</sup>
- 27
- 28 • Support activities for mining, such as transport and storage.
- 29 • Supply of specialized products and services to mining organizations, such as engineering, procurement, and construction (EPC) contractors.
- 30

31 This Standard can be used by any organization in the mining sector, regardless of size, type, geographic location, or reporting experience. While small mining organizations can use this Standard, it is not designed to apply to artisanal and small-scale mining (ASM) operators. However, this Standard does cover the impacts that mining organizations may cause or be involved with through their business relationships, interactions, or co-location of mining, with ASM.<sup>7</sup>

36 The organization must use all applicable Sector Standards for the sectors in which it has substantial activities.

## 38 Sector classifications

39 Table 1 lists industry groupings relevant to the mining sector covered in this Standard in the Global Industry Classification Standard (GICS®) [5], the Industry Classification Benchmark (ICB) [3], the International Standard Industrial Classification of All Economic Activities (ISIC) [7], and the Sustainable Industry Classification System (SICS®) [6].<sup>8</sup> The table is intended to assist an organization in identifying whether *GRI 14* applies to it and is for reference only.

44 **Table 1. Industry groupings relevant to the mining sector in other classification systems**

Classification system	Classification number	Classification name
<b>GICS®</b>	151040	Metals and Mining, with the exclusion of the manufacturers of aluminum and steel, and metal recycling
<b>ICB</b>	551020000	General Mining
	55102010	Iron and Steel (excluding manufacturers of steel and metal recycling)
	55102035	Aluminum (excluding manufacturers of aluminum and metal recycling)
	55102040	Copper (excluding smelters and metal recycling)
	55102050	Nonferrous Metals (excluding smelters and metal recycling)
	55103020	Diamonds and Gemstones
	55103025	Gold Mining (excluding smelters and metal recycling)
	55103030	Platinum and precious metals (excluding smelters and metal recycling)

<sup>6</sup> Further stages of processing, such as smelting, refining, and metal recycling, will be the subject of a separate GRI Sector Standard.

<sup>7</sup> In this Standard, ASM is understood to comprise mostly informal subsistence activities, characterized by minimal or no mechanization and lack of systematic implementation of environmental or social protections.

<sup>8</sup> The relevant industry groupings in the Statistical Classification of Economic Activities in the European Community (NACE) [1] and the North American Industry Classification System (NAICS) [2] can also be established through available concordances with the International Standard Industrial Classification (ISIC).

<b>ISIC</b>	07	Mining of metal ores
	08	Other mining and quarrying
	099	Support activities for other mining and quarrying
<b>SICS®</b>	EM-3	Metals and Mining, with the exclusion of the manufacturers of aluminum and steel, and metal recycling

## 45 **System of GRI Standards**

46 This Standard is part of the GRI Sustainability Reporting Standards (GRI Standards). The GRI  
47 Standards enable an organization to report information about its most significant impacts on the  
48 economy, environment, and people, including impacts on their human rights, and how it manages  
49 these impacts.

50 The GRI Standards are structured as a system of interrelated standards that are organized into three  
51 series: GRI Universal Standards, GRI Sector Standards, and GRI Topic Standards (see Figure 1 in  
52 this Standard).

### 53 **Universal Standards: GRI 1, GRI 2 and GRI 3**

54 *GRI 1: Foundation 2021* specifies the requirements that the organization must comply with to report in  
55 accordance with the GRI Standards. The organization begins using the GRI Standards by consulting  
56 *GRI 1*.

57 *GRI 2: General Disclosures 2021* contains disclosures that the organization uses to provide  
58 information about its reporting practices and other organizational details, such as its activities,  
59 governance, and policies.

60 *GRI 3: Material Topics 2021* provides guidance on how to determine material topics. It also contains  
61 disclosures that the organization uses to report information about its process of determining material  
62 topics, its list of material topics, and how it manages each topic.

### 63 **Sector Standards**

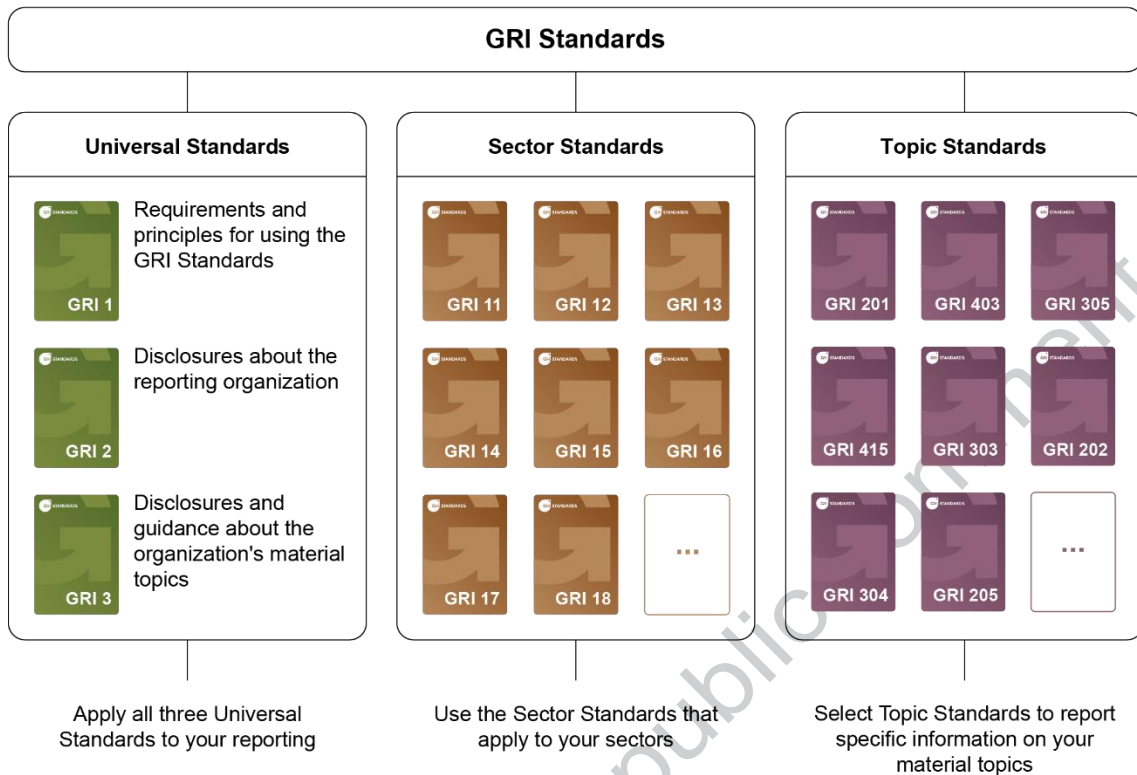
64 The Sector Standards provide information for organizations about their likely material topics. The  
65 organization uses the Sector Standards that apply to its sectors when determining its material topics  
66 and when determining what to report for each material topic.

### 67 **Topic Standards**

68 The Topic Standards contain disclosures that the organization uses to report information about its  
69 impacts in relation to particular topics. The organization uses the Topic Standards according to the list  
70 of material topics it has determined using *GRI 3*.



71 **Figure 1. GRI Standards: Universal, Sector and Topic Standards**



72 **Using this Standard**

73 An organization in the mining sector reporting in accordance with the GRI Standards is required to  
 74 use this Standard when determining its material topics and then when determining what information to  
 75 report for the material topics.

76 **Determining material topics**

77 Material topics represent an organization's most significant impacts on the economy, environment,  
 78 and people, including their human rights.

79 [Section 1](#) of this Standard provides contextual information that can help the organization in identifying  
 80 and assessing its impacts.

81 [Section 2](#) outlines the topics that are likely to be material for mining organizations. The organization is  
 82 required to review each topic described and determine whether it is a material topic for it.

83 The organization needs to use this Standard when determining its material topics. However,  
 84 circumstances for each organization vary, and the organization needs to determine its material topics  
 85 according to its specific circumstances, such as its business model; geographic, cultural, and legal  
 86 operating context; ownership structure; and the nature of its impacts. Because of this, not all topics  
 87 listed in this Standard may be material for all mining organizations. See [GRI 3: Material Topics 2021](#)  
 88 for step-by-step guidance on how to determine material topics.

89 If the organization has determined any of the topics included in this Standard as not material, then the  
 90 organization is required to list them in the GRI content index and explain why they are not material.

91 See [Requirement 3 in GRI 1: Foundation 2021](#) and [Box 5 in GRI 3](#) for more information on using  
 92 Sector Standards to determine material topics.

## 93 **Determining what to report**

94 For each material topic, an organization reports information about its impacts and how it manages  
95 these impacts.

96 Once an organization has determined a topic included in this Standard to be material, the Standard  
97 also helps the organization identify disclosures to report information about its impacts relating to that  
98 topic.

99 For each topic in [section 2](#) of this Standard, a reporting sub-section is included. These sub-sections  
100 list disclosures from the GRI Topic Standards that are relevant to the topic. They may also list  
101 additional sector disclosures and recommendations for the organization to report. This is done in  
102 cases where the Topic Standards do not provide disclosures, or where the disclosures from the Topic  
103 Standards do not provide sufficient information about the organization's impacts in relation to a topic.  
104 These additional sector disclosures and recommendations may be based on other sources. [Figure 2](#)  
105 illustrates how the reporting included in each topic is structured.

106 The organization is required to report the disclosures from the Topic Standards listed for those topics  
107 it has determined to be material. If any of the Topic Standards disclosures listed are not relevant to  
108 the organization's impacts, the organization is not required to report them. However, the organization  
109 is required to list these disclosures in the GRI content index and provide 'not applicable' as the reason  
110 for omission for not reporting the disclosures. See [Requirement 6 in GRI 1: Foundation 2021](#) for more  
111 information on reasons for omission.

112 The additional sector disclosures and recommendations outline further information which has been  
113 identified as relevant for organizations in the mining sector to report in relation to a topic. The  
114 organization should provide sufficient information about its impacts in relation to each material topic,  
115 so that information users can make informed assessments and decisions about the organization. For  
116 this reason, reporting these additional sector disclosures and recommendations is encouraged,  
117 however it is not a requirement.

118 When the organization reports additional sector disclosures, it is required to list them in the GRI  
119 content index (see [Requirement 7 in GRI 1](#)).

120 If the organization reports information that applies to more than one material topic, it does not need to  
121 repeat it for each topic. The organization can report this information once, with a clear explanation of  
122 all the topics it covers.

123 If the organization intends to publish a standalone sustainability report, it does not need to repeat  
124 information that it has already reported publicly elsewhere, such as on web pages or in its annual  
125 report. In such a case, the organization can report on a required disclosure by providing a reference in  
126 the GRI content index as to where this information can be found (e.g., by providing a link to the web  
127 page or citing the page in the annual report where the information has been published).

128 See [Requirement 5 in GRI 1](#) for more information on using Sector Standards to report disclosures.

## 129 **GRI Sector Standard reference numbers**

130 GRI Sector Standard reference numbers are included for all disclosures listed in this Standard, both  
131 those from GRI Standards and additional sector disclosures. When listing the disclosures from this  
132 Standard in the GRI content index, the organization is required to include the associated GRI Sector  
133 Standard reference numbers (see [Requirement 7 in GRI 1: Foundation 2021](#)). This identifier helps  
134 information users assess which of the disclosures listed in the applicable Sector Standards are  
135 included in the organization's reporting.

## 136 **Defined terms**

137 Defined terms are underlined in the text of the GRI Standards and linked to their definitions in the  
138 [Glossary](#). The organization is required to apply the definitions in the Glossary.

139 **References and resources**

140 The authoritative intergovernmental instruments and additional references used in developing this  
 141 Standard, as well as further resources that may help report on likely material topics and can be  
 142 consulted by the organization are listed in the [Bibliography](#). These complement the references and  
 143 resources listed in *GRI 3: Material Topics 2021* and in the GRI Topic Standards.

144 **Figure 2. Structure of reporting included in each topic**

Reporting on local communities		
If the organization has determined local community to be a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.		
STANDARD	DISCLOSURE	5 SECTOR STANDARD REF #
<b>1</b>	<b>Management of the topic</b>	
GRI 3: Material Topics	Disclosure 3-3 Management of material topics Additional sector recommendations <b>3</b> • Describe the means for identifying stakeholders and engaging with local communities. • List the vulnerable groups that the organization has identified. • List any collective or individual rights that the organization has determined to be of particular concern to the local communities. • Describe the approach of the organization to engaging with vulnerable groups, including: <ul style="list-style-type: none"> <li>- How it seeks to ensure engagement is meaningful, and</li> <li>- How it seeks to ensure safe and equitable gender participation.</li> </ul>	11.15.1
<b>2</b>	<b>Topic Standards disclosures</b>	
GRI 413: Local Communities 2016	Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities Additional sector recommendations • Describe impacts on the health of local communities as a result of exposure to pollution caused by the organization's operations or use of hazardous substances.	11.15.2 11.15.3
<b>4</b>	<b>Additional sector disclosures</b>	
	Report the number and type of grievances filed by local communities, including: <ul style="list-style-type: none"> <li>• the percentage of these grievances that were addressed and resolved,</li> <li>• the percentage of grievances that were resolved through remediation.</li> </ul>	11.15.4

**1 Management of the topic**  
 The organization is required to report how it manages each material topic using [Disclosure 3-3 in GRI 3: Material Topics 2021](#).

**2 Topic Standards disclosures**  
 Disclosures from the GRI Topic Standards that have been identified as relevant for organizations in the sector(s) are listed here. When the topic is determined by the organization as material, it is required to report those disclosures or explain why they are not applicable in the GRI context index. See the Topic Standard for the content of the disclosure, including requirements, recommendations, and guidance.

**3 Additional sector recommendations**  
 Additional sector recommendations may be listed. These complement Topic Standards disclosures and are recommended for an organization in the sector(s).

**4 Additional sector disclosures**  
 Additional sector disclosures may be listed. Reporting these, together with any Topic Standards disclosures, ensures the organization reports sufficient information about its impacts in relation to the topic.

**5 Sector Standard reference numbers**  
 GRI Sector Standard reference numbers are required to be included in the GRI Content Index. This helps information users assess which of the disclosures listed in the Sector Standards are included in the organization's reporting.

EXPOS

145

# 1. Sector profile

146 Minerals are essential for the functioning of modern societies and economies. They are used, for  
147 example, to make steel and other materials for infrastructure, critical components for transportation,  
148 communications, and technological solutions, and to create fertilizers for farming. Minerals are  
149 indispensable in the transition to a low-carbon economy, used for renewable energy sources such as  
150 wind and solar technologies and the manufacture of electric storage batteries.

151 Minerals are divided into metallic and non-metallic minerals. Metallic minerals (or metals) can be  
152 classified by their properties or function. They comprise precious metals (e.g., gold, silver, platinum);  
153 ferrous metals (containing iron); non-ferrous metals (e.g., aluminum, copper, zinc); and rare earth  
154 elements (e.g., neodymium, yttrium, scandium). Sand, stone, lime, and diamonds are examples of  
155 non-metallic minerals.

156 The capital-intensive mining sector represents a wide range of organizations. The sector includes  
157 large publicly-listed companies often vertically integrated across the value chain; state-owned  
158 enterprises (SOEs); and small and medium-sized organizations known as 'junior companies',  
159 specializing in exploration and prospecting. Organizations engaged in quarrying are typically smaller  
160 and characterized by less mechanized operations.

## 161 Sector activities and business relationships

162 Through their activities and business relationships, organizations can have an effect on the economy,  
163 environment, and people, and in turn make negative or positive contributions to sustainable  
164 development. When determining its material topics, the organization should consider the impacts of  
165 both its activities and its business relationships.

### 166 Activities

167 The impacts of an organization vary according to the types of activities it undertakes. The following list  
168 outlines some of the key activities of the mining sector, as defined in this Standard. This list is not  
169 exhaustive.

170 **Prospecting and exploration:** Surveying of resources, including feasibility assessments, geologic  
171 mapping, aerial photography, geophysical measuring, and exploration drilling.

172 **Development:** Design, planning, and construction of mines, access roads, and facilities for  
173 processing, waste management, and workers.

174 **Mining operations:** Extraction of ores and minerals from the earth using different techniques, such  
175 as surface mining, placer mining, underground mining, or *in situ* techniques, as well as primary  
176 processing to separate commercially valuable minerals from their ores. This phase also includes the  
177 disposal of waste and management of tailings facilities.

178 **Closure and rehabilitation:** Decommissioning of processing facilities, land reclamation, restoration,  
179 and rehabilitation in line with post-closure objectives, as well as closing and capping waste facilities  
180 and associated infrastructure.

181 **Transportation:** Moving minerals and waste to the point of storage, consumption, or further  
182 processing by barge, conveyor belt, train, truck, or ship.

183 **Storage:** Storage of minerals at mine sites or import and export terminals.

184 **Sales and marketing:** Selling minerals, for example, for iron and steel production, cement  
185 production, and use in manufacturing.

### 186 Business relationships

187 An organization's business relationships include those with business partners, entities in its value  
188 chain, those beyond the first tier, and entities directly linked to the organization's operations, products,  
189 or services. The following types of business relationships are prevalent in the mining sector and  
190 relevant for identifying the impacts of organizations in the sector.

191 **Joint ventures** are common arrangements in mining in which organizations share the costs, benefits,  
192 and liabilities of assets or a project. They can also include partnerships with state-owned enterprises  
193 (SOEs). An organization in the mining sector can be involved with negative impacts as a result of  
194 participating in a joint venture, even if it is a non-operating partner.

195 **Suppliers and contractors** represent a significant share of spending by mine site and are commonly  
196 used to perform mining operations or to provide products or services. Some of the most significant  
197 impacts covered in this Standard concern the supply chain.

198 **Customers** and other parties downstream of the mining organization are increasingly voicing  
199 expectations for supply chain traceability to ensure the responsible production of minerals. They,  
200 therefore, constitute a key driver of transparency in the sector.

## 201 **The sector and sustainable development**

202 The mining sector plays an important role in many national economies and can make significant  
203 contributions to the economic development of regions and countries. Low- and middle-income  
204 countries are most likely to rely on their natural resources as a primary driver of economic activity – a  
205 dependence that has grown steadily over the last few decades. In mining-dependent economies,  
206 responsible mining practices can lead to reductions in levels of poverty and overall improvements in  
207 social well-being.

208 Financial flows around mining projects are substantial, deriving, for example, from taxes, royalties,  
209 other payments to governments, and spending on suppliers. Along with providing employment  
210 opportunities throughout the supply chain, the sector also invests in infrastructure and community  
211 development projects. Benefits like these can contribute to long-term development needs and  
212 priorities for rural areas and countries that have limited sources of additional revenue. These flows  
213 represent important benefit streams, but can also present risks such as corruption.

214 Locating, extracting, and processing minerals entails complex scientific, environmental, and  
215 socioeconomic planning. The scale of mining projects can be significant, sometimes spanning vast  
216 areas and taking place over several decades. National legislation, environmental protections, and tax  
217 regimes set out by the countries where mining occurs largely regulate mining projects. If operations  
218 are poorly managed, mining can create negative impacts with lasting implications for ecosystems,  
219 local communities, and workers' health and safety. Climate change, with consequences for water  
220 management, biodiversity, extreme heat and other factors, has brought additional physical challenges  
221 to mining operations. Moreover, the decline of ore grades is likely to increase the amount of energy  
222 and resources needed to extract minerals, resulting in more pollution and waste generated.

223 Global demand for minerals is expected to increase due to continued economic growth, improved  
224 living standards, and the need to transition to a low-carbon economy. While minerals are essential to  
225 clean energy technologies that underpin global climate change mitigation goals, the sector is  
226 increasingly under scrutiny due to its contribution to GHG emissions and the need to reduce them  
227 across the value chain. The sector is facing expectations to transition to renewable energy sources,  
228 and to explore circular economy measures, such as recycling and reuse, to reduce the primary  
229 demand for minerals.

230 The boom to mine certain minerals needed for clean technologies has also raised concerns over risks  
231 of increased environmental and human rights impacts. When higher-grade ores and proven deposits  
232 are depleted, mining activities may be driven to more remote or ecologically sensitive areas, areas  
233 characterized by water stress or inhabited by Indigenous Peoples, or fragile, conflict-prone states.  
234 Additionally, land use, displacement, environmental impacts, and the economic potential associated  
235 with mineral extraction can inflame conflict. In some cases, this can result in violence against or within  
236 local communities.

237 Due to the significance of the impacts of mining on a local level, expectations are increasingly  
238 emerging for mining organizations to publish transparent and timely mine-site level information of their  
239 impacts on the economy, environment, and people. This can contribute to meaningful engagement  
240 with affected stakeholders, such as help align expectations on the management of impacts and  
241 provision of benefits [9].

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### **Box 1. Key international instruments and initiatives supporting responsible mining**

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Downstream actors, investors, and regulators increasingly expect mining organizations to conduct human rights due diligence. The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas has been widely adopted by organizations to prevent serious human rights impacts, fueling conflict and financial crime. The OECD guidance has also been adopted by a number of national and supranational regulatory instruments, such as the Dodd-Frank Act in the United States and the Mineral Supply Due Diligence Regulation in the European Union.

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Initiatives such as the Extractive Industries Transparency Initiative, focused on transparency over natural resource management, and the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) are helping nations to improve resource governance and financial benefit-sharing. These initiatives reflect the growing international pressure to illuminate how mineral revenues flow through governments and the economy, focusing on issues such as project-level payments, beneficial ownership structures, and transparency on agreements, permits, contracts, and licenses.

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Government-to-government initiatives, such as through the World Bank and public-private collaboration, have generated greater focus and expectations for identifying, assessing, preventing, and mitigating impacts while increasing traceability and transparency in the mining sector.

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## **Sustainable Development Goals**

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The Sustainable Development Goals (SDGs), part of the 2030 Agenda for Sustainable Development adopted by the 193 United Nations (UN) member states, comprise the world's comprehensive plan of action for achieving sustainable development [11].

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Since the SDGs and targets associated with them are integrated and indivisible, mining organizations have the potential to contribute to all SDGs by enhancing their positive impacts or by preventing and mitigating their negative impacts on the economy, environment, and people.

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The mining sector can contribute to achieving Goal 7: Affordable and Clean Energy and Goal 13: Climate Action by supplying critical minerals necessary for the low-carbon transition while mitigating its GHG emissions through the use of renewable energy and energy efficiency measures.

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The sector has intrinsic connections to Goal 6: Clean Water and Sanitation and Goal 15: Life on Land due to the impacts that water consumption and land use by mining organizations can have on local communities and the environment.

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The mining sector can make meaningful contributions to Goal 8: Decent Work and Economic Growth and Goal 1: No Poverty because it provides an essential source of revenue and employment in many regions while also providing materials for other industries that drive economic growth. With proper management of environmental impacts and the continuing supply of materials that enable infrastructure development, the mining sector can contribute to Goal 11: Sustainable Cities and Communities and Goal 12: Responsible Consumption and Production.

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[Table 2](#) presents connections between the likely material topics for the mining sector and the SDGs. These links were identified based on an assessment of the impacts described in each likely material topic, the targets associated with each SDG, and existing mapping undertaken for the sector (see reference [22] in the [Bibliography](#)).

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Table 2 is not a reporting tool but presents connections between the mining sector's significant impacts and the goals of the 2030 Agenda for Sustainable Development. See references [21] and [20] in the [Bibliography](#) for information on reporting progress towards the SDGs using the GRI Standards.

**Table 2. Links between the likely material topics for the mining sector and the SDGs**

Likely material topics	Corresponding Sustainable Development Goals
<b>Topic 14.1 GHG emissions</b>	GOAL 13: Climate Action
	GOAL 14: Life Below Water
<b>Topic 14.2 Climate adaptation and resilience</b>	GOAL 1: No Poverty
	GOAL 7: Affordable and Clean Energy
	GOAL 8: Decent Work and Economic Growth
	GOAL 9: Industry, Innovation and Infrastructure
	GOAL 13: Climate Action
<b>Topic 14.3 Air emissions</b>	GOAL 3: Good Health and Well-being
	GOAL 11: Sustainable Cities and Communities
	GOAL 15: Life on Land
<b>Topic 14.4 Biodiversity</b>	GOAL 6: Clean Water and Sanitation
	GOAL 12: Responsible Consumption and Production
	GOAL 14: Life Below Water
	GOAL 15: Life on Land
<b>Topic 14.5 Waste</b>	GOAL 3: Good Health and Well-being
	GOAL 6: Clean Water and Sanitation
	GOAL 12: Responsible Consumption and Production
	GOAL 15: Life on Land
	GOAL 3: Good Health and Well-being
<b>Topic 14.6 Tailings</b>	GOAL 6: Clean Water and Sanitation
	GOAL 12: Responsible Consumption and Production
	GOAL 15: Life on Land
<b>Topic 14.7 Water and effluents</b>	GOAL 6: Clean Water and Sanitation
	GOAL 12: Responsible Consumption and Production
	GOAL 14: Life Below Water
	GOAL 15: Life on Land
<b>Topic 14.8 Closure and rehabilitation</b>	GOAL 4: Quality Education
	GOAL 6: Clean Water and Sanitation
	GOAL 8: Decent Work and Economic Growth
	GOAL 11: Sustainable Cities and Communities
	GOAL 15: Life on Land
<b>Topic 14.9 Economic impacts</b>	GOAL 1: No Poverty
	GOAL 4: Quality Education
	GOAL 5: Gender Equality
	GOAL 8: Decent Work and Economic Growth
	GOAL 9: Industry, Innovation and Infrastructure
	GOAL 10: Reduced Inequalities
<b>Topic 14.10 Local communities</b>	GOAL 1: No Poverty
	GOAL 3: Good Health and Well-being
	GOAL 5: Gender Equality
	GOAL 6: Clean Water and Sanitation
	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.11 Rights of Indigenous Peoples</b>	GOAL 1: No Poverty
	GOAL 3: Good Health and Well-being
	GOAL 5: Gender Equality
	GOAL 11: Sustainable Cities and Communities

	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.12 Land and resource rights</b>	GOAL 1: No Poverty
	GOAL 11: Sustainable Cities and Communities
	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.13 Artisanal and small-scale mining (ASM)</b>	GOAL 1: No Poverty
	GOAL 3: Good Health and Well-being
	GOAL 8: Decent Work and Economic Growth
	GOAL 15: Life on Land
	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.14 Security practices</b>	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.15 Critical incident management</b>	GOAL 3: Good Health and Well-being
	GOAL 11: Sustainable Cities and Communities
<b>Topic 14.16 Occupational health and safety</b>	GOAL 3: Good Health and Well-being
	GOAL 8: Decent Work and Economic Growth
<b>Topic 14.17 Employment practices</b>	GOAL 1: No Poverty
	GOAL 5: Gender Equality
	GOAL 8: Decent Work and Economic Growth
	GOAL 10: Reduced Inequalities
<b>Topic 14.18 Child labor</b>	GOAL 1: No Poverty
	GOAL 4: Quality Education
	GOAL 8: Decent Work and Economic Growth
	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.19 Forced labor and modern slavery</b>	GOAL 1: No Poverty
	GOAL 8: Decent Work and Economic Growth
	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.20 Freedom of association and collective bargaining</b>	GOAL 8: Decent Work and Economic Growth
	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.21 Non-discrimination and equal opportunity</b>	GOAL 4: Quality education
	GOAL 5: Gender Equality
	GOAL 8: Decent Work and Economic Growth
	GOAL 10: Reduced Inequalities
<b>Topic 14.22 Anti-corruption</b>	GOAL 12: Responsible Consumption and Production
	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.23 Payments to governments</b>	GOAL 1: No Poverty
	GOAL 16: Peace, Justice and Strong Institutions
	GOAL 17: Partnerships for the Goals
<b>Topic 14.24 Public policy</b>	GOAL 16: Peace, Justice and Strong Institutions
<b>Topic 14.25 Conflict-affected and high-risk areas</b>	GOAL 16: Peace, Justice and Strong Institutions
	GOAL 8: Decent Work and Economic Growth



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## 2. Likely material topics

288 This section comprises the likely material topics for the mining sector. Each topic describes the  
289 sector's most significant impacts related to the topic and lists disclosures that have been identified as  
290 relevant for reporting on the topic by mining organizations. The organization is required to review  
291 each topic in this section and determine whether it is a material topic for the organization, and then to  
292 determine what information to report for its material topics.

### 293 **Topic 14.1 GHG emissions**

294 **Greenhouse gas (GHG) emissions comprise air emissions that contribute to climate change.**  
295 **This topic covers direct (Scope 1) and energy indirect (Scope 2) GHG emissions related to an**  
296 **organization's activities, as well as other indirect (Scope 3) GHG emissions that occur**  
297 **upstream and downstream of the organization's activities.**

298 Mining activities are energy-intensive and contribute to greenhouse gas (GHG) emissions that cause  
299 climate change, unless renewable energy sources provide the necessary power. Most GHG  
300 emissions from mining activities are associated with the consumption of self-generated and  
301 purchased electricity and the use of fossil fuel-powered vehicles. Therefore, most emissions in the  
302 mining sector are direct (Scope 1) GHG emissions from sources owned or controlled by the  
303 organization, and energy indirect (Scope 2) GHG emissions resulting from the generation of  
304 purchased or acquired electricity, heating, cooling, and steam consumed by the organization.

305 Energy-intensive processes and activities include excavation, mine operations, and material transfer.  
306 The primary GHG emitted through the sector's activities is carbon dioxide (CO<sub>2</sub>). Other GHGs include  
307 methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur  
308 hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>). The amount of energy used at a mine and the  
309 resulting emissions depend on several factors, such as mining method, mine depth, geology, mine  
310 productivity, and the degree and method of processing required. For example, open pit mines are  
311 typically more energy-intensive due to longer haul distances.

312 Beyond the total amount of energy used, the emissions intensity of mining activities can vary  
313 according to mine design and planning, operational practices, and the energy source used. Coal as a  
314 fuel source has the highest emissions intensity, compared to other fossil fuels, typically releasing  
315 more than twice the amount of GHGs than natural gas per unit of electricity produced.

316 GHG emissions can also increase due to land use change which occurs when land is converted from  
317 one land use category to another. For instance, when forests are cleared to enable mineral extraction  
318 along with the supporting infrastructure (see also [topic 14.4 Biodiversity](#)). Land use change emissions  
319 are more prevalent in surface mining due to the greater land use requirements and often lower-grade  
320 ores. Methane (CH<sub>4</sub>) can also be released through extraction, venting, or as fugitive emissions.  
321 Closure activities can further contribute to GHG emissions. However, the rehabilitation of mine sites  
322 can be used to capture carbon dioxide with appropriate reclamation and post-reclamation strategies  
323 (see also [topic 14.8 Closure and rehabilitation](#)).

324 Apart from Scope 1 and Scope 2 emissions, mining organizations are also under increasing scrutiny  
325 over other indirect (Scope 3) GHG emissions up and downstream from mining activities. There is a  
326 growing expectation for emissions reduction throughout the value chain. For some commodities, such  
327 as gold and other precious metals, the most substantial emissions tend to originate upstream from  
328 mining operations, namely, from purchased goods and services. For minerals that require extensive  
329 refining, such as smelting, most Scope 3 emissions tend to originate in the downstream processes  
330 from mining operations, in particular where coal is used as an energy source. Examples include the  
331 manufacture of steel, aluminium, and cement.

332 Organizations in the sector are increasingly expected to set emissions targets and reduce emissions  
333 aligned with scientifically established goals to hold the increase in the global average temperature  
334 to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to  
335 1.5°C above pre-industrial levels [31] (see also [topic 14.2 Climate adaptation and resilience](#)). Scope 1  
336 and Scope 2 GHG emissions can be reduced, for example, through energy efficiency measures,  
337 electrification of equipment, and switching to renewable or low-carbon fuel sources.

338 In some cases, emissions reduction initiatives such as the electrification of a mine may bring shared  
339 power to local communities and businesses. However, it can pose additional challenges to  
340 communities, including increased pressure on regional and national energy grids, energy supply  
341 disruptions, job losses, or new environmental challenges. To mitigate such impacts, organizations can  
342 partner with local and national governments and invest in solutions such as developing renewable  
343 energy infrastructure to support mines, including during the post-mining transition. These efforts can  
344 contribute to equitable and just outcomes for workers and the community (see also [topic 14.9](#)  
345 [Economic impacts](#)).

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346 **Reporting on GHG emissions**

347 If the organization has determined GHG emissions to be a material topic, this sub-section lists the  
 348 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a>	14.1.1
<b>Topic Standard disclosures</b>		
<b>GRI 302: Energy 2016</b>	<a href="#">Disclosure 302-1 Energy consumption within the organization</a>	14.1.2
	<a href="#">Disclosure 302-2 Energy consumption outside of the organization</a>	14.1.3
	<a href="#">Disclosure 302-3 Energy intensity</a>	14.1.4
<b>GRI 305: Emissions 2016</b>	<a href="#">Disclosure 305-1 Direct (Scope 1) GHG emissions</a> <i>Additional sector recommendations</i> <ul style="list-style-type: none"> <li>• When reporting on gross <u>direct (Scope 1) GHG emissions</u>, include land use change emissions.<sup>9</sup></li> <li>• Report a breakdown of the gross direct (Scope 1) GHG emissions by mine site.</li> </ul>	14.1.5
	<a href="#">Disclosure 305-2 Energy indirect (Scope 2) GHG emissions</a> <i>Additional sector recommendations</i> <ul style="list-style-type: none"> <li>• Report a breakdown of the gross location-based <u>energy indirect (Scope 2) GHG emissions</u> by mine site.</li> <li>• If applicable, report a breakdown of the gross market-based energy indirect (Scope 2) GHG emissions by mine site.</li> </ul>	14.1.6
	<a href="#">Disclosure 305-3 Other indirect (Scope 3) GHG emissions</a>	14.1.7
	<a href="#">Disclosure 305-4 GHG emissions intensity</a> <i>Additional sector recommendations</i> Report a breakdown of the GHG emissions intensity ratio for <u>direct (Scope 1)</u> and <u>energy indirect (Scope 2)</u> GHG emissions by mine site.	14.1.8
	<a href="#">Disclosure 305-5 Reduction of GHG emissions</a>	14.1.9

349 **References and resources**

350 [GRI 302: Energy 2016](#) and [GRI 305: Emissions 2016](#) list authoritative intergovernmental instruments  
 351 and additional references relevant to reporting on this topic.

352 The additional authoritative instruments and references used in developing this topic, as well as  
 353 resources that may be helpful for reporting on GHG emissions by the mining sector are listed in the  
 354 [Bibliography](#).

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<sup>9</sup> Land use change occurs when land is converted from one land use category to another; for instance, when forests are converted to enable mineral extraction and supporting infrastructure.

## 355 **Topic 14.2 Climate adaptation and resilience**

356 **Organizations contribute to climate change and are simultaneously affected by it. Climate**  
357 **adaptation and resilience refer to how an organization adjusts to current and anticipated**  
358 **climate change-related risks, as well as how it contributes to the ability of societies and**  
359 **economies to withstand impacts from climate change.**

360 Across the value chain, mining activities contribute to climate change by releasing GHG emissions  
361 (see also [topic 14.1 GHG emissions](#)). Changing climatic conditions, rising sea levels, and increasing  
362 intensity and frequency of extreme weather events already affect every region of the globe, causing  
363 negative impacts on the health, livelihoods, and human rights of millions of people. Physical impacts  
364 also pose risks to mining organizations, their workers, suppliers, local communities, and infrastructure  
365 around mine sites, including transportation routes.

366 Climate change has been found to aggravate the impacts of mining on the local environment,  
367 disrupting biodiversity (see also [topic 14.4 Biodiversity](#)), affecting water quality and quantity and  
368 exacerbating water stress (see also [topic 14.7 Water and effluents](#)), and increasing the risks of  
369 tailings facilities failures (see also [topic 14.6 Tailings](#)). Rising temperatures can have negative impacts  
370 on air quality through the retention of particulate matter, which can exacerbate the impacts of air  
371 pollution (see also [topic 14.3 Air emissions](#)). In addition, climate change has the propensity to create  
372 drier climates where mining takes place, increasing the likelihood of dust events while diminishing the  
373 availability of water to suppress dust.

374 Such impacts can, in turn, affect the well-being and livelihoods of local communities and increase  
375 competition for natural resources (see also [topic 14.10 Local communities](#)). Mining organizations can  
376 help strengthen local communities' resilience to climate change-related impacts. Adaptation strategies  
377 with a focus on community resilience may include consideration and planning for the availability of  
378 natural resources for agricultural activities after mining activities have ceased, post-mining land use,  
379 climate-resilient economic growth, and long-term emergency planning. Organizations may also  
380 support communities' access to energy and water by developing shared renewable energy  
381 infrastructure, energy efficiency and energy-saving programs, and by sharing water resources.

382 To combat climate change, parties to the Paris Agreement have committed to transition to a low-  
383 carbon economy. Achieving these goals will mean a greater deployment of clean energy  
384 technologies, increasing the demand for certain minerals, such as cobalt, copper, lithium, and nickel.  
385 If managed well, this can translate into positive economic development from increased host state  
386 revenues and local employment. However, there is also a risk of increased negative impacts on the  
387 environment and human rights. Many of these minerals are mined in high-risk areas susceptible to  
388 political instability, institutional weakness, and human rights abuses. Mining in these areas can trigger  
389 or exacerbate conflict, corruption, environmental damage, and labor exploitation (see also [topic 14.25](#)  
390 [Conflict-affected and high-risk areas](#)).

### 391 **Box 2. Scenario analysis**

392 Scenario analysis allows for the simultaneous consideration of alternative forms of future states  
393 affected by climate change and can be used to explore climate change-related risks. Organizations  
394 typically define scenarios according to the transition speed, expressed in the average global  
395 temperature changes. A scenario compatible with the Paris Agreement will require a temperature rise  
396 well below 2°C, pursuing efforts to limit the temperature rise to 1.5°C. Other scenarios can be defined  
397 according to an organization's national context. For more guidance, see TCFD, *The Use of Scenario*  
398 *Analysis in Disclosure of Climate-Related Risks and Opportunities*, 2017 [63].

399 **Reporting on climate adaptation and resilience**

400 If the organization has determined climate adaptation and resilience to be a material topic, this sub-  
 401 section lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p data-bbox="419 551 967 580"><a href="#">Disclosure 3-3 Management of material topics</a></p> <p data-bbox="419 613 839 642"><i>Additional sector recommendations</i></p> <ul data-bbox="419 654 1236 869" style="list-style-type: none"> <li>• Describe the climate change-related scenarios used to assess the resilience of the organization’s strategy, including a well-below 2°C or 1.5°C scenario.<sup>10</sup></li> <li>• Report whether the organization has a climate change adaptation plan in place and if so, provide a summary of the plan and the progress made in implementing the plan, and describe how engagement with <u>stakeholders</u> has informed the plan.</li> </ul>	14.2.1
<b>Topic Standard disclosures</b>		
<b>GRI 201: Economic Performance 2016</b>	<p data-bbox="419 983 1118 1043"><a href="#">Disclosure 201-2 Financial implications and other risks and opportunities due to climate change</a></p> <p data-bbox="419 1059 839 1088"><i>Additional sector recommendations</i></p> <p data-bbox="419 1099 1209 1216">Describe how the substantive changes in operations, revenue, or expenditure due to climate change, affect or could affect the organization's <u>workers</u> and suppliers, its contributions to economic development, and its payments to governments.</p>	14.2.2

402 **References and resources**

403 [GRI 201: Economic Performance 2016](#) lists authoritative intergovernmental instruments and  
 404 additional references relevant to reporting on this topic.

405 The additional authoritative instruments and references used in developing this topic, as well as  
 406 resources that may be helpful for reporting on climate adaptation and resilience by the mining sector  
 407 are listed in the [Bibliography](#).

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<sup>10</sup> The Paris Agreement aims at holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels [50]. Scientific evidence released after the Paris Agreement came into force shows that limiting global warming to 1.5°C “would substantially reduce projected losses and damages related to climate change in human systems and ecosystems compared to higher warming levels” [48].

## 408 **Topic 14.3 Air emissions**

409 **Air emissions include pollutants that have negative impacts on air quality and ecosystems,**  
410 **including human and animal health. This topic covers impacts from emissions of sulfur oxides**  
411 **(SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), volatile organic compounds (VOC),**  
412 **carbon monoxide (CO), and heavy metals, such as mercury.**

413 In addition to greenhouse gas (GHG) emissions, mining activities are a source of other anthropogenic  
414 air emissions classified as pollutants. Globally, air pollution causes acute health problems and millions  
415 of deaths annually by contributing to heart and lung diseases, strokes, respiratory infections, and  
416 neurological damage [70]. Air emissions are a major concern for the sector's workers (see also [topic](#)  
417 [14.16 Occupational health and safety](#)) and local communities adjacent to mine sites and  
418 transportation routes (see also [topic 14.10 Local communities](#)). These emissions disproportionately  
419 affect children, the elderly, and the poor [69]. Air emissions from mining activities can also have  
420 negative impacts on nearby ecosystems (see also [topic 14.4 Biodiversity](#)).

421 Mining activities release air emissions during drilling, blasting, excavation, overburden removal,  
422 storage, mineral processing, and transportation. Fugitive emissions can result from earthmoving,  
423 crushing, transportation, and evaporation from tailings facilities. These emissions mostly comprise  
424 dust and other types of particulate matter (PM) (see Box 3). Depending on the mineral being mined,  
425 air emissions can also include heavy metals, carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen  
426 oxide (NO<sub>x</sub>), hydrogen sulfide (H<sub>2</sub>S), and volatile organic compounds (VOCs). The severity of impacts  
427 from air emissions can be determined by the proximity of local communities and workers, and the  
428 sensitivity of ecosystems.

429 The extraction and smelting of zinc and other non-ferrous metals produce mercury gases, which lead  
430 to severe health impacts. Mercury (Hg) is frequently used in artisanal and small-scale gold mining  
431 activities, sometimes located adjacent to mining organization's concessions (see also [topic 14.13](#)  
432 [Artisanal and small-scale mining](#)). Many gold operations and refineries use cyanide to extract gold  
433 from ore, causing hydrogen cyanide (HCN) to be discharged into tailings storage facilities (see also  
434 [topic 14.6 Tailings](#)). HCN, when volatilized into the air, can lead to negative health impacts for people  
435 in the immediate proximity of the mine.

436 Nitrogen oxide emissions from transportation can have negative impacts on ecosystems. They can  
437 enter waterways and oceans, have negative impacts on marine life, and generate ground-level ozone  
438 (O<sub>3</sub>) or smog. Sulfur oxides from burning fossil fuels and smelting mineral ores containing sulfur can  
439 lead to acid rain and contribute to ocean acidification. In addition to negative impacts on human health,  
440 acid rain and smog can degrade water and soil quality, impairing the functions of natural environments  
441 and thereby affecting food chains.

### 442 **Box 3. Dust and particulate matter**

443 Mining activities release significant amounts of particulate matter (PM), a pollutant mixture of solid  
444 particles and liquid droplets in the air. Dust is the main type of PM from mining, generated during  
445 blasting, digging, and hauling, as well as through conveyors, vehicles, and ore crushing. Dust can  
446 also be generated from exposed surfaces such as dirt roads, pits, waste piles, or dry tailings.

447 Exposure to dust is associated with increased risks of heart and lung conditions for workers and  
448 communities. Dust can also impede the photosynthetic functions of trees and other plants.

449 Mining has a large geographic footprint that can make the management of dust challenging.  
450 Organizations utilize dust control measures to avoid or mitigate dust exposure for workers and  
451 communities. These measures can include ventilation systems, dust collectors, irrigation bars, dry  
452 fog, water cannons, and air quality surveys to assess the adequacy of those controls.

453 **Reporting on air emissions**

454 If the organization has determined air emissions to be a material topic, this sub-section lists the  
 455 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a>	14.3.1
<b>Topic Standard disclosures</b>		
<b>GRI 305: Emissions 2016</b>	<p><a href="#">Disclosure 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions</a></p> <p><i>Additional sector recommendations</i></p> <ul style="list-style-type: none"> <li>• For each mine site, report a breakdown of the hazardous air pollutants (HAP) emissions, by:               <ul style="list-style-type: none"> <li>- hydrogen cyanide (HCN);</li> <li>- mercury (Hg).</li> </ul> </li> <li>• For each mine site, report a breakdown of the particulate matter (PM) emissions, by:               <ul style="list-style-type: none"> <li>- PM<sub>10</sub>;</li> <li>- PM<sub>2.5</sub>.</li> </ul> </li> <li>• For each mine site, report <u>significant air emissions</u>, in kilograms (kg) or multiples, for each of the following:               <ul style="list-style-type: none"> <li>- carbon monoxide (CO);</li> <li>- ground-level ozone (O<sub>3</sub>);</li> <li>- hydrogen sulfide (H<sub>2</sub>S).</li> </ul> </li> </ul>	14.3.2

456 **References and resources**

457 [GRI 305: Emissions 2016](#) lists authoritative intergovernmental instruments and additional references  
 458 relevant to reporting on this topic.

459 The additional references used in developing this topic, as well as resources that may be helpful for  
 460 reporting on air emissions by the mining sector are listed in the [Bibliography](#).

## 461 **Topic 14.4 Biodiversity**

462 **Biodiversity is the variability among living organisms. It includes diversity within species,**  
463 **between species and of ecosystems. Biodiversity not only has intrinsic value, but is also vital**  
464 **to human health, food security, economic prosperity, and mitigation of climate change and**  
465 **adaptation to its impacts. This topic covers impacts on biodiversity, including on plant and**  
466 **animal species, genetic diversity, and natural ecosystems.**

467 Mining activities typically require large-scale developments that have impacts on biodiversity and  
468 ecosystem services. These impacts can limit the availability and accessibility of natural resources or  
469 degrade their quality. Impacts on biodiversity may also affect the well-being and livelihoods of local  
470 communities and Indigenous Peoples (see also [topic 14.10 Local communities](#) and [14.11 Rights of](#)  
471 [Indigenous Peoples](#)).

472 Biodiversity impacts from mining include the contamination of air, soil, and water, as well as soil  
473 erosion, sedimentation of waterways, and ecosystem conversion, such as deforestation. Other  
474 impacts can include animal mortality, habitat fragmentation, and the introduction of invasive species.

475 Sources of biodiversity impacts include:

- 476 • land clearance for mining, access routes, and waste management facilities;
- 477 • effluent discharges such as through riverine tailings disposal (see also [topic 14.7 Water and](#)  
478 [effluents](#));
- 479 • waste storage, disposal, and tailings facility failures (see also [topic 14.5 Waste](#) and [14.6 Tailings](#));
- 480 • emissions to air, including dust and fumes (see also [topic 14.3 Air emissions](#));
- 481 • noise, illumination, and vibration.

482 Different mining methods present distinct risks for biodiversity. Open-pit mines generate more severe  
483 impacts than underground mines due to the progressive deepening and widening of the mine site  
484 which expand the affected areas over time. Open-pit mining is a prominent cause of deforestation,  
485 with nearly a third of all forests estimated to be affected by mining projects worldwide [92]. Removing  
486 carbon sinks and topsoil can also exacerbate GHG emissions (see also [topic 14.1 GHG emissions](#)),  
487 contributing to erosion and desertification. Underground mining, in turn, can have negative impacts  
488 resulting from ground subsidence and groundwater contamination.

489 The area that is or could be affected by mining activities is not limited to the area within a mine site  
490 but can extend beyond it. Impacts can be more severe when they take place in an area of high  
491 biodiversity value. For example, mining activities can overrun wildlife corridors and disrupt the  
492 ecological functioning of an area of high biodiversity value. Inactive mine pits, underground workings,  
493 and hazardous waste can also cause biodiversity impacts beyond closure (see also [topic 14.8](#)  
494 [Closure and rehabilitation](#)).

495 The increasing demand for minerals is expected to further drive mining activities to areas of high  
496 biodiversity value, including previously undeveloped locations and marine ecosystems (see also [topic](#)  
497 [14.2 Climate adaptation and resilience](#)). While the potential impacts of deep-sea mining are not fully  
498 understood, this form of mining is likely to disrupt marine ecosystems, compact or alter seafloor areas,  
499 create sediment plumes, and pose a risk of leaks, accidents, and spills on fragile habitats [84].

500 To limit and manage impacts on biodiversity, many mining organizations use the mitigation hierarchy  
501 tool to help inform their actions with the ambition of halting and reversing the loss of biodiversity. It  
502 presents a prioritized sequence of measures for the sustainable management of natural resources,  
503 with preventive actions taking precedence over remediation. Priority is given to avoidance and, where  
504 avoidance is impossible, to minimization of impacts. Remediation measures are taken after the  
505 adoption of all preventative steps and can include the rehabilitation or restoration of degradation or  
506 damage and offsetting residual impacts [82].



## Reporting on biodiversity

507 If the organization has determined biodiversity to be a material topic, this sub-section lists the  
 508 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	14.4.1
<b>Topic Standard disclosures</b>		
GRI 304: Biodiversity (Exposure draft)	Disclosure 304-1 Location of operational sites with the most significant impacts	14.4.2
	Disclosure 304-2 Direct drivers of biodiversity loss	14.4.3
	Disclosure 304-3 State of biodiversity	14.4.4
	Disclosure 304-4 Ecosystem services	14.4.5
	Disclosure 304-5 Management of biodiversity-related impacts	14.4.6
	Disclosure 304-6 Halting and reversing the loss of biodiversity	14.4.7

## 509 References and resources

510 The exposure draft of the revised [GRI 304: Biodiversity](#) Standard lists authoritative intergovernmental  
 511 instruments and additional references relevant to reporting on this topic.

512 The additional authoritative instruments and references used in developing this topic, as well as  
 513 resources that may be helpful for reporting on biodiversity by the mining sector, are listed in the  
 514 [Bibliography](#).

## 515 **Topic 14.5 Waste**

516 **Waste refers to anything that a holder discards, intends to discard, or is required to discard.**  
517 **When inadequately managed, waste can have negative impacts on the environment and**  
518 **human health, which can extend beyond the locations where waste is generated and**  
519 **discarded. This topic covers impacts from waste and the management of waste.**

520 Mining activities typically generate high volumes of waste, including hazardous waste. The largest  
521 waste streams derive from the extraction or processing of minerals and comprise overburden, rock  
522 waste, and tailings. These waste streams can contain toxic or noxious substances, such as  
523 hazardous heavy metals and minerals like asbestos and antimony, arsenic, cadmium, chromium,  
524 copper, lead, manganese, mercury, and thallium.

525 Waste from mining activities may contaminate surface water, groundwater, and seawater (see also  
526 [topic 14.7 Water and effluents](#)), as well as food sources. Waste also has negative impacts on human  
527 health (see also [topic 14.10 Local communities](#)) and animal and plant species (see also [topic 14.4](#)  
528 [Biodiversity](#)). Land use for waste storage, along with soil contamination, leads to erosion and loss of  
529 productive land, which can further have effects on local communities' livelihoods. The waste impacts  
530 from mining activities can depend on an organization's approach to waste management, regulations,  
531 application of technologies, and the availability of recovery and disposal facilities near mine sites.

532 Mining activities often require using and storing hazardous materials, such as chemicals, for mineral  
533 processing. These materials can be released into the environment during exploration, extraction,  
534 processing, and transport. Hazardous materials can accumulate and remain in the environment  
535 beyond the life of a mine. There are specific concerns regarding the use of cyanide in processing  
536 minerals such as gold and silver, which, when improperly used, stored, or disposed of, can have  
537 negative impacts on human health and the environment (see also [topic 14.15 Critical incident](#)  
538 [management](#)). Mercury can occur as a by-product in other commodities, potentially releasing toxic  
539 vapors when processed. While most mining organizations no longer use mercury in the extraction of  
540 gold, it is still used by many artisanal and small-scale operators (see also [topic 14.13 Artisanal and](#)  
541 [small-scale mining](#)).

542 Overburden from surface mining is usually stored in overburden emplacement facilities or dumps on  
543 adjacent land until the pit is backfilled or the overburden dump is stabilized and revegetated. These  
544 dumps require physical and chemical stabilization to avoid failures, which can have impacts on the  
545 environment and the safety of people. Overburden can also contribute to the formation of highly acidic  
546 water rich in heavy metals, known as acid rock drainage, which can seep into the environment. Rock  
547 waste is usually managed in heaps or disposed of in waste rock dumps or former open-pit operations  
548 and can generate dust (see also [topic 14.3 Air emissions](#)). Tailings, a by-product of the processing of  
549 minerals, are often treated and discarded into ponds, filtered, stored in heaps, or disposed of in  
550 underground voids. Runoff from tailings and tailings facility failures can cause widespread  
551 environmental contamination and pose risks to the health, safety, and livelihoods of local communities  
552 (see also [topic 14.6 Tailings](#)).

553 The amount of waste produced by mining activities depends on the type of mineral extracted and the  
554 ore grade. Generally, surface mining produces more waste than underground mining due to the  
555 possibility of obtaining lower-grade sediments and rocks from which the mineral is extracted. The type  
556 and quantity of waste often requires management beyond the productive phase of a mining operation  
557 and may require long-term aftercare. Closure can also yield significant waste, for example, from  
558 decommissioned processing plants and other facilities (see also [topic 14.8 Closure and rehabilitation](#)).

559 Other common waste streams from mining activities include oils and chemicals, tires, e-waste, spent  
560 catalysts, solvents, other industrial wastes, packaging, and construction wastes. Mining organizations  
561 may also need to manage substantial domestic wastes at mine camps or in dedicated mining towns.

562 **Box 4. Circular economy**

563 The mining sector is both a supplier of materials and a major user of natural resources, materials, and  
564 products. To improve resource efficiency, mining organizations are increasingly implementing  
565 circularity measures across upstream and downstream activities to decrease the need for raw  
566 materials, prevent waste generation, and reuse waste for productive purposes. For example, mining  
567 organizations can reuse tailings and waste rock for backfill, landscaping, and as construction  
568 materials. Other examples include the treatment and recycling of processed water for reuse in the  
569 mining process. Many circularity measures can be designed in collaboration with and for the benefit of  
570 local communities.

571 Reusing and recycling metals can significantly contribute to the circular economy, as many metals  
572 can be melted and reused infinitely. Recycling of metals can also be less energy-intensive than the  
573 extraction and processing of virgin materials (see also [topic 14.1 GHG emissions](#)). Some mining  
574 organizations are already transitioning to more circular business models, expanding their operations  
575 beyond the primary extraction of minerals to incorporate the processing of recycled metals.

576 Circularity measures can be reported by using [GRI 306: Waste 2020](#), and the use of materials is  
577 addressed in [GRI 301: Materials 2016](#).

Exposure draft for public comment

578 **Reporting on waste**

579 If the organization has determined waste to be a material topic, this sub-section lists the disclosures  
 580 identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	Disclosure 3-3 Management of material topics	14.5.1
<b>Topic Standard disclosures</b>		
<b>GRI 306: Waste 2020</b>	Disclosure 306-1 Waste generation and significant waste-related impacts	14.5.2
	Disclosure 306-2 Management of significant waste-related impacts	14.5.3
	Disclosure 306-3 Waste generated <i>Additional sector recommendations</i> When reporting the composition of the waste generated, include a breakdown of the following waste streams, if applicable: <ul style="list-style-type: none"> <li>• rock waste;</li> <li>• tailings.<sup>11</sup></li> </ul>	14.5.4
	Disclosure 306-4 Waste diverted from disposal <i>Additional sector recommendations</i> When reporting the composition of the waste diverted from <u>disposal</u> , include a breakdown of the following waste streams, if applicable: <ul style="list-style-type: none"> <li>• rock waste;</li> <li>• tailings.</li> </ul>	14.5.5
	Disclosure 306-5 Waste directed to disposal <i>Additional sector recommendations</i> When reporting the composition of the waste directed to disposal, include a breakdown of the following waste streams, if applicable: <ul style="list-style-type: none"> <li>• rock waste;</li> <li>• tailings.</li> </ul>	14.5.6

581 **References and resources**

582 [GRI 306: Waste 2020](#) lists authoritative intergovernmental instruments and additional references  
 583 relevant to reporting on this topic.

584 The additional authoritative instruments and references used in developing this topic, as well as  
 585 resources that may be helpful for reporting on waste by the mining sector are listed in the  
 586 [Bibliography](#).

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<sup>11</sup> The additional sector recommendations to report a breakdown of tailings under Disclosures 306-6, Disclosure 306-4, and Disclosure 306-5, is asking for the total weight, in metric tons, of tailings produced. Note that the management of tailings facilities is reported in Topic 14.6 Tailings.

## 587 **Topic 14.6 Tailings**

588 **Tailings are a by-product of mining that need management throughout the life of a mine and**  
589 **beyond closure. Poor design or management of tailings facilities can, at worst, lead to**  
590 **catastrophic failures with lasting impacts on workers, local communities, and damage to**  
591 **infrastructure and natural resources.**

592 Tailings are generated as a by-product of mining and are usually one of the largest waste streams  
593 related to mining operations (see also [topic 14.5 Waste](#)). Often in the form of liquid slurry, tailings  
594 consist of processed rock or soil, usually mixed with chemicals left over when separating minerals  
595 from the rock or soil within which they are found.

596 Tailings are often treated and discarded into tailings facilities, filtered, stored in heaps, or disposed of  
597 in underground voids. Surface tailings facilities are contained by dams and can cover vast areas.  
598 Other disposal methods, such as riverine, lake, and ocean tailings disposal, are widely discouraged  
599 due to the significant potential impacts on the environment and local communities.

600 Tailings containing heavy metals, cyanide, chemical-processing agents, sulfides, or suspended solids  
601 can pose a health risk when released into the environment. Catastrophic failures of tailings facilities  
602 can pose detrimental risks to the safety and well-being of workers and local communities, sometimes  
603 leading to loss of life and, at worst, the destruction of whole communities. Further impacts include  
604 damage to infrastructure, natural resources, and the activities of other sectors, ultimately disrupting  
605 lives and livelihoods. Failures of tailings facilities result from, for example, inadequate water  
606 management, overtopping, foundation or drainage failure, erosion, and earthquakes. Extreme  
607 weather events due to climate change will also pose more frequent challenges to the long-term  
608 management of tailings (see also [topic 14.2 Climate adaptation and resilience](#)).

609 Runoff from tailings can contaminate groundwater, surface water, and seawater, cause damage to  
610 ecosystems and agricultural operations, and have impacts on the health and livelihoods of local  
611 communities (see also [topic 14.7 Water and effluents](#) and [14.10 Local communities](#)). Dry tailings can  
612 also generate dust (see also [topic 14.3 Air emissions](#)). The inefficient processing of precious metal  
613 ores can spur re-encroachment and re-mining of tailings by artisanal and small-scale operators, which  
614 can mobilize toxic tailings into the environment (see also [topic 14.13 Artisanal and small-scale](#)  
615 [mining](#)).

616 Tailings management and storage options depend on various factors, including the presence of local  
617 communities and other receptors, such as areas of high biodiversity value, seismicity, the amount of  
618 rainfall, and local topography. Each facility, dependent on its context, requires unique design and  
619 technical considerations that are evaluated and updated regularly.

620 Organizations are expected to devise site-specific emergency preparedness and response plans to  
621 identify hazards, prepare for and assess their capacity to respond to emergencies, and anticipate  
622 long-term remediation [119] (see also [topic 14.15 Critical incident management](#)).

623 **Reporting on tailings**

624 If the organization has determined tailings to be a material topic, this sub-section lists the disclosures  
 625 identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p data-bbox="386 539 927 573"><a href="#">Disclosure 3-3 Management of material topics</a></p> <p data-bbox="386 580 802 613"><i>Additional sector recommendations</i></p> <ul data-bbox="386 620 1225 869" style="list-style-type: none"> <li>• Report whether the organization complies with or has committed to comply with the Global Industry Standard on Tailings Management (GISTM) and, if so, provide a link to the most recent information disclosed in line with GISTM Principle 15.</li> <li>• Describe actions taken to:               <ul data-bbox="427 775 1225 869" style="list-style-type: none"> <li>- manage <u>impacts</u> from tailings facilities, including during closure and post-closure;</li> <li>- prevent catastrophic failures of tailings facilities.<sup>12</sup></li> </ul> </li> </ul>	14.6.1
<b>Additional sector disclosures</b>		
Report the types of tailings disposal methods used by the organization.		14.6.2
<ul data-bbox="183 1010 1198 1350" style="list-style-type: none"> <li>• List the organization’s tailings facilities,<sup>13</sup> and report the name, location, and ownership status.</li> <li>• For each tailings facility:               <ul data-bbox="225 1099 1198 1350" style="list-style-type: none"> <li>- describe the tailings facility;</li> <li>- report whether the facility is active, inactive, or closed;</li> <li>- report the maximum permitted storage capacity and the total weight of tailings stored, in metric tons;</li> <li>- report the Consequence Classification;</li> <li>- report the date and main findings of the most recent risk assessment;</li> <li>- report the date and main findings of the most recent independent technical review, and the date of the next review.</li> </ul> </li> </ul>		14.6.3

626 **References and resources**

627 The authoritative instruments and references used in developing this topic, as well as resources that  
 628 may be helpful for reporting on tailings by the mining sector are listed in the [Bibliography](#).

<sup>12</sup> Note that actions taken to remediate impacts from critical incidents, including from catastrophic failures of tailings facilities, are reported in topic 14.15 Critical incident management.

<sup>13</sup> For further guidance, including definitions for terms used in the additional sector disclosure 14.6.3, see [Principle 15, Requirement 15.1 in the Global Industry Standard on Tailings Management \(GISTM\) \[119\]](#).

## 629 **Topic 14.7 Water and effluents**

630 **Recognized as a human right, access to fresh water is essential for human life and well-being.**  
631 **The amount of water withdrawn and consumed by an organization and the quality of its**  
632 **discharges can have impacts on ecosystems and people. This topic covers impacts related to**  
633 **the withdrawal and consumption of water and the quality of water discharged.**

634 Mining can have significant impacts on water availability and quality, which in turn can result in long-  
635 term consequences on biodiversity, human health and development, and food security (see also [topic](#)  
636 [14.4 Biodiversity](#), [14.10 Local communities](#), and [14.11 Rights of Indigenous Peoples](#)). Impacts on  
637 water occur throughout the life of a mine and beyond closure.

638 Mining organizations use water across their activities, such as for transporting ore and waste as  
639 slurries for mineral extraction and processing, cooling, and dust suppression. Mining activities can  
640 reduce water availability for local communities and other water users, potentially affecting people's  
641 right to clean drinking water. The amount of water needed for activities depends on operational  
642 efficiency and mining methods. The volume of water withdrawn can also vary according to an  
643 organization's ability to substitute freshwater, the quality of water required, reservoir characteristics,  
644 and recycling infrastructure.

645 Mining organizations can improve local communities' access to freshwater by bolstering water and  
646 sanitation infrastructure and improving water quality, for example, by treating naturally occurring acid  
647 rock drainage. However, when mining occurs in an area characterized by water stress, mining  
648 activities can further limit water availability for other users and increase the competition for water.  
649 Mining organizations can also influence hydrology and have impacts on the livelihoods of local  
650 communities by altering groundwater levels, shifting river flow regimes, and use of dams for  
651 freshwater needs in mining activities. These impacts can exacerbate tensions between, as well as  
652 within, sectors or local communities, especially in cases where water rights and regulations are poorly  
653 managed or enforced.

654 The impacts of mining activities on the quality of surface water, groundwater, rainwater, and seawater  
655 can be due to discharges and runoff, heavy metal contamination, spills, leaks or leeching of  
656 chemicals, and failure of tailings facilities (see also [topics 14.5 Waste](#) and [14.6 Tailings](#)). Acid mine  
657 drainage can be one of the most significant water impacts from metal mines, occurring when water  
658 reacts with rocks containing sulfur-bearing minerals, forming an acidic runoff.

659 Underground operations might also disrupt or contaminate aquifers. Contamination risks can be  
660 higher when mining occurs in areas with frequent heavy rainfall events, which can cause flooding and  
661 make the containment of effluents more challenging. The level of water treatment and quality  
662 standards applied to effluent discharges, as well as the sensitivity of the local ecosystem, can affect  
663 the impact that mining organizations have on the receiving waterbody.

664 Droughts, floods, and other extreme weather events due to climate change will likely pose more  
665 frequent challenges to water availability and quality (see also [topic 14.2 Climate adaptation and](#)  
666 [resilience](#)), requiring collaborative approaches by the mining sector to prevent or mitigate impacts on  
667 local communities [[126](#)].

668 **Reporting on water and effluents**

669 If the organization has determined water and effluents to be a material topic, this sub-section lists the  
 670 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a> <i>Additional sector recommendations</i> Describe actions taken to prevent or <u>mitigate</u> negative <u>impacts</u> from acid mine drainage.	14.7.1
<b>Topic Standard disclosures</b>		
<b>GRI 303: Water and Effluents 2018</b>	<a href="#">Disclosure 303-1 Interactions with water as a shared resource</a>	14.7.2
	<a href="#">Disclosure 303-2 Management of water discharge-related impacts</a>	14.7.3
	<a href="#">Disclosure 303-3 Water withdrawal</a>	14.7.4
	<a href="#">Disclosure 303-4 Water discharge</a>	14.7.5
	<a href="#">Disclosure 303-5 Water consumption</a>	14.7.6

671 **References and resources**

672 [GRI 303: Water and Effluents 2018](#) lists authoritative intergovernmental instruments and additional  
 673 references relevant to reporting on this topic.

674 The additional authoritative instruments and references used in developing this topic, as well as  
 675 resources that may be helpful for reporting on water and effluents by the mining sector are listed in  
 676 the [Bibliography](#).



## 677 **Topic 14.8 Closure and rehabilitation**

678 **At the end of commercial use, organizations are expected to close assets and facilities and**  
679 **rehabilitate operational sites. Impacts can occur during and after closure. This topic covers an**  
680 **organization's approach to closure and rehabilitation, including how the organization**  
681 **considers the impacts on the environment, local communities, and workers.**

682 Mine closure is the process by which mining operations are ceased, with the aim of rehabilitating the  
683 land to a stable and productive condition. Mining organizations are expected to begin closure planning  
684 many years ahead of closure to mitigate impacts on the environment and people. Once complete, the  
685 closure of mine sites should result in sustainable ecosystems compatible with planned post-closure  
686 land use that considers local stakeholders' needs and continued livelihoods.

687 When not managed adequately, the closure of a mine can result in various environmental impacts,  
688 including the contamination of surface water and groundwater, soil contamination from overburden  
689 heaps, changes to landforms, and disturbance to biodiversity (see also [topic 14.4 Biodiversity](#), [14.5](#)  
690 [Waste](#), and [14.7 Water and effluents](#)). The presence of or contamination by hazardous materials can  
691 result in long-lasting health and safety impacts on people (see also [topic 14.10 Local communities](#)).  
692 Failure to rehabilitate sites can also render land unsuitable for other productive purposes, such as  
693 agriculture, leading to the potential loss of livelihoods. Closure activities can comprise:

- 694 • stabilization of open-pit or underground workings to prevent subsidence;
- 695 • decommissioning of processing facilities;
- 696 • land reclamation and rehabilitation, including management of waste rock stockpiles to control  
697 erosion and land degradation;
- 698 • closing and sealing waste facilities (see also [topic 14.6 Tailings](#));
- 699 • removal of workers' facilities;
- 700 • post-closure environmental and socioeconomic monitoring to ensure that post-closure objectives  
701 are being achieved and to identify further areas of attention.

702 Mining organizations can implement closure and rehabilitation activities progressively during the  
703 operating life of the mine by, for example, backfilling and revegetating unused areas as mining  
704 operations move to other zones.

705 Despite the fact that closure and rehabilitation may offer new employment opportunities, it also leads  
706 to employment loss when workers are retrenched. Suppliers to the mine can also lose their jobs when  
707 the mine is closed. In locations where the mine has been the primary economic driver by providing  
708 employment, income, taxes, community development, and other benefits, closure can leave local  
709 communities to face economic downturns and social disruption.

710 The impacts of mine closure can be exacerbated if there is insufficient notice or inadequate planning  
711 for economic revitalization and social transition. Without clearly assigned responsible parties or  
712 allocated funds to cover the costs of mine closure and post-closure activities, closed or abandoned  
713 mine sites can leave a long-lasting legacy of environmental issues and financial burdens for  
714 communities and governments. Mining organizations can collaborate with local and national  
715 governments, unions, and workers to mitigate negative impacts and work towards a sustainable post-  
716 mining economy. This can be done by, for example, reskilling and retraining workers or offering  
717 worker transfer programs and relocation assistance programs.

718 Many jurisdictions require organizations to make financial provisions for mine closure and  
719 rehabilitation, covering social and environmental legacy impacts that can occur after closure. These  
720 financial assurances can be in the form of a cash deposit or a financial instrument held by a third  
721 party to guarantee that the closure liabilities are met. Financial assurances can be made regardless of  
722 the organization's financial circumstance or in the case of mergers or acquisitions. However, closure  
723 costs are often misunderstood, poorly regulated, or underestimated, resulting in insufficient financial

724 assurance to cover the actual closure costs. Providing transparency over these provisions can  
725 improve the relationship with stakeholders and local governments.

Exposure draft for public comment

726 **Reporting on closure and rehabilitation**

727 If the organization has determined closure and rehabilitation to be a material topic, this sub-section  
 728 lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a> <i>Additional sector recommendations</i> Describe how engagement with <u>workers</u> , <u>suppliers</u> , <u>local communities</u> , and other relevant <u>stakeholders</u> has informed closure planning and implementation, including post-mining land use.	14.8.1
<b>Topic Standard disclosures</b>		
<b>GRI 402: Labor/Management Relations 2016</b>	<a href="#">Disclosure 402-1 Minimum notice periods regarding operational changes</a>	14.8.2
<b>GRI 404: Training and Education 2016</b>	<a href="#">Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs</a>	14.8.3
<b>Additional sector disclosures</b>		
For each mine site, report whether it: <ul style="list-style-type: none"> <li>• has a closure and rehabilitation plan in place;</li> <li>• is undergoing closure and rehabilitation activities;</li> <li>• has been closed and rehabilitated.</li> </ul>		14.8.4
For each closure and rehabilitation plan: <ul style="list-style-type: none"> <li>• report whether the plan has been approved by relevant authorities;</li> <li>• report the dates of the most recent and next reviews of the plan.</li> </ul>		14.8.5
For each mine site, report the estimated life of the mine (LOM). <sup>14</sup>		14.8.6
For financial provisions made by the organization for closure and rehabilitation, including environmental and socioeconomic post-closure monitoring and aftercare for mine sites, report: <ul style="list-style-type: none"> <li>• the total undiscounted monetary value, and a breakdown of this total by mine site;</li> <li>• the methodology used to calculate the undiscounted financial provisions for closure and rehabilitation.</li> </ul>		14.8.7
Describe non-financial provisions made by the organization to manage the <u>local community's</u> socioeconomic transition to a sustainable post-mining economy, including collaborative efforts, projects, and programs.		14.8.8

729 **References and resources**

730 [GRI 402: Labor/Management Relations 2016](#) and [GRI 404: Training and Education 2016](#) list  
 731 authoritative intergovernmental instruments relevant to reporting on this topic.

<sup>14</sup> The definition of life of mine (LOM) used by the organization for this additional sector disclosure should be the same as the definition used in its consolidated financial statements or equivalent documents.

732 The additional references used in developing this topic, as well as resources that may be helpful for  
733 reporting on closure and rehabilitation by the mining sector are listed in the [Bibliography](#).

Exposure draft for public comment

## 734 **Topic 14.9 Economic impacts**

735 **An organization's impacts on the economy refers to how the value it generates affects**  
736 **economic systems, for example, as a result of its procurement practices and employment of**  
737 **workers. Infrastructure investments and services supported by an organization can also have**  
738 **impacts on a community's well-being and long-term development. This topic covers economic**  
739 **impacts at local, national, and global levels.**

740 Mining activities can be an important source of investment and income for local communities,  
741 countries, and regions. Economic contributions can manifest locally through procurement spending,  
742 capacity building, or employment provision, and at the national, subnational, or regional level through  
743 taxes and royalties (see also [topic 14.23 Payments to governments](#)). Impacts vary according to the  
744 scale of operations, the project's duration, interactions with other economic activities, the  
745 effectiveness of resource governance by local and national governments, and employment and  
746 procurement practices used. At a global scale, the sector's contributions are prevalent through, for  
747 example, the provision of minerals for the low-carbon transition, essential infrastructure and buildings,  
748 and food production.

749 The economic impacts of mining change over time according to the phase of the mining project.  
750 During mine development, infrastructure investments are at their peak, procurement of goods and  
751 services are high, and many workers are needed. When the mine is in operation, economic impacts  
752 are mainly generated through procurement spending and employment, along with community  
753 investments, taxes, and payments to governments. Mine closure and post-mining phases require  
754 economic restructuring, characterized by out-migration, reduced government revenues, and limited  
755 need for infrastructure, goods, and services.

756 Through local procurement, mining organizations can foster employment and raise demand for goods  
757 and services. Workers of mining organizations and their suppliers also drive local economic growth by  
758 spending their earnings. Long-lasting positive impacts can be generated by capacity building of  
759 suppliers, along with training and skill transfer to the community. Mine construction and operation can  
760 also involve the development of infrastructure, such as roads, railways, and other transport networks,  
761 that local communities can use. Production linkages with other sectors can also drive economic  
762 diversification and community development.

763 The extent to which local communities benefit from mining activities depends on their existing  
764 development and industrialization levels, their capacity to provide qualified workers to meet new  
765 employment opportunities, and the commitment of organizations in the sector to train local workers.  
766 The net employment impact of mining also depends on how existing jobs in other sectors are  
767 affected, as well as the employment practices of the mining organization (see also [topic 14.7](#)  
768 [Employment practices](#)). For example, using a fly-in fly-out work arrangement to supply workers can  
769 reduce the employment opportunities available to local communities, detracting from the potential  
770 economic benefits at the local level.

771 Changes in technology in industrial-scale mining, such as the increased use of automation and  
772 robotics, can affect economic impacts and benefit sharing. While it can introduce new skills and  
773 increase work opportunities for women and other underrepresented groups, it can also reduce local  
774 labor requirements for mining activities.

775 Additionally, a poorly planned or executed mine closure can generate legacy impacts with economic  
776 consequences for communities and governments (see also [topic 14.8 Closure and rehabilitation](#)).

777 Lasting negative impacts can be mitigated in consultation with the community by incorporating  
778 inclusive development, benefit-sharing mechanisms, and impact-driven community development  
779 programs aimed at structural transformation of local economies. Mining organizations can also  
780 promote economic inclusion, for example, by recruiting or using suppliers that that recruit workers

781 from vulnerable groups, including women-owned enterprises (see also [topic 14.21 Non-discrimination](#)  
782 [and equal opportunity](#)). Extending skills development to workers who are not employees and to the  
783 local community can also contribute to positive impacts and promote a just transition after a mine is  
784 closed.

Exposure draft for public comment

785 **Reporting on economic impacts**

786 If the organization has determined economic impacts to be a material topic, this sub-section lists the  
 787 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a> <i>Additional sector recommendations</i> Describe the approach to providing employment, procurement, and training opportunities to local communities.	14.9.1
<b>Topic Standard disclosures</b>		
<b>GRI 201: Economic Performance 2016</b>	<a href="#">Disclosure 201-1 Direct economic value generated and distributed</a> <i>Additional sector recommendations</i> Report direct c by mine site.	14.9.2
<b>GRI 203: Indirect Economic Impacts 2016</b>	<a href="#">Disclosure 203-1 Infrastructure investments and services supported</a> <i>Additional sector recommendations</i> For each mine site, report whether a community needs assessment was conducted to determine the need for <u>infrastructure</u> and other services, and describe the results.	14.9.3
	<a href="#">Disclosure 203-2 Significant indirect economic impacts</a> <i>Additional sector recommendations</i> Report the number and total spend of education and skills programs deployed for <u>workers</u> who are not <u>employees</u> , describe the programs, and the extent to which the programs have been effective.	14.9.4
<b>GRI 204: Procurement Practices 2016</b>	<a href="#">Disclosure 204-1 Proportion of spending on local suppliers</a> <i>Additional sector recommendations</i> Report the percentage of the organization's procurement spending on <u>local suppliers</u> by mine site.	14.9.5
<b>Additional sector disclosures</b>		
Report the percentage of workers hired from the local community by mine site and the organization's definition used for 'local community'. <sup>15</sup>		14.9.6

788 **References and resources**

789 [GRI 201: Economic Performance 2016](#) and [GRI 202: Market Presence 2016](#) list authoritative  
 790 intergovernmental instruments and additional references relevant to reporting on this topic.

791 The additional authoritative instruments and references used in developing this topic, as well as  
 792 resources that may be helpful for reporting on economic impacts by the mining sector are listed in the  
 793 [Bibliography](#).

<sup>15</sup> Workers hired from the local community include those individuals either born or who have the legal right to reside indefinitely (such as naturalized citizens or permanent visa holders) in the same geographic market as the mining operation. The geographical definition of 'local' can include the community surrounding operations, a region within a country, or a country. This recommendation is based on Disclosure 202-2 Proportion of senior management hired from the local community in [GRI 202: Market Presence 2016](#).

## 794 **Topic 14.10 Local communities**

795 **Local communities comprise individuals living or working in areas that are affected or that**  
796 **could be affected by an organization's activities. An organization is expected to conduct**  
797 **community engagement to understand the vulnerabilities and priorities of local communities**  
798 **and how they may be affected by the organization's activities. This topic covers**  
799 **socioeconomic, cultural, health, and human rights impacts on local communities.**

800 Mining activities can create social and economic benefits for local communities through local  
801 procurement and employment, taxes and other payments to governments, infrastructure investments,  
802 and community development programs (see also [topics 14.9 Economic impacts](#) and [14.23 Payments to governments](#)). However, mining activities can also trigger negative socioeconomic, cultural, health,  
803 and human rights impacts on communities near mine sites, including Indigenous Peoples, throughout  
804 the life of a mine and beyond closure (see also [topic 14.11 Rights of Indigenous Peoples](#)).

806 Negative impacts can result from land use requirements that limit the accessibility and availability of  
807 land and natural resources, leading to the loss of tradition, culture, or cultural identity (see also [topic](#)  
808 [14.12 Land and resource rights](#)). Mining activities can also damage cultural heritage sites. Other  
809 negative impacts on community health and well-being can be caused by:

- 810 • exposure to pollution, hazardous substances, and dust (see also [topic 14.3 Air emissions](#));
- 811 • contamination of groundwater and surface water (see also [topic 14.7 Water and effluents](#));
- 812 • increased levels of traffic and pollution from light, noise, and vibration;
- 813 • degradation of ecosystem services; and
- 814 • reduced fishing and agricultural yields.

815 Critical incidents such as explosions, fires, mine collapses, spills, and tailings facility failures pose  
816 further risks on the safety of communities (see also [topic 14.15 Critical incident management](#)).

817 The influx of workers, job seekers, or others aiming to benefit from the economic activity of a mine  
818 can generate social disruption and greater economic inequalities within the local community. This  
819 influx can place local services and resources under pressure, induce inflation, and increase housing  
820 costs. There may also be an increase in substance abuse, gambling, and prostitution, as well as  
821 communicable diseases. Women, in particular, are affected due to the potential rise in sexual violence  
822 and trafficking resulting from the gender imbalance of predominantly male workers. Documented  
823 cases also show the presence of domestic and gender-based violence on mine sites and in mining-  
824 adjacent communities [160].

825 Mining can also trigger social conflicts with human rights impacts. When the interests of the mining  
826 organization are at odds with the interests of the local community, disagreements or grievances can  
827 escalate (see also [topic 14.14 Security practices](#)). Conflict can occur, for example, due to negative  
828 environmental impacts, inadequate engagement with the local community, uneven distribution of  
829 economic benefits, or disputes over land use and natural resources during mining and post-closure.

830 Mining organizations can assess impacts on communities throughout the life of a mine by undertaking  
831 environmental and social impact assessments. This can help ensure that negative impacts are  
832 identified, prevented where possible, and addressed and remedied on time. To balance the negative  
833 impacts of mining, organizations can provide benefits to local communities that contribute to long-term  
834 development. For example, community development agreements can outline obligations for  
835 infrastructure development, land and water use, ASM collaboration, and local employment and  
836 procurement [162].

837 Meaningful engagement with local communities, characterized by two-way communication that is  
838 responsive and ongoing, can also alleviate tensions and improve community relations. This includes  
839 engaging with stakeholders before decisions are made, acknowledging the potential power imbalance  
840 between the organization and the local community, and ensuring accessible and relevant information.  
841 Mining organizations can enable women's and other vulnerable groups' voices to be heard in  
842 community engagement processes to obtain information that is representative of local priorities while  
843 ensuring the equitable distribution of benefits. Establishing or participating in grievance mechanisms  
844 and other remediation processes tailored to community needs can help organizations address  
845 negative impacts.



846 **Reporting on local communities**

847 If the organization has determined local communities to be a material topic, this sub-section lists the  
 848 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p data-bbox="363 555 911 584"><a href="#">Disclosure 3-3 Management of material topics</a></p> <p data-bbox="363 591 783 620"><i>Additional sector recommendations</i></p> <ul data-bbox="363 640 1222 1043" style="list-style-type: none"> <li>• Describe the approach to identifying <u>stakeholders</u> within <u>local communities</u>.</li> <li>• List the vulnerable groups that the organization has identified within local communities by mine site.</li> <li>• Describe the approach to engaging with local communities at each phase of the life of the mine, including:                             <ul data-bbox="411 831 1206 920" style="list-style-type: none"> <li>- how the organization seeks to ensure meaningful engagement;</li> <li>- how the organization seeks to ensure safe and equitable gender participation.</li> </ul> </li> <li>• Describe the approach to developing and implementing <u>community development programs</u>, including how engagement with local stakeholders, impact assessments, and community needs assessments have informed the programs.</li> </ul>	14.10.1
<b>Topic Standard disclosures</b>		
<b>GRI 413: Local Communities 2016</b>	<p data-bbox="363 1140 1206 1200"><a href="#">Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs</a></p> <p data-bbox="363 1207 783 1236"><i>Additional sector recommendations</i></p> <p data-bbox="363 1243 1177 1303">Report any formal community development agreements made by the organization, by mine site.</p>	14.10.2
	<p data-bbox="363 1328 1230 1388"><a href="#">Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities</a></p> <p data-bbox="363 1395 783 1424"><i>Additional sector recommendations</i></p> <p data-bbox="363 1431 1214 1491">Describe <u>impacts</u> on the health and safety of local communities by mine site.</p>	14.10.3
<b>Additional sector disclosures</b>		
	<p data-bbox="177 1585 1193 1646">Report the number and types of <u>grievances</u> from local communities identified by mine site, including:</p> <ul data-bbox="177 1653 1225 1765" style="list-style-type: none"> <li>• the percentage of grievances that were addressed and resolved during the <u>reporting period</u>;</li> <li>• the percentage of the grievances that were resolved through <u>remediation</u> during the reporting period.</li> </ul>	14.10.4

849 **References and resources**

850 [GRI 413: Local Communities 2016](#) lists authoritative intergovernmental instruments and additional  
 851 references relevant to reporting on this topic.

852 The additional authoritative instruments and references used in developing this topic, as well as  
 853 resources that may be helpful for reporting on local communities by the mining sector are listed in the  
 854 [Bibliography](#).

## 855 **Topic 14.11 Rights of Indigenous Peoples**

856 **Indigenous Peoples are at higher risk of experiencing negative impacts more severely as a**  
857 **result of an organization's activities. Indigenous Peoples have both collective and individual**  
858 **rights, as set out in the United Nations Declaration on the Rights of Indigenous Peoples and**  
859 **other authoritative international human rights instruments. This topic covers impacts on the**  
860 **rights of Indigenous Peoples.**

861 Mining activities can present economic opportunities and benefits for Indigenous Peoples through  
862 financial payments, employment, procurement, training, and community development programs (see  
863 also [topic 14.9 Economic impacts](#)). However, they can also disrupt Indigenous Peoples' ties to their  
864 lands or natural environments, compromise their rights and well-being, and cause displacement (see  
865 also [topic 14.12 Land and resource rights](#)). Mining can have impacts on the availability and access to  
866 water, which is a key concern for many Indigenous Peoples. Mining activities can further cause  
867 damage to cultural heritage that consists of tangible sites, artifacts, or intangible forms of culture, such  
868 as traditional lifestyles and cultural knowledge.

869 An influx of workers from other areas can result in discrimination toward Indigenous Peoples  
870 regarding access to jobs and opportunities. It can further undermine social cohesion, well-being, and  
871 safety. Indigenous women can be more exposed to risks of prostitution, forced labor, violence, and  
872 communicable diseases than Indigenous men (see also [topic 14.10 Local communities](#)).

873 Indigenous Peoples' collective and individual rights are recognized in authoritative intergovernmental  
874 instruments. Indigenous Peoples often have a special legal status in national legislation and can be  
875 customary or legal owners of lands to which organizations in the mining sector are granted use rights  
876 by governments. Organizations are expected to obtain free, prior, and informed consent (FPIC) before  
877 initiating operations that could have impacts on land or resources that Indigenous Peoples use or  
878 own. This right is recognized in the United Nations Declaration on the Rights of Indigenous Peoples,  
879 which allows Indigenous Peoples to give or withhold consent to a project that may affect them or their  
880 territories and to negotiate project conditions [179]. Therefore, mining organizations have a  
881 responsibility for respecting Indigenous Peoples' rights, independent of governments' abilities or  
882 willingness to fulfill their own human rights obligation.

883 Mining organizations can foster positive relations with Indigenous Peoples through mutually beneficial  
884 agreements and transparent engagement practices. However, organizations in the sector continue to  
885 have disputes and conflicts with Indigenous Peoples over land ownership and rights. Documented  
886 cases show an absence of good faith consultations and undue pressure on Indigenous Peoples to  
887 accept projects, with opposition to such projects sometimes leading to violence or death [180].

## 888 Reporting on rights of Indigenous Peoples

889 If the organization has determined rights of Indigenous Peoples to be a material topic, this sub-section  
890 lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p><a href="#">Disclosure 3-3 Management of material topics</a> <i>Additional sector recommendations</i></p> <ul style="list-style-type: none"> <li>Describe the approach to identifying <u>Indigenous Peoples</u> who are or could be affected by the organization's activities.</li> <li>Describe the approach to engaging with Indigenous Peoples, including: <ul style="list-style-type: none"> <li>how the organization seeks to ensure meaningful engagement;</li> <li>how the organization seeks to ensure safe and equitable gender participation.</li> </ul> </li> <li>Describe policies, commitments, and actions taken to respect Indigenous Peoples' cultural heritage.</li> <li>Describe the <u>community development programs</u> in place that are intended to enhance positive <u>impacts</u> for <u>Indigenous Peoples</u>.</li> </ul>	14.11.1
<b>Topic Standard disclosures</b>		
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	<p><a href="#">Disclosure 411-1 Incidents of violations involving rights of Indigenous Peoples</a> <i>Additional sector recommendations</i></p> <p>Describe the identified incidents of violations involving the rights of Indigenous Peoples.</p>	14.11.2
<b>Additional sector disclosures</b>		
	List the locations of operations and proven reserves where Indigenous Peoples are present and are or may be affected by the activities of the organization.	14.11.3
	<p>Report whether the organization has been involved in a process of seeking free, prior, and informed consent (FPIC) from Indigenous Peoples for any of the organization's activities and, if so, report for each case:</p> <ul style="list-style-type: none"> <li>whether the process has been mutually accepted by the organization and the affected Indigenous Peoples;</li> <li>whether an agreement has been reached, and if so, if the agreement is publicly available.</li> </ul>	14.11.4

## 891 References and resources

892 [GRI 411: Rights of Indigenous Peoples 2016](#) lists authoritative intergovernmental instruments and  
893 additional references relevant to reporting on this topic.

894 The additional authoritative instruments and references used in developing this topic, as well as  
895 resources that may be helpful for reporting on rights of Indigenous Peoples by the mining sector are  
896 listed in the [Bibliography](#).

## 897 **Topic 14.12 Land and resource rights**

898 **Land and resource rights encompass the rights to use, manage and control land, fisheries,**  
899 **forests, and other natural resources. An organization's impacts on the availability and**  
900 **accessibility of these can affect local communities and other users. This topic covers impacts**  
901 **from an organization's use of land and natural resources on human rights and tenure rights,**  
902 **including from resettlement of local communities.**

903 Mining activities require significant land use for prospecting, exploration, extraction, waste storage,  
904 processing, transportation, and distribution. When adjacent to local communities, these activities  
905 sometimes restrict access to culturally significant locations and natural resources, lead to involuntary  
906 resettlement, and disrupt traditional livelihoods such as agriculture and artisanal mining. The impacts  
907 on land and resource rights can lead to unemployment, marginalization, food insecurity, increased  
908 health risks, and impoverishment. Impacts derived from land use can vary according to the extraction  
909 and transportation method, the size and location of the mine, and the processing required. For  
910 example, displacement is more often associated with surface mining. In many cases, vulnerable  
911 groups are more severely affected (see also [topic 14.11 Rights of Indigenous Peoples](#)).

912 Unclear rules regarding the tenure rights which regulate access, use, and control of land can lead to  
913 disputes, economic and social tensions, and conflict. This can be exacerbated by insufficient  
914 consultation with and compensation to affected communities (see also [topic 14.10 Local](#)  
915 [communities](#)). For example, in areas where formal statutory tenure laws overlap or go against  
916 traditional customary rules, conflict can be stoked when there is a lack of clarity or unmet expectations  
917 between communities and mining organizations. These disputes can be about compensation, access,  
918 or documentation for customary titleholders who might depend on their land for food, culture, and  
919 livelihood.

920 Involuntary resettlement of local communities, including both physical displacement (e.g., relocation  
921 or shelter loss) and economic displacement (e.g., loss of access to assets), can result in the loss of  
922 social networks, cultural identity, and physical assets, such as schools, places of worship, and  
923 cemeteries. Mining organizations may provide monetary compensation or land equivalent to lost  
924 assets, including the value of crops cultivated by customary titleholders. The impacts of resettlement  
925 on livelihoods can be more severe for communities engaged in artisanal and small-scale mining due  
926 to the often informal nature of these activities. In the absence of recognized rights to land and  
927 minerals, these communities may not be compensated (see also [topic 14.13 Artisanal and small-scale](#)  
928 [mining](#)). In some cases, community members resisting resettlement may face threats and intimidation,  
929 as well as violent, repressive, or life-threatening removal from lands.

930 Addressing impacts related to land and resource rights and resettlement requires extensive and  
931 ongoing assessment of impacts. This can ensure that impacts are identified and prevented, for  
932 example, by avoiding involuntary resettlement where feasible. Measures such as fair compensation  
933 and improvements to living conditions can help mitigate impacts and provide a timely remedy.  
934 Ongoing inclusive engagement with local communities throughout the life of a mine and beyond  
935 closure, for example, through consultations and public hearing processes, is essential to ensure the  
936 viability and continuity of community livelihoods. This includes ensuring that women and other groups  
937 more vulnerable to impacts are sufficiently represented. Organizations can also seek free, prior, and  
938 informed consent when mining activities may impact land or resources that local communities use or  
939 own.

940 **Reporting on land and resource rights**

941 If the organization has determined land and resource rights to be a material topic, this sub-section  
 942 lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p data-bbox="405 562 948 591"><a href="#">Disclosure 3-3 Management of material topics</a></p> <p data-bbox="405 607 823 636"><i>Additional sector recommendations</i></p> <ul data-bbox="405 651 1198 987" style="list-style-type: none"> <li>• Describe the approach to engaging with <u>stakeholders</u> whose rights to land and resources are or could be affected, including:               <ul data-bbox="496 712 1198 831" style="list-style-type: none"> <li>- how the organization seeks to ensure meaningful engagement;</li> <li>- how the organization seeks to ensure safe and equitable gender participation.</li> </ul> </li> <li>• Describe the policies or commitments to providing <u>remediation</u> to <u>local communities</u> or individuals subject to involuntary resettlement, and the process for establishing compensation for loss of assets or other assistance to improve or restore standards of living or livelihoods.</li> </ul>	14.12.1
<b>Additional sector disclosures</b>		
	List the mine sites where involuntary resettlement has taken place or is planned. For each mine site, describe how peoples' livelihoods and <u>human rights</u> are or could be affected and restored.	14.12.2
	List the locations of mine sites where conflicts or violations of land and resource rights (including customary, collective, and informal tenure rights) occurred, and describe the incidents and the stakeholders whose rights were affected.	14.12.3

943 **References and resources**

944 The authoritative instruments and references used in developing this topic, as well as resources that  
 945 may be helpful for reporting on land and resource rights by the mining sector are listed in the  
 946 [Bibliography](#).

## 947 **Topic 14.13 Artisanal and small-scale mining**

948 **Artisanal and small-scale mining (ASM) refers to mining by individuals, groups, families, or**  
949 **cooperatives with minimal or no mechanization and often operating informally. ASM occurs**  
950 **throughout the world, but is particularly widespread in developing countries where it is an**  
951 **important source of income and livelihood. This topic covers impacts on and from ASM that**  
952 **occur as a result of direct and indirect interaction with mining organizations.**

953 An estimated 40 million people around the world are engaged in artisanal and small-scale mining  
954 (ASM) [205]. ASM activities are largely informal and often associated with limited access to mining  
955 technology, high labor intensity, and low productivity levels. Mining organizations can come into  
956 contact with ASM at the beginning of mining projects when mineral deposits are exposed and ASM  
957 operators migrate to mine sites. In other cases, an existing ASM presence might exist before mining  
958 organizations commence exploration and extraction.

959 ASM can be legally recognized through artisanal and small-scale mining permits. ASM can be  
960 considered legitimate when consistent with applicable laws or when there are good faith efforts to  
961 operate within the applicable legal framework and to engage in formalization opportunities [204].  
962 However, ASM can often be considered illegal, especially when undertaken on mining organizations'  
963 concessions. Though mining organizations may be vested with concessions to mine by national  
964 regulators, informal ASM operations may have the support of the local community that may be  
965 consistent with social and cultural norms or the informal rules and practices developed over time.

966 When ASM operates in the absence of a regulatory environment, interactions and contact with mining  
967 organizations can lead to conflicts over land, access and control of mineral deposits, as well as the  
968 right to mine (see also [topic 14.12 Land and resource rights](#)). In such cases, mining organizations'  
969 use of security personnel to protect their assets can lead to human rights violations (see also [topic](#)  
970 [14.14 Security practices](#)).

971 The proximity of mining organizations to informal ASM activities can hinder the effectiveness of  
972 mitigation strategies for managing an organization's environmental impacts. For example, efforts to  
973 maintain air or water quality may be impeded due to the use of chemicals or heavy metals in ASM  
974 operations. Areas of high biodiversity value that the organization has an obligation to protect may also  
975 be damaged as a result of uncontrolled access by ASM operators.

976 Mining organizations can become involved with negative impacts when purchasing minerals extracted  
977 by ASM operators. These impacts include lower levels of occupational health and safety and  
978 insufficient environmental practices. In particular, the frequent use of mercury in ASM gold extraction  
979 is a major concern for the environment and the health of workers and local communities.

980 ASM can also involve considerable numbers of children, who often work in mines to supplement  
981 family income (see also [topic 14.18 Child labor](#)). Mining organizations can also be involved with  
982 incidences of forced labor through their interaction with ASM, as well as face higher risks of being  
983 involved with illegal activities.

984 Mining organizations can undertake community engagement and consultation with ASM operators to  
985 build constructive relationships. These would start at the exploration phase to identify and regularly  
986 assess, prevent, and mitigate the impacts linked by their business relationships, interactions, or co-  
987 location of mining with ASM. Mining organizations can support legitimate ASM activities through  
988 capacity building, allocating areas for ASM operators to mine, and providing resources and technical  
989 assistance. Mining organizations can also invest in local procurement initiatives, foster collaboration  
990 through buy-back arrangements, and provide support for formalization at regional and national levels.

991 **Reporting on artisanal and small-scale mining**

992 If the organization has determined artisanal and small-scale mining to be a material topic, this sub-  
 993 section lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p data-bbox="400 577 946 609"><a href="#">Disclosure 3-3 Management of material topics</a></p> <p data-bbox="400 622 820 654"><i>Additional sector recommendations</i></p> <ul data-bbox="400 667 1203 846" style="list-style-type: none"> <li>• Describe the approach to engaging with legitimate ASM operators, and the process used to determine whether they are legitimate.</li> <li>• Describe the programs in place to enhance positive <u>impacts</u> or mitigate negative impacts involving ASM, and how engagement with local authorities and communities has informed them.</li> </ul>	14.13.1
<b>Additional sector disclosures</b>		
List the mine sites where ASM occurs on or in close proximity to the site.		14.13.2
Report the total number and nature of incidents and conflicts involving ASM and actions taken to address them. <sup>16</sup>		14.13.3

994 **References and resources**

995 The authoritative instruments and references used in developing this topic, as well as resources that  
 996 may be helpful for reporting on artisanal and small-scale mining by the mining sector are listed in the  
 997 [Bibliography](#).

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<sup>16</sup> In the context of this disclosure, an ‘incident’ refers to a legal action or complaint registered with the reporting organization or competent authorities through a formal process, or an instance of non-compliance identified by the organization through established procedures (management system audits, formal monitoring programs, or grievance mechanisms).

## 998 **Topic 14.14 Security practices**

999 **The use of security personnel can play an essential role in allowing an organization to operate**  
1000 **safely and productively, but also has the potential to lead to human rights violations. This**  
1001 **topic covers impacts as a result of the use or presence of security providers.**

1002 Many organizations in the mining sector make use of security personnel to protect the organizations'  
1003 assets or ensure workers' safety and security. Organizations can employ their own security but more  
1004 commonly use private security contractors, or the host government provides security.

1005 Documented cases show human rights violations by security personnel during encounters with local  
1006 communities or activists, ranging from threats and intimidation to sexual and physical violence.  
1007 Security providers may also be connected to military or paramilitary groups. While security personnel  
1008 are deployed across geographies, the risk of human rights violations is heightened in conflict-affected  
1009 and high-risk areas (see also [topic 14.25](#)). Risks can also be heightened where mining occurs  
1010 adjacent to Indigenous Peoples and other vulnerable groups (see also [topic 14.11 Rights of](#)  
1011 [Indigenous Peoples](#)). Artisanal and small-scale mining (ASM) operators can also face higher risks,  
1012 particularly when concerns exist around ASM encroachment on mining organizations' concessions  
1013 (see also [topic 14.13 Artisanal and small-scale mining](#)).

1014 Actions taken by security personnel against local community members and human rights defenders  
1015 can violate the rights to freedom of assembly and speech, which can lead to injuries and loss of life.  
1016 Such human rights violations can occur, for example, during protest activities against mining or when  
1017 communities protect their land and resources affected by mining activities (see also [topic 14.12 Land](#)  
1018 [and resource rights](#)). Human rights defenders are accorded particular rights and protections, as  
1019 outlined in the United Nations Declaration on Human Rights Defenders, but frequently still suffer  
1020 human rights abuses and harassment.

1021 Organizations in the sector are responsible for ensuring that security practices are consistent with  
1022 respect to human rights [222]. This involves assessing security-related impacts, identifying situations  
1023 where impacts on human rights are likely to occur, and working with security providers to ensure that  
1024 human rights are respected. Impacts can also be mitigated more broadly by a better understanding of  
1025 the local context, such as the presence of vulnerable groups and the gender composition of the local  
1026 community.



1027 **Reporting on security practices**

1028 If the organization has determined security practices to be a material topic, this sub-section lists the  
 1029 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a> <i>Additional sector recommendation</i> Describe the approach to ensuring respect for <u>human rights</u> by public and private security providers, including whether the organization has committed to implementing the Voluntary Principles on Security and Human Rights.	14.14.1
<b>Topic Standard disclosures</b>		
<b>GRI 410: Security Practices 2016</b>	<a href="#">Disclosure 410-1 Security personnel trained in human rights policies or procedures</a>	14.14.2

1030 **References and resources**

1031 [GRI 410: Security Practices 2016](#) lists additional references relevant to reporting on this topic.  
 1032 The additional authoritative instruments and references used in developing this topic, as well as  
 1033 resources that may be helpful for reporting on security practices by the mining sector are listed in the  
 1034 [Bibliography](#).

1035 **Topic 14.15 Critical incident management**

1036 **Critical incident management deals with the prevention and control of incidents that can lead**  
1037 **to fatalities, injuries or ill health, environmental impacts, and damage to local communities and**  
1038 **infrastructure. This topic covers impacts from such incidents and an organization’s approach**  
1039 **to managing them.**

1040 Critical incidents in the mining sector not only cause damage to the organization’s assets but can  
1041 have catastrophic consequences for workers, local communities, and the environment, for example,  
1042 through air, soil, and water contamination, ecosystem and habitat degradation, and animal mortality.  
1043 These impacts have the potential to disrupt other economic activities that depend on natural  
1044 resources, such as agriculture and fishing, affecting livelihoods and compromising food safety and  
1045 security.

1046 Critical incidents in the mining sector can be related to the release of hazardous chemicals and  
1047 gases, tailings facility failures (see also [topic 14.6 Tailings](#)), stope collapses, ground subsidence,  
1048 improper use and storage of explosives, fires, floods, and vehicle collisions. Incidents can be  
1049 attributed to, for example, human error, mechanical errors, equipment failure (see also [topic 14.16](#)  
1050 [Occupational health and safety](#)), and poor management of waste and hazardous materials (see also  
1051 [topic 14.5 Waste](#)). Incidents can also be attributed to mining-induced seismicity, climactic conditions,  
1052 and weather events. Critical incidents can occur across the supply chain, for example, involving  
1053 contractors performing on-site mining activities or transportation companies involved in highway  
1054 accidents while dispatching minerals.

1055 Implementing a critical control management approach to anticipate incidents can help identify factors  
1056 that can lead to incidents. Negative impacts from critical incidents can be more effectively prevented  
1057 and mitigated when an emergency preparedness and response plan is in place. The timely  
1058 implementation of these measures when critical incidents occur is essential. Mining organizations can  
1059 also bolster preparedness for an emergency by establishing effective communication channels and  
1060 engaging with local communities about potential health and safety threats related to mining activities  
1061 (see also [topic 14.10 Local communities](#)).

1062 **Reporting on critical incident management**

1063 If the organization has determined critical incident management to be a material topic, this sub-  
 1064 section lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a> <i>Additional sector recommendation</i> Describe the organization’s approach to emergency preparedness and response plans, and how engagement with local stakeholders has informed the plans.	14.15.1
<b>Topic Standard disclosures</b>		
<b>GRI 306: Effluents and Waste 2016</b>	<a href="#">Disclosure 306-3 Significant spills</a> <sup>17</sup>	14.15.2
<b>Additional sector disclosures</b>		
	Report the number of critical incidents in the <u>reporting period</u> , describe their impacts, and actions taken to <u>remediate</u> them.	14.15.3
	Report the percentage of mine sites that have emergency preparedness and response plans in place, and a list of the sites that do not.	14.15.4

1065 **References and resources**

1066 [GRI 306: Effluents and Waste 2016](#) lists authoritative intergovernmental instruments relevant to  
 1067 reporting on this topic.

1068 The additional authoritative instruments and references used in developing this topic, as well as  
 1069 resources that may be helpful for reporting on critical incident management by the mining sector are  
 1070 listed in the [Bibliography](#).

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<sup>17</sup> The effluents-related content of the GRI Standard *GRI 306: Effluents and Waste 2016* has been superseded by GRI Standard *GRI 303: Water and Effluents 2018*, and the waste-related content has been superseded by *GRI 306: Waste 2020*. The spills-related content in *GRI 306: Effluents and Waste 2016* remains in effect.

## 1071 **Topic 14.16 Occupational health and safety**

1072 **Healthy and safe work conditions are recognized as a human right. Occupational health and**  
1073 **safety involves the prevention of physical and mental harm to workers and promotion of**  
1074 **workers' health. This topic covers impacts related to workers' health and safety.**

1075 The health and safety of workers engaged in mining activities is an ongoing concern for organizations  
1076 in the sector. Hazards include working with heavy machinery, poor mine structures, and exposure to  
1077 or handling of explosive, flammable, poisonous, or harmful substances. Hazards can be associated  
1078 with working in confined spaces or isolated locations, long working hours, and repetitive tasks.  
1079 Extraction methods can also determine the severity of hazards, with workers in underground mines  
1080 often facing higher risks. Additionally, workers in developing countries, especially in remote mine sites  
1081 are at a higher risk of workplace injuries and ill health.

1082 Hazards associated with the mining sector can result in high-consequence work-related injuries.  
1083 Injuries can result from explosives use, the release of gas or dust in confined areas, electrical faults or  
1084 fires, the collapse of mine structures or facility failures (see also [topics 14.15 Critical incident](#)  
1085 [management](#) and [14.6 Tailings](#)), or the malfunctioning or misuse of mining equipment. Transportation  
1086 accidents frequently occur in the mining sector, particularly among suppliers.

1087 Health hazards can be biological, chemical, ergonomic, or physical in origin. The use of chemicals  
1088 and exposure to hazardous substances, such as cyanide or mercury in mineral extraction and  
1089 processing can lead to long-term health impacts for workers. Exposure to extreme temperatures,  
1090 harmful radiation, and machinery noise or vibration can result in illness among workers. Health  
1091 hazards also include poor hygiene, reduced food or water quality in mine sites and workers'  
1092 accommodation that can result in diseases. Vulnerable groups, including pregnant women, can be  
1093 particularly susceptible to health hazards in the sector.

1094 Psychosocial hazards related to common employment practices in the sector include fly-in fly-out  
1095 work arrangements, long travel times, rotational work, long shifts, night work, irregular working hours,  
1096 solitary work, living in the workplace, and inadequate rest (see also [topic 14.17 Employment](#)  
1097 [practices](#)). These practices can also cause fatigue, increasing the risk of injury. In addition,  
1098 workplaces characterized by gender imbalance can contribute to increased stress, discrimination, or  
1099 sexual harassment (see also [topic 14.21 Non-discrimination and equal opportunity](#)).

1100 In the mining sector, the incidence of high-consequence work-related injury tends to be higher for  
1101 workers who are not employees, such as contractors. This can be attributed to imbalances in  
1102 occupational health and safety management systems coverage and the application of safety  
1103 standards, which may not cover contract workers in the same way employees are covered. They  
1104 might also be less familiar with workplace safety mechanisms and practices or be less committed to  
1105 them.

1106 **Reporting on occupational health and safety**

1107 If the organization has determined occupational health and safety to be a material topic, this sub-  
 1108 section lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	Disclosure 3-3 Management of material topics	14.16.1
<b>Topic Standard disclosures</b>		
<b>GRI 403: Occupational Health and Safety 2018</b>	Disclosure 403-1 Occupational health and safety management system	14.16.2
	Disclosure 403-2 Hazard identification, risk assessment, and incident investigation	14.16.3
	Disclosure 403-3 Occupational health services	14.16.4
	Disclosure 403-4 Worker participation, consultation, and communication on occupational health and safety <i>Additional sector recommendation</i> Report how the organization ensures women's participation in formal joint management-worker health and safety committees, and the percentage of women represented in these committees.	14.16.5
	Disclosure 403-5 Worker training on occupational health and safety	14.16.6
	Disclosure 403-6 Promotion of worker health	14.16.7
	Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	14.16.8
	Disclosure 403-8 Workers covered by an occupational health and safety management system	14.16.9
	Disclosure 403-9 Work-related injuries	14.16.10
	Disclosure 403-10 Work-related ill health	14.16.11

1109 **References and resources**

1110 *GRI 403: Occupational Health and Safety 2018* lists authoritative intergovernmental instruments and  
 1111 additional references relevant to reporting on this topic.

1112 The additional authoritative instruments and references used in developing this topic, as well as  
 1113 resources that may be helpful for reporting on occupational health and safety by the mining sector are  
 1114 listed in the [Bibliography](#).

## 1115 **Topic 14.17 Employment practices**

1116 **Employment practices refer to an organization’s approach to job creation, terms of**  
1117 **employment, and working conditions for its workers. This topic also covers the employment**  
1118 **and working conditions in an organization’s supply chain.**

1119 While mining can offer well-paid work opportunities, negative impacts on workers can derive from  
1120 challenging working conditions and ineffective labor-management consultations. Job insecurity due to  
1121 closures, fluctuating commodity price cycles, and technological advances, including automation,  
1122 provide additional challenges for workers.

1123 Employment practices can vary in relation to remuneration, hours of work, health and safety  
1124 coverage, training opportunities, social protection, job security, and access to grievance mechanisms.  
1125 Full-time employees generally have access to benefits that might not be available to part-time  
1126 employees. Employment terms can vary between local workers and migrant workers, whereby  
1127 remuneration for these workers may be unequal, and benefits, such as bonuses, housing allowances,  
1128 and private insurance plans, may only be offered to high-skilled migrant workers.

1129 Various activities in the mining sector may be outsourced to suppliers. This practice is common during  
1130 all phases in the life of the mine, such as during construction or maintenance, or for specific activities,  
1131 such as catering, drilling, security, and transportation. Outsourcing activities could allow organizations  
1132 in the mining sector to reduce their labor costs or bypass collective agreements that are in place for  
1133 employees, potentially increasing disparities between workers (see also [topic 14.20 Freedom of](#)  
1134 [association and collective bargaining](#)).

1135 Many jobs in the mining sector have complex shift patterns involving long hours and night work to  
1136 ensure the continuity of operations around the clock. This can cause high levels of fatigue and  
1137 increase risks related to health and safety. The remote locations of many mine sites might necessitate  
1138 the use of fly-in fly-out or other transportation arrangements. Workers who are transported to mine  
1139 sites for several weeks at a time and often required to work irregular shifts can experience negative  
1140 impacts on their psychosocial health (see also [topic 14.16 Occupational health and safety](#)). Irregular  
1141 work shifts and time required away from families can also act as a barrier to the employment of  
1142 primary caregivers - often women - in the sector (see also [topic 14.21 Non-discrimination and equal](#)  
1143 [opportunity](#)).

1144 Mining organizations can support workers by addressing transformations in the sector, such as  
1145 automation, the deployment of new technologies, and the low-carbon transition, by providing  
1146 resources for training, education, and the development of long-term skills and capacities.

1147 **Reporting on employment practices**

1148 If the organization has determined employment practices to be a material topic, this sub-section lists  
 1149 the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	Disclosure 3-3 Management of material topics	14.17.1
<b>Topic Standard disclosures</b>		
<b>GRI 202: Market Presence 2016</b>	Disclosure 202-1 Ratios of standard entry-level wage by gender compared to local minimum wage	14.17.2
<b>GRI 401: Employment 2016</b>	Disclosure 401-1 New employee hires and employee turnover	14.17.3
	Disclosure 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees <i>Additional sector recommendation</i> Report benefits provided to employees that are not provided to workers who are not employees and whose work and workplace are controlled by the organization.	14.17.4
	Disclosure 401-3 Parental leave	14.17.5
<b>GRI 402: Labor/Management Relations 2016</b>	Disclosure 402-1 Minimum notice periods regarding operational changes	14.17.6
<b>GRI 404: Training and Education 2016</b>	Disclosure 404-1 Average hours of training per year per employee	14.17.7
	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	14.17.8
<b>GRI 414: Supplier Social Assessment 2016</b>	Disclosure 414-1 New suppliers that were screened using social criteria	14.17.9
	Disclosure 414-2 Negative social impacts in the supply chain and actions taken	14.17.10

1150 **References and resources**

1151 [GRI 401: Employment 2016](#), [GRI 402: Labor/Management Relations 2016](#), [GRI 404: Training and](#)  
 1152 [Education 2016](#), and [GRI 414: Supplier Social Assessment 2016](#) list authoritative intergovernmental  
 1153 instruments and additional references relevant to reporting on this topic.

1154 The additional authoritative instruments and references used in developing this topic, as well as  
 1155 resources that may be helpful for reporting on employment practices by the mining sector are listed in  
 1156 the [Bibliography](#).

## 1157 **Topic 14.18 Child labor**

1158 **Child labor is defined as work that deprives children of their childhood, their potential, and**  
1159 **their dignity, and that is harmful to their development, including by interfering with their**  
1160 **education. It is a violation of human rights and can lead to lifelong negative impacts. Abolition**  
1161 **of child labor is a fundamental principle and right at work.**

1162 Children face multiple hazards when working in a mine, such as falling rocks, explosions, fires, and  
1163 the collapse of mine walls. Because mining often occurs in remote areas with weak law enforcement,  
1164 lacking schools, social services, and family and community support, work in mines can also be  
1165 morally and psychologically hazardous for children. The ILO considers mining and quarrying as  
1166 hazardous work and one of the worst forms of child labor, the elimination of which is a priority.

1167 Mining organizations are more likely to become involved with child labor through their suppliers than  
1168 through their own activities, for example, during the construction of mine sites where work is carried  
1169 out by suppliers. Mining organizations that purchase minerals extracted by artisanal and small-scale  
1170 mining (ASM) operators can also become involved with child labor when the ASM operators use child  
1171 labor (see also [topic 14.13 Artisanal and small-scale mining](#)). There are an estimated one million  
1172 children between the ages of five and 17 engaged worldwide in ASM and quarrying activities [251]  
1173 [252].

1174 Mining organizations can be more exposed to risks of child labor when operating in conflict-affected  
1175 and high-risk areas (see also [topic 14.25](#)). Increased poverty in rural areas owing to a lack of  
1176 employment opportunities and poor wages can drive the incidence of child labor in ancillary or support  
1177 activities.

1178 To fulfill their responsibility to respect human rights, mining organizations are expected to carry out  
1179 due diligence to identify activities and business relationships that are at significant risk for incidents of  
1180 child labor and use their leverage to contribute to the effective abolition of child labor. As part of a  
1181 global effort, several governments have issued legislation requiring public reporting to address child  
1182 labor. Such legislation applies to organizations in the mining sector.

### 1183 **Box 5. Holistic approach to combat child labor**

1184 Although the use of child labor has declined globally, increased artisanal and small-scale mining  
1185 (ASM) activity over the past decades may have resulted in higher levels of children working in mining.

1186 Local economic circumstances and the need for additional family income are key drivers for child  
1187 labor in mines. Studies have found that disengagement from ASM by mining organizations to avoid  
1188 the negative impacts of child labor can paradoxically exacerbate the issue and drive ASM to operate  
1189 in more informal environments with more hazardous working conditions. To holistically address the  
1190 issue, mining organizations can collaborate with ASMs and local communities to identify which  
1191 activities are being performed by children and who the children are and work with authorities to assist  
1192 and support sustained economic growth [254].



1193 **Reporting on child labor**

1194 If the organization has determined child labor to be a material topic, this sub-section lists the  
 1195 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a>	14.18.1
<b>Topic Standard disclosures</b>		
<b>GRI 408: Child labor 2016</b>	<a href="#">Disclosure 408-1 Operations and suppliers at significant risk for incidents of child labor</a>	14.18.2
<b>GRI 414: Supplier Social Assessment 2016</b>	<a href="#">Disclosure 414-1 New suppliers that were screened using social criteria</a>	14.18.3

1196 **References and resources**

1197 [GRI 408: Child labor 2016](#) and [GRI 414: Supplier Social Assessment 2016](#) list authoritative  
 1198 intergovernmental instruments and additional references relevant to reporting on this topic.

1199 The additional authoritative instruments and references used in developing this topic, as well as  
 1200 resources that may be helpful for reporting on child labor by the mining sector are listed in the  
 1201 [Bibliography](#).

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## 1202 **Topic 14.19 Forced labor and modern slavery**

1203 **Forced labor is defined as all work or service which is exacted from any person under the**  
1204 **menace of penalty and for which a person has not offered themselves voluntarily. Freedom**  
1205 **from forced labor is a human right and a fundamental right at work. This topic covers an**  
1206 **organization’s approach to identifying and addressing forced labor and modern slavery.**

1207 It is estimated that 4% of all forced labor happens in mining and quarrying [264]. Forced labor and  
1208 modern slavery occur in situations of involuntary recruitment through trafficking, difficulty leaving the  
1209 employer without penalty, violent threats, debt bondage, deceptive recruitment, withholding of wages,  
1210 or the retention of identification documents.

1211 Cases of forced labor and modern slavery are especially prevalent in artisanal and small-scale mining  
1212 (see also [topic 14.13](#)) and in conflict-affected and high-risk areas (see also [topic 14.25](#)). Migrant  
1213 workers in the mining sector are also more likely to work under conditions of coercion. They may not  
1214 have valid work permits, be unaware of their legal status, and even can have their passports or  
1215 identification documents taken away.

1216 Mining organizations can be involved with incidents of forced labor and modern slavery through their  
1217 business relationships, such as with suppliers who may operate in countries with low enforcement of  
1218 human rights. In order to fulfill their responsibility to respect human rights, mining organizations are  
1219 expected to carry out due diligence to identify mine sites and business relationships that are at  
1220 significant risk for incidents of forced labor and modern slavery. Organizations can also use leverage  
1221 to improve labor conditions to combat forced labor and modern slavery throughout the supply chain.

1222 As part of a global effort, several governments have issued legislation requiring public reporting on  
1223 addressing modern slavery, including forced labor practices. Such legislation applies to organizations  
1224 in the mining sector.

Exposure draft for public comment

1225 **Reporting on forced labor and modern slavery**

1226 If the organization has determined forced labor and modern slavery to be a material topic, this sub-  
 1227 section lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a>	14.19.1
<b>Topic Standard disclosures</b>		
<b>GRI 409: Forced or Compulsory Labor 2016</b>	<a href="#">Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor</a>	14.19.2
<b>GRI 414: Supplier Social Assessment 2016</b>	<a href="#">Disclosure 414-1 New suppliers that were screened using social criteria</a>	14.19.3

1228 **References and resources**

1229 [GRI 409: Forced or Compulsory Labor 2016](#) and [GRI 414: Supplier Social Assessment 2016](#) list  
 1230 authoritative intergovernmental instruments and additional references relevant to reporting on this  
 1231 topic.

1232 The additional authoritative instruments and references used in developing this topic, as well as  
 1233 resources that may be helpful for reporting on forced labor and modern slavery by the mining sector  
 1234 are listed in the [Bibliography](#).

Exposure draft for public comment

## 1235 **Topic 14.20 Freedom of association and collective** 1236 **bargaining**

1237 **Freedom of association and collective bargaining are human rights and fundamental rights at**  
1238 **work. They include the rights of employers and workers to form, join, and run their own**  
1239 **organizations without prior authorization or interference, and to collectively negotiate working**  
1240 **conditions and terms of employment. This topic covers an organization's approach and**  
1241 **impacts related to freedom of association and collective bargaining.**

1242 Freedom of association and collective bargaining can help improve working conditions in the mining  
1243 sector, including occupational health and safety, wages, and job security. They address the right of  
1244 workers to assemble, organize, belong to trade unions or political parties, elect representatives, and  
1245 strike without interference from their employers.

1246 Many workers in the mining sector have traditionally been represented by trade unions, with jobs  
1247 covered by collective bargaining agreements. However, some mining activities take place in countries  
1248 where workers' rights are restricted or not efficiently enforced. Restrictions on effective worker  
1249 representation might exist even in jurisdictions where unions are legal, and workers who join unions  
1250 might face intimidation or unfair treatment, harassment, payment cuts, or even employment  
1251 termination.

1252 Documented cases of interference with freedom of association and collective bargaining in the sector  
1253 include the detention of managers and other employees, the invasion of privacy, the non-adherence  
1254 to collective agreements, and the prevention of trade union access to workplaces to assist workers.  
1255 Other documented cases include the refusal to bargain in good faith with workers' chosen trade  
1256 unions, as well as trade union members and leaders being subjected to threats, harassment, forced  
1257 disappearance, violence, and death. Unfair dismissals and unilateral cancellation of collective  
1258 bargaining agreements are other forms of interference with freedom of association and collective  
1259 bargaining.

1260 Differing terms and conditions of employment in the sector can cause disparity among workers in  
1261 implementing workers' rights. Contract workers, for example, are often excluded from the scope of  
1262 collective bargaining agreements and might receive less favorable employment conditions and lower  
1263 base salaries or benefits compared to employees. Lack of access to freedom of association and  
1264 collective bargaining can result in adverse working conditions such as low wages and long working  
1265 hours that exacerbate impacts on workers who already face increased work-related vulnerabilities and  
1266 isolation (see also [topic 14.21 Non-discrimination and equal opportunity](#)).

1267 Trade unions have reported restrictions on temporary workers or workers employed by suppliers  
1268 accessing the same rights as other employees. In some cases, organizations have hired workers on  
1269 short-term contracts or outsourced jobs to prevent workers from joining unions. Similarly, migrant  
1270 workers are also less likely to be covered by labor agreements or to be able to participate freely in  
1271 unions.

1272 Mining organizations can ensure that workers of all employment conditions have access to grievance  
1273 mechanisms, often facilitated or partly designed by unions, to help resolve stakeholder concerns  
1274 before they develop into grievances and conflicts. According to the International Labour Organization  
1275 (ILO), all workers should enjoy the right to freedom of association and collective bargaining, and  
1276 organizations should ensure that these rights are not unreasonably affected.

1277 **Reporting on freedom of association and collective bargaining**

1278 If the organization has determined freedom of association and collective bargaining to be a material  
 1279 topic, this sub-section lists the disclosures identified as relevant for reporting on the topic by the  
 1280 mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a>	14.20.1
<b>Topic Standard disclosures</b>		
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>	<a href="#">Disclosure 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk</a>	14.20.2

1281 **References and resources**

1282 [GRI 407: Freedom of Association and Collective Bargaining 2016](#) lists authoritative intergovernmental  
 1283 instruments relevant to reporting on this topic.

1284 The additional authoritative instruments and references used in developing this topic, as well as  
 1285 resources that may be helpful for reporting on freedom of association and collective bargaining by the  
 1286 mining sector are listed in the [Bibliography](#).

Exposure draft for Public Comment

## 1287 **Topic 14.21 Non-discrimination and equal** 1288 **opportunity**

1289 **Freedom from discrimination is a human right and a fundamental right at work. Discrimination**  
1290 **can impose unequal burdens on individuals or deny fair opportunities on the basis of**  
1291 **individual merit. This topic covers impacts from discrimination and practices related to**  
1292 **diversity, inclusion, and equal opportunity.**

1293 The nature of work in the mining sector, including its conditions, locations, necessary skills, and types  
1294 of work, can inhibit diversity and equal opportunity for workers. While various barriers to entry in  
1295 mining can be detrimental to creating a diverse and equitable workplace, discrimination within mining  
1296 organizations can also impede job access and career development and lead to disparities in  
1297 treatment, base salary, and benefits.

1298 Discrimination can occur within mining organizations and the activities that they directly undertake as  
1299 well as in their supply chain. Discrimination can occur based on age, gender, race, religion,  
1300 nationality, sexual orientation, or worker status. Individuals and vulnerable groups often face a higher  
1301 risk of discrimination. They include Indigenous Peoples, persons from ethnic or other minorities,  
1302 migrant workers, or workers with HIV/AIDs or other chronic health issues.

1303 The mining sector is characterized by a significant gender imbalance among workers, including senior  
1304 management. Examples of unequal treatment for women workers include impeded access to jobs,  
1305 less pay compared to male counterparts, and hiring discrimination. Other challenges are the effects of  
1306 fly-in fly-out work arrangements, long hours, limited parental leave and childcare, and a lack of  
1307 appropriate facilities and protective equipment for women at mine sites. All of which create barriers to  
1308 entry for women and primary caregivers.

1309 In addition, male-dominated work cultures and gendered organizational norms have contributed to the  
1310 likelihood of sexual harassment in the workplace, documented in fly-in fly-out worker camps. The  
1311 remoteness of mine sites can also contribute to gender-based discrimination due to having less  
1312 access to protective services, legal representation, and law enforcement personnel. Recognizing  
1313 women's rights at work, providing gender-appropriate facilities and equipment, and ensuring equal  
1314 opportunities are examples of actions organizations can take to achieve gender equity and inclusion  
1315 in the workplace.

1316 Local workers and Indigenous Peoples can experience racial and ethnic discrimination at all  
1317 organizational levels. Jobseekers from local communities are sometimes excluded from the hiring  
1318 process or might receive lower pay than expatriate employees recruited for skill-specific roles. Migrant  
1319 workers, especially when low-skilled or working at the mine site on a temporary basis, can face  
1320 additional forms of discrimination in employment and treatment (see also [topic 14.17 Employment](#)  
1321 [practices](#)). Contract workers can also be more vulnerable to discrimination if organization-wide  
1322 discrimination policies do not protect their working arrangements.

1323 Alongside accessible and effective grievance mechanisms, understanding how specific groups may  
1324 be subject to discrimination across different locations of mining activities can help the sector  
1325 effectively address discriminatory practices. Establishing and supporting transparent workplace  
1326 policies on inclusion and diversity, such as training workers about cultural sensitivity and non-  
1327 discrimination, can help foster a respectful workplace and prevent discrimination.

1328 **Reporting on non-discrimination and equal opportunity**

1329 If the organization has determined non-discrimination and equal opportunity to be a material topic, this  
 1330 sub-section lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	Disclosure 3-3 Management of material topics	14.21.1
<b>Topic Standard disclosures</b>		
<b>GRI 202: Market Presence 2016</b>	Disclosure 202-2 Proportion of senior management hired from the local community	14.21.2
<b>GRI 401: Employment 2016</b>	Disclosure 401-3 Parental leave	14.21.3
<b>GRI 404: Training and Education 2016</b>	Disclosure 404-1 Average hours of training per year per employee	14.21.4
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	Disclosure 405-1 Diversity of governance bodies and employees <i>Additional sector recommendations</i> Report whether the organization has a gender equality plan or policy in place and, if so, provide a summary of the plan, and progress made in implementing the plan.	14.21.5
	Disclosure 405-2 Ratio of basic salary and remuneration of women to men <i>Additional sector recommendations</i> <ul style="list-style-type: none"> <li>Report the ratio of basic salary and <u>remuneration</u> of women to men by mine site.</li> <li>Report the ratio of basic salary and <u>remuneration</u> by other indicators of diversity, by mine site, where relevant.</li> </ul>	14.21.6
<b>GRI 406: Non-discrimination 2016</b>	Disclosure 406-1 Incidents of discrimination and corrective actions taken	14.21.7

1331 **References and resources**

1332 *GRI 202: Market Presence 2016, GRI 401: Employment 2016, GRI 404: Training and Education*  
 1333 *2016, GRI 405: Diversity and Equal Opportunity 2016, and GRI 406: Non-discrimination 2016* list  
 1334 authoritative intergovernmental instruments relevant to reporting on this topic.

1335 The additional authoritative instruments and references used in developing this topic, as well as  
 1336 resources that may be helpful for reporting on non-discrimination and equal opportunity by the mining  
 1337 sector are listed in the [Bibliography](#).

## 1338 **Topic 14.22 Anti-corruption**

1339 **Anti-corruption refers to how an organization manages the potential of being involved with**  
1340 **corruption. Corruption is practices such as bribery, facilitation payments, fraud, extortion,**  
1341 **collusion, money laundering, or the offer or receipt of an inducement to do something**  
1342 **dishonest or illegal. This topic covers impacts related to corruption and an organization's**  
1343 **approach related to contract and ownership transparency.**

1344 Corruption in the mining sector can occur throughout the value chain, irrespective of the country of  
1345 operation or the country's economic development, location, and political context. Negative impacts of  
1346 corruption include misallocation of resource revenues, damage to the environment and people by  
1347 mining projects when mineral rights are granted to unqualified or unethical organizations, abuse of  
1348 democracy and human rights, and political instability.

1349 Corruption can also divert resource revenues to private beneficiaries at the expense of public  
1350 investments in infrastructure or services. This can be particularly critical in countries with high poverty  
1351 levels where existing inequalities might be intensified. The risk of corruption is prevalent in conflict-  
1352 afflicted and high-risk areas since increased pressure on the supply of resources and instability might  
1353 be exploited (see also [topic 14.25 Conflict-affected and high-risk areas](#)).

1354 Characteristics of the mining sector that increase the likelihood of corruption include frequent  
1355 interaction between mining organizations and politically exposed persons,<sup>18</sup> such as government  
1356 officials for licenses and regulatory approvals. Other relevant characteristics include the complex  
1357 financial transactions and the international reach of the sector (see also [topic 14.23 Payments to](#)  
1358 [governments](#)).

1359 State-owned enterprises (SOEs) in the mining sector are more exposed to corruption, particularly in  
1360 awarding permits, procuring goods and services, commodity trading, and non-commercial activities  
1361 such as social expenditures [288]. SOEs might have less effective internal controls and fewer  
1362 transparency expectations than public companies and often receive preferential treatment due to their  
1363 special legal status in a country. In addition to driving profit, SOEs sometimes pursue broader  
1364 objectives such as community development. However, without adequate oversight, measures for  
1365 community development might be abused for corrupt purposes. Private mining organizations  
1366 partnering with SOEs are thus more prone to corruption due to their business relationship.

1367 In the mining sector, corruption has been detected in awarding exploration and production contracts  
1368 and licenses, for example, to obtain confidential information, to influence decision-making, or to avoid  
1369 environmental or local content requirements. Corruption can also occur in the consultation process  
1370 when seeking consent and when compensating local communities, either directly or through local  
1371 governments, which might lack transparent financial procedures (see also [topic 14.12 Land and](#)  
1372 [resource rights](#) and [14.11 Rights of Indigenous Peoples](#)). Corruption in these processes may result in  
1373 licenses being awarded to less qualified organizations, jeopardizing public investments, or negatively  
1374 impacting the environment and local communities.

1375 Corrupt practices can also be aimed at blocking or shaping policies and regulations or influencing  
1376 their enforcement. This is particularly common to land and resource rights regulations, taxes and  
1377 other government levies, or environmental protections (see also [topic 14.24 Public policy](#)).

1378 A lack of transparency in procurement practices can have significant economic impacts on host  
1379 countries and local economic development (see also [topic 14.9 Economic impacts](#)). Examples of this  
1380 can include paying bribes to get regulations or quality requirements waived, receiving kickbacks for

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<sup>18</sup> Politically exposed person is defined by the Financial Action Taskforce (FATF) as 'an individual who is or has been entrusted with a prominent public function' [287].



1381 securing contracts at inflated prices, profiting from inflated prices charged by an entity established as  
1382 a front organization, and favoring companies connected to local regulators.

1383 Lack of disclosure on contracts and licensing over mineral resource extraction may obstruct public  
1384 scrutiny of investments and transactions related to project-related negative impacts and benefits,  
1385 including negotiated terms and obligations of organizations. Fair terms for sharing risks and rewarding  
1386 benefits are particularly relevant because of the long-term time horizons and widespread impacts of  
1387 mining projects. Contract transparency helps local communities hold governments and organizations  
1388 accountable for their negotiated terms and obligations. Opaque ownership structures, in turn, can  
1389 make it difficult to determine who benefits from these financial transactions. Beneficial ownership  
1390 transparency has been identified as a vehicle to deter conflicts of interest, corruption, tax avoidance,  
1391 and evasion.

1392 Stakeholders, the marketplace, and international norms expect organizations in the mining sector to  
1393 demonstrate their adherence to national laws, integrity, governance, and responsible business  
1394 practices to combat corruption and prevent the negative impacts that stem from it.

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1395 **Reporting on anti-corruption**

1396 If the organization has determined anti-corruption to be a material topic, this sub-section lists the  
 1397 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<a href="#">Disclosure 3-3 Management of material topics</a> <i>Additional sector recommendations</i> Describe how potential impacts of corruption or risks of corruption are managed in the organization’s procurement practices and throughout the supply chain.	14.22.1
<b>Topic Standard disclosures</b>		
<b>GRI 205: Anti-corruption 2016</b>	<a href="#">Disclosure 205-1 Operations assessed for risks related to corruption</a>	14.22.2
	<a href="#">Disclosure 205-2 Communication and training about anti-corruption policies and procedures</a>	14.22.3
	<a href="#">Disclosure 205-3 Confirmed incidents of corruption and actions taken</a>	14.22.4
<b>Additional sector disclosures</b>		
Describe the approach to contract transparency, including: <ul style="list-style-type: none"> <li>• whether contracts and licenses are made publicly available and, if so, where they are published;</li> <li>• if contracts or licenses are not publicly available, the reason for this and actions taken to make them public in the future.<sup>19</sup></li> </ul>		14.22.5
List the organization’s beneficial owners and explain how the organization identifies the beneficial owners of <u>business partners</u> , including joint ventures and <u>suppliers</u> . <sup>20</sup>		14.22.6

1398 **References and resources**

1399 [GRI 205: Anti-corruption 2016](#) lists authoritative intergovernmental instruments and additional  
 1400 references relevant to reporting on this topic.

1401 The additional authoritative instruments and references used in developing this topic, as well as  
 1402 resources that may be helpful for reporting on anti-corruption by the mining sector are listed in the  
 1403 [Bibliography](#).

<sup>19</sup> This additional sector disclosure is based on Requirement 2.4. Contracts in the *EITI Standard 2019*. Definitions for contracts and licenses can be found in the *EITI Standard 2019* [305].

<sup>20</sup> This additional sector disclosure is based on Requirement 2.5. Beneficial ownership c., d., and f. in the *EITI Standard 2019* [305].

## 1404 **Topic 14.23 Payments to governments**

1405 **Lack of transparency about payments to governments can contribute to inefficient**  
1406 **management of public funds, illicit financial flows, and corruption. This topic covers impacts**  
1407 **from an organization's practices related to payments to governments and the organization's**  
1408 **approach to transparency of such payments.**

The mining sector can have significant impacts on national incomes, fiscal revenues, and foreign exchange revenues by means of various payments to governments (see also [topic 14.9 Economic impacts](#)). These payments include commodity trading revenues, exploration and production licensing fees, taxes and royalties, and signature, discovery, and production bonuses.

1409 Organizations that apply aggressive tax practices or tax non-compliance can diminish national tax  
1410 revenues to the detriment of the public good. Avoidance of taxes and other payments to governments  
1411 can be facilitated by tax minimization practices such as transfer pricing or illicit financial flows, which  
1412 include the cross-border movement of money that is illegally earned, transferred, or used [302].

1413 Organizations can also receive financial assistance from governments in the form of tax reliefs,  
1414 subsidies, grants, or financial incentives, potentially hindering government revenue collection and  
1415 reducing the financial benefits of mining. These risks are more prevalent in developing countries as  
1416 well as conflict-affected and high-risk areas where the need for public revenue is often higher.

1417 Reporting on payments to governments can help distinguish the economic importance of the mining  
1418 sector to countries, enable public debate, and inform government decision-making. It can also provide  
1419 insights into the terms of contracts, increase accountability, and strengthen revenue collection and  
1420 management. On the other hand, a lack of transparency by mining organizations can impede the  
1421 detection of potentially misallocated revenues and corruption (see also [topic 14.22 Anti-corruption](#)).

1422 When disclosing information on payments to governments, organizations in the mining sector often  
1423 report aggregate payments at an organizational level. However, this can provide limited insight into  
1424 payments made in each country or related projects. Reporting country-by-country and by mine site  
1425 allows for comparisons of the payments made to those stipulated in fiscal, legal, and contractual  
1426 terms. It also allows for an assessment of the financial contribution of mining activities to host  
1427 countries and communities. Full disclosure enables governments to address tax avoidance and  
1428 evasion, correct information asymmetry, and level the playing field for governments when negotiating  
1429 contracts.

1430 **Reporting on payments to governments**

1431 If the organization has determined payments to governments to be a material topic, this sub-section  
 1432 lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	Disclosure 3-3 Management of material topics	14.23.1
<b>Topic Standard disclosures</b>		
<b>GRI 201: Economic Performance 2016</b>	Disclosure 201-1 Direct economic value generated and distributed	14.23.2
	Disclosure 201-4 Financial assistance received from government <i>Additional sector recommendation</i> For state-owned organizations (SOEs): <ul style="list-style-type: none"> <li>• Report the financial relationship between the government and the SOE.<sup>21</sup></li> </ul>	14.23.3
<b>GRI 207: Tax 2019</b>	Disclosure 207-1 Approach to tax	14.23.4
	Disclosure 207-2 Tax governance, control, and risk management	14.23.5
	Disclosure 207-3 Stakeholder engagement and management of concerns related to tax	14.23.6
	Disclosure 207-4 Country-by-country reporting <i>Additional sector recommendation</i> <ul style="list-style-type: none"> <li>• Report a breakdown of the payments to governments levied at the project-level, by project, and the following revenue streams, if applicable:                             <ul style="list-style-type: none"> <li>- The host government's production entitlement;</li> <li>- National state-owned company production;</li> <li>- Royalties;</li> <li>- Dividends;</li> <li>- Bonuses (e.g., signature, discovery, production bonuses);</li> <li>- License fees, rental fees, entry fees, and other considerations for licenses or concessions;</li> <li>- Any other significant payments and material benefits to government.<sup>22</sup></li> </ul> </li> </ul>	14.23.7

<sup>21</sup> This additional sector recommendation is based on Requirement 2.6 State participation in the *EITI Standard 2019* [305].

<sup>22</sup> This additional sector recommendation is based on Requirement 4.1 Comprehensive disclosure of taxes and revenues and Requirement 4.7. Level of disaggregation in the *EITI Standard 2019*. A definition for project can be found in the *EITI Standard 2019* [305].

	<ul style="list-style-type: none"> <li>Report the value of any thresholds<sup>23</sup> that have been applied and any other contextual information necessary to understand how the project-level payments to governments reported have been compiled.</li> </ul>	
<b>Additional sector disclosures</b>		
For minerals purchased from the state or from third parties appointed by the state to sell on their behalf, report:	<ul style="list-style-type: none"> <li>volumes and types of minerals purchased;</li> <li>full names of the buying entity and the recipient of the payment;</li> <li>payments made for the purchase.<sup>24</sup></li> </ul>	14.23.8

1433 **References and resources**

1434 *GRI 201: Economic Performance 2016* and *GRI 207: Tax 2019* list authoritative intergovernmental  
 1435 instruments and additional references relevant to reporting on this topic.

1436 The additional authoritative instruments and references used in developing this topic, as well as  
 1437 resources that may be helpful for reporting on payments to governments by the mining sector are  
 1438 listed in the [Bibliography](#).

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<sup>23</sup> The *EITI Standard 2019* specifies that in countries implementing the EITI, the multi-stakeholder group for the country agrees which payments and revenues are material, including appropriate thresholds [305]. The organization can use the relevant threshold set by the EITI multi-stakeholder group. If there is no relevant threshold set, the organization can use a threshold equivalent to that established for the European Union, which specifies that 'Payments, whether a single payment or a series of related payments, below EUR 100,000 within the reporting period can be excluded' [297].

<sup>24</sup> This additional sector disclosure is based on Requirement 4.2 Sale of the state's share of production or other revenues collected in kind in the *EITI Standard 2019* [305] and *EITI Reporting Guidelines for companies buying oil, gas and minerals from governments* [296].

## 1440 **Topic 14.24 Public policy**

1441 **An organization can participate in public policy development, directly or through an**  
1442 **intermediary organization, by means of lobbying or making financial or in-kind contributions**  
1443 **to political parties, politicians, or causes. While an organization can encourage the**  
1444 **development of public policy that benefits society, participation can also be associated with**  
1445 **corruption, bribery, undue influence, or an imbalanced representation of the organization's**  
1446 **interests. This topic covers an organization's approach to public policy advocacy and the**  
1447 **impacts that can result from the influence an organization exerts.**

1448 Organizations in the mining sector can influence public policy development through lobbying and  
1449 advocacy at local, regional, and national levels. These measures can allow access to government  
1450 representatives and increase organizations' influence over public policy decisions affecting the mining  
1451 sector. Advocacy and lobbying can be carried out directly by the organization or through industry  
1452 groups or other associations supported by the mining organization.

1453 The sector can use its influence to advance responsible sector practices by safeguarding existing  
1454 jobs, assisting in community development, and fostering foreign investment in a country. However,  
1455 public policy and lobbying activities can also be used to:

- 1456 • secure mining license approvals;
- 1457 • influence legislation on environmental and social assessments;
- 1458 • lower taxes and other government levies (see also [topic 14.23 Payments to governments](#));
- 1459 • shape environmental policies which can ultimately obstruct sustainable development.

1460 For example, mining organizations are under increasing scrutiny for links to industry groups that have  
1461 advocated for policies that are inconsistent with the organizations' own publicly stated positions and  
1462 the goals of the Paris Agreement [307].

1463 Mining organizations can also influence public policy at local levels to have mining developments  
1464 approved, for example, by colluding with local leaders while excluding the wider community from  
1465 decision-making processes (see also [topic 14.10 Local communities](#)).

1466 In some cases, direct contributions to political parties or through intermediaries can be used to  
1467 engender favor for private sector interests. These contributions can be linked to corruption, especially  
1468 in areas where regulations on political donations and lobbying are weak (see also [topic 14.22 Anti-](#)  
1469 [corruption](#)). Mining organizations also employ former government representatives to acquire sensitive  
1470 or insider knowledge about future policies to gain a commercial advantage.

1471 Transparency about lobbying activities and political donations by mining organizations and affiliated  
1472 industry groups can help accountability bodies, the public, and the media scrutinize whether mining  
1473 organizations, through their own activities or those of the interest groups they are affiliated with, have  
1474 unduly influenced laws, policies, and approvals.

1475 **Reporting on public policy**

1476 If the organization has determined public policy to be a material topic, this sub-section lists the  
 1477 disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p><a href="#">Disclosure 3-3 Management of material topics</a></p> <p><i>Additional sector recommendation</i></p> <ul style="list-style-type: none"> <li>• Describe the organization’s stance on significant issues that are the focus of its participation in public policy development and lobbying; and any differences between these positions and its stated policies, goals, or other public positions.</li> <li>• Report whether the organization is a member of, or contributes to, any representative associations or committees that participate in public policy development and lobbying, including:               <ul style="list-style-type: none"> <li>- the nature of this contribution;</li> <li>- any differences between the organization’s stated policies, goals, or other public positions on significant issues and the positions of the representative associations or committees.<sup>25</sup></li> </ul> </li> </ul>	14.24.1
<b>Topic Standard disclosures</b>		
<b>GRI 415: Public Policy 2016</b>	<a href="#">Disclosure 415-1 Political contributions</a>	14.24.2

1478 **References and resources**

1479 [GRI 415: Public Policy 2016](#) lists authoritative intergovernmental instruments and additional  
 1480 references relevant to reporting on this topic.

1481 The additional authoritative instruments and references used in developing this topic, as well as  
 1482 resources that may be helpful for reporting on public policy by the mining sector are listed in the  
 1483 [Bibliography](#).

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<sup>25</sup> These additional sector recommendations are based on reporting recommendations 1.2.1 and 1.2.2 in *GRI 415: Public Policy 2016*.

## 1484 **Topic 14.25 Conflict-affected and high-risk areas**

1485 **When operating in or sourcing from conflict-affected and high-risk areas, organizations are**  
1486 **more likely to be involved in human rights and legal violations and be implicated in corruption**  
1487 **and financial flows contributing to conflict. This topic covers an organization's approach and**  
1488 **impacts related to operating in or sourcing from conflict-affected and high-risk areas.**

1489 Many organizations in the mining sector operate in or have business relationships with entities in  
1490 conflict-affected and high-risk areas.<sup>26</sup> In these areas, the heightened risk of serious human rights  
1491 abuses includes incidents of forced labor, child labor, sexual violence, and violations of international  
1492 humanitarian law. The sheer presence of mining activities can exacerbate conflict. Extraction by  
1493 nature has higher risks of significant negative impacts, such as financing conflict or fuelling, facilitating  
1494 or exacerbating conditions of conflict [318].

1495 In conflict-affected and high-risk areas, armed groups or their affiliates often illegally control mine  
1496 sites, transportation routes, or points where minerals are traded [318]. These groups can illegally tax  
1497 or extort money and minerals, use forced labor, or commit other human rights abuses. Profits from  
1498 these activities are often used to finance armed conflict. Mining organizations can be linked, directly  
1499 or through their suppliers, to conflict by procuring minerals from, making payments to, or otherwise  
1500 providing logistical assistance or equipment to armed groups or their affiliates.

1501 While the security practices commonly used by mining organizations safeguard mine workers and  
1502 assets in conflict-affected and high-risk areas, security personnel can be linked to human rights  
1503 abuses and other illegal activities (see also [topic 14.14 Security practices](#)). ASM operators, vulnerable  
1504 groups such as Indigenous Peoples, and human rights defenders are often severely affected by  
1505 violence and harassment in these areas.

1506 Organizations are also more likely to be implicated in corrupt practices, such as bribery and money  
1507 laundering, in conflict-affected and high-risk areas. Corrupt practices also include opaque financial  
1508 flows such as taxes, fees, and royalties paid to governments which are often difficult to trace and may  
1509 end up financing conflict (see also [topics 14.22 Anti-corruption](#) and [14.23 Payments to governments](#)).

1510 When operating in or sourcing from conflict-affected and high-risk areas, mining organizations should  
1511 conduct robust due diligence to ensure that they respect human rights and do not contribute to conflict  
1512 [318]. International humanitarian law is binding on any organization whose activities are closely linked  
1513 to an armed conflict and can also provide guidance to limit the effects of armed conflict.

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<sup>26</sup> According to Organisation for Economic Co-operation and Development (OECD), conflict-affected and high-risk areas are identified by the presence of armed conflict, widespread violence or other risks of harm to people. High-risk areas may include areas of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence [318].



1514 **Reporting on conflict-affected and high-risk areas**

1515 If the organization has determined conflict-affected and high-risk areas to be a material topic, this sub-  
 1516 section lists the disclosures identified as relevant for reporting on the topic by the mining sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
<b>Management of the topic</b>		
<b>GRI 3: Material Topics 2021</b>	<p data-bbox="421 577 963 611"><a href="#">Disclosure 3-3 Management of material topics</a></p> <p data-bbox="421 624 836 658"><i>Additional sector recommendations</i></p> <p data-bbox="421 665 1198 752">Describe the approach to ensuring adherence to international humanitarian law when operating in conflict-affected and high-risk areas.</p>	14.25.1
<b>Additional sector disclosures</b>		
<ul style="list-style-type: none"> <li data-bbox="181 853 1225 913">• List the locations of operations in conflict-affected or high-risk areas and how these were identified.</li> <li data-bbox="181 916 1225 1070">• Describe the <u>due diligence</u> process applied for operations in, or when sourcing from, conflict-affected and high-risk areas and whether it aligns with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. If so, provide a link to the most recent due diligence 5-step report.</li> <li data-bbox="181 1072 1225 1160">• In the absence of a due diligence 5-step report, provide a summary of an impact assessment conducted, including potential impacts on <u>workers</u> and <u>local communities</u>.</li> </ul>		14.25.2

1517 **References and resources**

1518 The authoritative instruments and references used in developing this topic, as well as resources that  
 1519 may be helpful for reporting on conflict-affected and high-risk areas by the mining sector are listed in  
 1520 the [Bibliography](#).

## 1521 Glossary

1522 This glossary provides definitions for terms used in this Standard. The organization is required to  
1523 apply these definitions when using the GRI Standards.

1524 The definitions included in this glossary may contain terms that are further defined in the complete  
1525 [GRI Standards Glossary](#). All defined terms are underlined. If a term is not defined in this glossary or in  
1526 the complete *GRI Standards Glossary*, definitions that are commonly used and understood apply.

- 1527 • area of high biodiversity value
- 1528 • area protected
- 1529 • business partner
- 1530 • business relationship
- 1531 • carbon dioxide (CO<sub>2</sub>) equivalent
- 1532 • child/children
- 1533 • conflict of interest
- 1534 • corruption
- 1535 • community development program
- 1536 • direct (Scope 1) GHG emissions
- 1537 • discrimination
- 1538 • disposal
- 1539 • due diligence
- 1540 • effluent
- 1541 • employee
- 1542 • energy indirect (Scope 2) GHG emissions
- 1543 • entry level wage
- 1544 • exposure
- 1545 • financial assistance
- 1546 • freedom of association
- 1547 • freshwater
- 1548 • greenhouse gas (GHG)
- 1549 • grievance
- 1550 • grievance mechanism
- 1551 • groundwater
- 1552 • hazardous waste
- 1553 • high-consequence work-related injury
- 1554 • human rights
- 1555 • impact
- 1556 • Indigenous Peoples
- 1557 • infrastructure

- 1558 • local community
- 1559 • local supplier
- 1560 • recovery
- 1561 • material topic
- 1562 • mitigation
- 1563 • occupational health and safety management system
- 1564 • other indirect (Scope 3) GHG emissions
- 1565 • parental leave
- 1566 • protected area
- 1567 • remuneration
- 1568 • remedy/remediation
- 1569 • renewable energy source
- 1570 • reporting period
- 1571 • runoff
- 1572 • seawater
- 1573 • security personnel
- 1574 • severity (of impact)
- 1575 • significant air emission
- 1576 • spill
- 1577 • stakeholder
- 1578 • supplier
- 1579 • supply chain
- 1580 • surface water
- 1581 • sustainable development
- 1582 • value chain
- 1583 • vulnerable group
- 1584 • waste
- 1585 • water stress
- 1586 • worker

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This section lists authoritative intergovernmental instruments and additional references used in developing this Standard, as well as resources that the organization can consult.

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# Annex

## 2327 Table 1: Likely material topics included in the exposure draft for mining

2328 Note: Reporting on the topics is subject to an organization's materiality assessment. The organization is only required to report the disclosures from the Topic  
 2329 Standards it has determined to be material. If any of the Topic Standards disclosures listed are not relevant to the organization's impacts, the organization is  
 2330 not required to report them. The additional sector disclosures and recommendations outline further information which has been identified as relevant for  
 2331 organizations in the sector to report in relation to a topic. Reporting these additional sector disclosures and recommendations is encouraged, however it is not  
 2332 a requirement.

Topic	#	GRI Topic Standards disclosures	Sector disclosures
		required reporting	recommended reporting
GHG emissions	1	Disclosure 3-3 Management of material topics	
	2	Disclosure 302-1 Energy consumption within the organization	
	3	Disclosure 302-2 Energy consumption outside of the organization	
	4	Disclosure 302-3 Energy intensity	
	5	Disclosure 305-1 Direct (Scope 1) GHG emissions	- When reporting on gross direct (Scope 1) GHG emissions, include land use change emissions. - Report a breakdown of the gross direct (Scope 1) GHG emissions by mine site.
	6	Disclosure 305-2 Energy indirect (Scope 2) GHG emissions	- Report a breakdown of the gross location-based energy indirect (Scope 2) GHG emissions by mine site. - If applicable, report a breakdown of the gross market-based energy indirect (Scope 2) GHG emissions by mine site.
	7	Disclosure 305-3 Other indirect (Scope 3) GHG emissions	
	8	Disclosure 305-4 GHG emissions intensity	Report a breakdown of the GHG emissions intensity ratio for direct (Scope 1) and energy indirect (Scope 2) GHG emissions by mine site.
	9	Disclosure 305-5 Reduction of GHG emissions	
	10	Disclosure 3-3 Management of material topics	- Describe the climate change-related scenarios used to assess the resilience of the organization's strategy, including a well below 2°C, preferably 1.5°C, scenario.

<b>Climate adaptation and resilience</b>			- Report whether the organization has a climate change adaptation plan in place and, if so, provide a summary of the plan and on the progress made in implementing the plan, and describe how stakeholders were engaged in the plan's development.
	<b>11</b>	Disclosure 201-2 Financial implications and other risks and opportunities due to climate change	Describe how the substantive changes in operations, revenue, or expenditure due to climate change, affect or could affect the organization's workers and suppliers, its contributions to economic development, and its payments to governments.
<b>Air emissions</b>	<b>12</b>	Disclosure 3-3 Management of material topics	
	<b>13</b>	Disclosure 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	
	<b>14</b>		For each mine site, report a breakdown of the hazardous air pollutants (HAP) emissions, by: - hydrogen cyanide (HCN); - mercury (Hg).
	<b>15</b>		For each mine site, report a breakdown of the particulate matter (PM) emissions, by: - PM10; - PM2.5.
	<b>16</b>		For each mine site, report significant air emissions, in kilograms or multiples, for each of the following: - Carbon monoxide (CO); - Ground-level ozone (O3); - Hydrogen sulphide (H2S).
<b>Biodiversity</b>	<b>17</b>	Disclosure 3-3 Management of material topics	
	<b>18</b>	Disclosure 304-1 Location of operational sites with the most significant impacts	
	<b>19</b>	Disclosure 304-2 Direct drivers of biodiversity loss	
	<b>20</b>	Disclosure 304-3 State of biodiversity	
	<b>21</b>	Disclosure 304-4 Ecosystem services	
	<b>22</b>	Disclosure 304-5 Management of biodiversity-related impacts	
	<b>23</b>	Disclosure 304-6 Halting and reversing the loss of biodiversity	

<b>Waste</b>	<b>24</b>	Disclosure 3-3 Management of material topics	
	<b>25</b>	Disclosure 306-1 Waste generation and significant waste-related impacts	
	<b>26</b>	Disclosure 306-2 Management of significant waste-related impacts	
	<b>27</b>	Disclosure 306-3 Waste generated	When reporting the composition of the waste generated, include a breakdown of the following waste streams, if applicable: - rock waste; - tailings.
	<b>28</b>	Disclosure 306-4 Waste diverted from disposal	When reporting the composition of the waste diverted from disposal, include a breakdown of the following waste streams, if applicable: - rock waste; - tailings.
	<b>29</b>	Disclosure 306-5 Waste directed to disposal	When reporting the composition of the waste directed to disposal, include a breakdown of the following waste streams, if applicable: - rock waste; - tailings.
<b>Tailings</b>	<b>30</b>	Disclosure 3-3 Management of material topics	- Report whether the organization complies with or has committed to comply with the Global Industry Standard on Tailings Management (GISTM) and, if so, provide a link to the most recent information disclosed in line with GISTM Principle 15. - Describe actions taken to: > manage impacts from tailings facilities, including during closure and post-closure; > prevent catastrophic failures of tailings facilities.
	<b>31</b>		Report the types of tailings disposal methods used by the organization.
	<b>32</b>		List the organization's tailings facilities, and report the name, location, and ownership status.
	<b>33</b>		For each tailings facility: - describe the tailings facility; - report whether the facility is active, inactive, or closed; - report the maximum permitted storage capacity and the total weight of tailings stored, in metric tons; - report the Consequence Classification; - report the date and main findings of the most recent risk assessment;

			- report the date and main findings of the most recent independent technical review, and the date of the next review.
<b>Water and effluents</b>	<b>34</b>	Disclosure 3-3 Management of material topics	Describe actions taken to prevent or mitigate negative impacts from acid mine drainage.
	<b>35</b>	Disclosure 303-1 Interactions with water as a shared resource	
	<b>36</b>	Disclosure 303-2 Management of water discharge-related impacts	
	<b>37</b>	Disclosure 303-3 Water withdrawal	
	<b>38</b>	Disclosure 303-4 Water discharge	
	<b>39</b>	Disclosure 303-5 Water consumption	
<b>Closure and rehabilitation</b>	<b>40</b>	Disclosure 3-3 Management of material topics	Describe how engagement with workers, suppliers, local communities, and other relevant stakeholders has informed closure planning and implementation, including post-mining land use.
	<b>41</b>	Disclosure 402-1 Minimum notice periods regarding operational changes	
	<b>42</b>	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	
	<b>43</b>		For each mine site, report whether it: - has a closure and rehabilitation plan in place; - is undergoing closure and rehabilitation activities; - has been closed and rehabilitated.
	<b>44</b>		For each closure and rehabilitation plan: - report whether the plan has been approved by relevant authorities; - report the dates of the most recent and next reviews of the plan.
	<b>45</b>		For each mine site, report the estimated life of the mine (LOM).
	<b>46</b>		For financial provisions made by the organization for closure and rehabilitation, including environmental and socioeconomic post-closure monitoring and aftercare for mine sites, report: - the total undiscounted monetary value, and a breakdown of this total by mine site; - the methodology used to calculate the undiscounted financial provisions for closure and rehabilitation.



	<b>47</b>		Describe non-financial provisions made by the organization to manage the local community's socioeconomic transition to a sustainable post-mining economy, including collaborative efforts, projects, and programs.
<b>Economic impacts</b>	<b>48</b>	Disclosure 3-3 Management of material topics	Describe the approach to providing employment, procurement, and training opportunities to local communities.
	<b>49</b>	Disclosure 201-1 Direct economic value generated and distributed	Report direct economic value generated and distributed (EVG&D) by mine site.
	<b>50</b>	Disclosure 203-1 Infrastructure investments and services supported	For each mine site, report whether a community needs assessment was conducted to determine the need for infrastructure and other services, and describe the results.
	<b>51</b>	Disclosure 203-2 Significant indirect economic impacts	Report the number and total spend of education and skills programs deployed for workers who are not employees, describe the programs, and the extent to which the programs have been effective.
	<b>52</b>	Disclosure 204-1 Proportion of spending on local suppliers	Report the percentage of the organization's procurement spending on local suppliers by mine site.
	<b>53</b>		Report the percentage of workers hired from the local community by mine site and the organization's definition used for 'local community'.
<b>Local communities</b>	<b>54</b>	Disclosure 3-3 Management of material topics	<ul style="list-style-type: none"> <li>- Describe the approach to identifying stakeholders within local communities.</li> <li>- List the vulnerable groups that the organization has identified within local communities by mine site.</li> <li>- Describe the approach to engaging with local communities at each phase of the life of the mine, including: <ul style="list-style-type: none"> <li>&gt; how the organization seeks to ensure meaningful engagement;</li> <li>&gt; how the organization seeks to ensure safe and equitable gender participation.</li> </ul> </li> <li>- Describe the approach to developing and implementing community development programs, including how engagement with local stakeholders, impact assessments, and community needs assessments have informed the programs.</li> </ul>
	<b>55</b>	Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs	Report any formal community development agreements made by the organization, by mine site.
	<b>56</b>	Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities	Describe impacts on the health and safety of local communities by mine site.

	<b>57</b>		Report the number and type of grievances from local communities identified by mine site, including: - the percentage of the grievances that were addressed and resolved during the reporting period; - the percentage of the grievances that were resolved through remediation during the reporting period.
<b>Rights of Indigenous Peoples</b>	<b>58</b>	Disclosure 3-3 Management of material topics	- Describe the approach to identifying Indigenous Peoples who are or could be affected by the organization's activities. - Describe the approach to engaging with Indigenous Peoples, including: > how the organization seeks to ensure meaningful engagement; > how the organization seeks to ensure safe and equitable gender participation. - Describe policies, commitments, and actions taken to respect Indigenous Peoples' cultural heritage. - Describe the community development programs in place that are intended to enhance positive impacts for Indigenous Peoples.
	<b>59</b>	Disclosure 411-1 Incidents of violations involving rights of Indigenous Peoples	Describe the identified incidents of violations involving the rights of Indigenous Peoples.
	<b>60</b>		List the locations of operations and proven reserves where Indigenous Peoples are present and are or may be affected by the activities of the organization.
	<b>61</b>		Report whether the organization has been involved in a process of seeking free, prior, and informed consent (FPIC) from Indigenous Peoples for any of the organization's activities and, if so, report for each case: - whether the process has been mutually accepted by the organization and the affected Indigenous Peoples; - whether an agreement has been reached, and if so, if the agreement is publicly available.
<b>Land and resource rights</b>	<b>62</b>	Disclosure 3-3 Management of material topics	- Describe the approach to engaging with stakeholders whose rights to land and resources are or could be affected, including: > how the organization seeks to ensure meaningful engagement; > how the organization seeks to ensure safe and equitable gender participation. - Describe the policies or commitments to providing remediation to local communities or individuals subject to involuntary resettlement, and the process for establishing compensation for loss of assets or other assistance to improve or restore standards of living or livelihoods

	<b>63</b>		List the mine sites where involuntary resettlement has taken place or is planned. For each mine site, describe how peoples' livelihoods and human rights are or could be affected and restored.
	<b>64</b>		List the locations of mine sites where conflicts or violations of land and resource rights (including customary, collective, and informal tenure rights) occurred, and describe the incidents and the stakeholders whose rights were affected.
<b>Artisanal and small-scale mining</b>	<b>65</b>	Disclosure 3-3 Management of material topics	- Describe the approach to engaging with legitimate ASM operators, and the process used to determine whether they are legitimate. - Describe the programs in place to enhance positive impacts or mitigate negative impacts involving ASM, and how engagement with local authorities and communities has informed them.
	<b>66</b>		List the mine sites where ASM occurs on or in close proximity to the site.
	<b>67</b>		Report the total number and nature of incidents and conflicts involving ASM and actions taken to address them.
<b>Security practices</b>	<b>68</b>	Disclosure 3-3 Management of material topics	Describe the approach to ensuring respect for human rights by public and private security providers, including whether the organization has committed to implementing the Voluntary Principles on Security and Human Rights.
	<b>69</b>	Disclosure 410-1 Security personnel trained in human rights policies or procedures	
<b>Critical incident management</b>	<b>70</b>	Disclosure 3-3 Management of material topics	Describe the organization's approach to emergency preparedness and response plans, and how engagement with local stakeholders has informed the plans.
	<b>71</b>	Disclosure 306-3 Significant spills	
	<b>72</b>		Report the number of critical incidents in the reporting period, describe their impacts, and actions taken to remediate them.
	<b>73</b>		Report percentage of mine sites that have emergency preparedness and response plans in place, and a list of the sites that do not.
<b>Occupational health and safety</b>	<b>74</b>	Disclosure 3-3 Management of material topics	
	<b>75</b>	Disclosure 403-1 Occupational health and safety management system	
	<b>76</b>	Disclosure 403-2 Hazard identification, risk assessment, and incident investigation	
	<b>77</b>	Disclosure 403-3 Occupational health services	

	<b>78</b>	Disclosure 403-4 Worker participation, consultation, and communication on occupational health and safety	Report how the organization ensures women's participation in formal joint management-worker health and safety committees, and the percentage of women represented in these committees.
	<b>79</b>	Disclosure 403-5 Worker training on occupational health and safety	
	<b>80</b>	Disclosure 403-6 Promotion of worker health	
	<b>81</b>	Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	
	<b>82</b>	Disclosure 403-8 Workers covered by an occupational health and safety management system	
	<b>83</b>	Disclosure 403-9 Work-related injuries	
	<b>84</b>	Disclosure 403-10 Work-related ill health	
<b>Employment practices</b>	<b>85</b>	Disclosure 3-3 Management of material topics	
	<b>86</b>	Disclosure 202-1 Ratios of standard entry-level wage by gender compared to local minimum wage	
	<b>87</b>	Disclosure 401-1 New employee hires and employee turnover	
	<b>88</b>	Disclosure 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Report benefits provided to employees that are not provided to workers who are not employees and whose work and workplace are controlled by the organization.
	<b>89</b>	Disclosure 401-3 Parental leave	
	<b>90</b>	Disclosure 402-1 Minimum notice periods regarding operational changes	
	<b>91</b>	Disclosure 404-1 Average hours of training per year per employee	
	<b>92</b>	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	
	<b>93</b>	Disclosure 414-1 New suppliers that were screened using social criteria	
<b>Child labor</b>	<b>94</b>	Disclosure 414-2 Negative social impacts in the supply chain and actions taken	
	<b>95</b>	Disclosure 3-3 Management of material topics	
	<b>96</b>	Disclosure 408-1 Operations and suppliers at significant risk for incidents of child labor	

	<b>97</b>	Disclosure 414-1 New suppliers that were screened using social criteria	
<b>Forced labor and modern slavery</b>	<b>98</b>	Disclosure 3-3 Management of material topics	
	<b>99</b>	Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	
	<b>100</b>	Disclosure 414-1 New suppliers that were screened using social criteria	
<b>Freedom of association and collective bargaining</b>	<b>101</b>	Disclosure 3-3 Management of material topics	
	<b>102</b>	Disclosure 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	
<b>Non-discrimination and equal opportunity</b>	<b>103</b>	Disclosure 3-3 Management of material topics	
	<b>104</b>	Disclosure 202-2 Proportion of senior management hired from the local community	
	<b>105</b>	Disclosure 401-3 Parental leave	
	<b>106</b>	Disclosure 404-1 Average hours of training per year per employee	
	<b>107</b>	Disclosure 405-1 Diversity of governance bodies and employees	Report whether the organization has a gender equality plan or policy in place and, if so, provide a summary of the plan, and progress made in implementing the plan
	<b>108</b>	Disclosure 405-2 Ratio of basic salary and remuneration of women to men	- Report the ratio of basic salary and remuneration of women to men, by mine site. - Report the ratio of basic salary and remuneration by other indicators of diversity, by mine site, where relevant.
	<b>109</b>	Disclosure 406-1 Incidents of discrimination and corrective actions taken	
<b>Anti-corruption</b>	<b>110</b>	Disclosure 3-3 Management of material topics	Describe how potential impacts of corruption or risks of corruption are managed in the organization's procurement practices and throughout the supply chain.
	<b>111</b>	Disclosure 205-1 Operations assessed for risks related to corruption	
	<b>112</b>	Disclosure 205-2 Communication and training about anti-corruption policies and procedures	
	<b>113</b>	Disclosure 205-3 Confirmed incidents of corruption and actions taken	

	<b>114</b>		Describe the approach to contract transparency, including: - whether contracts and licenses are made publicly available and, if so, where they are published; - if contracts or licenses are not publicly available, the reason for this and actions taken to make them public in the future
	<b>115</b>		List the organization's beneficial owners and explain how the organization identifies the beneficial owners of business partners, including joint ventures and suppliers.
<b>Payments to governments</b>	<b>116</b>	Disclosure 3-3 Management of material topics	
	<b>117</b>	Disclosure 201-1 Direct economic value generated and distributed	
	<b>118</b>	Disclosure 201-4 Financial assistance received from government	For state-owned organizations (SOEs): - Report the financial relationship between the government and the SOE.
	<b>119</b>	Disclosure 207-1 Approach to tax	
	<b>120</b>	Disclosure 207-2 Tax governance, control, and risk management	
	<b>121</b>	Disclosure 207-3 Stakeholder engagement and management of concerns related to tax	
	<b>122</b>	Disclosure 207-4 Country-by-country reporting	Report a breakdown of the payments to governments levied at the project-level, by project and the following revenue streams, if applicable: > The host government's production entitlement; > National state-owned company production; > Royalties; > Dividends; > Bonuses (e.g., signature, discovery, production bonuses); > License fees, rental fees, entry fees; and other considerations for licenses or concessions; > Any other significant payments and material benefits to government.
			Report the value of any thresholds that have been applied and any other contextual information necessary to understand how the project-level payments to governments reported have been compiled.

	<b>123</b>		<p>For minerals purchased from the state or from third parties appointed by the state to sell on their behalf, report:</p> <ul style="list-style-type: none"> <li>- volumes and types of minerals purchased;</li> <li>- full names of the buying entity and the recipient of the payment;</li> <li>- payments made for the purchase.</li> </ul>
<b>Public policy</b>	<b>124</b>	Disclosure 3-3 Management of material topics	<ul style="list-style-type: none"> <li>- Describe the organization's stance on significant issues that are the focus of its participation in public policy development and lobbying; and any differences between these positions and its stated policies, goals, or other public positions.</li> <li>- Report whether the organization is a member of, or contributes to, any representative associations or committees that participate in public policy development and lobbying, including: <ul style="list-style-type: none"> <li>&gt; the nature of this contribution;</li> <li>&gt; any differences between the organization's stated policies, goals, or other public positions on significant issues and the positions of the representative associations or committees.</li> </ul> </li> </ul>
	<b>125</b>	Disclosure 415-1 Political contributions	

Exposure draft for public comment