



## Item 04 – GRI Sector Standards Project for Oil, Gas, and Coal – Exposure draft for Coal

### For GSSB discussion and approval

<b>Date</b>	15 April 2021
<b>Meeting</b>	29 April 2021
<b>Project</b>	Sector Standards for Oil, Gas, and Coal
<b>Description</b>	<p>This document sets out the exposure draft of Sector Standard: Coal, including the explanatory memorandum. These are submitted for GSSB approval for public exposure.</p> <p>If approved, it is proposed that public exposure commence in mid-May and run until the end of July.</p> <p><b>Please note:</b> This Standard makes references to the GRI Universal Standards. As the Universal Standards are currently under revision, the references in this draft use the names of the Universal Standards as they were at the time of exposure. The names and other references, along with several figures in the introduction and the glossary terms will be updated to align with the version of the Universal Standards to be submitted to the GSSB for approval in May. This content will be update in this Standard prior to release for public exposure.</p>

This document has been prepared by the GRI Standards Division and is made available to observers at meetings of the Global Sustainability Standards Board (GSSB). It does not represent an official position of the GSSB. Board positions are set out in the GRI Sustainability Reporting Standards. The GSSB is the independent standard setting body of GRI. For more information visit [www.globalreporting.org](http://www.globalreporting.org).

# Background information for the GSSB

The GRI Sectors Standards Project for Oil, Gas and Coal was initiated in 2019, and work on a Sector Standard for oil, gas, and coal commenced following the appointment of a 17-member Working Group in mid-2019.

In addition to the Working Group, a number of experts and stakeholders were engaged in an external peer review in February and March 2020 to gather further input on the draft contents. This peer review involved over 20 participants representing business, civil society, investor and mediating institutions. Peer review feedback reinforced the need to highlight climate change for these sectors. The likely material topics presented were largely confirmed as the correct ones, and the contents were seen as useful from both a reporter's perspective as well as for engagement purposes.

During the course of the project, the GSSB received stakeholder submissions from the oil and gas sector raising concerns about addressing oil, gas, and coal in a combined Sector Standard, indicating a potential impediment to its uptake. These concerns were echoed by the Oil, Gas, and Coal Working Group, and the [GSSB decided](#) in April 2020 to separate coal from the oil and gas contents.

As a consequence, two Sector Standards – one for oil and gas, and one for coal – are being developed under the auspices of Sectors Standards Project for Oil, Gas and Coal. To strengthen the coal expertise, an additional member was appointed to the Working Group, and a program of further research on the impacts of the coal sector has been undertaken by the Standards Division.

The exposure draft for coal incorporates relevant public comment feedback collected to the exposure draft for oil and gas, aligning with these revisions where seen as appropriate by the Working Group.

## Preliminary findings on topic and disclosure gaps

It was anticipated that projects for Sector Standards would generate insight on the feasibility of developing reporting requirements, recommendations, and/or guidance for the sector. The work on coal to date has surfaced some topics and disclosures that might result in recommendations to revise or develop new GRI Topic Standards.

All likely material topics included in the exposure draft include at least one Topic Standards disclosure, though a number have been supplemented with additional disclosures from outside the GRI Standards.

As was expected, in a similar vein to oil and gas, Working Group discussions have been largely focused on climate change related topics, namely GHG emissions and Climate adaptation and resilience. There has been a strong recommendation from the Working Group to enhance disclosures within these topics, specifically related to governance, target setting, and organizations' strategic decision-making in the context of the low-carbon transition.

In addition, the topics of Asset integrity and critical incident management, and Land and resource rights did not have clear directly relevant or sufficient Topic Standards disclosures and might result in recommendations to revise existing Topic Standards or develop new ones at the completion of the project.

## Public comment

The public comment period for the exposure draft of coal is proposed to commence on 19 May and run until 30 July 2021. This will run in conjunction with the public comment period for agriculture, aquaculture, and fishing.

The primary objective of the public comment period is to test the clarity, feasibility, completeness and relevancy of the content, including:

- Whether the topics that have been identified as likely material for organizations in the coal sector, and the way they are described, accurately reflect the sector's most significant impacts on the economy, environment, and people, including impacts on their human rights; and

- 47 • That the list of disclosures from the GRI Topic Standards and other sources included for each likely  
48 material topic are relevant for organizations in the sector to report information about their impacts  
49 and approach.
- 50 The public comment will engage stakeholders globally across GRI's key constituencies. All  
51 engagement will be undertaken remotely.

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## 52 Explanatory memorandum

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

### 56 Objectives for the project

57 The exposure draft for coal is the second Standard being developed under the GRI Sector Standards  
58 Project for Oil, Gas, and Coal. This is a pilot project for the GRI Sector Program.

59 The project aims to identify and describe the sectors' significant impacts and stakeholder expectations  
60 from a sustainable development perspective, and provide evidence and authoritative references for  
61 these. This will serve as a foundation for increased transparency and more consistent reporting from  
62 organizations in the sectors.

63 The project was initiated in 2019 to develop a Sector Standard for oil, gas and coal. As outlined in the  
64 GSSB's [Due Process Protocol](#), a multi-stakeholder working group was established to contribute in the  
65 development of the Sector Standard.

66 During the course of the project, the GSSB received stakeholder submissions from the oil and gas  
67 sector raising concerns about addressing oil, gas, and coal in a combined Sector Standard, indicating  
68 a potential impediment to its uptake. These concerns were echoed by the Oil, Gas, and Coal Working  
69 Group, and the [GSSB decided](#) in April 2020 to separate coal from the oil and gas contents. As a  
70 consequence, this exposure draft focuses on the coal sector only.

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

72 The GRI Universal Standards have simultaneously been [under revision](#). The implementation model of  
73 the Sector Standards will be incorporated into these revised Universal Standards. The final Universal  
74 Standards are expected to be approved in Q2 2021. For the purposes of this exposure draft, draft  
75 versions of the Universal Standards are used.

### 76 Significant proposals

77 An exposure draft for coal has been developed in line with the project objectives set out above.  
78 Notable inclusions in this exposure draft are summarized below:

- 79 • **22 topics were identified to be likely material** for organizations in the coal sector (see Table 1).  
80 For each likely material topic, the sector's most significant impacts are described and disclosures  
81 to report information about the organization's impacts and approach in relation to the topic are  
82 listed. All topics list one or more disclosures from the GRI Topic Standards; six topics list  
83 additional sector disclosures in addition to Topic Standards disclosures; and 15 topics list  
84 additional sector recommendations to supplement Topic Standards disclosures.  
85
- 86 • **The Standard emphasizes topics related to climate change**, notably *GHG emissions* and  
87 *Climate adaptation and resilience*. Robust disclosure on these topics, specifically related to  
88 governance, target setting, and organizations' strategic decision-making related to the low-carbon  
89 transition, have been identified as essential for the coal sector. Additional reporting  
90 recommendations and disclosures draw from relevant climate reporting frameworks, such as the  
91 *TCFD Recommendations of the Task Force on Climate-related Financial Disclosures*.  
92
- 93 • **New tailings disclosures are listed** in the topic *Asset integrity and critical incident management*  
94 for reporting on integrity of tailings facilities. These disclosures have been developed in line with  
95 the *Global Industry Standard for Tailings Management*, launched in 2020 by the International  
96 Council on Mining & Metals, United Nations Environment Programme and Principles for  
97 Responsible Investment.

- 98 • Additional disclosures are also listed related to topics that deal with **payment transparency and**  
 99 **prevention of corruption**, with additional sector disclosures based on the Extractive Industries  
 100 Transparency Initiative *EITI Standard 2019*.  
 101
- 102 • **Sector Profile** section further outlines the sector’s activities, business relationships, and its  
 103 interactions with the global sustainable development agenda, including linkages to the UN  
 104 Sustainable Development Goals. A mapping between the likely material topics and the relevant  
 105 SDGs is included as part of the larger context in the section *1.2 The sectors and sustainable*  
 106 *development*, providing a starting point for organizations that seek to integrate the SDGs into their  
 107 reporting.

108 Table 1: Likely material topics included in the draft Sector Standard: Coal

Likely material topic	Disclosures from GRI Topic Standards included for reporting on the topic	Whether additional sector recommendations or disclosures are listed for the topic
1. GHG emissions	<i>GRI 302: Energy 2016</i>  <i>GRI 305: Emissions 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure MT-3 Management of material topics</li> <li>• Disclosure 305-1 Direct (Scope 1) GHG emissions</li> </ul>
2. Climate adaptation and resilience	<i>GRI 201: Economic Performance 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure MT-3 Management of material topics</li> <li>• Disclosure 201-2 Financial implications and other risks and opportunities due to climate change</li> </ul> Additional sector disclosures
3. Closure and rehabilitation	<i>GRI 402: Labor/Management Relations 2016</i>  <i>GRI 404: Training and Education 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure 402-1 Minimum notice periods regarding operational changes</li> <li>• Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs</li> </ul> Additional sector disclosures
4. Air emissions	<i>GRI 305: Emissions 2016</i>  <i>GRI 416: Customer Health and Safety 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure 305-7 Nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), and other significant air emissions</li> <li>• Disclosure 416-1 Assessment of the health and safety impacts of product and service categories</li> </ul>
5. Biodiversity	<i>GRI 304: Biodiversity 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure MT-3 Management of material topics</li> <li>• Disclosure 304-3 Habitats protected or restored</li> </ul>

6. Waste	<i>GRI 306: Waste 2020</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure 306-3 Waste generated</li> <li>• Disclosure 306-4 Waste diverted from disposal</li> </ul> Disclosure 306-5 Waste directed to disposal
7. Water and effluents	<i>GRI 303: Water and Effluents 2018</i>	Additional sector recommendations included for Disclosure 303-2 Management of water discharge-related impacts
8. Economic impacts	<i>GRI 201: Economic Performance 2016</i>  <i>GRI 202: Market Presence 2016</i>  <i>GRI 203: Indirect Economic Impacts 2016</i>  <i>GRI 204: Procurement Practices 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure MT-3 Management of material topics</li> <li>• Disclosure 201-1 Direct economic value generated and distributed</li> </ul>
9. Local communities	<i>GRI 413: Local Communities 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure MT-3 Management of material topics</li> <li>• Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities</li> </ul> Additional sector disclosures
10. Land and resource rights	<i>GRI 413: Local Communities 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure MT-3 Management of material topics</li> <li>• Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities</li> </ul>
11. Rights of indigenous peoples	<i>GRI 411: Rights of Indigenous People 2016</i>  <i>GRI 413: Local Communities 2016</i>	Additional sector recommendations included for: <ul style="list-style-type: none"> <li>• Disclosure MT-3 Management of material topics</li> <li>• Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs</li> <li>• Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities</li> </ul>
12. Conflict and security	<i>GRI 410: Security Practices 2016</i>	Additional sector recommendations included for Disclosure MT-3 Management of material topics

13. Asset integrity and critical incident management	<i>GRI 306: Effluents and waste 2016</i>	Additional sector recommendations included for Disclosure MT-3 Management of material topics  Additional sector disclosures
14. Occupational health and safety	<i>GRI 403: Occupational Health and Safety 2018</i>	-
15. Employment practices	<i>GRI 401: Employment 2016</i>  <i>GRI 402: Labor/Management Relations 2016</i>  <i>GRI 402: Labor/Management Relations 2016</i>  <i>GRI 414: Supplier Social Assessment 2016</i>	-
16. Child labor	<i>GRI 408: Child Labor 2016</i>	-
17. Forced labor and modern slavery	<i>GRI 409: Forced or Compulsory Labor 2016</i>	-
18. Non-discrimination and equal opportunity	<i>GRI 202: Market Presence 2016</i>  <i>GRI 401: Employment 2016</i>  <i>GRI 404: Training and Education 2016</i>  <i>GRI 405: Diversity and Equal Opportunity 2016</i>  <i>GRI 406: Non-discrimination 2016</i>	-
19. Freedom of association and collective bargaining	<i>GRI 407: Freedom of Association and Collective Bargaining 2016</i>	-
20. Anti-corruption	<i>GRI 205: Anti-corruption 2016</i>	Additional sector disclosures
23. Payments to governments	<i>GRI 201: Economic Performance 2016</i>  <i>GRI 207: Tax 2019</i>	Additional sector recommendations included for Disclosure 201-4 Financial assistance received from government  Additional sector disclosures
22. Public policy and lobbying	<i>GRI 415: Public Policy 2016</i>	Additional sector recommendations included for Disclosure MT-3 Management of material topics

## 109 **Relationship to draft Sector Standard: Oil and Gas**

110 Draft Sector Standards for oil and gas, and coal were developed in conjunction until April 2020, with  
111 the intention of forming a single Standard. Following a recommendation from the working group, these  
112 contents were separated.

113 There are two notable changes in the likely material topics for the coal sector compared to oil and gas  
114 - the inclusion of child labor as a likely material topic, and the exclusion of anti-competitive behavior.  
115 The exposure draft for coal also has an additional focus on tailings management, which is not relevant  
116 for oil and gas organizations outside of oil sands mining.

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

118 The GSSB appointed a subcommittee of three GSSB members for the Sector Program. The  
119 subcommittee was consulted on key conceptual issues on a regular basis.

120 The first (rough) draft of the Sector Standard for oil, gas, and coal – prior to the separation of the  
121 contents – was discussed by the GSSB during a virtual meeting on 26 March 2020, and the scope of  
122 the project was discussed on 23 April 2020.

123 The GSSB confirmed its support for content of the exposure draft for coal when it voted to approve  
124 the draft for public exposure at its meeting on 29 April 2021. The recording of the meetings can be  
125 accessed on the GSSB website.

## 126 **Superseded publications**

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

# **GRI Sector Standards Project for Oil, Gas, and Coal – Exposure draft for coal**

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## 130 Introduction

131 GRI Sector Standard: Coal provides information for organizations in the coal sector about their most  
132 likely material topics. These topics have been identified as likely material for organizations in the coal  
133 sector on the basis of the sector's most significant impacts on the economy, environment, and people,  
134 including impacts on their human rights.

135 Sector Standard: Coal also contains a list of disclosures from the GRI Topic Standards and other  
136 sources for organizations in the coal sector to report information about their impacts and approach in  
137 relation to each likely material topic.

138 Sector Standards are developed using multi-stakeholder expertise, authoritative intergovernmental  
139 instruments, and other relevant evidence.

140 This Standard is structured as follows:

- 141 • [Section 1](#) provides a high-level overview of the sector, including its activities, business  
142 relationships, sustainability context, and the connections between the Sustainable Development  
143 Goals (SDGs) and the likely material topics for the sector.
- 144 • [Section 2](#) outlines the topics that have been identified as likely material for organizations in the  
145 coal sector and therefore potentially merit reporting. For each likely material topic, the coal  
146 sector's most significant impacts are described and disclosures to report information about the  
147 organization's impacts and approach in relation to the topic are listed.
- 148 • [Glossary](#) contains defined terms with specific meaning when used in the GRI Standards.
- 149 • [Bibliography](#) lists the authoritative intergovernmental instruments and other sources used to  
150 develop each topic, as well as further resources that may be helpful for reporting on the topic.

151 The rest of this Introduction section offers an overview of the sectors this Standard applies to, an  
152 overview of the system of GRI Standards, and further information on using this Standard.

## 153 Sectors this Standard applies to

154 GRI Sector Standard: Coal applies to organizations undertaking the following:

- 155 • Exploration, mining, and processing of thermal and metallurgical coal from underground or open-  
156 pit mines.
- 157 • Supply of equipment and services to coal mines, such as drilling, exploration, seismic information  
158 services, and mine construction.
- 159 • Storage or transportation of coal, such as slurry pipelines.

160 This Standard can be used by coal organizations of any size or type in any geographic location.

161 Not all topics listed in this Standard may be material for all organizations in the sector. The  
162 organization will determine its material topics based on its specific circumstances.

163 When identifying the applicable Sector Standards, an organization should consider its main sector. If  
164 the organization has substantial activities across more than one sector, it must use all applicable  
165 Sector Standards.

## 166 Sector classifications

167 Table1 lists industry groupings relevant to the coal sector in the Global Industry Classification  
168 Standard (GICS®), Industry Classification Benchmark (ICB), International Standard Industrial  
169 Classification of All Economic Activities (ISIC), and Sustainable Industry Classification System  
170 (SICS®). The table is intended to assist an organization in identifying whether the Sector Standard:  
171 Coal applies to it and is for reference only.

172 Table 1. Industry groupings relevant to the coal sector in other classification systems

Classification system	Classification number	Classification name
GICS®	10102050	Coal & consumable fuels
ICB	60101040	Coal
ISIC	B05	Mining of coal and lignite
SICS®	EM-CO	Coal operations

## 173 System of GRI Standards

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

178 The GRI Standards are structured as a system of interrelated standards that are organized into three  
 179 series: Universal Standards, Sector Standards, and Topic Standards.

### 180 Universal Standards: GRI 101, 102, and 103

181 **Note:** All references to the GRI Universal Standards in this Standard refer to [the drafts] that have  
 182 been made available as part of the [review of the Universal Standards]. The GRI Sector Standards  
 183 will work in conjunction with the revised Universal Standards. The draft Universal Standards are  
 184 subject to the approval of the Global Sustainability Standards Board and may change.

185 *GRI 101: Using the GRI Standards* sets out the requirements that the organization must comply with  
 186 to report in accordance with the GRI Standards. The organization begins using the GRI Standards by  
 187 consulting *GRI 101*.

188 *GRI 102: About the Organization* contains disclosures that the organization uses to provide  
 189 information about its reporting practices and other organizational details, such as activities,  
 190 governance, and policies.

191 *GRI 103: Material Topics* provides guidance on how to determine material topics. It also contains  
 192 disclosures that the organization uses to report information about its process to determine material  
 193 topics, its list of material topics, and how it manages each topic.

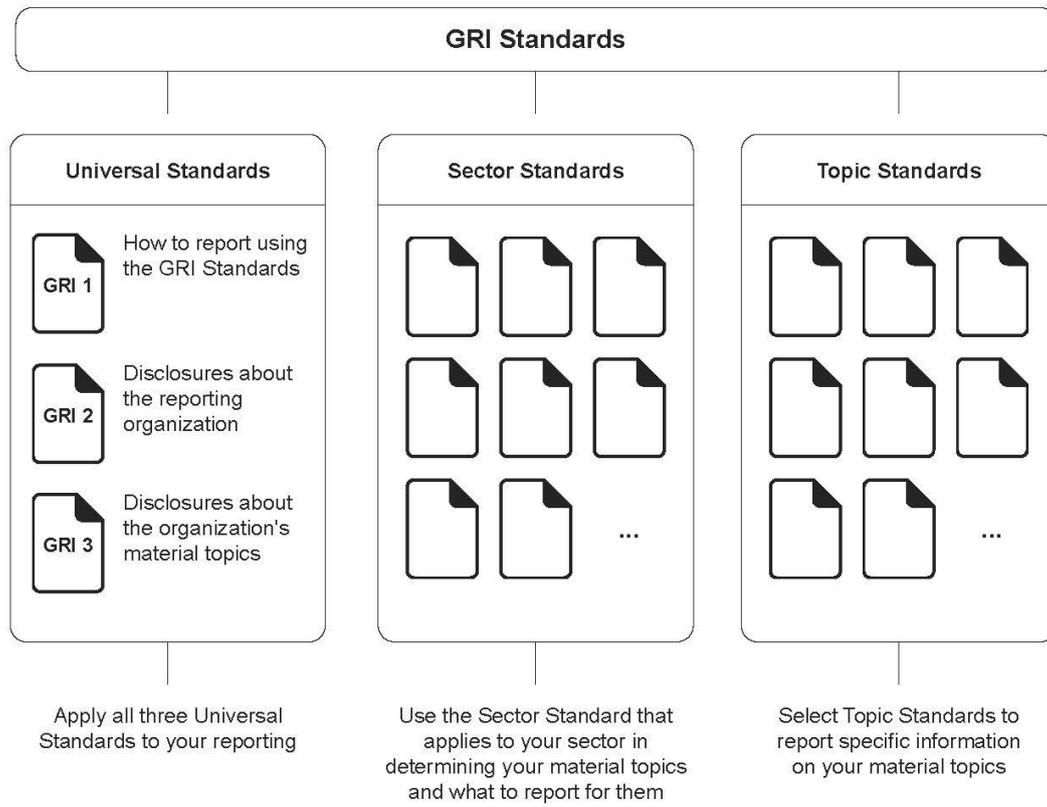
### 194 Sector Standards

195 The Sector Standards provide information for organizations in a given sector about their most likely  
 196 material topics. The organization uses the Sector Standards that apply to its sectors when  
 197 determining its material topics and when determining what to report for each material topic.

### 198 Topic Standards

199 The Topic Standards contain disclosures that the organization uses to report information on its  
 200 impacts and approach in relation to particular topics. The organization uses the Topic Standards  
 201 according to the list of material topics it has determined using *GRI 103*.

Figure 1. GRI Standards: Universal, Sector, and Topic Standard



## 202 Using this Standard

203 An organization in the coal sector reporting in accordance with the GRI Standards is required to use  
 204 this Standard when determining its material topics and when determining what information to report  
 205 for the material topics.

## 206 Determining material topics

207 Material topics are topics that represent the organization's most significant impacts on the economy,  
 208 environment, and people, including impacts on their human rights.

209 An organization in the coal sector is required to use this Standard when determining its material  
 210 topics. The organization needs to review each topic described in [Section 2](#) of this Standard and  
 211 determine whether it is a material topic for the organization.

212 This Standard helps the organization determine its material topics, but the organization still needs to  
 213 determine its material topics based on its specific circumstances. The topics an organization identifies  
 214 as material may vary according to specific circumstances, such as its business model; sector;  
 215 geographic, cultural, and legal operating contexts; ownership structure; and the nature of its impacts.  
 216 [GRI 103: Material Topics](#) provides step-by-step guidance on how to determine material topics.

217 Not all topics listed in this Standard may be material for all organizations in the sectors. If any of the  
 218 topics that are included in this Standard have been determined by the organization as not material,  
 219 the organization is required to list them in the GRI content index and explain why they are not material  
 220 (see [Requirement 7](#) in [Section 3](#) of [GRI 101: Using the GRI Standards](#)).

221 See [Requirement 3 in Section 3 of GRI 101: Using the GRI Standards](#) and [Box 1 in GRI 103: Material](#)  
 222 [Topics](#) for more information on using Sector Standards when determining material topics.

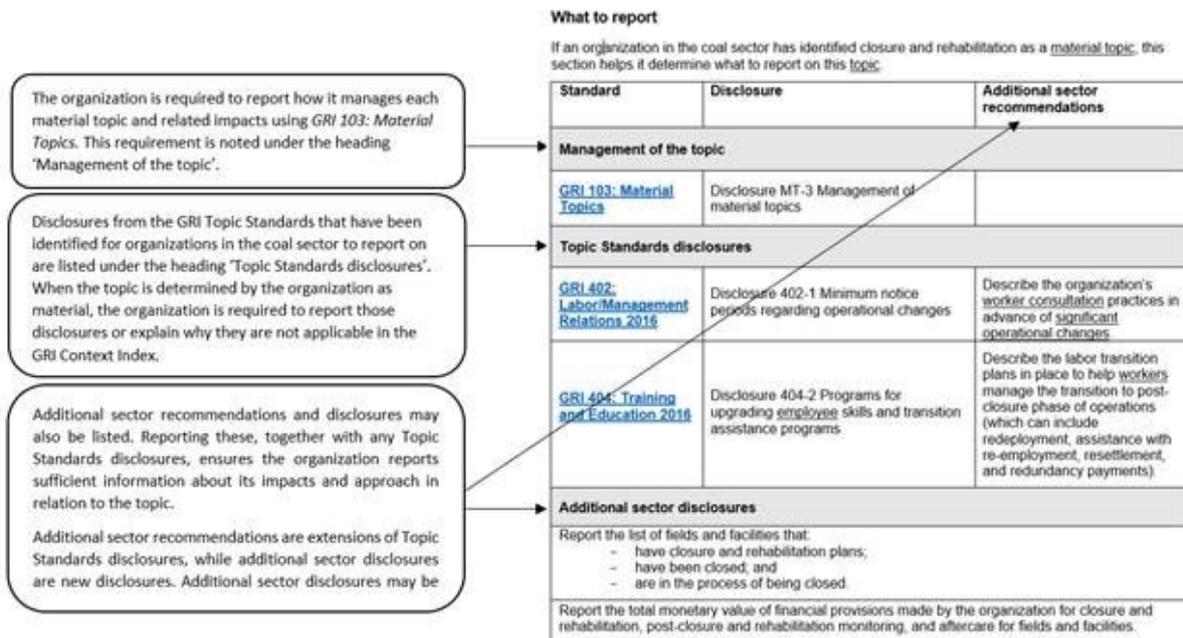
## 223 Determining what to report

224 When a topic included in this Standard is determined by the organization as material, the Standard  
 225 helps the organization identify disclosures to report on its impacts and approach in relation to that  
 226 topic.

227 A what to report section is included for each topic in [Section 2](#) of this Standard. What to report  
 228 sections list disclosures from the GRI Topic Standards. They may also list additional sector  
 229 recommendations and disclosures for the organization to report on, in cases where the Topic  
 230 Standards do not provide disclosures, or where the disclosures from the Topic Standards do not  
 231 provide sufficient information about an organization's impacts and approach in relation to a topic.  
 232 Additional sector disclosures may be based on other sources.

233 Figure 2 illustrates how what to report sections are structured.

234 **Figure 2. Structure of what to report sections**



235 For topics determined by the organization as material, the organization is required to report the  
 236 disclosures drawn from Topic Standards listed in the what to report section for that topic. If any  
 237 disclosures listed are not relevant for reporting on the organization's impacts and approach in relation  
 238 to the topic, then the organization is not required to report these but is required to list them in the GRI  
 239 Context Index, provide the 'not applicable' reason for omission and a brief explanation (see  
 240 [Requirement 7 in Section 3 of GRI 101: Using the GRI Standards](#)).

241 The additional sector recommendations and disclosures outline additional information that the  
 242 organization should report on the topic. An organization should provide sufficient information about its  
 243 impacts and approach in relation to each material topic, so that information users can make informed  
 244 assessments and decisions about the organization. The additional sector disclosures and  
 245 recommendations have been identified as relevant for organizations in the coal sector in relation to  
 246 the topic. Reporting on these is encouraged, however, it is not a requirement.

247 When the organization reports the additional sector disclosures, it is required to list them in the GRI  
 248 content index.

249 See [Requirement 5 in Section 3 of GRI 101: Using the GRI Standards](#) for more information on using  
 250 Sector Standards when identifying disclosures to report on.

251 **Defined terms**

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

254 **References and resources**

255 Each GRI Topic Standard includes a list of authoritative intergovernmental instruments and other  
256 sources used in developing the Standard, as well as additional resources that can be consulted by  
257 organizations on the topic. Additional authoritative instruments and sources used to develop the  
258 topics in this Standard, as well as further resources that may be helpful for understanding and  
259 reporting on the topic by organizations in the coal sector are listed at the end of the Standard.

This document does not represent an official position of the GSSB

## 260 1. Sector profile

261 Coal is an abundant and widespread natural resource. Its use dates from ancient history, and coal  
262 extraction now represents a large global sector supplying key raw materials for energy generation and  
263 metallurgical processes. It is currently a fundamental input in some major industries, notably steel,  
264 which accounts for 15% of the use of world coal production.<sup>1</sup> Coal is also used in production of  
265 synthetic compounds, such as cement, dye, oil, waxes, pharmaceuticals, and pesticides.

266 Coal organizations are diverse in nature. While some focus on this sole commodity – combining  
267 extraction, distribution, and consumption channels under a single ownership – others are large  
268 diversified organizations, extracting different commodities or operating across different sectors. Some  
269 of the largest organizations in the sector are state-owned enterprises.

270 Coal is still widely used to generate electricity in many countries, though its consumption for this  
271 purpose has declined globally since 2013.<sup>2</sup>

### 272 1.1 Sector activities and business relationships

273 When determining its material topics, the organization should consider the impacts of both its  
274 activities and its business relationships.

#### 275 **Activities**

276 The impacts of an organization vary according to the types of activities it undertakes. The following list  
277 outlines some of the key activities of the coal sector. The list is not exhaustive.

278 *Prospecting and exploration:* Surveying of resources through, for example, feasibility assessments,  
279 geologic mapping, aerial photography, geophysical measuring, and drilling.

280 *Development:* Design, planning, and constructing a mine, including facilities for coal processing and  
281 workers.

282 *Mining:* Coal extraction using surface mining, underground mining, or in-situ techniques.

283 *Processing:* Crushing, cleaning, and processing coal from unwanted materials; processing it into  
284 briquettes, liquids, and gas or into coke for steelmaking.

285 *Closure and rehabilitation:* Decommissioning processing facilities, land reclamation and rehabilitation,  
286 and closing and sealing waste facilities.

287 *Transportation:* Moving coal to the point of consumption by barge, conveyor belt, train, truck, or ship;  
288 or when mixed with oil or water, transported as coal slurry by pipeline.

289 *Storage:* Storing coal at mining sites or import and export terminals.

290 *Sales and marketing:* Trading and customer sales of products for the purpose of, for example, iron  
291 and steel production, cement production, electricity production, and manufacturing.

#### 292 **Business relationships**

293 An organization's business relationships include those with business partners, entities in its value  
294 chain, including those beyond the first tier, and any other entities directly linked to its operations,  
295 products, or services. The following types of business relationships are of particular relevance when  
296 identifying the impacts of organizations in the coal sector.

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<sup>1</sup> International Energy Agency (IEA), [Coal Information: Overview](#), accessed on 5 April 2021.

<sup>2</sup> World Economic Forum (WEF), [Chart of the day: Is 2019 the beginning of the end for coal in Europe?](#), accessed on 5 April 2021; International Energy Agency (IEA), [Coal 2019: Analysis and Forecasts to 2024](#), accessed on 5 April 2021.

297 *Joint ventures* are common arrangements, particularly in upstream coal operations, in which  
298 organizations share costs, benefits, and liabilities of assets or a project. Even as a non-operating  
299 partner, an organization can be involved with negative impacts as a result of a joint venture.

300 *Suppliers and contractors* are used often in the coal sector during certain phases of the project, such  
301 as construction, or to provide services. Some of the most significant impacts related to the topics in  
302 this Sector Standard involve the supply chain.

303 *Customer organizations* use coal to produce heat, energy, or materials. When these organizations  
304 burn coal, they generate large amounts of greenhouse gas (GHG) and other air emissions. While  
305 customer organizations play a key role in reducing and managing their emissions, organizations that  
306 extract coal are increasingly expected to take responsibility for emissions from the combustion of their  
307 products and to disclose the related emissions. This Sector Standard therefore includes disclosures  
308 on all Scopes of GHG emissions (1, 2, 3) as well as on other environmental and health impacts that  
309 occur through product use.

## 310 **1.2 The sector and sustainable development**

311 Energy is a key driver of economic growth and sustainable development. Coal has been a  
312 fundamental source of the world's energy, contributing to economic growth and poverty reduction.  
313 Coal represents the largest resource for electricity production, providing over a third of the total  
314 supply.<sup>3</sup>

315 The role of coal remains important in regions or countries where coal is a key source of revenue or a  
316 strategic asset that guarantees energy independence. Although the number of people worldwide  
317 working in coal mining is not very large,<sup>4</sup> coal can be the main economic resource of a community. In  
318 addition to employment, coal activities can also bring about local economic development, along with  
319 infrastructure and services. Most of the world's coal is not traded internationally, but consumed in the  
320 same country where it is produced, though some major producing countries export the majority of the  
321 coal produced.

322 Meanwhile, coal consumption is declining globally, though in many countries, particularly in Asia, its  
323 use is still growing. Burning coal for energy generation is responsible for 40% of all greenhouse  
324 gas (GHG) emissions from fossil fuels, representing the main contributor to climate change. In  
325 addition, coal has the highest emissions intensity when combusted. Coal typically releases more than  
326 twice the amount of GHGs than natural gas per unit of energy produced.<sup>5</sup>

327 The majority of the world's countries has committed to combating climate change, as outlined in the  
328 Paris Agreement. Climate change threatens the lives, livelihoods, health, and homes of millions of  
329 people. The International Panel on Climate Change (IPCC) warns that continuing to consume fossil  
330 fuels at the current rate could result in dangerous global temperature increases leading to magnified  
331 risks of extreme weather and climate events.<sup>6</sup> Other reports show that with current policy  
332 commitments, the world is indeed heading toward a dangerous 3.2-degree Celsius rise in temperature  
333 by 2100.<sup>7</sup> These projections underline the need to transition to a low-carbon economy based on  
334 affordable, reliable, and sustainable energy. Achieving net zero GHG emissions by 2050 is required to  
335 limit global warming to 1.5 degrees Celsius above pre-industrial levels, which is predicted to pose  
336 significantly lower risks to natural and human systems than a warming of 2 degrees Celsius.<sup>8</sup> Actions  
337 taken by high-emitting sectors, such as the coal sector, are essential for this transition. These actions

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<sup>3</sup> International Energy Agency (IEA), [World Energy Outlook 2020](#), 2020, accessed on 5 April 2021.

<sup>4</sup> Eight million people are estimated to work in coal mining in the world; see M. Jakob et al., '[The Future of Coal in a Carbon-Constrained Climate](#)', *Nature Climate Change*, vol. 10, no. 8, August 2020.

<sup>5</sup> Energy Information Administration (EIA), [How much carbon dioxide is produced per kilowatthour of U.S. electricity generation?](#), accessed on 5 April 2021.

<sup>6</sup> International Panel on Climate Change (IPCC), [Global Warming of 1.5°C](#), 2018.

<sup>7</sup> United Nations Environment Programme (UNEP), [Emissions Gap Report 2019](#), 2019.

<sup>8</sup> International Panel on Climate Change (IPCC), [Global Warming of 1.5°C](#), 2018.

338 can include business model changes, investing in renewable energy sources, prioritizing energy-  
339 efficient practices, and developing and adopting new technologies and nature-based solutions to  
340 remove carbon from the atmosphere.

341 The coal sector faces additional pressure to embark on the transition path as governments and the  
342 financial sector implement climate-resilient policies and portfolios, resulting in financial restrictions or  
343 divestments from coal. While these policies incentivize decarbonizing the economy, they will also  
344 result in decreased employment opportunities for workers in the sector and its supply chains. Many  
345 mining communities have few alternative sources of employment, and decline in coal mining can lead  
346 to high local unemployment rates. To ensure a just transition, it is essential for governments and  
347 organizations to work together. A just transition refers to a fair and equitable pathway through  
348 industrial transformation to a sustainable future, that integrates worker-centric public and employer  
349 policies and programs to provide a secure and decent future for all workers, their families, and the  
350 communities that rely on them. The roadmap to a low-carbon transition will differ between countries  
351 according to their context and differing capabilities to respond to and mitigate impacts of climate  
352 change.

353 In addition to contributing to climate change, the coal sector generates various negative impacts on  
354 the environment and people, including impacts on human rights. These include, for example, water,  
355 air, and soil pollution as well as impacts on biodiversity, which can also result in serious health  
356 impacts on people. Accidents and working conditions can pose further health and safety risks for  
357 workers and local communities. The use of land for sector activities may also lead to disputes, often  
358 triggered by issues related to tenure rights, resettlement of local communities, or restricted access to  
359 land and natural resources. These impacts are especially relevant for indigenous peoples, who often  
360 have a special relationship with land and the natural environment.

## 361 **Sustainable Development Goals**

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

365 Since the SDGs and targets associated with them are integrated and indivisible, coal organizations  
366 have the potential to impact all SDGs by either enhancing their positive contributions or avoiding and  
367 mitigating negative impacts.

368 While the coal sector contributes to meeting the world's energy demand and thus plays a role  
369 in achieving **Goal 7: Affordable and Clean Energy**, extracting and burning coal is the primary  
370 contributor to climate change. Climate change can also exacerbate other challenges, such as  
371 achieving access to clean water, food security, and poverty reduction. Ensuring access to affordable,  
372 reliable, and sustainable energy while mitigating GHG emissions as per **Goal 13: Climate Action** and  
373 the necessary transition to a low-carbon economy is one of the sector's greatest challenges.

374 Because the coal sector is in many regions still a central source of employment and income, it makes  
375 positive contributions to **Goal 8: Decent Work and Economic Growth** and **Goal 1: No**  
376 **Poverty**. Coal operations can also stimulate other economic activity and bring along infrastructure  
377 and services to local communities around mining sites. With proper management of environmental  
378 impacts caused by coal operations, the sector can thus contribute to **Goal 11: Sustainable cities**  
379 **and communities** and **Goal 12: Responsible Consumption and Production**.

380 Table 2 highlights connections between the likely material topics for the coal sector and the SDGs. It  
381 is a starting point for organizations that seek to integrate the SDGs into their reporting.

Table 2: Linkages between the likely material topics for the coal sector and the SDGs

Likely material topics	Corresponding Sustainable Development Goals
1. GHG emissions	Goal 13: Climate Action
	Goal 14: Life Below Water
2. Climate adaptation and resilience	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
3. Closure and rehabilitation	Goal 8: Decent Work and Economic Growth
	Goal 11: Sustainable Cities and Communities
	Goal 15: Life on Land
4. Air emissions	Goal 3: Good Health and Well-being
	Goal 11: Sustainable Cities and Communities
	Goal 15: Life on Land
5. Biodiversity	Goal 6: Clean Water and Sanitation
	Goal 12: Responsible Consumption and Production
	Goal 14: Life Below Water
	Goal 15: Life on Land
6. Waste	Goal 3: Good Health and Well-being
	Goal 6: Clean Water and Sanitation
	Goal 12: Responsible Consumption and Production
	Goal 15: Life on Land
7. Water and effluents	Goal 6: Clean Water and Sanitation
	Goal 12: Responsible Consumption and Production
	Goal 14: Life Below Water
	Goal 15: Life on Land
8. Economic impacts	Goal 1: No Poverty
	Goal 5: Gender Equality
	Goal 8: Decent Work and Economic Growth
	Goal 9: Industry, Innovation and Infrastructure
	Goal 10: Reduced Inequalities
9. Local communities	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
10. Land and resource rights	Goal 1: No Poverty
	Goal 11: Sustainable Cities and Communities
	Goal 16: Peace, Justice and Strong Institutions

<b>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>12. Conflict and security</b>	Goal 16: Peace, Justice and Strong Institutions
<b>13. Asset integrity and critical incident management</b>	Goal 3: Good Health and Well-being
	Goal 11: Sustainable Cities and Communities
<b>14. Occupational Health and Safety</b>	Goal 3: Good Health and Well-being
	Goal 8: Decent Work and Economic Growth
<b>15. Employment practices</b>	Goal 1: No Poverty
	Goal 5: Gender Equality
	Goal 8: Decent Work and Economic Growth
	Goal 10: Reduced Inequalities
<b>16. Child labor</b>	Goal 1: No Poverty
	Goal 8: Decent Work and Economic Growth
	Goal 16: Peace, Justice and Strong Institutions
<b>17. Forced labor and modern slavery</b>	Goal 8: Decent Work and Economic Growth
	Goal 16: Peace, Justice and Strong Institutions
<b>18. Non-discrimination and equal opportunity</b>	Goal 5: Gender Equality
	Goal 8: Decent Work and Economic Growth
	Goal 10: Reduced Inequalities
	Goal 16: Peace, Justice and Strong Institutions
<b>19. Freedom of association and collective bargaining</b>	Goal 8: Decent Work and Economic Growth
	Goal 16: Peace, Justice and Strong Institutions
<b>20. Anti-corruption</b>	Goal 12: Responsible Consumption and Production
	Goal 16: Peace, Justice and Strong Institutions
<b>21. Payments to governments</b>	Goal 1: No Poverty
	Goal 16: Peace, Justice and Strong Institutions
	Goal 17: Partnerships for the Goals
<b>22. Public policy and lobbying</b>	Goal 16: Peace, Justice and Strong Institutions

## 383 2. Likely material topics

384 The following section outlines the likely material topics for the coal sector. Each topic describes the  
385 most significant impacts related to topic and list disclosures that have been identified as relevant for  
386 reporting on the topic by the sector. The organization needs to review each topic in this section and  
387 determine whether it is material for it to report on.

### 388 2.1 GHG emissions

389 **Greenhouse gas (GHG) emissions comprise air emissions that contribute to climate change,**  
390 **such as carbon dioxide and methane. This topic covers direct and energy indirect GHG**  
391 **emissions (Scope 1 and Scope 2) related to an organization's activities, as well as other**  
392 **indirect GHG emissions (Scope 3) related to the end use of an organization's products.**

393 Greenhouse gas (GHG) emissions are the single biggest contributor to climate change, the impacts of  
394 which are occurring at an accelerating rate. Studies show that approximately half of the total  
395 anthropogenic carbon dioxide (CO<sub>2</sub>) emissions from 1750 onwards have occurred in the last 40 years,  
396 mostly due to increased use of fossil fuels, including coal.<sup>9</sup> Although the energy efficiency of  
397 production has improved, increased energy demand has caused a rise in global GHG emissions, the  
398 majority of which originates from combustion of fossil fuels.<sup>10</sup>

399 Besides CO<sub>2</sub>, coal operations also cause the emission of another powerful GHG: methane (CH<sub>4</sub>). This  
400 GHG has a significantly higher global warming potential than CO<sub>2</sub>, when considering its impact over  
401 100 years, one ton of CH<sub>4</sub> is equivalent to 28 to 36 tons of CO<sub>2</sub>.<sup>11</sup> The energy sector has been  
402 identified as the second-largest source of anthropogenic CH<sub>4</sub> emissions. Recent measurements  
403 indicate that available figures on CH<sub>4</sub> emissions from energy could be underestimates. Other GHG  
404 emissions related to coal extraction and use include nitrous oxide (N<sub>2</sub>O) and ozone (O<sub>3</sub>).

405 Activities related to coal mining and processing consume significant amounts of energy. Unless they  
406 are powered by renewable energy sources, these operations generate CO<sub>2</sub> emissions. These are  
407 classified as direct (Scope 1) GHG emissions for activities owned or controlled by the organization or  
408 energy indirect (Scope 2) GHG emissions for activities that result from purchased or acquired  
409 electricity consumed by the organization.

410 The amount of energy used in coal mining depends on several factors, such as the method of mining,  
411 mine depth, geology, mine productivity, and degree of refining required. Activities among the most  
412 energy-consuming include transportation, exploration activities, drilling, excavation, extraction,  
413 grinding, crushing, milling, pumping, and ventilation processes. Extraction and transportation in  
414 underground mines might require more energy than surface mining due to, for example, greater  
415 requirements for hauling, ventilation, and water pumping. Closure and rehabilitation activities are also  
416 a source of GHG emissions.

417 Coal mines are also a source of CH<sub>4</sub> emissions, which are produced during the process of coal  
418 formation and released to the atmosphere during and after the mining process. Coal mine methane  
419 (CMM) can be released via degasification systems and ventilation air from underground coal mines,  
420 seepage from abandoned or closed mines through vent holes or cracks in the ground, coal seams of  
421 surface mines, and fugitive emissions from storage and transportation. Underground mines are  
422 responsible for the majority of Scope 1 coal CH<sub>4</sub> emissions due to the higher gas content of deeper  
423 seams.

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<sup>9</sup> Intergovernmental Panel on Climate Change (IPCC), [Climate Change 2014: Synthesis Report](#), 2014.

<sup>10</sup> International Energy Agency (IEA), [Market Report Series: Energy Efficiency 2018](#), accessed 5 April 2021; [CO<sub>2</sub> Emissions from Fuel Combustion: Highlights](#), 2018.

<sup>11</sup> Greenhouse Gas Protocol, [Global Warming Potential Values](#); International Energy Agency (IEA), [Methane tracker 2020](#), accessed 5 April 2021.

424 For coal, end-use activities are responsible for the most significant GHG emissions, which are  
 425 classified as part of other indirect (Scope 3) GHG emissions. Coal is a carbon-intensive fuel, and its  
 426 combustion generates the single largest source of global CO<sub>2</sub> emissions. These emissions mostly  
 427 originate from electricity and heat generation, steel production, and cement manufacturing.

428 **What to report – GHG emissions**

429 If an organization in the coal sector has identified GHG emissions as a material topic, this section  
 430 helps it determine what to report on this topic.

	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	When reporting on goals and targets, report: <ul style="list-style-type: none"> <li>- Report the <u>scopes of GHG emissions</u> (1, 2, 3) and the activities and business relationships to which the goals and targets apply.</li> <li>- Report how the goals and targets are set and which instruments and mandatory legislation the goals and targets are based on or aligned with.</li> <li>- Report the <u>baseline</u> for setting goals and targets and the timeline for achieving them.</li> </ul>
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 302: Energy 2016</u></a>	Disclosure 302-1 Energy consumption within the organization	
	Disclosure 302-2 Energy consumption outside of the organization	
	Disclosure 302-3 Energy intensity	
<a href="#"><u>GRI 305: Emissions 2016</u></a>	Disclosure 305-1 Direct (Scope 1) GHG emissions	<ul style="list-style-type: none"> <li>- Report the percentage of direct (Scope 1) methane emissions.</li> <li>- Report the breakdown of gross direct (Scope 1) GHG emissions by type of source (stationary combustion, process, fugitive).</li> </ul> <p><i>Note: This recommendation is based on the guidance to clause 2.2.5.3 in GRI 305: Emissions 2016.</i></p>
	Disclosure 305-2 Energy indirect (Scope 2) GHG emissions	

	Disclosure 305-3 Other indirect (Scope 3) GHG emissions	
	Disclosure 305-4 GHG emissions intensity	
	Disclosure 305-5 Reduction of GHG emissions	

431 **Resources and references**

432 *GRI 302: Energy 2016* and *GRI 305: Emissions 2016* list authoritative intergovernmental instruments  
 433 and other sources relevant to reporting on this topic.

434 The additional intergovernmental instruments and references used to develop this topic description as  
 435 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 436 sector are listed on in the Bibliography on page 69.

This document does not represent an official position of the GSSB

## 437 2.2 Climate adaptation and resilience

438 **Climate adaptation and resilience refer to how an organization adjusts to current and**  
439 **anticipated climate-related risks, as well as how it contributes to the ability of societies and**  
440 **economies to withstand impacts from climate change. This topic covers an organization's**  
441 **strategy in relation to the transition to a low-carbon economy and the impacts of that**  
442 **transition on workers and local communities.**

443 Signatories of the Paris Agreement have committed to keeping global warming 'well below 2 degrees'.  
444 Yet the maximum amount of fossil fuels that can be burned while remaining within that limit – the  
445 global carbon budget – is far lower than the proven reserves that organizations could be extracted.  
446 This puts pressure on producers to modify their business models, establish carbon emissions targets,  
447 create carbon sinks, and diversify away from fossil fuels.

448 Since coal emits the largest amount of carbon dioxide (CO<sub>2</sub>) and has the highest intensity of  
449 emissions per unit of energy among fossil fuels (see [GHG emissions](#)), burning coal is likely to be the  
450 first activity governments seek to suppress in fulfilling their commitments under the Paris Agreement.  
451 Since its peak consumption in 2013, the energy transition has commenced and total consumption of  
452 coal has been declining.<sup>12</sup>

453 This transition presents high risks for organizations, workers, and local communities reliant on coal  
454 operations. As the market for coal shrinks, some organizations will be forced to close operations,  
455 impacting their financial viability. Workers are faced with challenges related to their employability and  
456 finding desirable re-employment. Coal mining regions may end up with environmental legacy costs  
457 related to asset closure as well as significant reductions of economic activity that lead to lower tax  
458 revenues and depopulation.

459 In 2040, coal use as a share of total global energy use could vary between an estimated 20% and  
460 10% depending on the policy scenario.<sup>13</sup> The transition will also be unequal across countries, as  
461 some countries are much more dependent on coal for electricity generation than others. Similarly,  
462 while alternatives are available for energy generation, steelmakers still lack a feasible alternative for  
463 coal, so their transition might take longer. Technological solutions for burning coal without emitting  
464 CO<sub>2</sub> (e.g., through carbon capture and storage or utilization) are being tested, but the technology has  
465 not progressed at the rate necessary to meet the required emissions reductions to limit global  
466 warming to levels committed to in the Paris Agreement, and new investment is scarce.<sup>14</sup>

467 Many coal operations will face closure, but others are expected to remain operational for decades.  
468 Which remain operational longer will depend on technological, geographic, and political factors.  
469 Organizations are at risk of owning stranded assets or pieces of physical capital that become  
470 drastically reduced in value by the transition, leading to write-offs. Organizations may mitigate these  
471 risks by diversifying away from coal, investing in technological solutions, and focusing on market  
472 segments expected to remain operational longer.

473 A just transition to a low-carbon economy requires recognizing the different levels of dependence on  
474 coal by regions and countries and the need to create quality jobs for persons affected. Examples of  
475 potential actions from coal organizations to ensure a just transition include providing plenty of notice  
476 of closures, collaborating with governments and unions, retraining and redeploying workers, and  
477 providing alternate investments in affected communities. Meaningful, early consultations with  
478 stakeholders and communities have proven crucial (see [Closure and rehabilitation](#)).

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<sup>12</sup> International Energy Agency (IEA), [Coal Information: Overview](#), accessed on 5 April 2021.

<sup>13</sup> The share of coal in the energy mix was 27% in 2018. International Energy Agency (IEA) uses two policy scenarios for forecasting the use of coal: under the Current Policy Scenario (assuming no change in policies), this share will be reduced to 20% in 2040; under the Sustainable Development Scenario (assuming policies compatible with the Paris Agreement), the share will be reduced to 10% in 2040. [World Energy Outlook 2019](#), accessed 5 April 2021.

<sup>14</sup> International Energy Agency (IEA), [World Energy outlook 2018](#), accessed 5 April 2021.

479 The transition can also bring along opportunities to reinvigorate economic activity and provide new  
 480 employment opportunities and skills development.

481 **What to report**

482 If an organization in the coal sector has identified climate adaptation and resilience as a material  
 483 topic, this section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	<ul style="list-style-type: none"> <li>- Report the level and function within the organization that has been assigned responsibility for managing climate change-related impacts.</li> <li>- Describe the board’s oversight to manage climate-change related impacts.</li> <li>- Report whether responsibility to manage climate change-related impacts is linked to performance assessments or incentive mechanisms, including in the <u>remuneration policies for highest governance body members and senior executives</u>.</li> <li>- Describe any commitments, policies, and actions taken to mitigate the impacts of the transition to a low-carbon economy on workers and communities.</li> </ul>
<b>Topic Standards disclosures</b>		
<a href="#">GRI 201: Economic Performance 2016</a>	Disclosure 201-2 Financial implications and other risks and opportunities due to climate change	<ul style="list-style-type: none"> <li>- Describe the climate change-related scenarios used to assess the resilience of the organization’s strategy, including a 2-degree or lower scenario.</li> <li>- Describe how the climate-change related scenarios affect or could affect the organization’s operations or revenue, including potential write-offs and early closure of existing assets.</li> <li>- Report the coal production volumes for the reporting year and projected volumes for the next five years.</li> <li>- Report the estimated reserves and potential emissions from these reserves.</li> <li>- Report the percentage of capital expenditure (CapEx) allocated to investments in:               <ul style="list-style-type: none"> <li>o prospecting and exploration of new reserves;</li> <li>o low-carbon technology;</li> <li>o energy from renewable sources.</li> </ul> </li> <li>- Report investments in nature-based solutions for climate mitigation and technologies to</li> </ul>

		<p>remove CO<sub>2</sub>; and net captured value of CO<sub>2</sub> removed.</p> <ul style="list-style-type: none"> <li>- Report diversification of operations away from a reliance on sales and transport of coal.</li> </ul>
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### Additional sector disclosures

Describe the organization's approach to public policy advocacy on climate change, including:

- the organization's stance on issues related to climate change;
- any differences between the organization's lobbying positions and any stated policies, goals, or other public positions;
- a list of industry and other membership associations and national or international organizations participating in public policy advocacy on climate change in which the organization has a significant role.

*Note: The last disclosure is related to [SPP-7 Membership associations](#). If the information reported by the organization in SPP-7 covers the membership associations requested by this disclosure, the organization can provide a reference to this information.*

### 484 Resources and references

485 [GRI 201: Economic Performance 2016](#) lists authoritative intergovernmental instruments and other  
486 sources relevant to reporting on this topic.

487 The additional intergovernmental instruments and references used to develop this topic description as  
488 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
489 sector are listed on in the Bibliography on page 69.

## 490 2.3 Closure and rehabilitation

491 **At the end of commercial use, organizations are expected to close assets and facilities and**  
492 **rehabilitate operational sites. The planning and execution of this phase should take**  
493 **environmental as well as socioeconomic impacts into consideration. This topic covers an**  
494 **organization’s approach to closure and rehabilitation, including impacts on the environment,**  
495 **local communities, and workers.**

496 Potential impacts of coal mining following closure include soil and water contamination, changes to  
497 landforms, and disturbance of biodiversity and wildlife. Closure can also lead to lasting socioeconomic  
498 consequences for [local communities](#). Closure often requires planning that begins in the early phases  
499 of a project’s lifecycle in order to anticipate potential impacts. Failure to close assets and rehabilitate  
500 sites effectively can render land unusable for other productive uses due to the presence of toxic  
501 materials or contamination. It can also result in health and safety hazards.

502 Environmental impacts from the closure of surface and underground mining can differ. For example,  
503 surface mining requires more land use and more substantial rehabilitation, whereas abandoned  
504 underground mines may emit coal mine methane even after active mining has ceased, contributing to  
505 [GHG emissions](#).

506 Over the course of a coal mining project, communities may come to depend on the sector’s activities  
507 for jobs, income, royalties, tax payments, charitable donations, and other benefits (see also [Payments](#)  
508 [to governments](#)). This can lead to negative impacts on the economy and people once the project  
509 ends. For example, insufficient notice of closure or lack of adequate planning for economic  
510 revitalization, social protection, and labor transition can hinder the transition of workers and local  
511 communities to a post-closure phase and cause retrenchment, economic downturn, and social unrest.  
512 Without clearly assigned responsible parties or allocated funds, closed coal mines can also leave  
513 behind legacy environmental issues and financial burden for local communities and governments.

514 Closure and rehabilitation of coal operations can also create employment and business opportunities.  
515 This can involve an influx of additional workers for an extended period of time. The arrival of workers  
516 from the surrounding areas or through a fly-in-fly-out approach during this phase can, in turn,  
517 exacerbate other pressures on the environment.

518 Closure and rehabilitation of coal mining operations should result in a stable and sustainable  
519 ecosystem, compatible with planned post-closure land use. Activities can include stabilization of  
520 open-pit or underground workings and removal or conversion of infrastructure to ensure safety of  
521 people; rehabilitation of waste rock stockpiles and tailings facilities to control erosion and land  
522 degradation; management of waste, surface water, and groundwater quality issues resulting from  
523 abandoned rock drainage, waste rock, and leaching from tailings (see also [Waste](#) and [Water and](#)  
524 [effluents](#)); and post-closure monitoring.

525 The need to reduce GHG emissions and to transition to a low-carbon economy (see [Climate](#)  
526 [adaptation and resilience](#)) is leading to more frequent closures. These are less likely to be  
527 counterbalanced by openings, as has been the case in the past. In areas where employment largely  
528 derives from coal activities, mitigating significant socioeconomic impacts requires collaboration  
529 between local and national governments, coal organizations, workers, and unions to ensure a just  
530 transition.

531 **What to report**

532 If an organization in the coal sector has identified closure and rehabilitation as a material topic, this  
 533 section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#">GRI 402: Labor/Management Relations 2016</a>	Disclosure 402-1 Minimum notice periods regarding operational changes	Describe how workers are consulted in advance of <u>significant operational changes</u> .
<a href="#">GRI 404: Training and Education 2016</a>	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	Describe the labor transition plans in place to help workers manage the transition to post-closure phase of operations (which can include redeployment, assistance with re-employment, resettlement, and redundancy payments).
<b>Additional sector disclosures</b>		
Report the organization's operations that: <ul style="list-style-type: none"> <li>- have closure and rehabilitation plans;</li> <li>- have been closed;</li> <li>- are in the process of being closed.</li> </ul>		
Report the total monetary value of financial provisions made by the organization for closure and rehabilitation, including post-closure and rehabilitation monitoring, and aftercare.		

534 **Resources and references**

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

537 The additional intergovernmental instruments and references used to develop this topic description as  
 538 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 539 sector are listed on in the Bibliography on page 69.

540

## 2.4 Air emissions

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

545 In addition to greenhouse gas (GHG) emissions, coal is significant sources of anthropogenic air  
 546 emissions classified as pollutants. Globally, air pollution causes acute health problems and millions of  
 547 deaths annually<sup>15</sup> by contributing to heart and lung diseases, strokes, respiratory infections, and  
 548 neurological damage. Children, the elderly, and the poor are disproportionately affected, as are  
 549 communities adjacent to operations.

550 The emission of pollutants also has impacts on ecosystems. For example, nitrogen emissions and  
 551 mercury that enter the oceans or waterways can impact marine life. They are also a major cause of  
 552 ground-level ozone – commonly known as smog – which can lead to or worsen respiratory illnesses.  
 553 Sulfur oxides can lead to acid rain and increase ocean acidification. Further adverse effects from acid  
 554 rain and ground-level ozone include degradation of water, soil, flora, and fauna, and impairment of  
 555 their ability to function and grow.

556 Air emissions from coal operations include CO, NO<sub>x</sub>, PM from coal dust, and SO<sub>2</sub>. These emissions  
 557 can occur from evaporation from tailings ponds or waste areas; fugitive dust emissions from drilling,  
 558 blasting, storage, transportation, loading, and unloading; refining and processing activities; and  
 559 transportation of supplies and products. Emissions related to product use include NO<sub>x</sub>, PM, SO<sub>2</sub>,  
 560 arsenic, cadmium, lead, mercury, selenium, and other heavy metals.

561 In addition to their impacts on climate change (see [GHG emissions](#)), air emissions from burning coal  
 562 in power plants or industrial processes can also have negative impacts on people. Outdoor air  
 563 pollution causes millions of deaths every year, and burning coal is a major source of this pollution.  
 564 These emissions are caused by organizations in other sectors, such as utilities and steel, but their  
 565 impacts can often be directly linked to the coal sector.

### 566 What to report

567 If an organization in the coal sector has identified air emissions as a material topic, this section helps  
 568 it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#">GRI 305: Emissions 2016</a>	Disclosure 305-7 Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	<ul style="list-style-type: none"> <li>- Report particulate matter (PM) emissions from coal dust separately from total PM.</li> <li>- Report carbon monoxide (CO) emissions.</li> </ul>

<sup>15</sup> World Health Organization (WHO), [Ambient Air Pollution: A Global Assessment of Exposure and Burden of Disease](#), 2016.

<a href="#">GRI 416: Customer Health and Safety 2016</a>	Disclosure 416-1 Assessment of the health and safety impacts of product and service categories	Describe actions taken to improve product quality to reduce air emissions.
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569 **Resources and references**

570 [GRI 305: Emissions 2016](#) and [GRI 416: Customer Health and Safety 2016](#) list authoritative  
 571 intergovernmental instruments and other sources relevant to reporting on this topic.

572 The additional intergovernmental instruments and references used to develop this topic description as  
 573 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 574 sector are listed on in the Bibliography on page 69.

This document does not represent an official position of the GSSB

575

## 2.5 Biodiversity

576 **Biodiversity not only has intrinsic value, but is also vital to climate, human health and well-**  
577 **being, food security, and economic prosperity. This topic covers impacts on biodiversity,**  
578 **including on plant and animal species and genetic diversity.**

579 Coal operations typically require large-scale infrastructure development, which have direct, indirect,  
580 and cumulative impacts on biodiversity in the short and long term. Due to the scale and long lifespans  
581 of coal projects, impacts can occur well beyond a project's temporal and geographical parameters,  
582 including after closure and rehabilitation. Direct impacts include air, soil, and water contamination,  
583 deforestation, soil erosion, and sedimentation of waterways. Other impacts include habitat  
584 fragmentation and conversion, the introduction of invasive species and pathogens, and species  
585 mortality.

586 Impacts on biodiversity can result from land clearance for pits, access routes, and progressive  
587 expansion into new areas; habitat fragmentation from access roads and other linear infrastructure;  
588 disruption of surface water, wetland, and groundwater ecosystems; and effluent discharges,  
589 groundwater, or surface stream contamination from acidic water, coal tailings ponds, or overburden  
590 piles.

591 Different mining methods present distinct risks for biodiversity. Open-pit mines generate more severe  
592 impacts than underground mines due to progressive deepening and widening of the mining site,  
593 increasing affected areas over time. Coal resources can also be located in sensitive ecosystems or  
594 areas with high biodiversity value, which can exacerbate impacts on biodiversity. In addition,  
595 increased human settlement around operational sites can have impacts through opening of routes to  
596 previously inaccessible areas, adding stress and contributing to cumulative impacts within the  
597 landscape.

598 Coal activities can contribute to cumulative impacts on biodiversity. For example, habitat  
599 fragmentation caused by the presence of a mining site can be compounded by land use change from  
600 agricultural operations. Extensive land use requirements for open-pit mining can also contribute to  
601 GHG emissions and climate change, namely through land use change resulting in removal of carbon  
602 sinks. Climate change, in turn, is expected to affect all aspects of biodiversity – including individual  
603 organisms, populations, species distribution, and ecosystem composition and function – and the  
604 impacts are anticipated to become more severe as temperatures increase.

605 The coal sector has participated in developing a mitigation hierarchy tool, which can be used to limit  
606 and manage negative impacts on biodiversity and ecosystems. The tool presents a prioritized  
607 sequence of measures for the sustainable management of natural resources, with preventive actions  
608 taking precedence over remediation. Priority is given to avoidance and, where avoidance is not  
609 possible, to minimization of impacts. Only at the point that all preventative steps are adopted should  
610 remediation measures be used, including rehabilitation or restoration of degradation or damage, and  
611 offsetting residual impacts remain after all other measures have been applied.<sup>16</sup>

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<sup>16</sup> Cross Sector Biodiversity Initiative (CSBI), [A cross sector guide for implementing the Mitigation Hierarchy](#), 2015.

612 **What to report**

613 If an organization in the coal sector has identified biodiversity as a material topic, this section helps it  
 614 determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	<ul style="list-style-type: none"> <li>- Describe any commitments to achieving no net loss or net gain to biodiversity on operational sites, and report whether these commitments apply to existing or future operations, and whether they also apply to operations beyond areas of <u>high biodiversity value</u>.</li> <li>- Report whether application of the mitigation hierarchy has informed actions to manage the topic and related impacts.</li> </ul>
<b>Topic Standards disclosures</b>		
<b><u>GRI 304: Biodiversity 2016</u></b>	Disclosure 304-1 Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	
	Disclosure 304-2 Significant impacts of activities, products, and services on biodiversity	
	Disclosure 304-3 Habitats protected or restored	Describe how the application of the mitigation hierarchy has resulted in: <ul style="list-style-type: none"> <li>- <u>areas protected</u> through avoidance measures or through offset measures;</li> <li>- <u>areas restored</u> through on-site restoration measures or through offset measures.</li> </ul>
	Disclosure 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	

615 **Resources and references**

616 *GRI 304: Biodiversity 2016* lists authoritative intergovernmental instruments and other sources  
 617 relevant to reporting on this topic.

618 The additional intergovernmental instruments and references used to develop this topic description as  
 619 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 620 sector are listed on in the Bibliography on page 69.

## 621 2.6 Waste

622 **Waste refers to anything that a holder discards, intends to discard, or is required to discard.**  
623 **When inadequately managed, waste can have significant negative impacts on the environment**  
624 **and human health, often extending beyond locations where waste is generated and discarded.**  
625 **This topic covers impacts from waste, including as a result of construction and remediation**  
626 **activities from active and inactive sites.**

627 Waste impacts from coal activities can include contamination of surface water, groundwater, and food  
628 sources with chemicals and heavy metals. Further effects can be loss of land productivity and  
629 erosion. Certain wastes require particularly robust management due to their type or volume. In remote  
630 areas with limited waste disposal methods, waste impacts can be more severe or harder to monitor.

631 The largest waste stream from coal operations comprises overburden, rock waste, and tailings. Often  
632 produced in large quantities, these wastes can also contain toxic or noxious substances, including  
633 heavy metals. Effective waste management and minimization are therefore critical for protecting local  
634 communities and preventing damage to the environment.

635 Overburden from surface mining is usually stored on adjacent undisturbed land until it can backfill the  
636 pit once mining is complete. Disposal options are limited for some surface mining techniques, such as  
637 mountain-top removal, since the overburden cannot be returned to the pit. In these cases, the  
638 disposal method consists of adjacent valley filling, which can lead to various environmental and  
639 biodiversity impacts, such as burial of waterways and concentration of noxious substances harmful to  
640 ecosystems and humans (see also [Water and effluents](#)).

641 Rock waste and coarse tailings are usually managed on heaps or disposed in constructed waste rock  
642 dumps or former open-pit operations. Associated environmental impacts concern air pollution from  
643 dust from these dumps, which wind or rainwater can carry to affect air quality, watercourses, or lands.

644 Coal slurry waste from mining and processing is generally discarded into ponds, filtered, stored in  
645 heaps, or disposed of in underground voids. Surface tailing storage facilities can cover vast areas and  
646 be contained by tailings dams. Tailings without harmful substances can be drained and stored until  
647 being reshaped and covered with soil and vegetated. However, tailings pose a health risk for local  
648 communities when they contain heavy metals, cyanide, chemical-processing agents, sulfides, or  
649 suspended solids that can pollute the environment, including groundwater and surface water  
650 (incidents related to tailings facilities are discussed in [Asset integrity and critical incident](#)  
651 [management](#)).

652 Other typical wastes from coal operations include waste oils and chemicals, spent catalysts, solvents  
653 and other industrial wastes, as well as packaging and construction wastes.

654 The nature and quantity of generated waste often requires management beyond the productive phase  
655 of a mining operation. At the end of a coal exploration or extraction project, [closure and rehabilitation](#)  
656 can also yield significant waste, which can have lasting environmental and socioeconomic  
657 consequences.

658 **What to report**

659 If an organization in the coal sector has identified waste as a material topic, this section helps it  
 660 determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 306: Waste 2020</u></a>	Disclosure 306-1 Waste generation and significant waste-related impacts	
	Disclosure 306-2 Management of significant waste-related impacts	
	Disclosure 306-3 Waste generated	Report a breakdown of the composition of waste by the following waste streams: <ul style="list-style-type: none"> <li>- overburden;</li> <li>- rock waste;</li> <li>- tailings.</li> </ul>
	Disclosure 306-4 Waste diverted from disposal	Report a breakdown of the composition of waste by the following waste streams: <ul style="list-style-type: none"> <li>- overburden;</li> <li>- rock waste;</li> <li>- tailings.</li> </ul>
	Disclosure 306-5 Waste directed to disposal	Report a breakdown of the composition of waste by the following waste streams: <ul style="list-style-type: none"> <li>- overburden;</li> <li>- rock waste;</li> <li>- tailings.</li> </ul>

661 **Resources and references**

662 [GRI 306: Waste 2020](#) lists authoritative intergovernmental instruments and other sources relevant to  
 663 reporting on this topic.

664 The additional intergovernmental instruments and references used to develop this topic description as  
 665 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 666 sector are listed on in the Bibliography on page 69.

667

## 2.7 Water and effluents

668 **Recognized by the United Nations as a human right, access to fresh water is essential for**  
669 **human life and wellbeing. The amount of water withdrawn and consumed by an organization**  
670 **and the quality of its discharges can have impacts on ecosystems and people.**

671 Coal activities can have impacts on the availability and quality of water resources, which can in turn  
672 have impacts on ecosystems and water users. The coal sector's widespread use of water in  
673 operations can reduce water availability for local communities and other sectors that also rely on the  
674 resource. Certain mining methods can involve substantive vegetation clearance and land use  
675 changes, which can also lead to erosion and sediments flows. Alterations in water flows and  
676 increased sedimentation affect water quality and aquatic and terrestrial habitats.

677 Water in coal mining is used for cooling and cutting in mines; dust suppression in mining and hauling;  
678 washing to improve coal quality; re-vegetation of surface mines; and long-distance transportation of  
679 coal slurry. The amount of water needed for operations depends on whether mining occurs on the  
680 surface or underground as well as on operational efficiency. The amount of water withdrawn also  
681 varies according to the ability to substitute water, water quality, reservoir characteristics, and recycling  
682 infrastructure.

683 The coal sector's impacts on water additionally depends on the quantity of water resources in the  
684 local context; where water is scarce, the sector has a greater impact. A large proportion of the world's  
685 coal resources are found in areas that are arid or experience water stress. In such areas, the sector's  
686 activities are likely to increase competition for water with other demands – such as for household use  
687 and fishing, aquaculture, or agriculture activities – and exacerbate tensions between as well as within  
688 sectors or local communities. Droughts, floods, and other extreme weather events related to climate  
689 change will likely pose more challenges related to water availability and quality.

690 Coal activities can have significant impacts on the quality of surface water and groundwater, which  
691 can translate into long-term implications for ecosystems and biodiversity, spread waterborne  
692 diseases, cause health and development problems for humans, and impair food chain productivity.  
693 These impacts can occur from leaching from tailings, failure of tailings facilities, and acid mine  
694 drainage, which involves acidic water containing heavy metals. Underground operations might also  
695 disrupt or contaminate aquifers. Transportation accidents and related coal spills can result in  
696 waterways and wetlands being contaminated with harmful materials, such as arsenic, lead, mercury,  
697 and sulfur compounds.

### 698 **What to report**

699 If an organization in the coal sector has identified water and effluents as a material topic, this section  
700 helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	

Topic Standards disclosures		
<a href="#">GRI 303: Water and Effluents 2018</a>	Disclosure 303-1 Interactions with water as a shared resource	
	Disclosure 303-2 Management of water discharge-related impacts	Describe actions taken to prevent or manage impacts from acid mine drainage.
	Disclosure 303-3 Water withdrawal	
	Disclosure 303-4 Water discharge	
	Disclosure 303-5 Water consumption	

701 **Resources and references**

702 [GRI 303: Water and Effluents 2018](#) lists authoritative intergovernmental instruments and other  
703 sources relevant to reporting on this topic.

704 The additional intergovernmental instruments and references used to develop this topic description as  
705 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
706 sector are listed on in the Bibliography on page 69.

## 707 2.8 Economic impacts

708 **An organization's activities can have impacts on the economic conditions of its stakeholders**  
709 **and on economic systems through, for example, revenues and other payments, hiring, and**  
710 **procurement. Infrastructure investments and services supported by an organization can also**  
711 **have impacts on a community's well-being and long-term development. This topic covers**  
712 **economic impacts at local, national, and global levels.**

713 Coal activities can be an important source of investment and income for local communities, countries,  
714 and regions. Actual impacts vary according to the scale of operations, stimulation of other economic  
715 activity, and effectiveness of management of coal-related revenues by local governments. In some  
716 resource-rich countries, a significant amount of the gross domestic product is derived from  
717 investments in the development of coal resources and revenues from mining. However,  
718 mismanagement of these revenues can harm economic performance and lead to macroeconomic  
719 instability and distortions (see [Payments to governments](#) and [Anti-corruption](#)). Economies dependent  
720 on finite resources can also be vulnerable to commodity price and production fluctuations.

721 The coal sector can have positive impacts on communities, countries, and regions through royalty  
722 payments, taxes, and wealth creation. Investments by coal organizations in the development of  
723 enabling infrastructure, such as public power utilities to improve access to energy, can benefit local  
724 communities. Coal activities can also stimulate economies and create local employment, with well-  
725 paid jobs in the coal sector potentially resulting in increased purchasing power. Skills development of  
726 local communities through education and training can also help increase access to jobs in the sector.  
727 Positive impacts on local businesses can result from local procurement of products and services as  
728 well as from supplier development.

729 The extent to which local communities benefit from the coal sector's presence depends on existing  
730 development and industrialization levels and the community's capacity to offer qualified workers for  
731 the new employment opportunities. In addition, the net employment impacts depend on how  
732 employment by the sector affects existing jobs in other sectors. These impacts can also be affected  
733 by an organization's [employment practices](#). For example, a fly-in-fly-out work approach can offset  
734 pressures associated with influxes of people in small communities while still supplying workers to fill  
735 positions. However, this approach reduces employment opportunities available to local communities,  
736 thus detracting from potential economic benefits.

737 Introduction of new coal activities can also generate negative impacts on local communities, including  
738 competition over jobs and economic disparity; vulnerable groups, including women, are often  
739 disproportionately affected (see also [Local communities](#)). An influx of external workers can increase  
740 pressure on housing, infrastructure, and public services. Other potential negative impacts include  
741 environmental legacy costs related to, for example, contamination, incidents, or lack of proper  
742 rehabilitation after closure (see also [Closure and rehabilitation](#)).

743 Governments and regions with coal resources currently face the risk of stranded assets due to stricter  
744 climate policies and technological developments driving the transition to a low-carbon economy (see  
745 [Climate adaptation and resilience](#)). The transition is expected to result in significant reductions in coal  
746 mining, making communities and countries that depend on the sector's revenues or employment  
747 vulnerable to resulting economic downturn. In these cases, collaboration between local and national  
748 governments and organizations in the coal sector is essential to ensure a just transition.

749 **What to report**

750 If an organization in the coal sector has identified economic impacts as a material topic, this section  
 751 helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	Describe the organization’s approach to providing local procurement and employment opportunities, including training programs.
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 201: Economic Performance 2016</u></a>	Disclosure 201-1 Direct economic value generated and distributed	Report direct economic value generated and distributed by project.
<a href="#"><u>GRI 202: Market Presence 2016</u></a>	Disclosure 202-1 Ratios of standard entry level wage by gender compared to local minimum wage	
	Disclosure 202-2 Proportion of senior management hired from the local community	
<a href="#"><u>GRI 203: Indirect Economic Impacts 2016</u></a>	Disclosure 203-1 Infrastructure investments and services supported	
	Disclosure 203-2 Significant indirect economic impacts	
<a href="#"><u>GRI 204: Procurement Practices 2016</u></a>	Disclosure 204-1 Proportion of spending on local suppliers	

752 **Resources and references**

753 [GRI 201: Economic Performance 2016](#) and [GRI 202: Market Presence 2016](#) list authoritative  
 754 intergovernmental instruments and other sources relevant to reporting on this topic.

755 The additional intergovernmental instruments and references used to develop this topic description as  
 756 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 757 sector are listed on in the Bibliography on page 69.

758

## 2.9 Local communities

759 **Local communities can comprise individuals or groups of individuals living and/or working in**  
760 **areas that are affected or that could be affected by an organization’s activities. An organization**  
761 **is expected to conduct community engagement to understand the vulnerabilities of local**  
762 **communities and how they might be affected by the organization’s activities. This topic covers**  
763 **socioeconomic, cultural, health, and human rights impacts on local communities.**

764 Coal organizations can have positive impacts on local communities through employment, local  
765 procurement, and local taxes (see also [Economic impacts](#), [Employment practices](#) and [Payments to](#)  
766 [governments](#)). Organizations in the sector can also benefit local communities through community  
767 development programs and providing access to infrastructure and services, including access to  
768 energy, if the services and infrastructure are designed with community needs in mind.

769 The coal sector’s activities can also lead to negative impacts on communities. For example, land use  
770 requirements for activities or transportation and distribution of products, influxes of people seeking  
771 employment and economic opportunities, environmental degradation, and use of natural resources for  
772 sector activities can all cause negative impacts. Types and significance of impacts commonly  
773 associated with the sector vary according to the characteristics and context of the local community.

774 Land use requirements can cause displacement and loss of access to land, water and other natural  
775 resources (see [Land and resource rights](#)). Land use for coal mining can compete with other land  
776 uses, such as farming, fishing, or recreation. Displacement can additionally impact human rights of  
777 individuals in local communities. The sector’s land use may also result in damage to cultural heritage  
778 sites, which can lead to loss of culture, tradition, or cultural identity. Such damage especially affects  
779 indigenous peoples. Decreased availability of resources can have more severe impacts on women,  
780 who are often responsible for obtaining water, food, and fuel.

781 The arrival of workers from the surrounding areas or through a fly-in-fly-out work approach during  
782 construction or expansion of a coal mine might lead to greater economic inequality within the local  
783 community. There may be an increase in activities that compromise social order, such as substance  
784 abuse, gambling, and prostitution, specifically affecting vulnerable groups. The influx of predominantly  
785 male migrant workers can also change the social dynamics of the local community. This impacts  
786 women in particular, as it can lead to a rise in sexual violence and trafficking as well as sexually  
787 transmitted diseases (see also [Rights of indigenous peoples](#)). The sector has also been linked to  
788 domestic and gender-based violence, both on mining sites and in local communities. In-migration of  
789 workers can also introduce new communicable diseases and increase pressure on local services and  
790 resources.

791 Organizations can have further impacts on community health, safety, and well-being due to air, soil,  
792 and water pollution; increased levels of noise and light; waste streams and leaks; and dust. Incidents,  
793 such as explosions, fires, mine collapses, spills, and tailings dams failures, can threaten the safety of  
794 local communities (see also [Asset integrity and critical incident management](#)). Increased traffic to  
795 operational sites can pose additional road accident hazards.

796 When operating in areas of pre-existing conflict or where negative impacts from coal activities are left  
797 unattended, conflicts can arise or become exacerbated (see also [Conflict and security](#)).

798 Effective local community engagement can contribute to better management of the social impacts of  
799 coal projects. If organizations in the coal sector overlook or poorly execute such engagement,  
800 community concerns might not be understood or addressed, which can exacerbate existing impacts  
801 or create new ones.

802 **What to report**

803 If an organization in the coal sector has identified local communities as a material topic, this section  
 804 helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	<ul style="list-style-type: none"> <li>- Describe the means for identifying and engaging with local communities.</li> <li>- List the vulnerable groups that the organization has identified.</li> <li>- List any collective or individual rights that the organization has identified to be of particular concern to the local communities.</li> </ul> <p><i>Note: These recommendations are based on the guidance to clause 1.1 in GRI 413: Local Communities 2016.</i></p>
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 413: Local Communities 2016</u></a>	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	Describe significant impacts on the health of local communities as a result of <u>exposure</u> to pollution caused by the organization's operations or use of hazardous substances.
<b>Additional sector disclosures</b>		
Report the number and description of disputes from local communities, including actions taken and outcomes of the actions.		

805 **Resources and references**

806 [GRI 413: Local Communities 2016](#) lists authoritative intergovernmental instruments and other sources  
 807 relevant to reporting on this topic.

808 The additional intergovernmental instruments and references used to develop this topic description as  
 809 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 810 sector are listed on in the Bibliography on page 69.

## 811 2.10 Land and resource rights

812 **Land and resource rights encompass the rights to use, manage and control land, fisheries,**  
813 **forests, and other natural resources. Organizations can have impacts on the availability and**  
814 **accessibility of these to local communities and other users. This topic covers impacts from an**  
815 **organization's use of land and natural resources on human rights and tenure rights, including**  
816 **from resettlement of local communities.**

817 Coal operations require access to land for prospecting, exploration, mining, coal and waste storage,  
818 processing, transportation, and distribution of products. This can sometimes lead to displacement of  
819 other land users, restricted access to resources and services, and resettlement. Impacts from land  
820 use vary according to methods of extraction, resource location, processing required, and  
821 transportation methods. For example, displacement is more often associated with open-pit mining  
822 than underground coal mining.

823 Unclear rules regarding tenure rights to access, use, and control land often cause disputes, economic  
824 and social tensions, and conflict. Insufficient consultation with, and inadequate compensation to,  
825 affected communities can also exacerbate tensions and conflict. For example, the relationship  
826 between subsurface (i.e., mineral) rights and surface (i.e., land) rights might be unclear; formal  
827 statutory tenure rules might overlap or conflict with traditional customary rules; legitimate rights may  
828 not be recognized or enforced; or people may lack formal documentation of their rights to land.  
829 Community consultations may also fail to include all affected members. Women, for example, are  
830 often excluded from decision-making processes related to the development a new project.

831 Organizations may provide local communities with monetary compensation or land that is equivalent  
832 to lost assets. However, determining the value of local communities' lost access to the natural  
833 environment is complex. It requires considerations of income-generating activities, human health, and  
834 non-material aspects of quality of life. The amount of compensation provided may therefore not be  
835 equivalent to the loss suffered. In some cases, customary titleholders to the land may not be  
836 compensated at all or may only be compensated for crops they were cultivating on the land rather  
837 than also for the land itself.

838 Involuntary resettlement of local communities can have impacts on people's livelihoods and human  
839 rights. These impacts can be exacerbated for vulnerable groups. Involuntary resettlement can involve  
840 physical displacement (e.g., relocation or shelter loss) and economic displacement (e.g., loss or  
841 access to assets). Involuntary resettlement typically requires more extensive engagement between  
842 organizations and local communities. Impacts of resettling communities can be exacerbated by a  
843 flawed process or lack of transparency, for example, in the absence of free, prior, and informed  
844 consent (FPIC), specifically for indigenous peoples.

845 Community members resisting resettlement can also face threats and intimidation, as well as violent,  
846 repressive, or life-threatening removal from lands by security forces or government agents (see also  
847 [Conflict and security](#)).

848 **What to report**

849 If an organization in the coal sector has identified land and resource rights as a material topic, this  
 850 section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	Describe how the organization seeks to ensure meaningful engagement with vulnerable groups, including how it ensures safe and equal gender participation.  <i>Note: This recommendation is related to SE-1 Approach to stakeholder engagement. If the information reported by the organization in SE-1 describes how it seeks to ensure meaningful engagement with vulnerable groups, the organization can provide a reference to this information.</i>
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 413: Local Communities 2016</u></a>	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	<ul style="list-style-type: none"> <li>- Report the locations of operations or facilities which necessitated involuntary resettlement or where such resettlement is ongoing. For each location, describe how peoples' livelihoods and human rights were affected as a result of the resettlement, and any remedy provided. (For example, describe the impacts on people's customary rights, cultural rights, and access to economic resources and services as a result of the resettlement, and any remedy provided.)</li> <li>- Describe the process for providing remediation to local communities subject to involuntary resettlement, such as the process for establishing compensation for loss of assets or other assistance to improve or restore standards of living or livelihoods.</li> </ul>

851 **Resources and references**

852 [GRI 413: Local Communities 2016](#) lists authoritative intergovernmental instruments and other sources  
 853 relevant to reporting on this topic.

854 The additional intergovernmental instruments and references used to develop this topic description as  
 855 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 856 sector are listed on in the Bibliography on page 69.

857

## 2.11 Rights of indigenous peoples

858 **Indigenous peoples are considered a vulnerable group that could experience negative impacts**  
859 **as a result of an organization’s activities more severely than the general population.**  
860 **Indigenous peoples have both collective and individual rights, as set out in United Nations**  
861 **Declaration on the Rights of Indigenous Peoples and other international human rights**  
862 **instruments. This topic covers impacts on the rights of indigenous peoples.**

863 The coal sector can have impacts on indigenous peoples that are often connected with sociocultural  
864 factors, such as their cultural heritage and special relationship with land. Development of coal  
865 activities can present positive economic impacts through, for example, employment opportunities and  
866 community development programs but the sector’s activities can also disrupt indigenous peoples’  
867 cultural, spiritual, and economic ties to their lands or natural environments, compromise their rights  
868 and well-being, and cause displacement (see also Land and resource rights). Availability of and  
869 access to water, as a key concern for indigenous communities, can also be impacted. Considering  
870 many indigenous peoples’ distinct relationship with and dependence on nature, the sector’s role as a  
871 major contributor to climate change exacerbates impacts on the environment.

872 The collective and individual rights of indigenous peoples are recognized in international instruments.  
873 Indigenous peoples also often have a special legal status in national legislation, and/or can be  
874 customary or legal owners of lands to which organizations in the coal sector are granted use rights by  
875 governments. As such, before initiating development projects that require resettlement or have  
876 potential impacts on lands or resources used or owned by indigenous peoples, organizations are  
877 expected to seek free, prior, and informed consent (FPIC) from indigenous peoples. This right is  
878 recognized in the United Nations Declaration on the Rights of Indigenous Peoples and allows  
879 indigenous peoples to give or withhold consent to a project that may affect them or their territories as  
880 well as to negotiate project conditions. However, some national governments might not recognize or  
881 enforce indigenous land rights or indigenous peoples’ rights to consent. Documented cases show  
882 absence of good faith consultations as well as undue pressure and harassment toward indigenous  
883 peoples to accept projects; opposition to such projects has in some cases led to violence and death  
884 (see also Conflict and security). Organizations in the coal sector and indigenous peoples regularly  
885 have disputes and conflicts over land ownership and rights.

886 The sector can further undermine social cohesion, welfare, and safety of indigenous communities  
887 through tension created by the influx of foreign workers, risks of prostitution and forced labor, violence  
888 against women, and increased exposure to communicable diseases (see also Local communities).  
889 Negative socioeconomic impacts from coal mining projects often affect indigenous women more than  
890 men.

### 891 **What to report**

892 If an organization in the coal sector has identified rights of indigenous peoples as a material topic, this  
893 section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	Describe the mutually accepted process to incorporate the right to free, prior, and informed consent (FPIC) and other rights as set out in the United Nations Declaration on the Rights of Indigenous Peoples and the International Labour Organization Convention 169 ‘Indigenous and Tribal Peoples’.

		<p>Describe how the organization seeks to ensure meaningful engagement with indigenous peoples, including how it ensures safe and equal gender participation.</p> <p><i>Note: this recommendation is related to SE-1 Approach to stakeholder engagement. If the information reported by the organization in SE-1 describes the means for ensuring equal and safe gender participation, the organization can provide a reference to this information.</i></p>
<b>Topic Standards disclosures</b>		
<a href="#">GRI 411: Rights of Indigenous Peoples 2016</a>	Disclosure 411-1 Incidents of violations involving rights of indigenous peoples	
<a href="#">GRI 413: Local Communities 2016</a>	Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs	Describe the process for identifying and implementing <u>community development programs</u> for indigenous peoples, such as providing training and access to jobs, providing supply opportunities and benefit-sharing contracts, or implementing an indigenous employment strategy.
	Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities	List the locations of operations where indigenous peoples are present or affected by ongoing coal activities.

894 **Resources and references**

895 [GRI 411: Rights of Indigenous Peoples 2016](#) and [GRI 413: Local Communities 2016](#) list authoritative  
896 intergovernmental instruments and other sources relevant to reporting on this topic.

897 The additional intergovernmental instruments and references used to develop this topic description as  
898 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
899 sector are listed on in the Bibliography on page 69.

## 900 2.12 Conflict and security

901 **An organization's activities may trigger conflict, or they may be located in areas facing conflict**  
902 **situations. An organization's use of security personnel or reliance on national security forces**  
903 **in conflict situations can have negative impacts and needs to be carefully managed to ensure**  
904 **that the human rights of local communities and other third parties are respected. This topic**  
905 **covers the organization's security practices and its approach to operating in areas of conflict.**

906 Many organizations in the coal sector operate in regions and situations of conflict. Pre-existing  
907 conflicts are common when, for example, organizations operate in countries characterized by political  
908 and social instability. The risk of human rights abuses is heightened in areas of conflict.

909 Conflict can also be caused by the presence of coal activities. These conflicts can be triggered by  
910 poor engagement with or exclusion of local communities and indigenous peoples from decision-  
911 making processes; uneven distribution of economic benefits; negative impacts, such as environmental  
912 pollution or reduced access to resources seen as disproportionate to the benefits received; or  
913 disputes over use of scarce resources. Conflict can also be triggered by mismanagement of coal-  
914 related revenues by public officials for individual gains at the expense of local interests (see also [Anti-](#)  
915 [corruption](#)).

916 Organizations in the coal sector may use security personnel to protect their assets or ensure their  
917 workers' safety. Security personnel may take action against community members, including when  
918 they are protesting projects or protecting their lands. These actions can violate human rights, such as  
919 rights to freedom of association and freedom of speech, as well as lead to violence, injuries, or  
920 deaths. Security contractors may also be connected to military or paramilitary groups.

921 Security may be provided by host government police or military forces. In such cases, organizations in  
922 the coal sector might be involved with negative human rights impacts as a result of their business  
923 relationships with these military and security forces, over whose actions they have limited control.  
924 When coal projects are endorsed by local governments but remain disagreeable to local communities,  
925 the use of private military or security forces may increase tensions and exacerbate the power  
926 imbalance between companies and local communities.

927 Effectively addressing such negative impacts involves assessing security risks, which includes  
928 engaging with stakeholders, and working with security providers to ensure human rights are  
929 respected. This may also help organizations improve safety and security in local communities  
930 through, for example, facilitating communication between government security forces and local  
931 communities and supporting efforts to address other sources of conflict.

932 **What to report**

933 If an organization in the coal sector has identified conflict and security as a material topic, this section  
 934 helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	List the organization's significant operations in areas of conflict.
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 410: Security Practices 2016</u></a>	Disclosure 410-1 Security personnel trained in human rights policies or procedures	

935 **Resources and references**

936 [GRI 410: Security Practices 2016](#) lists authoritative intergovernmental instruments and other sources  
 937 relevant to reporting on this topic.

938 The additional intergovernmental instruments and references used to develop this topic description as  
 939 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 940 sector are listed on in the Bibliography on page 69.

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## 941 2.13 Asset integrity and critical incident management

942 **Asset integrity and critical incident management deal with prevention and control of incidents**  
 943 **that can lead to fatalities, injuries or ill health, environmental impacts, and damage to**  
 944 **communities and infrastructure. This topic covers impacts from such incidents and an**  
 945 **organization’s approach to critical incident management.**

946 Critical incidents in the coal sector can have catastrophic consequences on workers, local  
 947 communities, and the environment, as well as cause damage to the organization’s assets. In addition  
 948 to fatalities and injuries, these incidents can cause economic loss, conflict, threats to livelihoods,  
 949 compromised food safety and security, social disruption, cultural erosion, litigation stress,  
 950 environmental degradation, and direct species mortality. Incidents that cause methane and other  
 951 GHG emissions, such as gas and coal dust explosions, also contribute to climate change.

952 Critical incidents related to coal mining include mine collapses, poisonous gas leaks, dust explosions,  
 953 stope collapses, fires, mining-induced seismicity, floods, vehicle collisions, and mechanical errors due  
 954 to improperly operated or malfunctioning equipment (see also [Occupational health and safety](#)). Coal  
 955 fires can release fly ash and smoke containing GHG emissions and toxic chemicals that can enter  
 956 food chains.

957 Other critical incidents involve failures related to tailings management. Poor management or design of  
 958 tailing facilities can lead to leaks or collapses, with severe impacts on local communities, livelihoods,  
 959 infrastructure, and the environment. Failures can be due to poor water management, overtopping,  
 960 foundation or drainage failure, erosion, and earthquakes. Impacts become more severe when tailings  
 961 also contain high levels of bioavailable metals or hazardous chemicals. Incidents related to spills and  
 962 leaks of coal slurry ponds and tailings pipelines can also cause significant damage.

963 Critical incident risks can be identified and anticipated through implementation of a critical control  
 964 management approach, which addresses the sources or factors likeliest to lead to potential incidents.  
 965 Organizations can mitigate their impacts through measures that ensure emergency preparedness and  
 966 response. This includes effective communication with local communities to mitigate exposure to  
 967 pollution and other impacts during emergencies (see also [Local communities](#)). Effective critical control  
 968 management can also limit impacts associated with natural calamities and extreme weather events,  
 969 which are likely to increase in frequency and intensity due to climate change.

### 970 **What to report**

971 If an organization in the coal sector has identified asset integrity and critical incident management as  
 972 a material topic, this section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	<ul style="list-style-type: none"> <li>- Report whether the organization complies with the Global Industry Standard on Tailings Management (GISTM) and, if so, provide a link to the latest information disclosed in line with GISTM Principle 15.</li> <li>- Describe the actions taken to:               <ul style="list-style-type: none"> <li>o manage impacts from tailings facilities throughout the lifecycle, including closure and post-closure;</li> </ul> </li> </ul>

		○ prevent catastrophic failures of tailings facilities. <sup>17</sup>
<b>Topic Standards disclosures</b>		
<a href="#">GRI 306: Effluents and waste 2016</a>	Disclosure 306-3 Significant spills	
<b>Additional sector disclosures</b>		
<ul style="list-style-type: none"> <li>- List the organization's tailings facilities.</li> <li>- For each tailings facility, report the following information: <ul style="list-style-type: none"> <li>• description of the tailings facility;</li> <li>• operational status (active, inactive, closed, etc.);</li> <li>• Dam Failure Consequence Classification, in line with the GISTM;</li> <li>• date and main findings from the latest risk assessment.</li> </ul> </li> </ul> <p><i>Note: If the organization has already reported this information as specified in the additional sector recommendation to MT-3 listed above, the organization can provide a reference to this information.</i></p>		
Describe the organization's emergency preparedness and response programs and plans.		

973 **Resources and references**

974 [GRI 306: Effluents and Waste 2016](#) lists authoritative intergovernmental instruments and other  
975 sources relevant to reporting on this topic.

976 The additional intergovernmental instruments and references used to develop this topic description as  
977 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
978 sector are listed on in the Bibliography on page 69.

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<sup>17</sup> The terms 'tailings facility' and 'catastrophic failure' are so defined in ICMM, UNDP, PRI, [The Global Industry Standard on Tailings Management](#), 2020.

## 979 2.14 Occupational health and safety

980 **Healthy and safe working conditions are recognized as a human right. Occupational health**  
981 **and safety involves prevention of physical and mental harm to workers and promotion of**  
982 **workers' health. This topic covers impacts related to workers' health and safety.**

983 Many of the work-related hazards in the coal sector are associated with key processes in exploration  
984 and mining phases, such as working with heavy machinery and exposure to or handling of explosive,  
985 flammable, poisonous, or harmful substances. Despite the sector's efforts to eliminate work-related  
986 hazards and improve safety, exposure to these hazards has resulted in higher fatality rates than in  
987 many other sectors.

988 Other hazards to workers' health and safety can result from working in confined spaces or isolated  
989 locations, long working hours, and the type of physical, often repetitive, labor involved. Work-related  
990 hazards vary according to the extraction method. For example, workers in underground mines can be  
991 exposed to more health and safety risks due to challenging working conditions and confined  
992 environments.

993 The coal sector extensively uses suppliers to perform what can amount to major parts of projects.  
994 Suppliers are often subject to lower occupational health and safety standards than employees.  
995 Suppliers can also have higher accident and fatality rates, which can be due to suppliers undertaking  
996 the most dangerous jobs. They might also not be covered by the coal organization's occupational  
997 health and safety management system, be less familiar with the workplace and the organization's  
998 safety practices, or be less committed to those practices.

999 Hazards associated with the coal sector with a potential to result in injury include transportation  
1000 incidents, which are a common source of fatalities and injuries. These can occur when workers and  
1001 equipment are transported to and from mining sites, sometimes over long distances along dangerous  
1002 routes. Fires and explosions are another major hazard (see also [Asset integrity and critical incident](#)  
1003 [management](#)), which can originate from coal dust and flammable gases, such as methane during coal  
1004 extraction, transportation, and processing. Electrical hazards can be associated with high-voltage  
1005 systems or equipment used in mining sites.

1006 Incidents categorized as 'struck-by', 'caught-in', or 'caught-between' can involve falling equipment or  
1007 structures, faulty operation of heavy machinery, or malfunctioning of electrical, hydraulic, or  
1008 mechanical installations. Workers can also be at risk of falls, slips, and trips, such as when workers  
1009 access working areas or equipment located high above the ground or via underground walkways,  
1010 which can be obstructed, wet, or sloped.

1011 Hazards associated with the sector with a potential to result in ill health include exposure to airborne  
1012 respirable dust, which can lead to obstructive or debilitating lung illnesses such as asthma, cancer,  
1013 and pneumoconiosis. Free crystalline silica released during processes that use or produce sand, such  
1014 as coal extraction, can cause lung cancer and silicosis. Coal dusts are also associated with coal  
1015 workers' pneumoconiosis. In addition, exposure to hydrogen sulfide released by coal seams can lead  
1016 to incapacitation or death. Concentration of gases such as carbon monoxide, methane, and nitrogen  
1017 in confined spaces can create poisonous environments, which can lead to asphyxiation.

1018 Physical hazards in the sector include extreme temperatures, which can cause fatigue and body  
1019 stress reactions, as well as harmful levels of carcinogenic radiation from industrial processing and  
1020 harmful levels of machinery noise. Workers can also suffer impaired hearing and musculoskeletal  
1021 disorders due to ergonomic-related hazards, such as vibration.

1022 Biological hazards faced by many coal workers include exposure to viruses present in the local  
1023 community that cause communicable diseases or bacteria as a result of poor hygiene and quality of  
1024 water or food.

1025 Hazards related to work organization and psychosocial well-being due to common [employment](#)  
1026 [practices](#) in the sector, such as the use of fly-in-fly-out work organization, can increase risks of  
1027 fatigue, strain, or stress, and affect physical, psychological, and social health. These hazards include  
1028 expatriation, rotational work, long shifts, irregular or odd working hours, and work that is solitary or  
1029 monotonous. Workers can also suffer psychological reactions, such as post-traumatic stress disorder  
1030 due to, for example, being involved in a major incident. Gender imbalance can contribute to stress,  
1031 discrimination, or sexual harassment (see also [Non-discrimination and equal opportunity](#)).

1032 **What to report**

1033 If an organization in the coal sector has identified occupational health and safety as a material topic,  
 1034 this section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#"><b>GRI 403: Occupational Health and Safety 2018</b></a>	Disclosure 403-1 Occupational health and safety management system	
	Disclosure 403-2 Hazard identification, risk assessment, and incident investigation	
	Disclosure 403-3 Occupational health services	
	Disclosure 403-4 Worker participation, consultation, and communication on occupational health and safety	
	Disclosure 403-5 Worker training on occupational health and safety	
	Disclosure 403-6 Promotion of worker health	
	Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	
	Disclosure 403-8 Workers covered by an occupational health and safety management system	
	Disclosure 403-9 Work-related injuries	
	Disclosure 403-10 Work-related ill health	

1035 **Resources and references**

1036 [\*GRI 403: Occupational Health and Safety 2018\*](#) lists authoritative intergovernmental instruments and  
 1037 other sources relevant to reporting on this topic.

1038 The additional intergovernmental instruments and references used to develop this topic description as  
 1039 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 1040 sector are listed on in the Bibliography on page 69.

I041

## 2.15 Employment practices

I042 **Employment practices refer to an organization’s approach to job creation, terms of**  
I043 **employment and working conditions for its workers. This topic also covers the employment**  
I044 **and working conditions in an organization’s supply chain.**

I045 Employment opportunities generated by the coal sector, either directly or through suppliers, can have  
I046 positive socioeconomic impacts on communities, countries, and regions. The sector can offer well-  
I047 paid opportunities for skilled workers. However, employment practices in the sector are also  
I048 associated with a number of negative impacts related to working conditions, use of contract labor and  
I049 disparities in working conditions, inadequate labor-management consultations, and job security.

I050 Many jobs in the sector have rigorous shift patterns to ensure continuity of operations around the  
I051 clock, sometimes requiring overtime employment and night shifts, which can cause high fatigue levels  
I052 and augment risks related to [occupational health and safety](#) and [critical incidents](#). An organization can  
I053 also use fly-in-fly-out work arrangements, in which workers are flown to the site of operations for a  
I054 number of weeks at a time and often required to work extended shifts. Irregular work shifts and  
I055 schedules and time spent away from families can have further psychosocial impacts on workers.

I056 Various activities are commonly outsourced to suppliers. This is prevalent during peak periods, such  
I057 as construction or maintenance works, or for specific activities, such as drilling, catering,  
I058 transportation, and security. By outsourcing activities and using workers employed through suppliers,  
I059 organizations in the coal sector may seek to reduce their labor costs and circumvent collective  
I060 agreements that would otherwise benefit workers in direct employment (see also [Freedom of](#)  
I061 [association and collective bargaining](#)).

I062 Compared to employees workers who have an employment relationship with the organization, agency  
I063 workers commonly receive less favorable employment conditions, lower compensation, and less  
I064 training. They also have higher accident rates and less job security than directly employed workers.  
I065 They might lack social protection and access to grievance mechanisms. Workers beyond the first tiers  
I066 of business relationships in the organization’s supply chain may be subject to low standards for  
I067 working conditions, exposing organizations in the coal sector human rights violations through their  
I068 business relationships (see also [Forced labor and modern slavery](#)).

I069 Employment terms can also vary significantly for local workers, expatriates (e.g., temporary coal  
I070 workers who are brought in by employers), migrant workers, and contractors. Remuneration might be  
I071 unequal, and benefits, such as bonuses, housing allowances, and private insurance plans, might only  
I072 be offered to expatriates. Lack of relevant skills, knowledge, or accessible training programs can  
I073 restrict local communities from accessing employment opportunities created by the sector in the first  
I074 place (see also [Economic impacts](#)).

I075 Job security is another concern the coal sector faces. For example, closures (see [Closure and](#)  
I076 [rehabilitation](#)) or coal price drops can be sudden, leading to job losses. Low job security is  
I077 compounded by automation and changing business models, such as changes triggered by the  
I078 transition to a low-carbon economy. If organizations fail to offer workers timely skills development  
I079 measures, improving their employability in other sectors, they can face underemployment or  
I080 unemployment.

1081 **What to report**

1082 If an organization in the coal sector has identified employment practices as a material topic, this  
 1083 section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 401: Employment 2016</u></a>	Disclosure 401-1 New employee hires and employee turnover	
	Disclosure 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	
	Disclosure 401-3 Parental leave	
<a href="#"><u>GRI 402: Labor/Management Relations 2016</u></a>	Disclosure 402-1 Minimum notice periods regarding operational changes	
<a href="#"><u>GRI 404: Training and Education 2016</u></a>	Disclosure 404-1 Average hours of training per year per employee	
	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	
<a href="#"><u>GRI 414: Supplier Social Assessment 2016</u></a>	Disclosure 414-1 New suppliers that were screened using social criteria	
	Disclosure 414-2 Negative social impacts in the supply chain and actions taken	

1084 **Resources and references**

1085 [\*GRI 401: Employment 2016\*](#), [\*GRI 402: Labor/Management Relations 2016\*](#), [\*GRI 404: Training and\*](#)  
 1086 [\*Education 2016\*](#), and [\*GRI 414: Supplier Social Assessment 2016\*](#) list authoritative intergovernmental  
 1087 instruments and other sources relevant to reporting on this topic.

1088 The additional intergovernmental instruments and references used to develop this topic description as  
 1089 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 1090 sector are listed on in the Bibliography on page 69.

I 091

## 2.16 Child labor

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I 093  
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**Child labor is defined as work that ‘deprives children of their childhood, their potential and their dignity, and that is harmful to their physical or mental development including by interfering with their education’. Freedom from child labor is a fundamental human right.**

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Around one million children between ages five and 17 are estimated to be engaged in artisanal and small-scale mining and quarrying activities.<sup>18</sup> Coal is identified as produced with the use of child labor in several countries, including Afghanistan, Colombia, Mongolia, Pakistan and Ukraine.<sup>19</sup>

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Coal mining activities are dangerous to children in various ways. Children face multiple hazards in coal mines, such as severe accidents and injuries, falling rocks, explosions, fires, and collapse of mine walls (see also [Occupational health and safety](#)). Other impacts can result from working in remote areas with limited access to schools and social services. If there is no family or community support, the conditions may also foster alcohol abuse, drugs, and prostitution.

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Coal organizations interact with a high number of suppliers and customers, including in countries with low enforcement of human rights. Organizations can be linked to child labor by business relationships in their supply chains, such as during facilities construction. Risks of child labor in the coal sector are often found in artisanal and small-scale mining, with more prevalence in the informal sector and remote areas. Child labor is also more frequent in areas affected by armed conflict (see also [Conflict and security](#)).

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Other impacts on children’s rights and well-being can result from the coal sector’s impacts on the local communities as well as from organization’s employment practices. These can include parents’ working conditions, long hours, shift work, and fly-in-fly-out practices (see also [Employment practices](#)).

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### What to report

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If an organization in the coal sector has identified child labor as a material topic, this section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#">GRI 408: Child labor 2016</a>	Disclosure 408-1 Operations and suppliers at significant risk for incidents of child labor	

<sup>18</sup> UNICEF, [Children’s rights and the mining sector](#), 2015; International Labour Organisation (ILO), [Global Estimates of Child Labour – Results and Trends 2012-2016](#), 2017.

<sup>19</sup> U.S. Department of Labor, [2020 List of Goods Produced by Child Labor or Forced Labor](#), 2020.

<p><b><a href="#">GRI 414: Supplier Social Assessment 2016</a></b></p>	<p>Disclosure 414-1 New suppliers that were screened using social criteria</p> <p><i>Note: This disclosure is also listed in 2.15 Employment practices. If the organization has identified employment practices as a material topic and has already reported this disclosure, the organization can provide a reference to this information.</i></p>	
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1116 **Resources and references**

1117 [GRI 408: Child labor 2016](#) and [GRI 414: Supplier Social Assessment 2016](#) list authoritative  
 1118 intergovernmental instruments and other sources relevant to reporting on this topic.

1119 The additional intergovernmental instruments and references used to develop this topic description as  
 1120 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 1121 sector are listed on in the Bibliography on page 69.

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## 1122 2.17 Forced labor and modern slavery

1123 **Forced labor is work or service which is exacted under the menace of penalty and for which a**  
 1124 **person has not offered themselves voluntarily. Freedom from forced labor is a fundamental**  
 1125 **right at work. This topic covers impacts and expectations of organizations in relation to forced**  
 1126 **labor and modern slavery.**

1127 Coal has been identified as a product at risk of being produced by forced labor or modern slavery in  
 1128 several countries, including North Korea, Pakistan, and China.<sup>20</sup> Organizations in the coal sector  
 1129 interact with a large number of suppliers, including in countries characterized by low rates of  
 1130 enforcement of human rights. This can increase the likelihood of using suppliers that do not adhere to  
 1131 rights at work or relevant codes of conduct, leaving supply chains vulnerable to human rights  
 1132 violations, including incidences of modern slavery.

1133 Coal organizations can contribute to occurrences of modern slavery through joint ventures and other  
 1134 business relationships, including state-owned enterprises in countries where regular human rights  
 1135 standards violations occur.

1136 Documented cases of human rights violations throughout the supply chain concern activities such as  
 1137 coal shipping and construction. Low-skilled migrant workers can also face higher risks of modern  
 1138 slavery when dealing with third-party employment agencies, such as those who have been found to  
 1139 overcharge workers for visas and flights or to demand recruitment costs be paid by employees rather  
 1140 than employers.

### 1141 What to report

1142 If an organization in the coal sector has identified forced labor and modern slavery as a material topic,  
 1143 this section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#">GRI 409: Forced or Compulsory Labor 2016</a>	Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	

<sup>20</sup> United States Department of Labor, [2020 List of Goods Produced by Child Labor or Forced Labor](#), 2020; Walk Free Foundation, [The Global Slavery Index 2018](#), 2018.

<p><b><a href="#">GRI 414: Supplier Social Assessment 2016</a></b></p>	<p>Disclosure 414-1 New suppliers that were screened using social criteria</p> <p><i>Note: This disclosure is also listed in 2.15 Employment practices. If the organization has identified employment practices as a material topic and has already reported this disclosure, the organization can provide a reference to this information.</i></p>	
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I 144 **Resources and references**

I 145 [GRI 409: Forced or Compulsory labor 2016](#) and [GRI 414: Supplier Social Assessment 2016](#) list  
I 146 authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

I 147 The additional intergovernmental instruments and references used to develop this topic description as  
I 148 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
I 149 sector are listed on in the Bibliography on page 69.

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1150 **2.18 Non-discrimination and equal opportunity**

1151 **Freedom from discrimination is a human right and a fundamental right at work. Discrimination**  
 1152 **can impose unequal burdens on individuals or deny them opportunities instead of treating**  
 1153 **them fairly and on the basis of individual merit. This topic covers impacts from discrimination**  
 1154 **and practices related to diversity, inclusion, and equal opportunity.**

1155 The conditions, locations, and types of work associated with the coal sector can set a barrier for entry  
 1156 to the sector, hinder employee diversity, and result in discrimination. Discriminatory practices can  
 1157 impede access to jobs and career development, as well as lead to unequal treatment, remuneration,  
 1158 and benefits.

1159 Discrimination has been documented in the coal sector concerning race, color, sex, gender, religion,  
 1160 national extraction, and worker status. For example, jobseekers from local communities are  
 1161 sometimes excluded from the hiring process because of a recruitment system bias that favors a  
 1162 dominant ethnic group or utilizes expatriate workers. Compared to expatriates, local workers might  
 1163 receive significantly lower pay for equal work. The sector’s widespread use of contract workers, often  
 1164 with differing terms of employment, can also be a source of discrimination.

1165 The coal sector is characterized by a significant gender imbalance. In many countries, the percentage  
 1166 of women working in this sector is significantly lower than the proportion of women working in other  
 1167 sectors. Women are also significantly underrepresented in senior management positions. One of the  
 1168 causes of this imbalance is that fewer women graduate with degrees pertinent to the sector, such as  
 1169 in science, technology, engineering, and mathematics. Other barriers for women and primary  
 1170 caregivers include lack of parental leave arrangements and childcare facilities at mining sites, long  
 1171 work hours, and fly-in-fly-out work arrangements. Social or cultural customs and beliefs and biases  
 1172 can also limit women’s access to jobs in this sector or prevent them from taking on specific roles. In  
 1173 addition, some resource-rich countries have laws that prevent women from working in hazardous or  
 1174 arduous occupations.

1175 The coal sector has also been linked to domestic and gender-based violence, both at sites of  
 1176 operation and within local communities near operations. Male-dominated cultures, imbalanced gender  
 1177 distribution, and gendered organizational norms have been identified as factors that contribute to the  
 1178 likelihood of sexual harassment in such contexts.

1179 Understanding how specific groups may be subject to discrimination in the different locations where  
 1180 an organization operates can help the organization in effectively addressing discriminatory practices,  
 1181 for example, by providing specific training to workers on how to prevent discrimination and create a  
 1182 respectful workplace.

1183 **What to report**

1184 If an organization in the coal sector has identified non-discrimination and equal opportunity as a  
 1185 material topic, this section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
Management of the topic		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	

Topic Standards disclosures		
<a href="#">GRI 202: Market Presence 2016</a>	Disclosure 202-1 Ratios of standard entry level wage by gender compared to local minimum wage  <i>Note: This disclosure is also listed in 2.8 Economic impacts. If the organization has identified economic impacts as a material topic and has already reported this disclosure, the organization can provide a reference to this information.</i>	
	Disclosure 202-2 Proportion of senior management hired from the local community  <i>Same note as above applies.</i>	
<a href="#">GRI 401: Employment 2016</a>	Disclosure 401-3 Parental leave  <i>Note: This disclosure is also listed in 2.15 Employment practices. If the organization has identified employment practices as a material topic and has already reported this disclosure, the organization can provide a reference to this information.</i>	
<a href="#">GRI 404: Training and Education 2016</a>	Disclosure 404-1 Average hours of training per year per employee  <i>Same note as above applies.</i>	
<a href="#">GRI 405: Diversity and equal opportunity 2016</a>	Disclosure 405-1 Diversity of governance bodies and employees	
	Disclosure 405-2 Ratio of basic salary and remuneration of women to men	
<a href="#">GRI 406: Non-discrimination 2016</a>	Disclosure 406-1 Incidents of discrimination and corrective actions taken	

1186 **Resources and references**

1187 [GRI 401: Employment 2016](#), [GRI 404: Training and Education 2016](#), [GRI 405: Diversity and equal](#)  
1188 [opportunity 2016](#), and [GRI 406: Non-discrimination 2016](#) list authoritative intergovernmental  
1189 instruments and other sources relevant to reporting on this topic.

1190 The additional intergovernmental instruments and references used to develop this topic description as  
1191 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
1192 sector are listed on in the Bibliography on page 69.

## 1193 2.19 Freedom of association and collective bargaining

1194 **Freedom of association and collective bargaining are fundamental rights at work. They include**  
1195 **the rights of employers and workers to form, join, and run their own organizations without**  
1196 **prior authorization or interference, and to collectively negotiate working conditions and terms**  
1197 **of employment. This topic covers impacts resulting from violations of freedom of association**  
1198 **and collective bargaining.**

1199 Workers' rights to organize and to take collective action are essential for improving working conditions  
1200 in the coal sector, including conditions relating to [occupational health and safety](#), wages, and job  
1201 security. These rights can also enable public scrutiny about the sector's governance and practices,  
1202 and help reduce social inequality.

1203 Many jobs associated with the sector have traditionally been represented by trade unions and  
1204 covered by collective bargaining agreements, which are negotiated by national, regional, or global  
1205 sectoral federations and associations. However, some coal resources are located in countries where  
1206 these rights are restricted. Workers in such locations face risks when seeking to join trade unions and  
1207 engage in collective bargaining. Even in countries where unions are legal, restrictions might exist that  
1208 prevent effective worker representation, and workers who join unions may face intimidation or unfair  
1209 treatment.

1210 Documented cases of interference with freedom of association and collective bargaining include  
1211 detention of managers and employees; invasion of privacy; not adhering to collective agreements;  
1212 prevention of union access to workplaces in order to assist workers; refusal to bargain in good faith  
1213 with workers' chosen unions; threats, harassment, forced disappearance, violence, and deaths; unfair  
1214 dismissal of trade union members and leaders; and unilateral cancellation of collective bargaining  
1215 agreements.

1216 Contract workers, who are widely used in these sectors, are often excluded from the scope of  
1217 collective bargaining agreements, which can leave them with reduced benefits and worse working  
1218 conditions (see also [Employment practices](#)).

### 1219 **Freedom of association and civic space**

1220 Freedom of association and peaceful assembly are fundamental human rights. These rights entail  
1221 that both workers, through their trade unions, as well as citizens, through independent civil society,  
1222 have the freedom to speak about the sector's policies and organizations' practices without  
1223 interference. Restrictions imposed on civic space – the environment that enables civil society to  
1224 contribute to decisions that affect individual lives – can limit citizens' ability to engage in public debate  
1225 about the sector's policies and organizations' practices.

1226 **What to report**

1227 If an organization in the coal sector has identified freedom of association and collective bargaining as  
 1228 a material topic, this section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 407: Freedom of Association and Collective Bargaining 2016</u></a>	Disclosure 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	

1229 **Resources and references**

1230 [\*GRI 407: Freedom of Association and Collective Bargaining 2016\*](#) lists authoritative intergovernmental  
 1231 instruments and other sources relevant to reporting on this topic.

1232 The additional intergovernmental instruments and references used to develop this topic description as  
 1233 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 1234 sector are listed on in the Bibliography on page 69.

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## 2.20 Anti-corruption

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**Anti-corruption refers to how an organization manages the potential of being involved in corruption. Corruption refers to practices such as bribery, facilitation payments, fraud, extortion, collusion, money laundering, and the offer or receipt of an inducement to do something that is dishonest or illegal. This topic covers impacts related to corruption and expectations of organizations in relation to contract and ownership transparency.**

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Corruption in the coal sector has been linked to various negative impacts, such as misallocation of resource revenues, damage to the environment, abuse of democracy and human rights, and political instability. Corruption can lead to diversion of resource revenues from public needs, such as infrastructure or basic services, which can have severe impacts, especially in countries with high levels of poverty. This can lead to increased inequalities and conflicts over coal resources.

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Factors increasing the likelihood of involvement with corruption include frequent interaction between coal organizations and politically exposed persons, such as government officials appointed to govern a country's natural resources for licenses and other regulations. The sector's international reach along with complex transactions and flows of money can further enable corruption.

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Corruption in the coal sector can occur throughout the value chain, with practices that aim to:

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- influencing decision-making processes in order to extract resources;

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- avoiding environmental requirements;

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- shaping policies and rules; or influence protection of land rights and land access restrictions affecting livelihoods of local communities and indigenous peoples;

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- gaining preferential terms or license approvals;

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- gaining favorable treatment or confidential information in the bidding process for exploration and production rights; or for avoiding specific requirements, potentially resulting in awarding licenses or contracts to less qualified organizations or securing contracts at inflated prices;

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- influencing environmental, social, and other regulations as well as enforcement of these regulations, as they relate to impact assessment processes or consultation with local communities;

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- incentivizing suppliers of equipment, products, and services to secure contracts by using bribes and kickbacks to, for example, cover up fraud or to get a waiver of regulations or quality requirements for products and services;

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- gaining favorable treatment in relation to taxes and other government levies, such as royalties and import duties, to deny the state revenue, or to divert payments to private beneficiaries instead;

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- blocking unfavorable legislation, including environmental policies or pollution taxes (see also [Public policy and lobbying](#)).

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To combat corruption and prevent the negative impacts that stem from it, organizations are expected by the marketplace, international norms, and stakeholders to demonstrate their adherence to integrity, governance, and responsible business practices.

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### Transparency of contracts and ownership structures

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Publication of government contracts is a growing practice that is now an international norm in the extractive industries. The practice is endorsed by organizations such as the United Nations (UN), International Monetary Fund (IMF), International Finance Corporation (IFC), International Bar Association, and the Organisation for Economic Co-operation and Development (OECD).

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Contracts governing the extraction of oil and gas resources are commonly devised by governments and organizations on behalf of citizens or local communities without public oversight. Due to the long-term horizons and widespread impacts of projects, fair terms for sharing risk and rewarding benefits, including those related to a just transition, are particularly important. Contract transparency helps local communities hold governments and organizations accountable for their negotiated terms and obligations. It also helps create a level playing field that enables governments to negotiate for better deals.

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1286 Lack of transparency about ownership structures can make it difficult to determine who benefits from  
 1287 financial transactions in the sector. Beneficial ownership transparency has been identified as a  
 1288 significant opportunity to deter conflicts of interest, [corruption](#), tax avoidance and evasion.

1289 *Sources:*  
 1290 International Monetary Fund (IMF), *Fiscal Transparency Initiative: Integration of Natural Resource Management Issues*, 2019.  
 1291 Extractives Industry Transparency Initiative (EITI), *Disclosing beneficial ownership – The key to fighting corruption*, 2017.

1292 **What to report**

1293 If an organization in the coal gas sector has identified anti-corruption as a material topic, this section  
 1294 helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#">GRI 205: Anti-corruption 2016</a>	Disclosure 205-1 Operations assessed for risks related to <u>corruption</u>	
	Disclosure 205-2 Communication and training about <u>anti-corruption</u> policies and procedures	
	Disclosure 205-3 <u>Confirmed incidents of corruption</u> and actions taken	
<b>Additional sector disclosures</b>		
Describe the organization’s policy on contract transparency and provide a link to publicly available contracts and licenses.  If a contract or a license is not publicly available, explain the reasons why and report any actions taken by the organization to overcome any barriers to publication.  <i>Note: This disclosure is based on EITI Standard 2019, Requirement 2.4. Contracts.</i>		
List the beneficial owners within the organization’s structure and explain how the organization identifies the beneficial owners of business partners, including joint ventures and suppliers.  <i>Note: This disclosure is based on EITI Standard 2019, Requirement 2.5. Beneficial ownership c. and f.</i>		

1295 **Resources and references**

1296 [GRI 205: Anti-corruption 2016](#) lists authoritative intergovernmental instruments and other sources  
 1297 relevant to reporting on this topic.

1298 The additional intergovernmental instruments and references used to develop this topic description as  
 1299 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
 1300 sector are listed on in the Bibliography on page 69.

## I 301 2.21 Payments to governments

I 302 **Lack of transparency about payments to governments can contribute to inefficient**  
I 303 **management of public funds, illicit financial flows, and corruption. This topic covers impacts**  
I 304 **from an organization's practices related to payments to governments, and expectations of**  
I 305 **organizations in relation to transparency regarding such payments.**

I 306 Organizations in the coal sector deal with a large number of complex financial transactions subject to  
I 307 a variety of payments to governments. These include taxes; commodity trading revenues; production  
I 308 rights; royalties; signature, discovery, and production bonuses; and other payments.

I 309 Transparency about payments to governments can demonstrate the economic importance of the coal  
I 310 sector to the host countries, and enable informed decision-making and public debate. Insufficient  
I 311 transparency of these payments can impede detection of misallocation of revenues and corruption. In  
I 312 the absence of contract transparency, transparency about taxes and other payments can offer  
I 313 valuable insights into the terms of contracts and can help governments increase their accountability  
I 314 and strengthen revenue collection and management.

I 315 Taxes, royalties, and other payments from organizations in the coal sector can amount to an  
I 316 important source of investment and income for local communities, countries, and regions (see  
I 317 Economic impacts). Coal organizations are often subject to paying royalties, along with widely  
I 318 applicable taxes and payments to governments, for using natural resources. Royalties are obligations  
I 319 to governments that are not based on corporate profits, but rather on amounts of the commodity  
I 320 extracted. They are designed to guarantee governments an income from the non-renewable resource  
I 321 that is protected from transfer pricing and other mechanisms used by organizations to minimize taxes.  
I 322 At the same time, the sector receives substantial subsidies from governments in many countries,  
I 323 even despite government commitments to phase out financial support by 2018.<sup>21</sup> Transparency about  
I 324 the subsidies received can be of great value interest to some stakeholders, such as investors or civil  
I 325 society.

I 326 When disclosing information on payments to governments, organizations in the coal sector may report  
I 327 aggregate payments at a global level. However, aggregated figures provide limited insight into  
I 328 payments made in each country or per project. Reporting country-level or project-level payments  
I 329 enables governments to compare the actual payments made to those stipulated in fiscal, legal, and  
I 330 contractual terms and to assess the financial contribution of coal projects to communities. It can also  
I 331 enable tax authorities to address tax avoidance and evasion by revealing information on transfer  
I 332 pricing arrangements and transactions. This can remove information asymmetry and provide a level  
I 333 playing field for governments when negotiating contracts.

### I 334 **State-owned enterprises**

I 335 In some countries – China and India being notable examples – the largest producers of coal are state-  
I 336 owned enterprises (SOEs). As direct customers, SOEs are also highly relevant for the sector. Of all  
I 337 power plants burning coal, 40% belong to SOEs; the figure rises to 56% if joint ventures are included.

I 338 SOEs often have special status, which can involve financial advantages and preferential treatment.  
I 339 By disclosing their transactions with SOEs, organizations in this sector can increase transparency  
I 340 about payments to governments and help reduce risks of corruption.

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<sup>21</sup> In the European Union, subsidies to coal producers added up to €9.7 billion in 2012 (M. Blom et al., '[Subsidies and Costs of EU Energy](#)', 2014), and remained at similar levels in the following years (see S. Whitley et al.; Overseas Development Institute (ODI), '[Cutting Europe's Lifelines to Coal: Tracking Subsidies in 10 Countries](#)', 2017).

I 341 **What to report**

I 342 If an organization in the coal sector has identified payments to governments as a material topic, this  
 I 343 section helps it determine what to report on this topic.

Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	
<b>Topic Standards disclosures</b>		
<a href="#"><u>GRI 201: Economic Performance 2016</u></a>	Disclosure 201-1 Direct economic value generated and distributed  <i>Note: This information is also listed in 2.8 Economic impacts. If the organization has identified economic impacts as a material topic and has already reported this disclosure, the organization can provide a reference to this information.</i>	
	Disclosure 201-4 Financial assistance received from government	For state-owned organizations, report the financial relationship between the government and the SOE.  <i>Note: This disclosure is based on EITI Standard 2019 Requirement 2.6 State participation.</i>
<a href="#"><u>GRI 207: Tax 2019</u></a>	Disclosure 207-1 Approach to tax	
	Disclosure 207-2 Tax governance, control, and risk management	
	Disclosure 207-3 Stakeholder engagement and management of concerns related to tax	
	Disclosure 207-4 Country-by-country reporting	

### Additional sector disclosures

Report a breakdown of taxes and other payments to governments by revenue stream and project.

*Note: This disclosure is based on EITI Standard 2019 Requirement 4.1 Comprehensive disclosure of taxes and revenues and requirement 4.7. Level of disaggregation.*

For coal purchased from the state, or from third parties appointed by the state to sell on their behalf, report:

- the volumes and types of coal purchased;
- the full names of the buying entity and of the recipient of the payment;
- the value of payments made for the purchase.

*Note: This disclosure is based on EITI Standard 2019 Requirement 4.2 Sale of the state's share of production or other revenues collected in kind and EITI Reporting Guidelines for companies buying oil, gas and minerals from governments.*

### I344 Resources and references

I345 [GRI 201: Economic Performance 2016](#) and [GRI 207: Tax 2019](#) list authoritative intergovernmental  
I346 instruments and other sources relevant to reporting on this topic.

I347 The additional intergovernmental instruments and references used to develop this topic description as  
I348 well as further resources that may be helpful for understanding and reporting on the topic by the coal  
I349 sector are listed on in the Bibliography on page 69.

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## 2.22 Public policy and lobbying

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An organization can participate in public policy development, directly or through an intermediary organization, by means of lobbying and making financial or in-kind contributions to political parties, politicians, or causes. This topic covers an organization’s approach to public policy participation, and the impacts that can result from the influence an organization exerts in such participation.

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Lobbying by the coal sector can result in long-lasting impacts on the economy, environment, and people, including local communities. In regions where coal generates significant revenue for governments, organizations in the sector can have undue influence over public policy discussions. Documented cases show how the sector has habitually donated to political parties whose policies favor corporate agendas, or to gain special access to politicians.

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The coal sector has actively lobbied against ambitious climate policies. These lobbying activities may aim to safeguard existing jobs and the livelihoods of coal-mining areas, but also to prevent meaningful carbon pricing, carbon budgets, or other actions to reduce GHG emissions that could leave coal assets or resources stranded. These activities sometimes contradict publicly stated corporate strategies or positions that support policies addressing climate change (see also Climate adaptation and resilience).

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Other lobbying activities by the sector include hindering environmental policies; blocking or amending legislation on environmental and social assessments of projects or fair participation of all stakeholders; overturning restrictions on resource development; and supporting the lowering of corporate taxes and resource royalties.

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Lobbying can also be used to gain or retain government subsidies, which can result in commodity prices that do not reflect the full environmental or social costs of products. Subsidies for the coal sector can impede the transition to a low-carbon economy. This can consequently hinder sustainable development in numerous ways, including by reducing or inefficiently allocating available national resources, increasing dependence on fossil fuels, and discouraging investment in renewable energy and energy efficiency, which impedes the transition to a low-carbon economy.

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### What to report

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If an organization in the coal sector has identified public policy and lobbying as a material topic, this section helps it determine what to report on this topic.

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Standard	Disclosure	Additional sector recommendations
<b>Management of the topic</b>		
<b>GRI 103: Material Topics</b>	Disclosure MT-3 Management of material topics	<ul style="list-style-type: none"> <li>- Report any significant issues that the organization focuses on when participating in public policy development and lobbying.</li> <li>- Report the organization’s stance on these issues as well as any differences between lobbying positions and the stated policies, goals, or other public positions.</li> </ul>

Topic Standards disclosures		
<a href="#">GRI 415: Public Policy 2016</a>	Disclosure 415-1 Political contributions	

I 380 **Resources and references**

I 381 *GRI 415: Public Policy 2016* lists authoritative intergovernmental instruments and other sources  
I 382 relevant to reporting on this topic. The additional intergovernmental instruments and references used  
I 383 to develop this topic description as well as further resources that may be helpful for understanding  
I 384 and reporting on the topic by the coal sector are listed on in the Bibliography on page 69.

This document does not represent an official position of the GSSB

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# Glossary

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**Note to the GSSB: A number of defined terms are being revised as part of the review of the GRI Universal Standards. To facilitate consistency, this glossary section will be completed prior to public exposure based on the drafts of Universal Standards submitted to the GSSB for approval. No new defined terms are proposed to be added as a result of the development of this Standard.**

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

This document does not represent an official position of the GSSB

# 1394 Bibliography

## 1395 Front matter

### 1396 Authoritative instruments

- 1397 1. Intergovernmental Panel on Climate Change (IPCC), *Global Warming of 1.5°C*, 2018.
- 1398 2. United Nations Framework Convention on Climate Change (UNFCCC), Paris Agreement, 2015.

### 1399 Other sources

- 1400 3. Britannica, Coal, Fossil fuel, [britannica.com/science/coal-fossil-fuel#ref259096](https://www.britannica.com/science/coal-fossil-fuel#ref259096), accessed 6  
1401 November 2020
- 1402 4. Energy Information Administration (EIA), How much carbon dioxide is produced per  
1403 kilowatthour of U.S. electricity generation?, [eia.gov/tools/faqs/faq.php?id=74&t=11](https://www.eia.gov/tools/faqs/faq.php?id=74&t=11), accessed  
1404 on 5 April 2021.
- 1405 5. International Energy Agency (IEA), Coal 2019, [iea.org/reports/coal-2019](https://www.iea.org/reports/coal-2019), accessed on 5 April  
1406 2021.
- 1407 6. International Energy Agency (IEA), Coal Information: Overview, [iea.org/reports/coal-  
1408 information-overview](https://www.iea.org/reports/coal-information-overview), accessed on 5 April 2021.
- 1409 7. International Energy Agency (IEA), World Energy Outlook 2020,  
1410 <https://www.iea.org/reports/world-energy-outlook-2020>, accessed 5 April 2021.
- 1411 8. International Institute for Sustainable Development (IISD), *State-Owned Companies  
1412 Transitioning Away From Coal, Mining and Coal-Fired Power*, 2018.
- 1413 9. Organisation for Economic Co-operation and Development (OECD) and International Energy  
1414 Agency (IEA), *OECD Green Growth Studies: Energy*, 2011.
- 1415 10. Organisation for Economic Co-operation and Development (OECD), *Arrangement on officially  
1416 supported export credits*, 2020.
- 1417 11. O. Sartor, Institut du développement durable et des relations internationales (IDDRI) and  
1418 Climate Strategies, *Implementing coal transitions: Insights from case studies of major coal-  
1419 consuming economies*, 2018.
- 1420 12. M. Jakob et al., The Future of Coal in a Carbon-Constrained Climate *Nature Climate Change*,  
1421 vol. 10, nr. 8, pp. 704–7, August 2020, doi.org/10.1038/s41558-020-0866-1.
- 1422 13. P. Friedlingstein et al., 'Global Carbon Budget 2019', *Earth System Science Data*, vol.11, nr.  
1423 4, pp.1783–18384, 4 December 2019, doi.org/10.5194/essd-11-1783-2019.
- 1424 14. Reuters, Coal India output falls for third straight month on tepid demand,  
1425 [reuters.com/article/coal-india-output/coal-india-output-falls-for-third-straight-month-on-tepid-  
1426 demand-idINKBN2426N4](https://www.reuters.com/article/coal-india-output/coal-india-output-falls-for-third-straight-month-on-tepid-demand-idINKBN2426N4), accessed on 5 April 2021.
- 1427 15. United Nations Environment Programme (UNEP), *Emissions Gap Report 2019*, 2019.
- 1428 16. United Nations Principles for Responsible Investment (UNPRI), Phasing out investments in  
1429 thermal coal, [unpri.org/climate-change/phasing-out-investments-in-thermal-coal/3281.article](https://www.unpri.org/climate-change/phasing-out-investments-in-thermal-coal/3281.article),  
1430 accessed on 5 April 2021.
- 1431 17. World Economic Forum (WEF), Chart of the day: Is 2019 the beginning of the end for coal in  
1432 Europe?, [weforum.org/agenda/2019/07/coal-generation-production-europe-2019-fall-  
1433 renewable-lignite/](https://www.weforum.org/agenda/2019/07/coal-generation-production-europe-2019-fall-renewable-lignite/), accessed on 5 April 2021.
- 1434 18. World Economic Forum (WEF), These are the world's biggest coal producers,  
1435 <https://www.weforum.org/agenda/2018/01/these-are-the-worlds-biggest-coal-producers/>,  
1436 accessed on 5 April 2021.

## 1437 **GHG emissions**

### 1438 **Authoritative instruments**

- 1439 19. Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical*  
1440 *Science Basis*, 2007.
- 1441 20. Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2014: Synthesis*  
1442 *Report*, 2014.
- 1443 21. Intergovernmental Panel on Climate Change (IPCC), *Good Practice Guidance and*  
1444 *Uncertainty Management in National Greenhouse Gas Inventories*, 2001.

### 1445 **Other sources**

- 1446 22. International Energy Agency (IEA), *CO<sub>2</sub> Emissions from Fuel Combustion Highlights*, 2019.
- 1447 23. International Energy Agency (IEA), *Energy Efficiency 2018: Analysis and Outlooks to 2040*,  
1448 2018.
- 1449 24. International Energy Agency (IEA), Methane Tracker, [iea.org/reports/methane-tracker](http://iea.org/reports/methane-tracker),  
1450 accessed on 31 May 2020.
- 1451 25. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for*  
1452 *Mining*, 2007.
- 1453 26. United Nations Framework Convention on Climate Change (UNFCCC), What do adaptation to  
1454 climate change and climate resilience mean?, 2020, [unfccc.int/topics/adaptation-and-](http://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean)  
1455 [resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean](http://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean),  
1456 accessed on 5 April 2021.
- 1457 27. United States Energy Information Administration (EIA), *Assumptions to the Annual Energy*  
1458 *Outlook 2019: Industrial Demand Module*, 2019.
- 1459 28. United States Environmental Protection Agency (US EPA), Overview of Greenhouse Gases,  
1460 [epa.gov/ghgemissions/overview-greenhouse-gases#methane](http://epa.gov/ghgemissions/overview-greenhouse-gases#methane), accessed on 31 May 2020.
- 1461 29. World Resources Institute, *Estimating and Reporting the Comparative Emissions Impacts of*  
1462 *Products*, 2019.

### 1463 **Further resources**

1464 The following resources may help organizations in the coal sector report on this topic:

- 1465 30. Carbon Brief, Methane emissions from fossil fuels 'severely underestimated', 2020,  
1466 [carbonbrief.org/methane-emissions-from-fossil-fuels-severely-underestimated](http://carbonbrief.org/methane-emissions-from-fossil-fuels-severely-underestimated), accessed 5  
1467 April 2021.
- 1468 31. P. Forster, V. Ramaswamy, et al., 'Changes in Atmospheric Constituents and in Radiative  
1469 Forcing', in *Climate Change 2007: The Physical Science Basis*, 2007.
- 1470 32. Greenhouse Gas Protocol, *Global Warming Potential Values*, 2015.

## 1471 **Climate adaptation and resilience**

### 1472 **Authoritative instruments**

- 1473 33. Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2014: Mitigation of*  
1474 *Climate Change*, 2014.
- 1475 34. Intergovernmental Panel on Climate Change (IPCC), 2014: *Climate Change 2014: Impacts,*  
1476 *Adaptation, and Vulnerability*, 2014.
- 1477 35. Intergovernmental Panel on Climate Change (IPCC), *Global Warming of 1.5°C*, 2018.

### 1478 **Other sources**

- 1479 36. Carbon Tracker Initiative, Carbon Budgets Explainer, 2018.
- 1480 37. Carbon Tracker, Unburnable Carbon: Are the World's Financial Markets Carrying a Carbon  
1481 Bubble?, 2011.
- 1482 38. A. Dagnachew, A. Hof, et al., *Insight into Energy Scenarios: A comparison of key transition*  
1483 *indicators of 2°C scenarios*, 2019.
- 1484 39. International Energy Agency (IEA), Coal Information: Overview, [iea.org/reports/coal-](http://iea.org/reports/coal-information-overview)  
1485 [information-overview](http://iea.org/reports/coal-information-overview), accessed on 5 April 2021.
- 1486 40. International Energy Agency (IEA), *World Energy Outlook 2018*, 2018.
- 1487 41. International Energy Agency (IEA), *World Energy Outlook 2019*, 2019.

- 1488 42. J. G. J. Olivier and J. A. H. W. Peters, *Trends in global CO2 and total greenhouse gas*  
 1489 *emissions: 2019 Report*, 2020.
- 1490 43. Organisation for Economic Co-operation and Development (OECD), International Energy  
 1491 Agency (IEA), *OECD Green Growth Studies: Energy*, 2011.
- 1492 44. Organisation for Economic Co-operation and Development (OECD), *Monitoring the transition*  
 1493 *to a low-carbon economy: a strategic approach to local development*, 2015.
- 1494 45. M. F. Rahman, M. Mostofa, and S. Huq, 'Low-Carbon Futures in Least-Developed Countries',  
 1495 [wri.org/climate/expert-perspective/low-carbon-futures-least-developed-countries](http://wri.org/climate/expert-perspective/low-carbon-futures-least-developed-countries), accessed on  
 1496 5 April 2021.
- 1497 46. O. Sartor, Institut du développement durable et des relations internationales (IDDRI) and  
 1498 Climate Strategies, *Implementing coal transitions: Insights from case studies of major coal-*  
 1499 *consuming economies*, 2018.
- 1500 47. E. Stuart, 'Leaving No One Behind in Sustainable Development Pathways',  
 1501 [wri.org/climate/expert-perspective/leaving-no-one-behind-sustainable-development-pathways](http://wri.org/climate/expert-perspective/leaving-no-one-behind-sustainable-development-pathways),  
 1502 accessed on 5 April 2021.
- 1503 48. Task Force on Climate-Related Financial Disclosure (TCFD), *Recommendations of the Task*  
 1504 *Force on Climate-related Financial Disclosure*, 2017.
- 1505 49. Task Force on Climate-Related Financial Disclosure (TCFD), *The Use of Scenario Analysis in*  
 1506 *Disclosure of Climate-Related Risks and Opportunities*, 2017.
- 1507 50. University of Cambridge, *Climate change: Action, trends and implications for business: The*  
 1508 *IPCC's Fifth Assessment Report, Working Group 1*, 2013.

#### 1509 **Further resources**

1510 The following resources may help organizations in the coal sector report on this topic:

- 1511 51. International Finance Corporation (IFC), *Good Practice Note: Managing Retrenchment*, 2005.
- 1512 52. Transition Pathway Initiative (TPI), *Methodology and Indicators Report*, 2019.
- 1513 53. World Resources Institute (WRI), *A Recommended Methodology for Estimating and*  
 1514 *Reporting the Potential Greenhouse Gas Emissions from Fossil Fuel Reserves*, 2016.

## 1515 **Closure and rehabilitation**

#### 1516 **Other sources**

- 1517 54. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the*  
 1518 *Extractive Industries*, 2017.
- 1519 55. International Energy Agency (IEA), *World Energy Outlook 2020*,  
 1520 <https://www.iea.org/reports/world-energy-outlook-2020>, accessed on 5 April 2021.
- 1521 56. United Nations (UN) Tax Committee's Subcommittee on Extractive Industries Taxation Issues  
 1522 for Developing Countries, *Guidance Note on the Tax Treatment of Decommissioning for the*  
 1523 *Extractive Industries*, 2016.
- 1524 57. J. Watts and J. Ambrose, 'Coal industry will never recover after coronavirus pandemic, say  
 1525 experts', *The Guardian*, 17 May 2020, [theguardian.com/environment/2020/may/17/coal-](https://theguardian.com/environment/2020/may/17/coal-industry-will-never-recover-after-coronavirus-pandemic-say-experts)  
 1526 [industry-will-never-recover-after-coronavirus-pandemic-say-experts](https://theguardian.com/environment/2020/may/17/coal-industry-will-never-recover-after-coronavirus-pandemic-say-experts), accessed on 5 April  
 1527 2021.
- 1528 58. World Bank, *Towards Sustainable Decommissioning and Closure of Oil Fields and Mines: A*  
 1529 *Toolkit to Assist Government Agencies*, 2010.
- 1530 59. World Bank, *Managing Coal Mine Closure: Achieving a Just Transition for All*, 2018.

#### 1531 **Further resources**

1532 The following resources may help organizations in the coal sector report on this topic:

- 1533 60. International Council on Mining & Metals (ICMM), *Integrated Mine Closure – Good Practice*  
 1534 *Guide, 2<sup>nd</sup> Edition*, 2019.

## 1535 **Air emissions**

#### 1536 **Other sources**

- 1537 61. A. Markandya and P. Wilkinson, 'Electricity Generation and Health', *The Lancet*, vol 370, no.  
 1538 9591, pp. 979–90, 15 September 2007, [doi.org/10.1016/S0140-6736\(07\)61253-7](https://doi.org/10.1016/S0140-6736(07)61253-7).

- I539 62. International Energy Agency (IEA), Energy and Air Pollution: World Energy Outlook Special  
I540 Report, 2016.
- I541 63. The United Nations Economic Commission for Europe (UNECE), Air pollution, ecosystems  
I542 and biodiversity,  
I543 [unece.org/environmental-policy/conventions/envlrapwelcome/cross-sectoral-linkages/air-](http://unece.org/environmental-policy/conventions/envlrapwelcome/cross-sectoral-linkages/air-pollution-ecosystems-and-biodiversity.html)  
I544 [pollution-ecosystems-and-biodiversity.html](http://unece.org/environmental-policy/conventions/envlrapwelcome/cross-sectoral-linkages/air-pollution-ecosystems-and-biodiversity.html), accessed on 5 April 2021.
- I545 64. Union of Concerned Scientists, How Coal Works, [ucsusa.org/resources/how-coal-works](http://ucsusa.org/resources/how-coal-works),  
I546 accessed 17 October 2020.
- I547 65. World Coal Association (WCA), Coal and air quality, [worldcoal.org/coal-and-air-quality-0](http://worldcoal.org/coal-and-air-quality-0),  
I548 accessed 17 October 2020.
- I549 66. World Health Organization (WHO), Air pollution, [who.int/health-topics/air-pollution](http://who.int/health-topics/air-pollution), accessed  
I550 31 May 2020.
- I551 67. World Health Organization (WHO), Air pollution and child health: Prescribing clean air,  
I552 advance copy, 2018.
- I553 68. World Health Organization (WHO), *Ambient Air Pollution: A Global Assessment of Exposure*  
I554 *and Burden of Disease*, 2016.

## I555 Biodiversity

### I556 Intergovernmental instruments

- I557 69. Intergovernmental Panel on Climate Change (IPCC), *Climate Change and Biodiversity*, 2002.  
I558 70. Intergovernmental Panel on Climate Change (IPCC), *Climate Change and Land*, 2019.

### I559 Other sources

- I560 71. N. Butt, H. L. Beyer, et al., *Biodiversity Risks from Fossil Fuel Extraction*, Science, 2013.  
I561 72. Convention on Biological Diversity, *Mainstreaming of Biodiversity into the Energy and Mining*  
I562 *Sectors*, 2018.
- I563 73. Cross Sector Biodiversity Initiative (CSBI), *A cross sector guide for implementing the*  
I564 *Mitigation Hierarchy*, 2015.
- I565 74. M. B. J. Harfoot, D. P. Tittensor, et al., *Present and future biodiversity risks from fossil fuel*  
I566 *exploitation*, Conservation Letters, 2018.

### I567 Further resources

I568 The following resources may help organizations in the coal sector report on this topic:

- I569 75. International Finance Corporation (IFC) Performance Standard 6: *Biodiversity Conservation*  
I570 *and Sustainable Management of Natural Resources*, 2012.
- I571 76. International Council for Mining and Metals (ICMM), International Petroleum Industry  
I572 Environmental Conservation Association (IPIECA), Equator Principles, *A cross-sector guide*  
I573 *for implementing the Mitigation Hierarchy*, 2017.
- I574 77. Integrated Biodiversity Assessment Tool (IBAT) Alliance, Integrated Biodiversity Assessment  
I575 Tool, <https://www.ibat-alliance.org/>, accessed 5 April 2021.

## I576 Waste

### I577 Authoritative instruments

- I578 78. European Commission, *Best Available Techniques (BAT) Reference Document for the*  
I579 *Management of Waste from Extractive Industries*, 2018.

### I580 Other sources

- I581 79. Alberta Energy Regulator, Tailings, [aer.ca/providing-information/by-topic/tailings.html](http://aer.ca/providing-information/by-topic/tailings.html),  
I582 accessed on 5 April 2021.
- I583 80. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the*  
I584 *Extractive Industries*, 2017.
- I585 81. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for*  
I586 *Mining*, 2007.

- 1587 82. C. Roche, K. Thygesen, K., E. Baker, E. (Eds.), United Nations Environment Programme  
1588 (UNEP), *Mine Tailings Storage: Safety Is No Accident. A UNEP Rapid Response*  
1589 *Assessment*, 2017.
- 1590 83. Union of Concerned Scientists, 'The Hidden Cost of Fossil Fuels', 2008,  
1591 [ucsusa.org/resources/hidden-costs-fossil-fuels](https://ucsusa.org/resources/hidden-costs-fossil-fuels), accessed 5 April 2021.
- 1592 84. United Nations Development Programme (UNDP), *Circular Economy Principles for NDCs and*  
1593 *Long-term Strategies*, 2019.
- 1594 85. United Nations Environment Programme (UNEP), *Towards a Pollution-Free Planet*, 2017.
- 1595 86. United States Environmental Protection Agency (EPA), Basic Information about Surface Coal  
1596 Mining in Appalachia, [epa.gov/sc-mining/basic-information-about-surface-coal-mining-](https://epa.gov/sc-mining/basic-information-about-surface-coal-mining-appalachia)  
1597 [appalachia](https://epa.gov/sc-mining/basic-information-about-surface-coal-mining-appalachia), accessed 5 April 2021.

#### 1598 **Further resources**

1599 The following resources may help organizations in the coal sector report on this topic:

- 1600 87. International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for  
1601 Waste Management, 2007.
- 1602 88. United Nations Environment (UN environment), International Council for Mining and Metals  
1603 (ICMM), Principles for Responsible Investment (PRI), *Global Industry Standard on Tailings*  
1604 *Management*, 2020.

### 1605 **Water and effluents**

#### 1606 **Other sources**

- 1607 89. L. Allen, M. Cohen, et al., 'Fossil Fuels and Water Quality', *The World's Water Volume 7: The*  
1608 *Biennial Report on Freshwater Resources*, chapter 4, 2011, [worldwater.org/wp-](https://worldwater.org/wp-content/uploads/2013/07/chapter_4_fossil_fuel_and_water_quality.pdf)  
1609 [content/uploads/2013/07/chapter\\_4\\_fossil\\_fuel\\_and\\_water\\_quality.pdf](https://worldwater.org/wp-content/uploads/2013/07/chapter_4_fossil_fuel_and_water_quality.pdf).
- 1610 90. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the*  
1611 *Extractive Industries*, 2017.
- 1612 91. Greenpeace, *The Great Water Grab: How the Coal Industry is Deepening the Global Water*  
1613 *Crisis*, 2016.
- 1614 92. International Energy Agency (IEA), *Water Energy Nexus: Excerpt from the World Energy*  
1615 *Outlook 2016*, 2016.
- 1616 93. International Energy Agency (IEA), 'Water for Energy', *World Energy Outlook 2012*, 2012.
- 1617 94. United Nations Environment Programme (UNEP), *Towards a Pollution-Free Planet*, 2017.
- 1618 95. United States Environmental Protection Agency (US EPA), *Profile of the Fossil Fuel Electric*  
1619 *Power Generation Industry*, 1997.

#### 1620 **Further resources**

1621 The following resource may help organizations in the coal sector report on this topic:

- 1622 96. International Council for Mining and Metals (ICMM): *Water Stewardship Framework*, 2014.

### 1623 **Economic impacts**

#### 1624 **Authoritative instruments**

- 1625 97. United Nations Office for Disaster Risk Reduction (UNISDR), *Words into Action Guidelines:*  
1626 *National Disaster Risk Assessment, Special Topics, D. Direct and Indirect Economic Impact*,  
1627 2017.
- 1628 98. Organisation for Economic Co-operation and Development (OECD), OECD Principles for  
1629 Private Sector Participation in Infrastructure, 2007.

#### 1630 **Other sources**

- 1631 99. Bill & Melinda Gates Foundation, *Paper 7: Leveraging extractive industries for skills*  
1632 *development to maximize sustainable growth and employment*, 2015.
- 1633 100. Extractive Industries Transparency Initiative (EITI), Social and economic spending: The  
1634 impact of the extractive industries on economic growth and social development, [eiti.org/social-](https://eiti.org/social-economic-spending)  
1635 [economic-spending](https://eiti.org/social-economic-spending), accessed on 5 April 2021.

- I636 101. International Institute for Environment and Development (IIED), *Breaking New Ground: Mining, Minerals and Sustainable Development*, 2002.  
I637  
I638 102. J.-F. Mercure, H. Pollitt, et al., 'Macroeconomic impacts of stranded fossil fuels assets',  
I639 Nature Climate Change, vol. 8, pp. 588-593, 2018, nature.com/articles/s41558-018-0182-1,  
I640 accessed on 5 April 2021.  
I641 103. United Nations Conference on Trade and Development (UNCTAD), *Extractive industries: Optimizing the value retention in host countries*, 2012.  
I642  
I643 104. K. Storey, 'Fly-in/Fly-out: Implications for Community Sustainability', *Sustainability*, vol. 2, pp.  
I644 1161-1181, 2010.

#### I645 **Further resources**

I646 The following resource may help organizations in the coal sector report on this topic:

- I647 105. Organisation for Economic Co-operation and Development (OECD), *Collaborative Strategies*  
I648 *for In-Country Shared Value Creation*, 2016.

### I649 **Local communities**

#### I650 **Authoritative instruments**

- I651 106. Organisation for Economic Co-operation and Development (OECD), *Due Diligence Guidance*  
I652 *for Meaningful Stakeholder Engagement in the Extractives Sector*, 2015.

#### I653 **Other sources**

- I654 107. Cordaid, *When Oil, Gas or Mining Arrives in Your Area: Practical Guide for Communities, Civil*  
I655 *Society and Local Government on the Social Aspects of Oil, Gas and Mining*, 2016.  
I656 108. International Finance Corporation (IFC), *Unlocking Opportunities for Women and Business: A*  
I657 *Toolkit of Actions and Strategies for Oil, Gas, and Mining Companies*, 2018.  
I658 109. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights  
I659 Guidance Tool for the Financial Sector, Mining and Metals,  
I660 unepfi.org/humanrightstoolkit/mining.php, accessed on 5 April 2021.  
I661 110. The Advocates for Human Rights: *Promoting Gender Diversity and Inclusion in the Oil, Gas,*  
I662 *and Mining Extractive Industries*, 2019.

#### I663 **Further resources**

I664 The following resource may help organizations in the coal sector report on this topic:

- I665 111. IFC, Performance Standard 4 Community Health, Safety, and Security, 2012.

### I666 **Land and resource rights**

#### I667 **Authoritative instruments**

- I668 112. European Union and UN Interagency Framework Team for Preventive Action, *Toolkit and*  
I669 *Guidance for Preventing and Managing Land and Natural Resources Conflict: Land and*  
I670 *Conflict*, 2012.  
I671 113. Organisation for Economic Co-operation and Development (OECD), *Due Diligence Guidance*  
I672 *for Meaningful Stakeholder Engagement in the Extractives Sector*, 2015.

#### I673 **Other sources**

- I674 114. Avocats Sans Frontières, *Human Rights Implications of Extractive Industry Activities in*  
I675 *Uganda: A Study of the Mineral Sector in Karamoja and the Oil Refinery in Bunyoro*, 2014,  
I676 asf.be/wp-content/uploads/2014/09/ASF\_UG\_ExtractiveSectorHRImplications.pdf.  
I677 115. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the*  
I678 *Extractive Industries*, 2017.  
I679 116. GRI, *Land Tenure Rights: The need for greater transparency among companies worldwide*,  
I680 2016.  
I681 117. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES),  
I682 *Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and*  
I683 *Ecosystem Services on the work of its seventh session*, 2019.  
I684 118. International Council on Mining & Metals (ICMM), *Land Acquisition and Resettlement*, 2015.

- 1685 119. Pensamiento y Acción Social (PAS) and L. Turriago, 'Caso El Hatillo: El re-asentamiento  
 1686 como la legalización del despojo y el acaparamiento de las tierras por el modelo extractivista',  
 1687 pas.org.co/hatillo-despojo-extractivista, accessed on 5 April 2021.  
 1688 120. The Advocates for Human Rights: *Promoting Gender Diversity and Inclusion in the Oil, Gas,  
 1689 and Mining Extractive Industries*, 2019.  
 1690 121. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights  
 1691 Guidance Tool for the Financial Sector, Mining and Metals,  
 1692 unepfi.org/humanrightstoolkit/mining.php, accessed on 5 April 2021.  
 1693 122. United Nations Human Rights Office of the High Commissioner website, Land and Human  
 1694 Rights, ohchr.org/EN/Issues/LandAndHR/Pages/LandandHumanRightsIndex.aspx, accessed  
 1695 on 5 April 2021.  
 1696 123. F. Vanclay, 'Project-induced displacement and resettlement: from impoverishment risks to an  
 1697 opportunity for development?', *Impact Assessment and Project Appraisal Journal*, vol. 35, pp.  
 1698 3-21, 2017, doi: 10.1080/14615517.2017.1278671.

1699 **Further resources**

1700 The following resources may help organizations in the coal sector report on this topic:

- 1701 124. International Finance Corporation (IFC), *Good Practice Handbook: Land Acquisition and  
 1702 Resettlement (draft)*, 2019.  
 1703 125. International Finance Corporation (IFC), *Performance Standard 5, Land Acquisition and  
 1704 Involuntary Resettlement*, 2012.  
 1705 126. International Finance Corporation (IFC), *Performance Standard 8: Cultural Heritage*, 2012.

1706 **Rights of indigenous peoples**

1707 **Authoritative instruments**

- 1708 127. International Labour Organization (ILO) Convention 169, 'Indigenous and Tribal Peoples  
 1709 Convention', 1989.  
 1710 128. United Nations (UN) Declaration, 'United Nations Declaration on the Rights of Indigenous  
 1711 Peoples', 2007.

1712 **Other sources**

- 1713 129. Amnesty International, 'Inter-American Court ruling marks key victory for indigenous peoples',  
 1714 2012,  
 1715 amnesty.org/en/press-releases/2012/07/ecuador-inter-american-court-ruling-marks-key-  
 1716 victory-indigenous-peoples-20, accessed on 5 April 2021.  
 1717 130. Amnesty International, *Out of sight, out of mind: Gender, indigenous rights, and energy  
 1718 development*, 2016.  
 1719 131. A. Anongos, D. Berezhkov, et al., *Pitfalls and pipelines: Indigenous peoples and extractive  
 1720 industries*, 2012.  
 1721 132. J. Burger, *Indigenous Peoples, Extractive Industries and Human Rights*, 2014.  
 1722 133. European Parliament, Committee on Foreign Affairs, *Report on Violation of the Rights of  
 1723 Indigenous Peoples in the World, Including Land Grabbing*, 2018.  
 1724 134. G. Gibson, K. Yung, et al. with Lake Babine Nation and Nak'azdii Whut'en, *Indigenous  
 1725 communities and industrial camps: Promoting healthy communities in settings of industrial  
 1726 change*, 2017.  
 1727 135. Global Witness, *Defenders of the earth: Global killings of land and environmental defenders in  
 1728 2016*, 2017.  
 1729 136. K. Herbertson, 'Momentum Builds for Gaining the Consent of Indigenous Peoples', 2010,  
 1730 wri.org/blog/2010/05/momentum-builds-gaining-consent-indigenous-peoples, accessed on 5  
 1731 April 2021.  
 1732 137. International Finance Corporation (IFC), *Projects and People: A Handbook for Addressing  
 1733 Project Induced In-Migration*, 2009.  
 1734 138. International Labour Organization (ILO), Observation (CEACR) – adopted 2018, published  
 1735 108th ILC session (2019) Indigenous and Tribal Peoples Convention, 1989 (No. 169) –  
 1736 Venezuela, Bolivarian Republic of (Ratification: 2002), 2019,  
 1737 ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:13100:0::NO::P13100\_COMMENT\_ID,P11110\_C

- 1738 COUNTRY\_ID,P11110\_COUNTRY\_NAME,P11110\_COMMENT\_YEAR:3962283,102880,Vene  
1739 zuela,%20Bolivarian%20Republic%20of,2018.  
1740 139. B. McIvor, *First Peoples Law: Essays in Canadian Law and Decolonization*, 2018.  
1741 140. The Advocates for Human Rights, *Promoting Gender Diversity and Inclusion in the Oil, Gas,*  
1742 *and Mining Extractive Industries*, 2019.  
1743 141. UN Permanent Forum on Indigenous Issues (UNPFII), Combating violence against  
1744 indigenous women and girls: article 22 of the United Nations Declaration on the Rights of  
1745 Indigenous Peoples: Report of the international expert group meeting, 2012.  
1746 142. UN Permanent Forum on Indigenous Issues (UNPFII), Report of the international expert  
1747 group meeting on extractive industries, Indigenous Peoples' rights and corporate social  
1748 responsibility, 2009.  
1749 143. United Nations Department of Economic and Social Affairs (UN DESA), Indigenous Peoples,  
1750 Climate Change, [un.org/development/desa/indigenouspeoples/climate-change.html](http://un.org/development/desa/indigenouspeoples/climate-change.html), accessed  
1751 on 5 April 2021.  
1752 144. United Nations Human Rights Council (HRC), *Report of the Special Rapporteur on the rights*  
1753 *of indigenous peoples, James Anaya - Extractive industries and indigenous peoples*, 2013.

#### 1754 Further resources

1755 The following resources may help organizations in the coal sector report on this topic:

- 1756 145. International Finance Corporation (IFC), *Performance Standard 7: Indigenous Peoples*, 2012.  
1757 146. International Council on Mining & Metal (ICMM), *Indigenous peoples and mining good*  
1758 *practice guide*, 2015.

## 1759 Conflict and security

#### 1760 Authoritative instruments

- 1761 147. European Union (EU) and UN Interagency Framework Team for Preventive Action, *Toolkit*  
1762 *and Guidance for Preventing and Managing Land and Natural Resources Conflict: Extractive*  
1763 *Industries and Conflict*, 2012.  
1764 148. Office of the High Commissioner for Human Rights (OHCHR), *Basic Principles on the Use of*  
1765 *Force and Firearms by Law Enforcement Officials*, 1990.  
1766 149. Office of the High Commissioner for Human Rights (OHCHR), *Code of Conduct for Law*  
1767 *Enforcement Officials*, 1979.  
1768 150. Voluntary Principles on Security and Human Rights, *The Voluntary Principles on Security and*  
1769 *Human Rights*, 2000.

#### 1770 Other sources

- 1771 151. Institute for Human Rights and Business (IHRB), *From Red to Green Flags: The Corporate*  
1772 *Responsibility to Respect Human Rights in High-Risk Countries*, 2011.  
1773 152. K. Neu, and D. Avant, *Overview of the relationship between PMSCs and extractive industry*  
1774 *companies from the Private Security Events Database*, 2019.  
1775 153. Office of the High Commissioner for Human Rights (OHCHR), 'Call for submissions: the  
1776 relationship between private military and security companies and extractive industry  
1777 companies from a human rights perspective in law and practice',  
1778 [ohchr.org/EN/Issues/Mercenaries/WGMercenaries/Pages/CallforsubmissionesPrivateMilitaryS](http://ohchr.org/EN/Issues/Mercenaries/WGMercenaries/Pages/CallforsubmissionesPrivateMilitarySecurity.aspx)  
1779 [ecurity.aspx](http://ohchr.org/EN/Issues/Mercenaries/WGMercenaries/Pages/CallforsubmissionesPrivateMilitarySecurity.aspx), accessed on 5 April 2021.  
1780 154. Office of the High Commissioner for Human Rights (OHCHR), *Private military and security*  
1781 *companies in extractive industries – impact on human rights*, 2017.  
1782 155. United Nations Environmental Programme (UNEP), *From Conflict to Peacebuilding: The Role*  
1783 *of Natural Resources and the Environment*, 2009.

#### 1784 Further resources

1785 The following resources may help organizations in the coal sector report on this topic:

- 1786 156. International Alert, *Human Rights Due Diligence in Conflict-Affected Settings: Guidance for*  
1787 *Extractive Industries*, 2018.

- 1788 157. International Council on Mining & Metals (ICMM), International Committee of the Red Cross  
1789 (ICRC), International Finance Corporation (IFC), and IPIECA, *Voluntary Principles on Security*  
1790 *and Human Rights: Implementation Guidance Tools*, 2011.

## 1791 **Asset integrity and critical incident management**

### 1792 **Other sources**

- 1793 158. R. Sullivan, D. Russell, et al., *Managing the Unavoidable: investment implications of a*  
1794 *changing climate*, 2009.  
1795 159. Business for Social Responsibility, *Adapting to Climate Change: A Guide for the Mining*  
1796 *Industry*, 2011.  
1797 160. C. Roche, K. Thygesen, K., E. Baker, E. (Eds.), United Nations Environment Programme  
1798 (UNEP), *Mine Tailings Storage: Safety Is No Accident. A UNEP Rapid Response Assessment*,  
1799 2017.

### 1800 **Further resources**

1801 For additional reporting support, organizations can consult the following resources:

- 1802 161. International Council on Mining & Metals (ICMM), United Nations Environment Programme  
1803 (UNEP), Principles for Responsible Investment (PRI), *Global Industry Standard on Tailings*  
1804 *Management*, 2020.  
1805 162. International Council on Mining & Metals (ICMM), *Health and safety critical control*  
1806 *management*, 2015.  
1807 163. International Council on Mining & Metals (ICMM), United Nations Environment Programme  
1808 (UNEP), *Good practice in emergency preparedness and response*, 2005.  
1809 164. Organisation for Economic Co-operation and Development (OECD), *Guidance on Developing*  
1810 *Safety Performance Indicators Related to Chemical Accident Prevention, Preparedness and*  
1811 *Response for Industry*, 2008.  
1812 165. UK Health and Safety Executive, *Step-By-Step Guide to Developing Process Safety*  
1813 *Performance Indicators*, 2006.

## 1814 **Occupational health and safety**

### 1815 **Authoritative instruments**

- 1816 166. International Labour Organization (ILO) Convention 176, 'Safety and Health in Mines  
1817 Conventio'n, 1995.

### 1818 **Other sources**

- 1819 167. Center for Disease Control and Prevention (CDC), The National Institute for Occupational  
1820 Health and Safety (NIOSH), Mining Topic: Respiratory Diseases,  
1821 [cdc.gov/niosh/mining/topics/RespiratoryDiseases.html](https://www.cdc.gov/niosh/mining/topics/RespiratoryDiseases.html), accessed 30 October 2020  
1822 168. Health and Safety Executive (HSE), Heat stress, [hse.gov.uk/temperature/heatstress](https://www.hse.gov.uk/temperature/heatstress),  
1823 accessed on 5 April 2021.  
1824 169. International Labour Organization (ILO), *Working towards sustainable development:*  
1825 *Opportunities for decent work and social inclusion in a green economy*, 2012.  
1826 170. Occupational Safety and Health Administration (OSHA) US Department of Labor, Silica,  
1827 Crystalline: Health Effects, [osha.gov/dsg/topics/silicacrystalline/health\\_effects\\_silica.html](https://www.osha.gov/dsg/topics/silicacrystalline/health_effects_silica.html),  
1828 accessed on 5 April 2021.  
1829 171. Occupational Safety and Health Administration (OSHA) US Department of Labor, Hydrogen  
1830 Sulfide: Hazards, [osha.gov/SLTC/hydrogensulfide/hazards.html](https://www.osha.gov/SLTC/hydrogensulfide/hazards.html), accessed on 5 April 2021.  
1831 172. The Advocates for Human Rights, *Promoting Gender Diversity and Inclusion in the Oil, Gas*  
1832 *and Mining Extractive Industries: A Women's Human Rights Report*, 2019.  
1833 173. World Nuclear Association, Naturally-Occurring Radioactive Materials, 2019, [world-](https://www.world-nuclear.org/information-library/safety-and-security/radiation-and-health/naturally-occurring-radioactive-materials-norm.aspx)  
1834 [nuclear.org/information-library/safety-and-security/radiation-and-health/naturally-occurring-](https://www.world-nuclear.org/information-library/safety-and-security/radiation-and-health/naturally-occurring-radioactive-materials-norm.aspx)  
1835 [radioactive-materials-norm.aspx](https://www.world-nuclear.org/information-library/safety-and-security/radiation-and-health/naturally-occurring-radioactive-materials-norm.aspx), accessed on 5 April 2021.

### 1836 **Further resources**

1837 The following resources may help organizations in the coal sector report on this topic:

- 1838 174. International Labour Organization (ILO) Code of Practice: Safety and health in underground  
1839 coalmines, 2009.  
1840 175. International Council on Mining & Metals (ICMM), *Good practice guidance on occupational health*  
1841 *risk assessment*, 2016.  
1842 176. International Council on Mining & Metals (ICMM), *Overview of leading indicators for occupational*  
1843 *health and safety in mining*, 2012.

## 1844 **Employment practices**

### 1845 **Authoritative instruments**

- 1846 177. Organisation for Economic Co-operation and Development (OECD), *Due Diligence Guidance*  
1847 *for Meaningful Stakeholder Engagement in the Extractives Sector*, 2015.

### 1848 **Other sources**

- 1849 178. International Labour Organization (ILO), Mining (coal; other mining) sector,  
1850 [ilo.org/global/industries-and-sectors/mining/lang--en/index.htm](http://ilo.org/global/industries-and-sectors/mining/lang--en/index.htm), accessed on 5 April 2021.

## 1851 **Child labor**

### 1852 **Authoritative instruments**

- 1853 179. International Labour Organization (ILO) and International Organisation of Employers (IOE),  
1854 *How to do business with respect for children's right to be free from child labour: ILO-IOE child*  
1855 *labour guidance tool for business*, 2015.

- 1856 180. International Labour Organization (ILO) Convention 138, 'Minimum Age Convention', 1973.

- 1857 181. International Labour Organization (ILO) Convention 182, 'Worst Forms of Child Labour  
1858 Convention', 1999.

- 1859 182. United Nations (UN) Convention, 'Convention on the Rights of the Child', 1989.

### 1860 **Other sources**

- 1861 183. International Labour Organisation, *Global Estimates of Child Labour – Results and Trends*  
1862 *2012-2016*, 2017.

- 1863 184. International Labor Organization (ILO), Mining and quarrying.  
1864 <https://www.ilo.org/ipecc/areas/Miningandquarrying/lang--en/index.htm>, accessed on 5 April  
1865 2021.

- 1866 185. Organisation for Economic Co-operation and Development (OECD), *Practical actions for*  
1867 *companies to identify and address the worst forms of child labour in mineral supply chains*,  
1868 2017.

- 1869 186. UNICEF, *Children's rights and the mining sector: UNICEF extractive pilot*, 2015;

- 1870 187. United States (U.S.) Department of Labor, *2018 List of Goods Produced by Child Labor or*  
1871 *Forced Labor*, 2018.

- 1872 188. United States Department of Labor, *2020 List of Goods Produced by Child Labor or Forced*  
1873 *Labor*, 2020

## 1874 **Forced labor and modern slavery**

### 1875 **Authoritative instruments**

- 1876 189. International Labour Organization (ILO) Convention 29, 'Forced Labour Convention', 1930.

### 1877 **Other sources**

- 1878 190. M. Coderre-Proulx, B. Campbell, I Mandé, and International Labour Organization (ILO),  
1879 *International migrant workers in the mining sector*, 2016.

- 1880 191. International Transport Workers' Federation (ITF), BHP ignores pleas to help starving crew,  
1881 [itfglobal.org/en/news/bhp-ignores-pleas-help-starving-crew](http://itfglobal.org/en/news/bhp-ignores-pleas-help-starving-crew), accessed 5 April 2021.

- 1882 192. International Transport Workers' Federation (ITF), Bulk carrier detained in Australia, crew  
 1883 owed \$64,000, [https://www.itfglobal.org/en/news/bulk-carrier-detained-in-australia-crew-owed-](https://www.itfglobal.org/en/news/bulk-carrier-detained-in-australia-crew-owed-64000)  
 1884 64000, accessed on 5 April 2021.
- 1885 193. Global Slavery Index, 'Global Findings', *Global Slavery Index 2018*, chapter 3,  
 1886 [globalslaveryindex.org/resources/downloads](http://globalslaveryindex.org/resources/downloads).
- 1887 194. Global Reporting Initiative (GRI), Responsible Labor Initiative, *Advancing modern slavery*  
 1888 *reporting to meet stakeholder expectations*, 2019.
- 1889 195. International Council for Mining and Metals (ICMM), Tackling modern slavery in the mining  
 1890 supply chain, [icmm.com/en-gb/case-studies/action-against-modern-slavery](http://icmm.com/en-gb/case-studies/action-against-modern-slavery), accessed on 5  
 1891 April 2021.
- 1892 196. International Labour Organization (ILO) and Walk Free Foundation, *Global estimates of*  
 1893 *modern slavery: forced labour and forced marriage*, 2017.
- 1894 197. International Transport Workers' Federation (ITF), 'ITF and Malaviya Seven crew dismayed  
 1895 by delay', 2017, [itfglobal.org/en/news/itf-and-malaviya-seven-crew-dismayed-delay](https://www.itfglobal.org/en/news/itf-and-malaviya-seven-crew-dismayed-delay), accessed  
 1896 on 5 April 2021.
- 1897 198. National Union of Rail, Maritime and Transport Workers (RMT), 'Modern day slavery charge  
 1898 made by RMT', 2016, [rmt.org.uk/news/modern-day-slavery-charge-made-by-rmt](http://rmt.org.uk/news/modern-day-slavery-charge-made-by-rmt), accessed on  
 1899 5 April 2021.
- 1900 199. United States Department of Labor, *2020 List of Goods Produced by Child Labor or Forced*  
 1901 *Labor*, 2020

## 1902 Diversity and non-discrimination

### 1903 Other sources

- 1904 200. J. Soper, 'Ghanaian Workers Fight Pay Discrimination', 2015,  
 1905 [pulitzercenter.org/reporting/ghanaian-workers-fight-pay-discrimination](http://pulitzercenter.org/reporting/ghanaian-workers-fight-pay-discrimination), accessed on 31 May  
 1906 2020.
- 1907 201. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights  
 1908 Guidance Tool for the Financial Sector, Mining and Metals,  
 1909 [unepfi.org/humanrightstoolkit/mining.php](http://unepfi.org/humanrightstoolkit/mining.php), accessed on 5 April 2021.
- 1910 202. The Advocates for Human Rights: *Promoting Gender Diversity and Inclusion in the Oil, Gas,*  
 1911 *and Mining Extractive Industries*, 2019.

## 1912 Freedom of association and collective bargaining

### 1913 Authoritative instruments

- 1914 203. International Labour Organization (ILO), *386th Report of the Committee on Freedom of*  
 1915 *Association*, 2018.

### 1916 Other sources

- 1917 204. International Trade Union Confederation (ITUC), *2016 ITUC Global Rights Index: The World's*  
 1918 *Worst Countries for Workers*, 2016.
- 1919 205. International Trade Union Confederation (ITUC), Saudi Arabia bans trade unions and violates  
 1920 all international labour standards, 2012, [ituc-csi.org/saudi-arabia-bans-trade-unions-and](http://ituc-csi.org/saudi-arabia-bans-trade-unions-and),  
 1921 accessed on 5 April 2021.

## 1922 Anti-corruption

### 1923 Authoritative instruments

- 1924 206. Organisation for Economic Co-operation and Development (OECD), *Convention on*  
 1925 *Combating Bribery of Foreign Public Officials in International Business Transactions and*  
 1926 *Related Documents*, 1997.

### 1927 Other sources

- 1928 207. Extractives Industry Transparency Initiative (EITI), Factsheet: Disclosing beneficial ownership,  
 1929 2017.
- 1930 208. FATF, *FATF guidance: Politically exposed persons (recommendations 12 and 22)*, 2013.

- 1931 209. International Monetary Fund, *Fiscal Transparency Initiative: Integration of Natural Resource*  
 1932 *Management Issues*, 2019.
- 1933 210. Organisation for Economic Co-operation and Development (OECD), *Corruption in the*  
 1934 *Extractive Value Chain: Typology of Risks, Mitigation Measures and Incentives*, 2016.
- 1935 211. A. Sayne, A. Gillies, and A. Watkins, *Twelve Red Flags: Corruption Risks in the Award of*  
 1936 *Extractive Sector Licenses and Contracts*, 2017.
- 1937 212. Transparency International, *Corruption Perceptions Index 2018*, 2018.
- 1938 213. E. Westenberg and A. Sayne, *Beneficial Ownership Screening: Practical Measures to Reduce*  
 1939 *Corruption Risks in Extractives Licensing*, 2018.
- 1940 214. A. Williams and K. Dupuy, *Deciding over nature: Corruption and environmental impact*  
 1941 *assessments*, 2016.

#### 1942 **Further resources**

1943 The following resource may help organizations in the coal sector report on this topic:

- 1944 215. Extractives Industry Transparency Initiative (EITI), *The EITI Standard*, 2019.

### 1945 **Payments to governments**

#### 1946 **Authoritative instruments**

- 1947 216. European Parliament, 'Directive 2013/34/EU of the European Parliament and the Council of  
 1948 26 June 2013 on the annual financial statements, consolidated financial statements and  
 1949 related reports of certain types of undertakings', 2013.
- 1950 217. Organisation for Economic Co-operation and Development (OECD), *Transfer Pricing*  
 1951 *Documentation and Country-by-Country Reporting, Action 13 - 2015 Final Report*, OECD/G20  
 1952 Base Erosion and Profit Shifting Project, 2015.

#### 1953 **Other sources**

- 1954 218. Extractive Industries Transparency Initiative (EITI), Fact sheet: Project-level reporting in the  
 1955 extractive industries, 2018.
- 1956 219. Extractive Industries Transparency Initiative, *Transparency in the First Trade*, 2019.
- 1957 220. Extractive Industries Transparency Initiative (EITI), *Nigeria EITI: Making transparency count,*  
 1958 *uncovering billions*, 2012.
- 1959 221. S. Whitley et al., and Overseas Development Institute (ODI), 'Cutting Europe's Lifelines to  
 1960 Coal: Tracking Subsidies in 10 Countries', 2017, [odi.org/publications/10788-cutting-europes-](http://odi.org/publications/10788-cutting-europes-lifelines-coal-tracking-subsidies-10-countries)  
 1961 [lifelines-coal-tracking-subsidies-10-countries](http://odi.org/publications/10788-cutting-europes-lifelines-coal-tracking-subsidies-10-countries).
- 1962 222. A. Sayne, A. Gillies, and A. Watkins, *Twelve Red Flags: Corruption Risks in the Award of*  
 1963 *Extractive Sector Licenses and Contracts*, 2017.
- 1964 223. Transparency International, *Under the Surface: Looking into Payments by Oil, Gas and*  
 1965 *Mining Companies to Governments*, 2018.
- 1966 224. M. Blom and et al, "Subsidies and Costs of EU Energy," 2014.

#### 1967 **Further resources**

1968 The following resources may help organizations in the coal sector report on this topic:

- 1969 225. Extractives Industry Transparency Initiative (EITI), *The EITI Standard*, 2019.
- 1970 226. Organisation for Economic Co-operation and Development (OECD), *Upstream Oil, Gas, and*  
 1971 *Mining State-Owned Enterprises, Governance Challenges and the Role of International*  
 1972 *Reporting Standards in Improving Performance*, 2018.

### 1973 **Public policy and lobbying**

#### 1974 **Other sources**

- 1975 227. Australasian Centre for Corporate Responsibility (ACCR), *Politics – BHP*, 2017.
- 1976 228. Climate investigations, *Coal's Lonely Lobbyists*, 2016, [climateinvestigations.org/coal-lobby/](http://climateinvestigations.org/coal-lobby/),  
 1977 accessed on 5 April 2021.
- 1978 229. D. Coady, I. Parry, et al., *Global Fossil Fuel Subsidies Remain Large: An Update Based on*  
 1979 *Country-Level Estimates*, 2019.

- 1980 230. N. Graham, S. Daub, and B. Carroll, *Mapping Political Influence: Political donations and*  
1981 *lobbying by the fossil fuel industry in BC*, 2017.
- 1982 231. European Parliament Directorate General for Internal Policies, *Fossil Fuel Subsidies*, 2017.
- 1983 232. InfluenceMap, *Climate Lobbying: How Companies Really Impact Progress on Climate*, 2018,  
1984 [influencemap.org/climate-lobbying](https://influencemap.org/climate-lobbying), accessed on 31 May 2020.
- 1985 233. InfluenceMap, *Trade association and climate: Shareholders make themselves heard*, 2018,  
1986 [influencemap.org/report/Trade-associations-and-climate-shareholders-make-themselves-](https://influencemap.org/report/Trade-associations-and-climate-shareholders-make-themselves-heard-cf9db75c0a4e25555fafb0d84a152c23)  
1987 [heard-cf9db75c0a4e25555fafb0d84a152c23](https://influencemap.org/report/Trade-associations-and-climate-shareholders-make-themselves-heard-cf9db75c0a4e25555fafb0d84a152c23), accessed on 5 April 2021.
- 1988 234. D. Koplow, C. Lin, et al., *Mapping the Characteristics of Producer Subsidies: A review of pilot*  
1989 *country studies*, 2010.
- 1990 235. Organisation for Economic Co-operation and Development (OECD) Anti-corruption & Integrity  
1991 Hub, *Lobbying*, [oecd.org/corruption-integrity/explore/topics/lobbying.html](https://oecd.org/corruption-integrity/explore/topics/lobbying.html).
- 1992 236. Competition Commission of India, *Case No. 60 of 2017*, 2017.

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