

Item 02 – GRI Sector Standard Project for Oil, Gas, and Coal – GRI tion of the 11: Oil and Gas Sector 2021

For GSSB approval

Date	11 June 2021
Meeting	1 July 2021
Project	Sector Standards Project for Oil, Gas, and Coal
Description	This document presents the final draft of <i>GRI 11: Oil and Gas Sector 2021</i> , for GSSB approval.
	A summary of the changes in the Standard compared to the exposure draft is presented in the explanatory note at the beginning of the document.
	This document reflects the final outcome and consensus of the Working Group deliberations.
	This document is complemented by the draft GSSB basis for conclusions (Item 03) which summarizes the significant issues raised by respondents during public comment and the GSSB responses to these, as well as a report summarizing the input relevant to GRI Topic Standards collected during the development of <i>GRI 11: Oil and Gas Sector 2021</i> (Item 04).
	Effective date
20Cl	As part of this approval, the GSSB is also asked to consider the proposed effective date of 1 January 2023 (see line 107). This effective date coincides with the effective date for the revised Universal Standards.
1018	

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.

Summary of key changes compared to the exposure draft

1 This section summarizes the key changes in *GRI 11: Oil and Gas Sector 2021*, compared to the 2 exposure draft. These changes were performed based on the advice of the Oil, Gas, and Coal 3 Working Group and in response to significant issues raised during the public comment period.

4 Scope of the Standard

5

6

7

14

15

16

17

18

19

24

25

26

27 28

29 30

31

33

34 35

36 37

38

40

• The scope of application of the *GRI 11: Oil and Gas Sector 2021* has been supplemented by a sector key, mapping the description of the sector to prominent sector classification systems. See line 180.

8 The sector and sustainable development

This section has been revised to include a more balanced description of the positive and
 negative contributions of the sector to sustainable development. It also now directly
 references the Paris Agreement and the Intergovernmental Panel on Climate Change (IPCC)
 report *Global Warming of 1.5 °C.* See lines 344-387.

13 S11.1 GHG emissions

- Disclosure 302-2 Energy consumption outside of the organization in *GRI 302: Energy 2016* has been added to the 'what to report' to enhance reporting on other indirect (Scope 3) GHG emissions.
 - Disclosure 305-5 Reduction of GHG emissions in *GRI 305: Emissions 2016* and the additional sector recommendations on goals and targets have been moved to the 'what to report' under Climate adaptation, resilience, and transition as it is considered more pertinent to that topic.

20 S11.2 Climate adaptation, resilience, and transition

- The title of the topic has been revised to Climate resilience, adaptation, and transition, in
 anticipation of the likely topic name for other sectors while still highlighting the key importance
 of the transition to a low-carbon economy for the oil and gas sector.
 - The topic includes a broader discussion on forecasts of oil and gas demand and a new inset box on scenario analysis, as a tool for assessing an organization's resilience to climate change related risks. See lines 512-526.
 - The reporting has been streamlined where duplication with existing GRI Standards reporting
 was detected. The additional sector recommendations have been clarified and Disclosure
 305-5 Reduction of GHG emissions and the recommendations on GHG emissions goals and
 targets, previously found under the topic of GHG emissions, have been moved to this topic to
 reinforce the coherence of the reporting.

32 S11.4 Biodiversity

- The additional sector recommendations related to Disclosure 3-3 Management of material topics now include recommendations on no net loss or net gain, as well as on the organization's commitments to preserve biodiversity.
 - The additional sector recommendations regarding the mitigation hierarchy and presented along Disclosure 304-3 Habitats protected or restored, have been clarified and now refer to offsets for improved completeness and coherence of the reporting.

39 S11.5 Waste

- The topic no longer refers to produced water, which is now discussed in water and effluents.
- The additional sector recommendation to provide a breakdown on the composition of waste has been adjusted to support reporting on waste streams that are significant for different organizations or activities within the sector. For consistency, this additional sector recommendation has been included to all relevant disclosures for this topic: Disclosure 306-3 Waste generated, Disclosure 306-4 Waste diverted from disposal, Disclosure 306-5 Waste directed to disposal.



48	S11.6 Water and effluents
49 50	 The topic further details environmental impacts and management options for produced water. See lines 702-708
51 52	 Other 'wastewaters' are now described and included in the 'what to report' to address other types of offluents expecifie to partoin oil and and exceptions.
52 52	The additional sector recommendation on produced water and on the amount of
53 54	 The additional sector recommendation on produced water and on the amount of hydrocarbons discharged have been revised for completeness.
55	S11.7 Closure and rehabilitation
56 57	The title of this topic has been revised to Closure and rehabilitation in anticipation of the likely topic name for other sectors
58 50	 The topic discusses offshore decommissioning in more detail and emphasizes the complexity of such operations and of the related regulatory landscape. See lines 750-761
60 61	 An additional sector disclosure on offshore structures left in place and the rationale supporting these decisions has been added to the reporting.
60	S11.9. Accest integrity and exitical incident management
62 62	S11.8 Asset Integrity and critical incident management
63 64	 The title of this topic has been revised to Asset integrity and childran incident management in anticipation of the likely topic name for other sectors.
65 66	 An inset box on failings from oil sands mining and related asset integrity risks has been added.
67 68	 Reporting relevant to organizations active in oil sand mining have been grouped and are now listed as additional sector disclosures.
69	S11.11 Non-discrimination and equal opportunity
70 71	• The title of this topic has been revised to Non-discrimination and equal opportunity to enhance alignment with <i>GRI 405: Diversity and Equal Opportunity 2016</i> and <i>GRI 406: Non-</i>
72	discrimination 2016.
73 74	 Disclosure 401-3 Parental leave has been added to the 'what to report' while Disclosure 202- 1 Ratios of standard entry level wage by gender compared to local minimum wage has been
75	excluded. These revisions were performed for more accuracy.
76	S11.14 Economic impacts
77 78	 Disclosure 202-1 Ratios of standard entry level wage by gender compared to local minimum wage has been excluded from the reporting as it was identified as not relevant for the sector.
79 80	S11.15 Local communities, S11.16 Land and resource rights and S11.17 Rights of indigenous people
81 82	 Additional sector recommendations have been linked to Disclosure 3-3 Management of material topics to describe the organization's engagement approach with vulnerable groups.
83	S11.16 Land and resource rights
84 85	 The title of this topic has been revised to Land and resource rights in anticipation of the likely topic name for other sectors
86 97	 Disclosures from <i>GRI 413: Local Communities 2016</i> have been removed from the 'what to report'. The additional pactor recommandations provide the <i>CRI 413</i> disclosures have
88 89	been preserved and are now presented as additional sector disclosures or recommendations linked to Disclosure 3-3 Management of material topics.
90	S11.17 Rights of indigenous people
91	• The disclosures from <i>GRI</i> 413: Local Communities 2016 have been removed from the 'what
92	to report'. The additional sector recommendations have been preserved and are now
93 94	presented as additional sector disclosures or recommendations linked to Disclosure 3-3 Management of material topics.
95	S11.20 Anti-corruption

• The topic further details the risks related to procurement. See lines 1388-1391.



96

Additional sector recommendations on procurement practices and whistleblowing
 mechanisms have been added to Disclosure 3-3 Management of material topics to meet
 stakeholder expectations.

100 S11.21 Payments to governments

102

103

- The additional sector disclosure on (non-corporate income tax) payments to governments has
 - been clarified and placed as an additional sector recommendation to Disclosure 207-4 This document does not represent an official position of the cases Country-by-country reporting.

GSSB

¹⁰⁴ **GRI 11: Oil and Gas Sector 2021**

105 SECTOR STANDARD

106 Effective date

107 This Standard is effective for reports or other materials published on or after 1 January 2023. Earlier 108 adoption is encouraged.

109 Responsibility

- 110 This Standard is issued by the Global Sustainability Standards Board (GSSB). Any feedback on the
- 111 GRI Standards can be submitted to TBD@globalreporting.org for the consideration of the GSSB.

112 Due process

- 113 This Standard was developed in the public interest and in accordance with the requirements of the
- 114 GSSB Due Process Protocol. It has been developed using multi-stakeholder expertise, and with
- 115 regard to authoritative intergovernmental instruments and widely held expectations of organizations
- relating to social, environmental, and economic responsibilities.

117 Legal liability

- 118 This document, designed to promote sustainability reporting, has been developed by the Global
- 119 Sustainability Standards Board (GSSB) through a unique multi-stakeholder consultative process
- 120 involving representatives from organizations and report information users from around the world.
- 121 While the GRI Board of Directors and GSSB encourage use of the GRI Sustainability Reporting
- Standards (GRI Standards) and related Interpretations by all organizations, the preparation and publication of reports based fully or partially on the GRI Standards and related Interpretations are the
- publication of reports based fully or partially on the GRI Standards and related Interpretations are the
 full responsibility of those producing them. Neither the GRI Board of Directors, GSSB nor Stichting
- 125 Global Reporting Initiative (GRI) can assume responsibility for any consequences or damages
- resulting directly or indirectly from the use of the GRI Standards and related Interpretations in the
- 127 preparation of reports, or the use of reports based on the GRI Standards and related Interpretations.

128 Copyright and trademark notice

129 This document is copyright-protected by Stichting Global Reporting Initiative (GRI). The reproduction

and distribution of this document for information and/or use in preparing a sustainability report is

- permitted without prior permission from GRI. However, neither this document nor any extract from it
 may be reproduced, stored, translated, or transferred in any form or by any means (electronic,
- may be reproduced, stored, translated, or translated in any form of by any means (electronic,
 mechanical, photocopied, recorded, or otherwise) for any other purpose without prior written
- 133 mechanical, protocopied, recorded, or otherwise) for any other purpose without prior w134 permission from GRI.
- Global Reporting Initiative, GRI and logo, GSSB and logo, and GRI Sustainability Reporting
 Standards (GRI Standards) and logo are trademarks of Stichting Global Reporting Initiative.
- 137 © 2021 GRI. All rights reserved.

138 ISBN [<mark>978-90-8866-NNN-N</mark>]



Contents

GRI 11: Oil and Gas Sector 2021	1
Introduction	7
Sector this Standard applies to	8
System of GRI Standards	10
Using this Standard	11
1. Sector profile	14
Sector activities and business relationships	14
The sector and sustainable development	15
2. Likely material topics	19
S11.1 GHG emissions	19
S11.2 Climate adaptation, resilience and transition	22
S11.3 Air emissions	26
S11.4 Biodiversity	28
S11.5 Waste	30
S11.6 Water and effluents	32
S11.7 Closure and rehabilitation	34
S11.8 Asset integrity and critical incident management	36
S11.9 Occupational Health and Safety	38
S11.10 Employment practices	40
S11.11 Non-discrimination and equal opportunity	42
S11.12 Forced labor and modern slavery	44
S11.13 Freedom of association and collective bargaining	46
S11.14 Economic impacts	48
S11.15 Local communities	50
S11.16 Land and resource rights	53
S11.17 Rights of indigenous peoples	55
S11.18 Conflict and security	57
S11.19 Anti-competitive behavior	59
S11.20 Anti-corruption	60
S11.21 Payments to governments	63
S11.22 Public policy	66
Glossary	68
Bibliography	69



Introduction

GRI 11: Oil and Gas Sector 2021 provides information for organizations in the oil and gas sector
 about their likely <u>material topics</u>. These topics are likely to be material for organizations in the oil and
 gas sector on the basis of the sector's most significant <u>impacts</u> on the economy, environment, and
 people, including impacts on their <u>human rights</u>.

143 *GRI 11* also contains a list of disclosures for organizations in the oil and gas sector to report in 144 relation to each likely material topic. This includes disclosures from the GRI Topic Standards and

- 145 other sources.
- 146 The Standard is structured as follows:
- Section 1 provides a high-level overview of the sector, including its activities, <u>business</u>
 relationships, context, and the connections between the United Nations Sustainable Development
 Goals (SDGs) and the likely material topics for the sector.
- Section 2 outlines the topics that are likely to be material for organizations in the oil and gas
 sector and therefore potentially merit reporting. For each likely material topic, the sector's most
 significant impacts are described and disclosures to report information about the organization's
 impacts in relation to the topic are listed.
- The Glossary contains defined terms with a specific meaning when used in the GRI Standards.
 The terms are <u>underlined</u> in the text and linked to the definitions.
- The Bibliography contains authoritative intergovernmental instruments and additional references
 used in developing this Standard, listed by topic. It also lists further resources that can be
 consulted by the organization.
- 159 The rest of the Introduction section provides an overview of the sector this Standard applies to, an overview of the system of GRI Standards, and further information on using this Standard.



161 Sector this Standard applies to

- 162 *GRI 11* applies to organizations undertaking any of the following:
- Exploration and production of onshore and offshore oil and gas.
- Supply of equipment and services to oil fields and offshore platforms, such as drilling, exploration, seismic information services and platform construction.
- Transportation and storage of oil and gas, such as oil and gas pipeline operators.
- Refining of oil into petroleum products for use as fuels and as feedstocks for chemicals.
- 168 This Standard can be used by any organization in the oil and gas sector, regardless of size, type, 169 geographic location, or reporting experience.
- The organization must use all applicable Sector Standards for the sectors in which it has substantialactivities.

172 Sector classifications

- 173 Table 1 lists industry groupings relevant to the oil and gas sector covered in this Standard in the
- 174 Global Industry Classification Standard (GICS®) [3], the Industry Classification Benchmark (ICB) [4],
- the International Standard Industrial Classification of All Economic Activities (ISIC) [5], and the
- 176 Sustainable Industry Classification System (SICS®) [6].¹ The table is intended to assist an 177 organization in identifying whether *GRI 11* applies to it and is for reference only.
- organization in identifying whether GRTTT applies to it and is for reference only.

178 Table 1. Industry groupings relevant to the oil and gas sector in other classification systems

Classification system	Classification number	Classification name
GICS®	10101010	Oil & Gas Drilling
	10101020	Oil & Gas Equipment & Services
	10102010	Integrated Oil & Gas
	10102020	Oil & Gas Exploration & Production
	10102030	Oil & Gas Refining & Marketing
	10102040	Oil & Gas Storage & Transportation
ICB	60101000	Integrated Oil & Gas
	60101010	Oil: Crude Producers
	60101015	Offshore Drilling & Other Services
	60101020	Oil Refining and Marketing
	60101030	Oil Equipment & Services
	60101035	Pipelines
ISIC	B6	Extraction of crude petroleum and natural gas
	B91	Support activities for petroleum and natural gas extraction

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



	C192	Manufacture of refined petroleum products
SICS®	EM-EP	Oil & Gas – Exploration & Production
	EM-MD	Oil & Gas – Midstream
	EM-RM	Oil & Gas – Refining & Marketing
	EM-SV	Oil & Gas – Services

This document does not represent an official position of the cases



System of GRI Standards

180 This Standard is part of the GRI Sustainability Reporting Standards (GRI Standards). The GRI

- 181 Standards enable an organization to report information about its most significant <u>impacts</u> on the economy, environment, and people, including impacts on their <u>human rights</u>, and how it manages
- 183 these impacts.
- 184 The GRI Standards are structured as a system of interrelated standards that are organized into three
- 185 series: GRI Universal Standards, GRI Sector Standards, and GRI Topic Standards (see Figure 1 in 186 this Standard).

187 Universal Standards: GRI 1, GRI 2 and GRI 3

- *GRI 1: Foundation 2021* specifies the requirements that an organization must comply with to report in
 accordance with the GRI Standards. The organization begins using the GRI Standards by consulting
 GRI 1.
- 191 GRI 2: General Disclosures 2021 contains disclosures that an organization uses to provide
- 192 information about its reporting practices and other organizational details, such as its activities,
- 193 governance, and policies.
- 194 *GRI 3: Material Topics 2021* provides guidance on how to determine <u>material topics</u>. It also contains
 195 disclosures that an organization uses to report information about its process of determining material
 196 topics, its list of material topics, and how it manages each topic.

197 Sector Standards

198 The Sector Standards provide information for organizations about their likely material topics. An 199 organization uses the Sector Standards that apply to its sectors when determining its material topics 200 and when determining what to report for each material topic.

201 Topic Standards

- 202 The Topic Standards contain disclosures that organizations use to report information about their
- 203 impacts in relation to particular topics. An organization uses the Topic Standards according to the list
- 204 of material topics it has determined using GRI 3.

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





206 Using this Standard

An organization in the oil and gas sector reporting in accordance with the GRI Standards is required to use this Standard first when determining its <u>material topics</u> and then again when determining what information to report for the material topics.

210 **Determining material topics**

211 Material topics are topics that represent an organization's most significant <u>impacts</u> on the economy, 212 environment, and people, including their <u>human rights</u>.

Section 1 of this Standard provides contextual information that can assist the organization in
 identifying and assessing its impacts.

Section 2 outlines the topics that are likely to be material for organizations in the oil and gas sector.
 The organization is required to review each topic described and determine whether it is a material
 topic for it.

218 The organization needs to use this Standard when determining its material topics. However,

219 circumstances for each organization vary, and the organization needs to determine its material topics

according to its specific circumstances, such as its business model; sectors; geographic, cultural, and

legal operating context; ownership structure; and the nature of its impacts. (See GRI 3: Material

222 *Topics 2021* for step-by-step guidance on how to determine material topics.)

223 Because of this, not all topics listed in this Standard may be material for all organizations in the oil and

gas sector. If any of the topics that are included in this Standard have been determined by the

organization as not material, the organization is required to list them in the GRI content index and explain why they are not material.

227 See Requirement 3 in *GRI 1: Foundation 2021* and Box 5 in *GRI 3* for more information on using 228 Sector Standards to determine material topics.

229 **Determining what to report**

For each material topic, an organization reports information about its impacts in relation to the topic and how it manages these impacts.

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

For each topic in section 2 of this Standard, a what to report sub-section is included. What to report sub-sections list disclosures from the GRI Topic Standards that are relevant to the topic. They may also list additional sector disclosures and recommendations for the organization to report. This is

238 done in cases where the Topic Standards do not provide disclosures, or where the disclosures from

the Topic Standards do not provide sufficient information about the organization's impacts in relation

to a topic. These additional sector disclosures and recommendations may be based on other sources.
 Figure 2 illustrates how what to report sub-sections are structured.

242 The organization is required to report the disclosures from the Topic Standards listed in what to report

sub-sections for those topics it has determined to be material. If any of the Topic Standards

disclosures listed are not relevant to the organization's impacts, the organization is not required to report them. However, the organization is required to list these disclosures in the GRI content index

and provide 'not applicable' as the reason for omission for not reporting the disclosures. See

247 Requirement 6 in *GRI 1: Foundation 2021* for more information on reasons for omission.

The additional sector disclosures and recommendations outline further information which has been identified as relevant for organizations in the oil and gas sector to report in relation to a topic. The

organization should provide sufficient information about its impacts in relation to each material topic,

- so that information users can make informed assessments and decisions about the organization. For
- this reason, reporting these additional sector disclosures and recommendations is encouraged,
- 253 however it is not a requirement.



- When the organization reports additional sector disclosures, it is required to list them in the GRI content index (see Requirement 7 in *GRI 1: Foundation 2021*).
- 256 If the organization reports information that applies to more than one material topic, it does not need to 257 repeat this information for each topic. The organization can report this information once, with a clear 258 explanation of all the topics it covers.
- 259 If the organization intends to publish a standalone sustainability report, it does not need to repeat
- 260 information that it has already reported publicly elsewhere, such as on web pages or in its annual
- report. In such a case, the organization can report on a required disclosure by providing a reference in
- the GRI content index as to where this information can be found (e.g., by providing a link to the web
- 263 page or citing the page in the annual report where the information has been published).
- 264 See Requirement 5 in *GRI 1* for more information on using Sector Standards to report disclosures.

265 **GRI Sector Standard reference numbers**

266 GRI Sector Standard reference numbers are included for all disclosures listed in this Standard, both

those from GRI Standards and additional sector disclosures. When listing the disclosures from this

Standard in the GRI content index, the organization is required to include the associated GRI Sector Standard reference numbers (see Requirement 7 in *GRI 1: Foundation 2021*). This identifier helps

209 Standard reference numbers (see Requirement 7 in GRT . Foundation 2027). This identifier help 270 information users assess which of the disclosures listed in the applicable Sector Standards are

included in the organization's reporting.

272 **Defined terms**

273 Defined terms are <u>underlined</u> in the text of the GRI Standards and linked to their definitions in the 274 Glossary. The organization is required to apply the definitions in the Glossary.

275 **References and resources**

276 The authoritative intergovernmental instruments and additional references used in developing this

277 Standard, as well as further resources that may be helpful for reporting on likely material topics and

278 can be consulted by the organization are listed in the Bibliography. These complement the references

279 and resources listed in *GRI 3: Material Topics 2021* and in the GRI Topic Standards.



280 Figure 2. Structure of what to report sub-sections

Management of the topic	GRI Standard	Disclosure	Additional sector recommendations	GRI 5 Sector Standard ref. no.
The organization is required to report	Management of the top	ic		
now it manages each material topic using Disclosure 3-3 in <i>GRI 3: Material</i>	GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics		S11.7.1
Topics 2021.	2 Topic Standards disclos	sures		
2 Topic Standards disclosures	GRI 402: Labor/Management Relations 2016	Disclosure 402-1 Minimum notice periods regarding operational changes	Describe the approach to engaging workers in advance of significant operational changes	S11.7.2
Disclosures from the GRI Topic Standards that have been identified as relevant for organizations in the sector(s) are listed here. When the	GRI 404: Training and Education 2016	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs		S11.7.3
organization has determined a topic to	4 Additional sector disclo	sures		
be material, it is required to report those disclosures or explain why they are not applicable in the GRI context index.	List the fields and facilit o have closure an o have been clos o are in the proce	ies that: Id rehabilitation plans in place; ed; ess of being closed.		S11.7.4
See the Topic Standard for the content	List the decommissione place.	d structures left in place and de	escribe the rationale for leaving them in	S11.7.5
of the disclosure, including requirements and guidance.	Report the total moneta organization, including	ry value of financial provisions post-closure monitoring and aft	for closure and rehabilitation made by the tercare for fields and facilities.	S11.7.6
3 Additional sector recommendations	4 Additional	sector disclosures	5 GRI Sector Standa	rd
be listed. These complement Topic Standards disclosures and are recommended for an organization in the sector(s).	listed. Reporting the any GRI disclosure the organization re	ports sufficient	include GRI Sector Standa reference numbers in the 0 index.	ard GRI content
	otrepre	ent		
ocumentaloes				



1. Sector profile

Oil and gas are non-renewable natural resources, used by humans for thousands of years and with particular intensity during the last two centuries. The oil and gas sector is a large global industry producing fuel for transportation and for energy generation, as well as raw materials for chemical products and polymers. The outputs of the sector are also used in construction, clothing, fertilizers and insecticides, medical and electronic equipment, and a range of everyday objects. The combustion of oil and gas generates air emissions, including greenhouse gases (GHGs), which are the main contributor to climate change.

The oil and gas sector comprises organizations of different sizes and ownership status. State-owned oil and gas enterprises are present in most oil and gas resource-rich countries, representing some of the largest organizations in the sector. Privately held oil and gas organizations are also important and are, in general, vertically integrated and operate internationally. Medium-sized organizations may operate in specific regions or countries, or deliver products, services and technology, such as surveying of resources, drilling, design, planning, and construction, to exploration and production organizations.

296 Sector activities and business relationships

When determining its <u>material topics</u>, the organization should consider the <u>impacts</u> of both its activities and its <u>business relationships</u>.

299 Activities

- The impacts of an organization vary according to the types of activities it undertakes. The following list outlines some of the key activities of the oil and gas sector. This list is not exhaustive.
- 302 Exploration: Surveying of resources, including aerial surveys, seismic testing, and exploratory
 303 drilling.
- 304 **Development:** Design, planning, and construction of oil and gas fields, including processing and 305 worker facilities.
- 306 Production: Extraction of oil and gas from onshore or offshore reserves, and separation of oil, gas
 307 and water.
- 308 **Oil sands mining:** Extraction of bitumen from oil sands using surface mining or *in situ* techniques.
- Closure and rehabilitation: Closure, decommissioning, dismantling, removal, <u>disposal</u>, or
 modification of assets, facilities and sites.
- 311 **Refining:** Refining of oil into petroleum products for use as fuels and as feedstocks for chemicals.
- Processing: Processing of gas into pipe-quality natural gas and natural gas liquids, including
 removing hydrocarbons and fluids.
- 314 **Transportation:** Marine and land transportation of oil and gas.
- 315 **Storage and pipelines:** Distribution and storage of oil and gas in tanks and marine vessels and distribution via marine and land-based pipelines.
- **Sales and marketing:** Selling of oil and gas products for the purpose of, for example, fuels, gas for retail use, and inputs in the production of specialty chemicals, petrochemicals, and polymers.

319 Business relationships

- An organization's <u>business relationships</u> include relationships that it has with <u>business partners</u>, with entities in its <u>value chain</u> including those beyond the first tier, and with any other entities directly linked to its operations, products, or services. The following types of business relationships are prevalent in
- the oil and gas sector and are of particular relevance when identifying the impacts of organizations in the sector.





- Joint ventures are arrangements in which organizations share the costs, <u>benefits</u>, and liabilities of oil and gas activities. An organization in the oil and gas sector can be involved with negative impacts as a result of a joint venture, even if it is a non-operating partner.
- 328 State-owned enterprises (SOEs) are often the largest producers of oil and gas and hold ownership 329 of the majority of global reserves. They may also serve as joint venture partners to publicly traded oil 330 and gas organizations. SOEs have specific challenges relating to transparency and governance, 331 which are addressed in different likely material topics in this Standard.
- 332 Suppliers and contractors are used in large numbers in the oil and gas sector to perform certain
 activities, such as drilling and construction, or to provide other services and products. Some of the
 significant impacts covered in this Standard concern the supply chain.
- **Customers** use oil and gas to produce energy, heat, and materials. When combusting oil and gas, they generate <u>greenhouse gases (GHGs)</u> and other air emissions. While the primary responsibility for reducing and managing their emissions lies with customers, organizations extracting and producing oil and gas are also expected to take actions to tackle emissions from the combustion of their products and to disclose the related GHG emissions (<u>Scope 3 GHG emissions</u>). As such, this Standard includes not only <u>direct (Scope 1)</u> and <u>indirect (Scope 2) GHG emissions</u>, but also other indirect (Scope 3) GHG emissions.

342 The sector and sustainable development

Energy is a key driver of economic growth and <u>sustainable development</u>. Oil and gas have been fundamental sources of the world's energy, contributing to economic growth and poverty reduction. Together, oil and gas represent the most important resources for electricity production, providing over 50% [12] of the total supply. In 2020, 90% of the transportation sector's energy needs were met by oil products [11]. The oil and gas sector today also meets much of society's needs for raw materials used in the production of specialty chemicals, petrochemicals, and polymers. Currently, oil and gas are the world's most actively traded commodities.

- At present, oil and gas are considered strategic assets in regions or countries where they generate critical revenue streams or support energy independence. For example, the percentage of gross domestic product attributable to oil revenues has reached 45% in some resource-rich countries [19]. Revenues from this sector can contribute to local and national economic development, together with job creation, investments, and <u>infrastructure</u>, business, and skills development.
- The majority of the world's countries have committed to combating climate change, as outlined in the Paris Agreement [7]. The International Panel on Climate Change (IPCC) warns that continuing to emit greenhouse gas (GHG) at the current rate could result in dangerous global temperature increases leading to magnified risks of extreme weather and climate events [14]. Other reports show that with current policy commitments the world is heading toward a dangerous 3.2°C rise in temperature by 2100 [17].
- These projections underline the need to transition to a low-carbon economy, based on affordable, reliable, and sustainable energy. Achieving net zero GHG emissions by 2050 is required to limit global warming to 1.5°C above pre-industrial levels, a level predicted to pose significantly lower risks to natural and human systems than a warming of 2°C [14]. Combined, the GHGs released by extracting, refining, and burning oil and gas represent 55% of all energy-related GHG emissions and constitute the largest contribution to anthropogenic climate change. Action taken by the oil and gas sector is essential to the transition to a low-carbon economy.
- 368 The number of oil and gas operations closing will increase in the context of transition to a low-carbon 369 economy, and impacts of these closures on workers and communities will consequently rise. A just 370 transition refers to a fair and equitable pathway through industrial transformation to a sustainable 371 future, where governments and organizations work in collaboration. Such a transition integrates 372 worker-centric public policies and programs with employer policies and programs to provide a secure 373 and decent future for all workers, their families, and the communities that rely on them. The path for transitioning to a low-carbon economy will vary for different countries according to factors such as 374 375 their economic conditions and capability to respond to and mitigate impacts of climate change.



- 376 Besides contributing to climate change, the activities of the oil and gas sector generate further
- negative impacts on the environment and people, including impacts on their <u>human rights</u>. These
- impacts include loss of biodiversity; soil, water and air pollution; conflict and social disruption, and
- threats to human health. <u>Vulnerable groups</u> such as <u>indigenous peoples</u> or women may be
- disproportionally affected, and oil and gas operations may continue to generate negative impacts after
 their closure.
- 382 Negative impacts can be intensified by inadequate governance of natural resources. The large
- 383 revenues derived from the oil and gas sector can lead to <u>corruption</u> and mismanagement of
- resources. Economies dependent on oil and gas can also be vulnerable to commodity price and production fluctuations.
- 386 Sustainable Development Goals
- The Sustainable Development Goals (SDGs), part of the 2030 Agenda for Sustainable Development adopted by the 193 United Nations (UN) member states, comprise the world's comprehensive plan of action to achieving <u>sustainable development [8]</u>.
- 390 Since the SDGs and targets associated with them are integrated and indivisible, oil and gas
- 391 organizations have the potential to contribute to all SDGs by enhancing their positive impacts, or by
- 392 preventing and mitigating their negative impacts, on the economy, environment, and people.
- 393 The oil and gas sector is particularly relevant to achieving Goal 13: Climate Action and, given the
- 394 potential impact of climate change on the development agenda, this will influence the achievement of 395 every goal, while contributing to the transition to a low-carbon economy.
- 396 The oil and gas sector also plays a fundamental role in achieving **Goal 7: Affordable and Clean**
- 397 Energy. Ensuring access to energy for all while transitioning toward a low-carbon economy is one of
- 398 the challenges faced by the sector. Millions of people still lack access to energy. This hinders their

access to basic services such as those recognized in Goal 3: Good Health and Wellbeing and Goal

- 400 **4: Quality Education** as well as their income-generating opportunities, which are crucial to achieving
- 401 **Goal 1: No Poverty**. More broadly, affordable and reliable energy is a fundamental input for the world 402 economy and therefore instrumental for achieving **Goal 8: Decent Work and Economic Growth**.
- In countries that produce oil and gas, the sector generates high revenues and attracts significant
 investment. However, the large revenues derived from the sector carry a risk of <u>corruption</u> and conflict
 over resources, which have a bearing on Goal 16: Peace and Justice Strong Institutions.
- Table 2 presents connections between the likely <u>material topics</u> for the oil and gas sector and the SDGs. These links were identified based on an assessment of the <u>impacts</u> described in each likely material topic, the targets associated with each SDG, and existing mapping undertaken for the sector (see references [13] and [15] in the Bibliography).
- Table 2 is not a reporting tool but presents connections between the oil and gas sector's significant impacts and the goals of the 2030 Agenda for Sustainable Development. See references [20] and [21]
- in the Bibliography for information on reporting progress towards the SDGs using the GRI Standards.

Table 2: Links between the likely material topics for the oil and gas sector and the Sustainable Development Goals.

Likely material topic	Corresponding SDGs	
S11 1 GHC omissions	Goal 13: Climate Action	
	Goal 14: Life Below Water	
	Goal 1: No Poverty	
	Goal 7: Affordable and Clean Energy	
S11.2 Climate adaptation, resilience, and transition	Goal 8: Decent Work and Economic Growth	
	Goal 9: Industry, Innovation and Infrastructure	
	Goal 12: Sustainable Consumption and Production	



Likely material topic	Corresponding SDGs		
	Goal 13: Climate Action		
	Goal 3: Good Health and Well-being		
S11.3 Air emissions	Goal 11: Sustainable Cities and Communities		
	Goal 15: Life on Land		
	Goal 6: Clean Water and Sanitation		
S11 4 Biodivorsity	Goal 12: Responsible Consumption and Production		
	Goal 14: Life Below Water		
	Goal 15: Life on Land		
	Goal 3: Good Health and Well-being		
SAA E Waata	Goal 6: Clean Water and Sanitation		
ST1.5 Waste	Goal 12: Responsible Consumption and Production		
	Goal 15: Life on Land		
	Goal 6: Clean Water and Sanitation		
	Goal 12: Responsible Consumption and Production		
S11.6 Water and effluents	Goal 14: Life Below Water		
	Goal 15: Life on Land		
	Goal 4: Quality Education		
	Goal 8: Decent Work and Economic Growth		
S11.7 Closure and rehabilitation	Goal 11: Sustainable Cities and Communities		
	Goal 14: Life Below Water		
	Goal 15: Life on Land		
S11.8 Asset integrity and critical	Goal 11: Sustainable Cities and Communities		
incident management	Goal 14: Life Below Water		
S11.9 Occupational health and safety	Goal 3: Good Health and Well-being		
	Goal 8: Decent Work and Economic Growth		
200	Goal 1: No Poverty		
A. C.	Goal 4: Quality Education		
S11.10 Employment practices	Goal 5: Gender Equality		
	Goal 8: Decent Work and Economic Growth		
	Goal 10: Reduced Inequalities		
	Goal 4: Quality Education		
	Goal 5: Gender Equality		
S11.11 Non-discrimination and equal opportunity	Goal 8: Decent Work and Economic Growth		
	Goal 10: Reduced Inequalities		
	Goal 16: Peace, Justice and Strong Institutions		
S11.12 Forced labor and modern	Goal 8: Decent Work and Economic Growth		
slavery	Goal 16: Peace, Justice and Strong Institutions		
S11.13 Freedom of association and	Goal 8: Decent Work and Economic Growth		
collective bargaining	Goal 16: Peace, Justice and Strong Institutions		



Likely material topic	Corresponding SDGs
	Goal 1: No Poverty
	Goal 5: Gender Equality
S11.14 Economic impacts	Goal 8: Decent Work and Economic Growth
	Goal 9: Industry, Innovation and Infrastructure
	Goal 10: Reduced Inequalities
	Goal 1: No Poverty
	Goal 3: Good Health and Well-being
S11.15 Local communities	Goal 5: Gender Equality
	Goal 6: Clean Water and Sanitation
	Goal 16: Peace, Justice and Strong Institutions
	Goal 1: No Poverty
S11 16 Land and resource rights	Goal 2: Zero Hunger
STI. TO Land and resource rights	Goal 11: Sustainable Cities and Communities
	Goal 16: Peace, Justice and Strong Institutions
	Goal 1: No Poverty
	Goal 3: Good Health and Well-being
S11.17 Rights of indigenous peoples	Goal 5: Gender Equality
	Goal 11: Sustainable Cities and Communities
	Goal 16: Peace, Justice and Strong Institutions
S11.18 Conflict and security	Goal 16: Peace, Justice and Strong Institutions
S11.19 Anti-competitive behavior	Goal 16: Peace, Justice and Strong Institutions
S11 20 Anti corruption	Goal 12: Responsible Consumption and Production
STI.20 Anti-corruption	Goal 16: Peace, Justice and Strong Institutions
	Goal 1: No Poverty
S11.21 Payments to governments	Goal 16: Peace, Justice and Strong Institutions
208	Goal 17: Partnerships for the Goals
S11.22 Public policy	Goal 16: Peace, Justice and Strong Institutions
S11.22 Public policy	Goal 16: Peace, Justice and Strong Institutions



2. Likely material topics

This section comprises the likely <u>material topics</u> for the oil and gas sector. Each topic describes the sector's most significant <u>impacts</u> related to the topic and lists disclosures that have been identified as relevant for reporting on the topic by oil and gas sector. The organization is required to review each topic in this section and determine whether it is a material topic for the organization, and then to determine what information to report for its material topics.

420 **S11.1 GHG emissions**

421 Greenhouse gas (GHG) emissions comprise air emissions that contribute to climate change, 422 such as carbon dioxide (CO_2) and methane (CH_4). This topic covers direct (Scope 1) and 423 energy indirect (Scope 2) GHG emissions related to an organization's activities, as well as 424 other indirect (Scope 3) GHG emissions related to the end use of an organization's products.

425 Greenhouse gas (GHG) emissions are the single biggest contributor to climate change. The oil and 426 gas sector's activities and the use of oil and gas products are responsible for a large portion of two 427 major GHGs: carbon dioxide (CO₂) and methane (CH₄). Globally, it is estimated that the sector is 428 responsible for a quarter of all anthropogenic emissions of CH₄, which has a notably higher global 429 warming potential than CO₂. Recent measurements indicate that available figures on CH₄ emissions 430 from the sector could be underestimates. Other GHGs from oil and gas activities include ethane 431 (C₂H₆), nitrous oxide (N₂O), hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), sulfur hexafluoride 432 (SF₆), and nitrogen trifluoride (NF₃).

433 GHG emissions from oil and gas activities are classified as <u>direct (Scope 1) GHG emissions</u> in the

434 case of activities owned or controlled by the organization or <u>energy indirect (Scope 2) GHG emissions</u>
 435 in the case of purchased or acquired electricity, heating, cooling, and steam consumed by the

- 436 organization. Currently, 15% of the world's energy-related GHG emissions come from the process of
- 437 producing and distributing oil and gas [35].

Direct (Scope 1) GHG emissions comprise emissions from fuel combustion during production,
process emissions such as those during loading and tankage, and fugitive emissions such as those
from piping and equipment leaks. A substantial source of the sector's Scope 1 GHG emissions is
flaring and venting, which aim to dispose of gas that cannot be contained or handled otherwise for
safety, technical, or economic reasons. These practices occur during oil and gas production, storage,
refining, and electricity generation.

444 Box 2. Flaring and venting

When gas needs to be disposed of, it may be flared (burned off), or vented (released without being
burned). Flaring converts gas to CO₂, while venting releases CH₄ directly to the atmosphere. Given
that CH₄ has a higher global warming potential than CO₂, routing associated gases to an efficient flare
system instead of venting is considered best practice and there is wide agreement that routine venting
should be eliminated.

Flaring also represents a major source of emissions. While large amounts of gases resulting from oil
and gas activities are used or conserved, flaring still routinely occurs. According to the World Bank,
routine flaring occurs 'during normal oil production operations in the absence of sufficient facilities or
amenable geology to re-inject the produced gas, utilize it on-site, or dispatch it to a market'. Increases
in shale oil production has further contributed to volumes of flaring.

The amount of natural gas flared in 2018 resulted in emissions of approximately 275 mega tons of CO₂, as well as other GHGs such as methane, black carbon and N₂O.

457 See references [33], [45] and [47] in the Bibliography.

Energy indirect (Scope 2) GHG emissions originate from stationary and mobile sources (e.g.,
transportation of materials, products, or <u>waste</u>); extraction; oil refining; liquefaction and regasification
of natural gas; and operation of facilities and equipment. The depletion of traditional oil and gas
resources has led the sector to move production to more difficult settings, which may involve more

462 complex extraction methods such as offshore deep-water drilling or oil sands mining. Despite the



sector's ongoing improvements in production efficiency, these conditions are likely to increase the
 amount of energy used during production and transportation and, as such, GHG emissions resulting
 from these activities.

GHG emissions resulting from the end use of products are classified as <u>other indirect (Scope 3) GHG</u> emissions. For the oil and gas sector, these constitute the most significant GHG emissions and over half of global CO₂ emissions [32]. The majority of Scope 3 GHG emissions originate from combustion processes related to construction, electricity and heat generation, manufacturing, and transportation.

470 Volumes of these emissions have increased together with higher energy demands.

471 What to report

472 If the organization has determined GHG emissions to be a <u>material topic</u>, this sub-section lists the 473 disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the t	opic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	Describe actions taken to manage flaring and venting and the effectiveness of actions taken.	S11.1.1
Topic Standards disc	losures		
GRI 302: Energy 2016	Disclosure 302-1 Energy consumption within the organization	21	S11.1.2
	Disclosure 302-2 Energy consumption outside of the organization		S11.1.3
	Disclosure 302-3 Energy intensity		S11.1.4
GRI 305: Emissions 2016	Disclosure 305-1 Direct (Scope 1) GHG emissions	 Report the percentage of gross <u>direct</u> (Scope 1) GHG emissions from CH₄. 	S11.1.5
é	300°3	 Report the breakdown of gross direct (Scope 1) GHG emissions by type of source (stationary, combustion, process, fugitive).² 	
10CUM	Disclosure 305-2 Energy indirect (Scope 2) GHG emissions		S11.1.6
Thisot	Disclosure 305-3 Other indirect (Scope 3) GHG emissions		S11.1.7
	Disclosure 305-4 GHG emissions intensity		S11.1.8

² This additional sector recommendation is based on clause 2.2.5.3 in GRI 305: Emissions 2016.



References and resources 474

475 GRI 302: Energy 2016 and GRI 305: Emissions 2016 list authoritative intergovernmental instruments and additional references relevant to reporting on this topic. 476

The additional authoritative instruments and references used in developing this topic, as well as 477

478 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 479 Bibliography.

This document does not represent an official position of the cases



480 **S11.2** Climate adaptation, resilience, and transition

481 Climate adaptation, resilience, and transition refer to how an organization adjusts to current 482 and anticipated climate change-related risks, as well as how it contributes to the ability of

and anticipated climate change-related risks, as well as now it contributes to the ability of
 societies and economies to withstand impacts from climate change. This topic covers an
 organization's strategy in relation to the transition to a low-carbon economy and the impacts
 of that transition on workers and local communities.

Signatories of the Paris Agreement have committed to keeping global warming 'well below 2°C', yet fossil fuel reserves that are currently available globally far exceed the maximum amount that can be burned while remaining within this limit [76]. This means organizations in the oil and gas sector need to establish targets for carbon emissions; modify their business models; and invest in renewable energy, technologies to remove CO₂ from the atmosphere [66], and nature-based solutions to mitigate climate change, such as reforestation, afforestation, coastal and wetland restoration.

- 492 Transitioning to a low-carbon economy requires organizations to set emissions targets that are 493 consistent with the goal of limiting global warming to well below 2°C under the Paris Agreement. 494 Actions to reduce emissions linked to the process of extracting and distributing oil and gas, which are 495 direct (Scope 1) and <u>energy indirect (Scope 2) GHG emissions</u>, offer important and immediate
- 496 opportunities for the sector to contribute to reducing global GHG emissions. The sector also faces
 497 expectations to address indirect Scope 3 emissions related to the use of oil and gas products. Actions
 498 to reduce these emissions can include, for example, diversification into lower carbon businesses,
- 499 such as renewables.
- 500 The transition to a low-carbon economy creates uncertainty about the future demand for oil and gas.
- The IEA estimates that, based on current policies, demand for oil will level off around 2030 while, in 501 502 some regions, demand for gas will begin decreasing by 2040 [66]. In a scenario that sees the energy 503 transition accelerate to achieve net-zero GHG emissions by 2050, demand for oil could drop by almost 75% between 2020 and 2050 and demand for gas could peak before 2030 [65]. The decrease 504 505 in the demand for oil and gas will translate into lower utilization of existing production facilities and decreased development of reserves. Depending on the speed of this process, some fields and 506 facilities may need to be re-evaluated or even written-off prematurely, becoming stranded assets. This 507 will affect oil and gas organizations financially and generate significant impacts for workers, 508
- 509 governments and other stakeholders.
- 510 Box 1. Scenario analysis for climate transition
- 511 Scenario analysis is a process that considers alternative situations to assess future outcomes. 512 Organizations can use it to gauge the potential outcomes of their strategies in uncertain 513 circumstances or conditions. Scenario analysis can employ various methodologies, qualitative and 514 quantitative. The Task Force on Climate-related Financial Disclosures (TCFD) recommendations 515 suggest scenario analysis as a way to help organizations understand climate change-related risks 516 and opportunities [79].

517 Scenario analysis is well suited to explore the risks that transitioning to a low-carbon economy poses 518 to oil and gas organizations because it allows them to consider alternative forms of future states 519 simultaneously. Organizations typically define scenarios according to the speed of transition, expressed in the resulting average global temperature changes. A scenario compatible with the 520 521 commitments of countries in the Paris Agreement will require a temperature rise well below 2°C. 522 Other scenarios can be defined according to an organization's national context. The organization can then translate the expected reductions in GHG emissions compatible with such a temperature rise 523 into expected revenue. 524

- The transition may affect employment, government revenues, and economic development in regions where the sector operates. More frequent closures are expected, which are less likely to be counterbalanced by openings, as has been the case in the past. <u>Workers</u> may face other potential impacts related to employability, reskilling, and desirable re-employment opportunities. Closure of operations without adequate provisions for decommissioning and rehabilitation may also result in an economic burden for governments and <u>local communities</u> (see also Closure and rehabilitation),
- 531 particularly in countries where oil and gas production provides a large percentage of revenues.



532 To ensure a just transition to a low-carbon economy, the different dependency levels of workers, local 533 communities, and national economies on the oil and gas sector has to be recognized, and quality jobs 534 for those affected created [77]. Examples of actions that organizations may take to contribute to a just 535 transition include providing adequate advance notice of closures; collaborating with governments and 536 unions; advocating for climate consistent policy (see also Public policy); retraining, reskilling, and 537 redeploying workers; and making alternative investments in the affected communities. Meaningful, 538 early consultations with stakeholders and local communities have also been identified as crucial to 539 achieving a just transition (see also Closure and rehabilitation).

540 What to report

541 If the organization has determined climate adaptation, resilience, and transition to be a material topic,

this sub-section lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of th	e topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 Describe policies, commitments, and actions of the organization to prevent or mitigate the <u>impacts</u> of the transition to a low-carbon economy on <u>workers</u> and <u>local communities</u>. Report the level and function within the organization that has been assigned responsibility for managing risks and opportunities due to climate change. Describe the board's oversight in managing risks and opportunities due to climate 	S11.2.1
CUM	ent does not re	 change. Report whether responsibility to manage climate change-related impacts is linked to performance assessments or incentive mechanisms, including in the <u>remuneration</u> policies for <u>highest governance body</u> members and <u>senior executives</u>. Describe the climate change-related scenarios used to assess the resilience of the organization's strategy, including a 2°C or lower scenario. 	



Topic Standards disclosures				
GRI 201: Economic Performance 2016	Disclosure 201-2 Financial implications and other risks and opportunities due to climate change	_	Report the emissions potential for proven and probable reserves ³ . Report the internal carbon-pricing and oil and gas pricing assumptions that have informed the identification of risks and opportunities due to climate change.	S11.2.2
		-	Describe how climate change-related risks and opportunities affect or could affect the organization's operations or revenue, including:	58
			 development of currently proven and probable reserves; potential write-offs and early closure of existing assets; oil and gas production volumes for the current <u>reporting period</u> and projected volumes for the next five years. 	2
		-	Report the percentage of capital expenditure (CapEx) that is allocated to investments in:	
	e not re	24	 prospection, exploration and development of new reserves; energy from renewable sources (by type of source); technologies to remove CO₂ from the atmosphere and nature-based solutions to mitigate climate change; other research and development initiatives that can address the organization's risks related to climate change. 	
	ant does	_	Net mass of CO_2 in metric tons captured and removed from the atmosphere (CO_2 stored less the <u>GHG</u> emitted in the process) ⁴ .	
GRI 305: Emissions 2016	Disclosure 305-5 Reduction of GHG emissions	-	Report how the goals and targets for GHG emissions are set, specify whether they are informed by scientific consensus and list any authoritative intergovernmental instruments or mandatory legislation the goals and targets are aligned with.	S11.2.3

 4 The mass of the CO₂ captured using carbon capture and storage less the mass of CO₂ emitted as a result of or during the process, is sometimes known as 'net reduction of emissions' [67]



³ The definition of reserves used by the organization for this additional sector recommendation should be the same as the definition used in its consolidated financial statements or equivalent documents.

	 Report the <u>Scopes</u> (1, 2, 3) <u>of GHG</u> <u>emissions</u>, activities, and <u>business</u> <u>relationships</u> to which the goals and targets apply. Report the <u>baseline</u> for the goals and targets and the timeline for achieving them. 		
Additional sector disclosures			
 Additional sector disclosures Describe the organization's approach to public policy development and lobbying on climate change, including: the organization's stance on significant issues related to climate change that are the focus of its participation in public policy development and lobbying, and any differences between these positions and its stated policies, goals, or other public positions; whether it is a member of, or contributes to, any representative associations or committees that participate in public policy development and lobbying on climate change, including:			
References and resources			

References and resources 544

545 GRI 201: Economic Performance 2016 and GRI 305: Emissions 2016 list authoritative 546 intergovernmental instruments and additional references relevant to reporting on this topic.

547 The additional authoritative instruments and references used in developing this topic, as well as 548 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the , c this document does not rept 549 Bibliography.

⁵ These additional sector disclosures are based on reporting recommendations 1.2.1 and 1.2.2 in GRI 415: Public Policy 2016.



S11.3 Air emissions 550

Air emissions include pollutants that have negative impacts on air quality, ecosystems, and 551 human and animal health. This topic covers impacts from emissions of sulfur oxides (SOx), 552 nitrogen oxides (NOx), particulate matter (PM), volatile organic compounds (VOC), carbon 553 554 monoxide (CO), and heavy metals, such as lead, mercury, and cadmium.

555 The activities of the oil and gas sector and the combustion of oil and gas are anthropogenic sources of other air emissions besides greenhouse gases (GHGs). These include SOx, NOx, PM, VOCs, 556 hazardous air pollutants (HAP), such as benzene (C_6H_6) and hydrogen sulfide (H_2S), and ozone (O_3).⁶ 557

558 These air emissions can be released during production and processing, refining, distribution, and

storage. They can result from activities such as flaring and venting; fuel combustion for powering 559

machinery; loading; and transportation of supplies and products. Air emissions can also result from 560 561 evaporation losses, fugitive emissions from equipment leaks and failures, and process-safety

incidents and events. A significant number of air emissions also result from fuel combustion by end 562

563 users.

564 Globally, air pollution causes acute health problems and millions of deaths annually by contributing to heart and lung diseases, strokes, respiratory infections, and neurological damage [90]. Children, the 565 elderly, and the poor are disproportionately affected by these emissions, as are local communities 566 adjacent to operational sites.

567

568 Air emissions may lead to widespread and diverse impacts on ecosystems, while affecting other

economic activities that depend on these ecosystems. For example, NO_x emissions that enter oceans, 569

570 lakes, or other water bodies can alter their chemistry, negatively impacting land and aquatic life. NOx

571 and SO_x emissions can lead to acid rain and increase ocean acidification. These emissions can also 572 cause damage to plant life by, for example, impairing photosynthesis and reducing growth.

What to report 573

If the organization has determined air emissions to be a material topic, this sub-section lists the 574 575 disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the t	opic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics		S11.3.1
Topic Standards disclosures			
GRI 305: Emissions 2016	Disclosure 305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions		S11.3.2

⁶ The scope of this topic does not include carbon dioxide CO₂ and methane CH₄, which are reported under GHG emissions.



GRI 416: Customer Health and Safety 2016	Disclosure 416-1 Assessment of the health and safety impacts of product and service	Describe actions taken to improve product quality to reduce air emissions.	S11.3.3
	calegones		

References and resources 576

577 GRI 305: Emissions 2016 and GRI 416: Customer Health and Safety 2016 list authoritative intergovernmental instruments and additional references relevant to reporting on this topic. 578

well as sed in the 579 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the Bibliography 580

581



582 **S11.4 Biodiversity**

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

588 Oil and gas activities can be the source of pressures on the environments in which they take place, 589 and have direct, indirect, and cumulative impacts on biodiversity in the short and long term. These 590 impacts can be exacerbated when activities occur in protected areas or areas of high biodiversity 591 value, and may extend well beyond the closure and rehabilitation of operational sites or geographic 592 boundaries of activities. Biodiversity impacts from oil and gas activities include contamination of air, 593 soil, and water, soil erosion, and sedimentation of waterways. Other impacts can include animal 594 mortality or increased vulnerability to predators, habitat fragmentation and conversion, and the 595 introduction of invasive species and pathogens. Impacts on biodiversity can result in limitations in the 596 availability, accessibility, or quality of resources, which may in turn impact the well-being and 597 livelihoods of local communities and indigenous peoples.

These impacts can result from both onshore and offshore activities, such as land clearance; seismic testing and drilling of exploration wells; construction of assets and facilities, <u>infrastructure</u>, and pipelines; road development and transportation; <u>water discharge</u>; <u>disposal</u> of drilling <u>waste</u>; <u>spills</u> and leaks. Threats to biodiversity will increase as easily accessible oil and gas resources are depleted and oil and gas activities move into more remote areas. For example, the extent of offshore exploration activities in some regions indicates that coastal and marine protected areas may face a greater threat to their biodiversity than terrestrial areas.

605 The oil and gas sector can also contribute to cumulative impacts on biodiversity. For example, as 606 onshore oil and gas activities expand into an area, new access routes are installed, which typically 607 require clearing land. This leads to habitat fragmentation and conversion but can also result in increased use of the area, or even encourage other sectors to establish operations in the same areas, 608 609 intensifying impacts. Changes to land use to accommodate the sector's activities can exacerbate the effects of climate change if they result in removal of carbon sinks. In turn, climate change is likely to 610 affect all aspects of biodiversity, including individual organisms, populations, species distribution, and 611 612 the composition and function of ecosystems, and the impacts are anticipated to worsen with 613 increasing temperatures.

614 To limit and manage its impacts on biodiversity, the oil and gas sector has been developing and, in 615 some cases, already using a mitigation hierarchy tool that helps inform its actions. The mitigation 616 hierarchy consists of four sequential steps to reduce the negative impacts of activities on the natural environment. Priority is given to preventive measures starting with avoidance of negative impacts and, 617 where avoidance is not possible, to minimization of those impacts. When negative impacts cannot be 618 619 avoided or minimized, remediation measures may be used, such as rehabilitation or restoration of 620 biodiversity. Offsetting measures may also be applied to residual impacts after all other measures have been applied (see reference [120] in the Bibliography). 621



rhis do

622 What to report

623 If the organization has determined biodiversity to be a <u>material topic</u>, this sub-section lists the 624 disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 Describe policies and commitments to achieving no net loss or a net gain to biodiversity on operational sites; and whether these commitments apply to existing and future operations and to operations beyond <u>areas of high biodiversity value</u>. Report whether application of the mitigation hierarchy has informed actions to manage biodiversity related <u>impacts</u>. 	S11.4.1
Topic Standards disclosures			
GRI 304: Biodiversity 2016	Disclosure 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	srit an office	S11.4.2
	Disclosure 304-2 Significant impacts of activities, products, and services on biodiversity	Report significant impacts on biodiversity with reference to affected habitats and ecosystems.	S11.4.3
	Disclosure 304-3 Habitats protected or restored	 Describe how the application of the mitigation hierarchy, if applicable, has resulted in: areas protected through avoidance measures or offset measures; areas restored through on-site restoration measures or offset measures. 	S11.4.4
This	List species and national conservation list species with habitats in areas affected by operations		511.4.5

625 **References and resources**

626 *GRI 304: Biodiversity 2016* lists authoritative intergovernmental instruments and additional references 627 relevant to reporting on this topic.

628 The additional authoritative instruments and references used in developing this topic, as well as 629 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 630 Bibliography.



631 **S11.5 Waste**

632 Waste refers to anything that a holder discards, intends to discard, or is required to discard.

633 When inadequately managed, waste can have negative impacts on the environment and

human health, which can extend beyond the locations where waste is generated and
 discarded. This topic covers impacts from waste, including as a result of construction and

636 rehabilitation activities.

637 Oil and gas activities typically generate high volumes of waste, including those involving hazardous waste. The largest waste streams derive from extraction or processing of oil and gas and can consist 638 639 of drilling muds and cuttings, scale, and sludges, which in turn, can contain chemical additives, hydrocarbons, metals, naturally occurring radioactive material (NORM) and salts. These waste 640 641 streams may contaminate surface water, groundwater, seawater, and food sources with chemicals or 642 heavy metals, and negatively impact plant and animal species as well as human health. Impacts can 643 depend on an organization's approach to waste management, regulation, and on availability of 644 recovery and disposal facilities in the proximity of oil and gas activities.

Waste streams that cannot be reduced, or diverted from disposal, are typically stored, treated or disposed through various methods. When disposed of in underground injection wells, drilling waste can trigger seismicity or lead to contamination of groundwater. In some offshore operations, drilling fluids might also be discharged into waterways or the ocean, depending on regulation and the availability of alternative outlets. If waste is disposed of on land or if hazardous substances from waste storage facilities leach into the ground, other impacts can include contamination of land, loss of land productivity, and erosion. In remote areas with limited recovery and disposal methods, waste

652 impacts can be more <u>severe</u> or harder to monitor.

In oil sands mining, the largest waste stream is tailings, a hazardous waste stream produced during
 the process of separating oil from sand (see Asset integrity and critical incident management). Some
 tailings ponds have been found to leach chemicals, causing health risks for local communities and
 wildlife.

657 When operations end, closure and rehabilitation activities usually involve the final disposal of 658 hazardous chemicals and managing substantial quantities of materials from disused structures or 659 equipment (see Closure and rehabilitation). Other typical wastes from oil and gas activities include 660 waste oils, construction waste, and domestic and office waste.

661 Box 3. Use of materials

The type and quantity of materials used by an organization in the oil and gas sector can signify its
 dependence on natural resources and the impacts it has on their availability. Environmental impacts
 depend on the organization's approach to sourcing, use, and disposal of these materials.

Oil and gas extraction, development, production, and processing activities represent a large
proportion of the sector's use of materials. Concrete, cement, steel and other metals are necessary
for the construction of offshore platforms and onshore facilities as well as for the equipment and
<u>infrastructure</u> needed to extract, process and transport oil and gas (e.g., valves, tubing and pipelines).
Large volumes of chemicals are used during drilling and well completion.

The oil and gas sector has opportunities for efficient use of materials. These include making use of its
significant purchasing power to create demand for more responsibly produced materials or
implementing <u>circularity measures</u> that aim at reusing or <u>recycling</u> materials from disused structures,
such as steel and concrete.

674 → The use of materials is addressed in *GRI 301: Materials 2016*.

675



676 What to report

677 If the organization has determined waste to be a <u>material topic</u>, this sub-section lists the disclosures 678 that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the to	pic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	G	S11.5.1
Topic Standards disclo	osures		
GRI 306: Waste 2020	Disclosure 306-1 Waste generation and significant waste- related impacts		S11.5.2
	Disclosure 306-2 Management of significant waste-related impacts	, post	S11.5.3
	Disclosure 306-3 Waste generated	 When reporting the composition of the <u>waste</u> generated, include a breakdown of the following waste streams, if applicable: drilling waste (muds and cuttings); scale and sludges; tailings. 	S11.5.4
	Disclosure 306-4 Waste diverted from disposal	 When reporting the composition of the waste diverted from disposal, include a breakdown of the following waste streams, if applicable: o drilling waste (muds and cuttings); o scale and sludges; o tailings. 	S11.5.5
whis documer	Disclosure 306-5 Waste directed to disposal	 When reporting the composition of the waste directed to disposal, include a breakdown of the following waste streams, if applicable: drilling waste (muds and cuttings); scale and sludges; tailings. 	S11.5.6

679 **References and resources**

680 *GRI 306: Waste 2020* lists authoritative intergovernmental instruments and additional references 681 relevant to reporting on this topic.

The additional authoritative instruments and references used in developing this topic, as well as

resources that may be helpful for reporting on the topic by the oil and gas sector are listed in theBibliography.



S11.6 Water and effluents 685

686 Recognized by the United Nations as a human right, access to fresh water is essential for human life and well-being. The amount of water withdrawn and consumed by an organization 687 688 and the quality of its discharges can have impacts on ecosystems and people.

- 689 Oil and gas activities can reduce water availability for local communities and other sectors that also
- 690 rely on the resource. They can have impacts on the quality of surface
- water, groundwater and seawater, which can translate into long-term impacts on ecosystems 691
- 692 and biodiversity, cause health and development problems for humans, and impair food security.
- 693 Extraction and processing are the oil and gas sector activities that use the largest volumes of
- water. The quantity of water required for these activities vary according to the resource type and 694
- extraction method, local geology, and the degree of processing required. Some extraction or C 695
- processing methods, including hydraulic fracturing and oil sands mining are particularly water 696
- 697 intensive. The amount of water withdrawn for certain activities also varies according to an
- 698 organization's ability to substitute the use of freshwater, the quality of water required, recycling infrastructure and on the characteristics of local water resources.
- 699
- 700 The oil and gas sector's activities may also involve managing large quantities of produced water or
- 701 process wastewater, which typically contain hydrocarbons, chemicals, or other hazardous
- 702 substances. To minimize water impacts, produced water and process wastewater may be reinjected 703 for well stimulation or reused in other processes. If not, they may be discharged to surface water,
- groundwater, seawater, or a third party; dispersed over land; or stored in evaporation ponds. When 704
- 705 discharged, the impacts to water vary according to the sensitivity of the receiving waterbody and
- 706 quality of the water discharged.
- 707 Contamination can also result from injection of drilling fluids into wells and flowback from hydraulic
- 708 fracturing. This can cause underground contaminants to seep and pollute groundwater resources.
- 709 Inefficient treatment of water discharges, oil spills from transportation accidents, ruptured pipelines or 710 seepage, or failure of an oil sands tailings dam can also have similar impacts on water quality
- 711 (see Asset integrity and critical incident management).
- 712 The oil and gas sector's impacts on water additionally depend on the quantity of local water
- 713 resources; where water is scarce, the sector has a greater impact. A large proportion of the world's oil
- 714 and gas resources are found in areas that are arid or experience water stress. In such areas, the
- 715 sector's activities are likely to increase competition for water in demand for other uses - such as for
- 716 household use and fishing, aquaculture, or agricultural activities. This may exacerbate tensions
- 717 between, as well as within, sectors or local communities. Droughts, floods, and other extreme weather 718 events related to climate change will likely pose more frequent challenges related to water availability
- 719 and quality in the future. This document
- 720



721 What to report

722 If the organization has determined water and <u>effluents</u> to be a <u>material topic</u>, this sub-section lists the 723 disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	655	S11.6.1
Topic Standards disclosu	res		
GRI 303: Water and Effluents 2018	Disclosure 303-1 Interactions with water as a shared resource		S11.6.2
	Disclosure 303-2 Management of water discharge-related impacts	, 90 ⁵ 1	S11.6.3
	Disclosure 303-3 Water withdrawal		S11.6.4
	Disclosure 303-4 Water discharge	 Report volume in megaliters of <u>produced</u> <u>water</u> and process wastewater discharged. 	S11.6.5
	LEQIES EN	 Report the concentration (mg/L) of hydrocarbons discharged in produced water and process wastewater. 	
	Disclosure 303-5 Water consumption		S11.6.6

724 References and resources

GRI 303: Water and Effluents 2018 lists authoritative intergovernmental instruments and additional
 references relevant to reporting on this topic.

727 The additional authoritative instruments and references used in developing this topic, as well as

resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the





S11.7 Closure and rehabilitation 730

731 At the end of commercial use, organizations are expected to close assets and facilities and

rehabilitate operational sites. Effective planning and execution of this phase takes into 732

account the impacts that can occur during and after closure. This topic covers an 733 734 organization's approach to closure and rehabilitation, including how the organization

735 considers the impacts on the environment, local communities, and workers.

736 Oil and gas facilities can continue to generate environmental impacts after closure, including soil and 737 water contamination, changes to landforms, and disturbance of biodiversity and wildlife. Closure can 738 also lead to lasting impacts on local communities. Closure often requires planning that begins in the early phases of a project's lifecycle to anticipate potential impacts. Failure to close facilities and 739

740 rehabilitate sites effectively can render land unusable for other productive purposes, due to 741 contamination or to the presence of hazardous materials. It can also result in health and safety 742 hazards.

- 743 Closure and rehabilitation of oil and gas fields can include removal and final disposal of hazardous
- substances and chemicals; capping or plugging of abandoned wells; dismantling structures and 744
- reusing, recycling or disposing materials. It can also include the management of waste; surface water 745
- 746 and groundwater quality issues resulting from spills and leaks; and restoration of lands to a condition
- 747 or economic value that is equivalent to the pre-development state. Closing oil sands mining sites also
- 748 involves managing tailings ponds (see also Asset integrity and critical incident management).
- 749 Several international conventions (see references [165], [166] and [167] in the Bibliography) require
- decommissioning and removing all offshore structures at the end of field life. However, these 750
- 751 requirements may be subject to different interpretations across countries, where national regulations
- 752 or regional conventions can take precedence over international conventions. As a result,
- 753 organizations in the oil and gas sector may lack clear rules for filing decommissioning plans with local 754 governments and taking action on them once offshore structures become disused.
- 755 Decommissioning and dismantling offshore structures can be more costly and complex than for onshore structures, due to their size, weight, and location. There may be additional complexities and 756 757 environmental considerations when, for example, structures that should be removed become part of 758 benthic⁷ communities and habitats. In some cases, decommissioning can occur in situ and structures 759 may be left in place. When this happens, impacts can include marine pollution from corrosion, 760 ecosystem changes, damage to fishing equipment, and navigational hazards to shipping.
- 761 The closure and rehabilitation phase may offer additional employment opportunities to local 762 communities. However, once this phase is completed, workers may be retrenched and local
- 763 communities may face economic downturn and social disruption if they have come to depend on the oil and gas sector's activities for employment as well as for income, taxes and other payments to 764 governments, community development, and other benefits. 765
- 766 Impacts from closure can be worsened if there is insufficient notice or lack of adequate planning for 767 economic revitalization, social protection, and labor transition. Without clearly assigned responsible 768 parties or allocated funds, closed oil and gas facilities can leave a legacy of environmental issues and 769 financial burdens for communities and governments. The need to reduce GHG emissions and to transition to a low-carbon economy (see Climate adaptation, resilience and transition) is expected to 770 771 lead to more frequent closures. These are less likely to be counterbalanced by openings, as has been
- 772 the case in the past. Collaboration between local and national governments and organizations in the
- oil and gas sector, as well as with workers and unions, is necessary to mitigate significant 773
- socioeconomic and environmental impacts requires and ensure a just transition. 774

⁷ Benthic is defined by the Merriam Webster as "of, relating to, or occurring at the bottom of a body of water, or, of, relating to, or occurring in the depths of the ocean" [168].



775 Technological solutions that would allow repurposing or extending the life of assets after production

- ceases (e.g., using pipelines for CO₂ storage or transport of low-carbon fuels) are being tested, but
- have yet to be proven effective and economically viable.

778 What to report

- If the organization has determined closure and rehabilitation to be a material topic, this sub-section
- 780 lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas 781 sector.
 - GRI Disclosure Sector **GRI Standard** Additional sector recommendations Standard ref. no. Management of the topic **GRI 3: Material Topics Disclosure 3-3 Management** S11.7.1 of material topics 2021 **Topic Standards disclosures** GRI 402: S11.7.2 Disclosure 402-1 Minimum Describe the approach to engaging Labor/Management notice periods regarding workers in advance of significant Relations 2016 operational changes operational changes. S11.7.3 GRI 404: Training and **Disclosure 404-2 Programs** Education 2016 for upgrading employee skills and transition assistance programs Additional sector disclosures S11.7.4 List the operational sites that: 0 have closure and rehabilitation plans in place; have been closed; 0 are in the process of being closed. 0 List the decommissioned structures left in place and describe the rationale for leaving them in S11.7.5 place. S11.7.6 Report the total monetary value of financial provisions for closure and rehabilitation made by the organization, including post-closure monitoring and aftercare for operational sites.

782 **References and resources**

783 GRI 402: Labor/Management Relations 2016 and GRI 404: Training and Education 2016 list

- authoritative intergovernmental instruments and additional references relevant to reporting on thistopic.
- 786 The additional authoritative instruments and references used in developing this topic, as well as
- resources that may be helpful for reporting on the topic by the oil and gas sector are listed in theBibliography.



789 S11.8 Asset integrity and critical incident management

790 Asset integrity and critical incident management deal with prevention and control of incidents

that can lead to fatalities, injuries or ill health, environmental impacts, and damage to local

communities and infrastructure. This topic covers impacts from such incidents and an
 organization's approach to managing them.

794 Critical incidents in the oil and gas sector can have catastrophic consequences for <u>workers</u>, <u>local</u>

795 <u>communities</u> (see Occupational health and safety and Local communities), the environment and

cause damage to organizations' assets. In addition to fatalities and injuries, these incidents can cause
 air, soil, and water contamination. These <u>impacts</u> have the potential to disrupt other economic

an, son, and water containination. These <u>impacts</u> have the potential to disrupt other economic activities that depend on these resources, such as fishing and agriculture, affecting livelihoods, and

compromising food safety and security. They can also lead to ecosystem and habitat degradation and
 animal mortality.

801 Critical incidents related to the oil and gas sector include loss of control or containment of

802 hydrocarbons, well blowout, explosions, fires, unplanned plant disruption and shutdown, and tailings

803 dam failures from operations related to oil sands. Oil and gas spills and leaks, for example due to

undetected failures in equipment or which occur during distribution of oil and gas by water, road, or

rail transport or pipelines, may pollute the soil and water as well as harm species (see also Water
 and effluents and Biodiversity). Events or incidents involving methane and other GHG emissions also

807 contribute to climate change (see GHG emissions).

808 Organizations in the oil and gas sector can prevent critical incidents with an effective process safety

809 management system. Process safety refers to the systematic application of good design,
 810 construction, and operating principles to ensure the safe containment of hazardous materials; it also

addresses the sources or factors likeliest to lead to potential incidents. A process safety management

812 system can also limit impacts associated with critical incidents related to extreme weather events.

which are likely to increase in frequency and intensity due to the effects of climate change.

814 Box 4. Oil sands tailings

815 Oil sands mining typically uses large amounts of water to separate bitumen from sand. This generates
816 tailings, which contain large quantities of <u>hazardous waste</u>, including hydrocarbons and heavy metals.
817 On average, 1.5 barrels of tailings get stored for each barrel of bitumen produced.

Tailings facilities for oil sands mining present considerable asset integrity risks. Available technology
to treat oil sand tailings currently fails to effectively manage this <u>waste</u>. As a result, tailings continue to
accumulate in ponds, which cover increasingly vast areas of land. Poor design or management of
tailing ponds can cause leaks or dam failures, polluting the surrounding <u>surface water</u>, groundwater,
or cause critical incidents that may have severe impacts on the local environment and communities.

823 What to report

824 If the organization has determined asset and critical incident management to be a <u>material topic</u>, this 825 sub-section lists the disclosures that have been identified as relevant for reporting on the topic by the

826 oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no.
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics		S11.8.1
Topic Standards disclosures			


GR Wa	I 306: Effluents and ste 2016	Disclosure 306-3 Significant spills	For each <u>significant spill</u> , report the cause of the <u>spill</u> and the volume of spill recovered.	S11.8.2
Ado	ditional sector disclosu	ires		
Report the total number of Tier 1 and Tier 2 process safety events, and a breakdown of this total by business activity (e.g., exploration, development, production, closure and rehabilitation, refining, processing, transportation, storage).8S11.			S11.8.3	
The	e following additional s	ector disclosures are for organ	izations with oil sands mining operations.	S11.8.4
- List the organization's tailings facilities.				
- For each tailings facility:				
	 report whether 	er the facility is active, inactive	or closed;	
	\circ report the dat	te and main findings of the mos	st recent risk assessment.	
-	 Describe actions take manage impa prevent catas 	en to: <u>acts</u> from tailings facilities, inclu strophic failures of tailings facili	ding during closure and post-closure; ties. ⁹	

GRI 306: Effluents and Waste 2016 lists authoritative intergovernmental instruments and additional 828

resources relevant to reporting on this topic. The additional authoritative instruments and references 829 his document does not represent at 830 used in developing this topic, as well as resources that may be helpful for reporting on the topic by the

831 oil and gas sector are listed in the Bibliography.

> ⁸ Definitions for Tier 1 and Tier 2 process safety events can be found in the API Recommended Practice 754, Process Safety Performance Indicators for the Refining and Petrochemical Industries [176]. API RP 754 focuses on refining and petrochemical operations but can be applied more widely.

> ⁹ Definitions for tailings facility and catastrophic failure can be found in the Global Industry Standard on Tailings Management (GISTM) [183].



832 S11.9 Occupational health and safety

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

836 Many <u>work-related hazards</u> are associated with activities undertaken in the oil and gas sector, such 837 as working with heavy machinery and <u>exposure</u> to or handling of explosive, flammable, poisonous, or 838 harmful substances. Despite efforts to eliminate work-related hazards and improve <u>workers'</u> health 839 and well-being, work-related injuries and ill health, including fatalities, are still prevalent in the sector.

840 Hazards associated with the activities of the oil and gas sector have the potential to result in high-841 consequence work-related injuries. Transportation incidents, which can occur when workers and equipment are transported to and from wells, offshore rigs and other facilities, are the most common 842 843 source of fatalities and injuries in the sector. Other major hazards include fire and explosions, which 844 can originate from flammable gases or liquids during oil and gas production and transportation, and 845 electrical hazards associated with high-voltage systems used in exploration and production facilities or equipment. Falling structures, faulty handling of heavy machinery, or malfunctioning electrical, 846 847 hydraulic, or mechanical installations can result in incidents categorized as 'struck-by', 'caught-in', or 848 'caught-between'. Workers may also be at risk of injuries from slips, trips, and falls when accessing 849 high platforms and equipment.

850 Hazards associated with the oil and gas sector that have the potential to result in ill health can be 851 biological, chemical, ergonomic, or physical in origin. Commonly reported chemical hazards include 852 respirable crystalline silica, which is released during hydraulic fracturing, for example, and can cause 853 silicosis and lung cancer. Hydrogen sulfide released from oil and gas wells and harmful hydrocarbon gases and vapors are other commonly reported hazards. The sector's activities also involve working 854 855 in confined spaces, which may contain a high concentration of gases, such as carbon monoxide, 856 methane, and nitrogen, that can lead to poisoning or asphyxiation. Physical and ergonomic hazards in 857 the sector include extreme temperatures, harmful levels of radiation, and harmful levels of machinery noise or vibration, which can cause hearing impairment or loss and musculoskeletal disorders. 858 Biological hazards prevalent in the sector include communicable diseases present in the local 859 community or diseases due to poor hygiene and poor quality of food or water. 860

861 Hazards related to common employment practices in the oil and gas sector can increase the risk of 862 fatigue, strain, or stress and impact physical, psychological, and social health. These practices 863 include fly-in fly-out (FIFO) work arrangements, working and living in different countries, rotational work, long shifts, long travel times, living in the workplace, interrupted rest, irregular working hours, 864 865 and solitary work. Workers may also experience psychological reactions, such as post-traumatic 866 stress disorder following a major incident. In addition, workplaces characterized by gender imbalance can contribute to increased stress, discrimination, or sexual harassment (see also Diversity and non-867 868 discrimination).

The oil and gas sector makes extensive use of <u>suppliers</u>, some of which may undertake activities considered among the most dangerous. <u>Occupational health and safety management systems</u> may fail to cover suppliers' workers in the same way employees are covered. Suppliers' workers operating on the premises of organizations in the sector may be less familiar with the workplace and the organization's health and safety practices or less committed to those practices. Other workers in the organization's <u>supply chain</u> may be subject to low occupational health and safety standards.



What to report 875

876 If the organization has determined occupational health and safety to be a material topic, this sub-

- section lists the disclosures that have been identified as relevant for reporting on the topic by the oil 877 and gas sector.
- 878

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no.
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	e e e e e e e e e e e e e e e e e e e	S11.9.1
Topic Standards disclosu	res		
GRI 403: Occupational Health and Safety 2018	Disclosure 403-1 Occupational health and safety management system		S11.9.2
	Disclosure 403-2 Hazard identification, risk assessment, and incident investigation		S11.9.3
	Disclosure 403-3 Occupational health services		S11.9.4
	Disclosure 403-4 Worker participation, consultation, and communication on occupational health and safety		S11.9.5
	Disclosure 403-5 Worker training on occupational health and safety		S11.9.6
	Disclosure 403-6 Promotion of worker health		S11.9.7
5	Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		S11.9.8
ument	Disclosure 403-8 Workers covered by an occupational health and safety management system		S11.9.9
2000	Disclosure 403-9 Work-related injuries		S11.9.10
.9	Disclosure 403-10 Work-related ill health		S11.9.11

References and resources 879

880 GRI 403: Occupational Health and Safety 2018 lists authoritative intergovernmental instruments and additional references relevant to reporting on this topic. 881

882 The additional authoritative instruments and references used in developing this topic, as well as resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 883





885 **S11.10 Employment practices**

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

The oil and gas sector generates employment opportunities across the <u>value chain</u>. This can have positive socioeconomic <u>impacts</u> on communities, countries, and regions. While the sector usually offers well-paid opportunities for skilled <u>workers</u>, employment practices in the sector are also associated with negative impacts. Examples include impacts related to disparities in working conditions for contract workers, ineffective labor-management consultations, and job insecurity.

Many jobs in the oil and gas sector have complex shift patterns, involving long shifts and night shifts, 894 to ensure continuity of operations around the clock. This can cause high levels of fatigue and 895 896 augment risks related to health and safety (see Occupational health and safety and Asset integrity 897 and critical incident management) if organizations do not provide for sufficient rest time. Organizations 898 in the oil and gas sector may also use fly-in fly-out (FIFO) work arrangements, in which workers are flown to operational sites for several weeks at a time and often required to work extended shifts. 899 900 Workers on ships can also be at risk of remaining at sea for extended periods of time. Irregular work 901 shifts and schedules, time spent away from families, and potentially limited communication facilities 902 can further impact the physical, psychological, and/or social health of workers.

903 Various activities in the oil and gas sector are outsourced to <u>suppliers</u>. This is common during peak 904 periods, such as during construction or maintenance works, or for specific activities, such as catering, 905 drilling, security, and transportation. Outsourcing activities and using workers employed by suppliers 906 could allow organizations in the oil and gas sector to reduce their labor costs or to bypass collective 907 agreements that are in place for <u>employees</u> (see also Freedom of association and collective 908 bargaining).

Compared to employees, workers employed by suppliers commonly have less favorable employment

conditions, lower <u>remuneration</u>, less training, higher accident rates, and less job security. They often
 lack social protection and access to grievance mechanisms. Workers beyond the first tiers of

912 business relationships in organizations' supply chains may also be subject to low standards for

913 working conditions, exposing organizations in the oil and gas sector to human rights violations

914 through their business relationships (see also Forced labor and modern slavery).

Employment terms can vary between local workers, migrant workers (brought in temporarily), and
 contract workers. Remuneration for these groups of workers may be unequal, while <u>benefits</u>, such as
 bonuses, housing allowances, and private insurance plans, may only be offered to some migrant
 workers. Lack of relevant skills, knowledge, or accessible training programs can also restrict <u>local</u>
 <u>communities</u> from accessing employment opportunities created by the oil and gas sector (see also

920 Economic impacts).

921 Job security is also a concern in the oil and gas sector. Closure and rehabilitation or oil price drops 922 can occur suddenly, leading to job losses and increasing pressure on remaining workers. Low job 923 security is further compounded by automation and changing business models, such as changes 924 triggered by the transition to a low-carbon economy. Organizations in the sector can support workers 925 by planning for a just transition, including implementing timely measures that aim to develop their

926 skills and improve their employability in other sectors.



927 What to report

928 If the organization has determined employment practices to be a <u>material topic</u>, this sub-section lists

929 the disclosures that have been identified as relevant for reporting on the topic by the oil and gas 930 sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no.
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	Ğ	S11.10.1
Topic Standards disclosu	res		
GRI 401: Employment 2016	Disclosure 401-1 New employee hires and employee turnover	Toji.	S11.10.2
	Disclosure 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	1210051	S11.10.3
	Disclosure 401-3 Parental leave		S11.10.4
GRI 402: Labor/Management Relations 2016	Disclosure 402-1 Minimum notice periods regarding operational changes		S11.10.5
GRI 404: Training and Education 2016	Disclosure 404-1 Average hours of training per year per employee		S11.10.6
	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs		S11.10.7
GRI 414: Supplier Social Assessment 2016	Disclosure 414-1 New suppliers that were screened using social criteria		S11.10.8
cument	Disclosure 414-2 Negative social impacts in the supply chain and actions taken		S11.10.9

931 **References and resources**

932 GRI 401: Employment 2016, GRI 402: Labor/Management Relations 2016, GRI 404: Training and

Education 2016, and *GRI 414: Supplier Social Assessment 2016* list authoritative intergovernmental
 instruments and additional references relevant to reporting on this topic.

935 The additional authoritative instruments and references used in developing this topic, as well as

936 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the

937 Bibliography.



938 S11.11 Non-discrimination and equal opportunity

Freedom from discrimination is a human right and a fundamental right at work. Discrimination
 can impose unequal burdens on individuals or deny fair opportunities on the basis of
 individual merit. This topic covers impacts from discrimination and practices related to

942 diversity, inclusion, and equal opportunity.

943 The conditions, locations, necessary skills, and types of work associated with the oil and gas sector 944 can set a barrier for entry, hinder <u>employee</u> diversity, and result in <u>discrimination</u>. Discriminatory 945 practices can impede access to jobs and career development, as well as lead to inequalities in 946 treatment, remuneration, and benefits.

947 Documented cases of discrimination in the oil and gas sector concern race, color, sex, gender,

disability, religion, national extraction, and <u>worker</u> status. For example, jobseekers from <u>local</u>

949 <u>communities</u> may be excluded from the hiring process because of a recruitment system bias that

favors a dominant ethnic group or utilizes migrant workers. Compared to some migrant workers, local
 workers may receive significantly lower pay for equal work. The sector's widespread use of contract
 workers, often with differing terms of employment, can also be conducive to discrimination.

- 953 The oil and gas sector is characterized by a significant gender imbalance. In many countries, the 954 percentage of women working in this sector is significantly lower than the percentage of women
- 955 working overall nationwide. Women are also significantly underrepresented in senior management
- positions. One cause of this imbalance may be that fewer women graduate with degrees pertinent to
- 957 the sector, such as in science, technology, engineering, and mathematics. Other barriers for women
- and primary caregivers include fly-in fly-out (FIFO) work arrangements, long
- hours, and limited <u>parental leave</u>. Social or cultural customs and beliefs and biases can also limit
- 960 women's access to jobs in this sector or prevent them from taking on specific roles. In
- addition, some resource-rich countries have laws that prevent women from working in hazardous or arduous occupations.
- 963 Understanding how specific groups may be subject to discrimination across different locations where
- 964 organizations in the oil and gas sector operate can help organizations effectively address
- 965 discriminatory practices. Other measures, such as providing specific training to workers on how to
- 966 prevent discrimination, can help address <u>impacts</u> related to discrimination and create a respectful
- 967 workplace.

968 What to report

969 If the organization has determined non-discrimination and equal opportunity to be a <u>material topic</u>, this 970 sub-section lists the disclosures that have been identified as relevant for reporting on the topic by the 971 oil and gas sector

oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no.
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics		S11.11.1
Topic Standards disclosures			
GRI 202: Market Presence 2016	Disclosure 202-2 Proportion of senior management hired from the local community		S11.11.2
GRI 401: Employment 2016	Disclosure 401-3 Parental leave		S11.11.3



GRI 405: Diversity and	Disclosure 405-1 Diversity of		S11.11.4
Equal Opportunity 2016	governance bodies and		
	employees		
	Disclosure 405-2 Ratio of basic		S11.11.5
	salary and remuneration of		
	women to men		
GRI 406: Non-	Disclosure 406-1 Incidents of		S11.11.6
discrimination 2016	discrimination and corrective		
	actions taken		
GRI 404: Training and	Disclosure 404-1 Average		S11.11.7
Education 2016	hours of training per year per		S
	employee	G	S

GRI 401: Employment 2016, GRI 404: Training and Education 2016, GRI 405: Diversity and equal 973 opportunity 2016, and GRI 406: Non-discrimination 2016 list authoritative intergovernmental 974

975 instruments and additional references relevant to reporting on this topic.

976 The additional authoritative instruments and references used in developing this topic, as well as

. oil an 977 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the

978



979 S11.12 Forced labor and modern slavery

Forced labor is defined as all work or service which is exacted from any person under the
 menace of penalty and for which a person has not offered themselves voluntarily. Freedom
 from forced labor is a human right and a fundamental right at work. This topic covers an

983 organization's approach to identifying and addressing forced labor and modern slavery.

As part of a global effort, several governments have issued legislation requiring public reporting on
 addressing traditional and emerging practices of <u>forced labor</u>, including modern slavery. Such
 legislation applies to many organizations in the oil and gas sector.

987 The large number of suppliers that organizations in the oil and gas sector interact with may include 988 those operating in countries with low rates of enforcement of human rights and those lacking the 989 capacity to prevent and mitigate negative human rights impacts within their own supply chains. Through their supply chains, oil and gas organizations may therefore be involved with violations of 990 991 human rights and other instances of exploitation. Oil and gas organizations may also be involved with 992 incidences of forced labor and modern slavery as a result of their joint ventures and other business 993 relationships, including those with state-owned enterprises in countries where international human rights violations are documented. Conducting due diligence within the large and complex supply 994 995 chains that commonly exist in the sector may also pose difficulties for detecting and addressing 996 incidents of forced labor and modern slavery.

997 Documented cases have shown forced labor and modern slavery in the supply of services to oil fields 998 and offshore platforms, such as in catering, cleaning, construction, maintenance, and waste 999 management, as well as in marine and land transportation activities. For example, a higher risk of human rights violations may be found aboard ships that are registered in countries other than the 1000 1001 country of the ship's beneficial owner. In such cases, layers of management and the use of external 1002 crewing companies can obscure accountability for ensuring respect of human rights. In other 1003 situations, inadequate arrangements by the employer to cover flight costs or facilitate border-crossing 1004 requirements at the end of a contract period have left ship workers stranded onboard and vulnerable 1005 to exploitation. Offshore oil and gas workers can also be at higher risk of forced labor due to the 1006 isolation of extraction sites, which makes it challenging for organizations in the sector to reinforce 1007 measures countering exploitation. Low-skilled migrant workers can also face higher risks of modern 1008 slavery when dealing with third-party employment agencies, such as those who have been found to 1009 overcharge workers for visas and flights or to demand recruitment costs be paid by employees rather 1010 than employers.

1011 Box 5. Impacts on children's rights

1012 <u>Child</u> labor may occur in activities that service an oil and gas project or its workers (e.g., child labor in hospitality services or in specific sector activities, such as the construction of facilities).

1014 Other impacts on children's rights and well-being can result from the proximity of an oil or gas project 1015 to local communities. These impacts can include sexual violence, environmental impacts, or impacts 1016 resulting from land use and resettlement. Parents' working conditions, including irregular working 1017 hours, long shifts, and fly-in fly-out (FIFO) arrangements, can also have impacts on children (see also 1018 Employment practices).

The risk of child labor in the oil and gas sector arises mainly through an organization's business
relationships and complex supply chains. Suppliers may operate in countries with minimum working
ages that are below the minimum age set by the International Labour Organization.

1022 → Child labor is addressed in *GRI 408: Child Labor 2016*.



1023 What to report

1024 If the organization has determined forced labor and modern slavery to be a material topic, this sub-

section lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no.
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	C	S11.12.1
Topic Standards disclosures			
GRI 409: Forced or Compulsory Labor 2016	Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	ion o'i	S11.12.2
GRI 414: Supplier Social Assessment 2016	Disclosure 414-1: New suppliers that were screened using social criteria	1210051	S11.12.3
	113	9	1

1027 References and resources

1028 GRI 409: Forced or Compulsory labor 2016 and GRI 414: Supplier Social Assessment 2016 list

1029 authoritative intergovernmental instruments and additional references relevant to reporting on this 1030 topic.

1031 The additional authoritative instruments and references used in developing this topic, as well as

1032 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1033 Bibliography.



1034 S11.13 Freedom of association and collective bargaining

Freedom of association and collective bargaining are human rights and fundamental rights at
 work. They include the rights of employers and workers to form, join, and run their own
 organizations without prior authorization or interference, and to collectively negotiate working

1038 conditions and terms of employment. This topic covers an organization's approach and

1039 impacts related to freedom of association and collective bargaining.

1040 <u>Workers'</u> rights to organize and to take collective action are critical for supporting and improving 1041 working conditions in the oil and gas sector, including conditions relating to occupational health and 1042 safety, wages, and job security. These rights can also enable public debate about the sector's 1043 governance and practices as well as aid in reducing social inequality.

1044 Many jobs associated with the oil and gas sector have traditionally been represented by trade unions 1045 and covered by collective bargaining agreements. However, some oil and gas resources are located 1046 in countries where these rights are restricted. Workers in such locations face risks when seeking to join trade unions and engage in collective bargaining. Even in countries where unions are legal, 1047 existing restrictions might prevent effective worker representation, and workers who join unions may 1048 1049 face intimidation or unfair treatment. In cases where freedom of association and collective bargaining 1050 are restricted, organizations in the oil and gas sector may employ alternative means of worker 1051 representation and engagement.

1052 Documented cases of interference with freedom of association and collective bargaining in the sector 1053 include detention of managers and other <u>employees</u>, invasion of privacy, not adhering to collective 1054 agreements, and prevention of trade union access to workplaces to assist workers. Other

1055 documented cases include refusal to bargain in good faith with workers' chosen trade unions, unfair

1056 dismissal of trade union members and leaders, and unilateral cancellation of collective bargaining 1057 agreements.

1058 Widely used in the oil and gas sector, contract workers are often excluded from the scope of collective 1059 bargaining agreements. As a result, contract workers commonly have less favorable employment 1060 conditions and lower remunaration compared to employees (see also Employment practices)

- 1060 conditions and lower <u>remuneration</u> compared to employees (see also Employment practices).
- 1061 Box 6. Freedom of association and civic space

1062Freedom of association and peaceful assembly are fundamental <u>human rights</u>. These rights give1063workers, through their trade unions, and citizens, through independent civil society, the freedom to1064speak about the oil and gas sector's policies and organizations' practices without interference.

1065 Restrictions imposed on civic space, which is the environment that enables civil society to contribute
 1066 to decisions that affect individual lives, can limit citizens' ability to engage in public debate about the
 1067 sector's policies and organizations' practices.

1068 What to report

1069 If the organization has determined freedom of association and collective bargaining to be a material

topic, this sub-section lists the disclosures that have been identified as relevant for reporting on the
 topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no.
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics		S11.13.1



Topic Standards disclosures			
GRI 407: Freedom of Association and Collective Bargaining 2016	Disclosure 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		S11.13.2

1073 *GRI 407: Freedom of Association and Collective Bargaining 2016* lists authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

pic, or are is. The additional authoritative instruments and references used in developing this topic, as well as 1075 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1076 1077



1078 S11.14 Economic impacts

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

Oil and gas activities can be an important source of investment and income for <u>local communities</u>, countries, and regions. <u>Impacts</u> can vary according to the scale of operations and the importance of the activity in the economic context. In some resource-rich countries, revenues from the oil and gas sector are a significant source of income. However, mismanagement of these revenues can harm economic performance and lead to macroeconomic instability and distortions (see Payments to governments and Anti-corruption). Economies dependent on oil and gas can also be vulnerable to commodity price and production fluctuations.

1091 The oil and gas sector can have positive impacts by providing revenues, derived from paying taxes 1092 and royalties, as well as investing in <u>infrastructure</u>, such as power utilities that improve access to 1093 energy, or public services. The sector can also have positive impacts through local employment and 1094 local procurement. Skills development of local communities through education and training can help 1095 increase access to jobs in the sector. Local employment, in turn, can lead to increased purchasing 1096 power and positive impacts on local businesses. Local procurement of products and services can also 1097 help <u>supplier</u> development.

1098 The extent to which local communities stand to <u>benefit</u> from the presence of oil and gas activities 1099 depends on the existing development and industrialization levels of the communities, the community's

capacity to offer qualified <u>workers</u> for the new employment opportunities, and the commitment of
organizations in the oil and gas sector to train local workers. The net employment impacts also
depend on how employment by the oil and gas sector affects existing employment in other sectors
and on organizations' employment practices. For example, a fly-in fly-out (FIFO) work arrangement
can offset pressures associated with influxes of people to small communities while still supplying the
necessary workers (see also Local communities). However, this arrangement reduces the

employment opportunities available to local communities, detracting from the potential economic
 benefits.

1108 The introduction of new oil and gas activities can generate negative impacts on local communities, 1109 such as economic disparity, with vulnerable groups often being disproportionately affected (see also Rights of indigenous peoples). Small local suppliers that depend on larger oil and gas organizations 1110 1111 for their income generation may face challenges in cases of extended payment delays or pressures to 1112 deliver services and products at decreased rates. An influx of external workers can increase pressure on housing, infrastructure, and public services. Local communities may also have to deal with 1113 1114 environmental legacy costs or ineffective rehabilitation after closure (see also Asset integrity and critical incident management and Closure and rehabilitation). 1115

- 1116 The transition to a low-carbon economy is expected to lead to decreased activity in the oil and gas 1117 sector (see also Climate adaptation, resilience, and transition), making communities and countries
- 1118 that depend on the sector for revenues or employment more vulnerable to the resulting economic

downturn. In these cases, collaboration between local and national governments and organizations in
 the sector is essential to ensure a just transition.



What to report 1121

1122 If the organization has determined economic impacts to be a material topic, this sub-section lists the 1123

disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	Describe the <u>community</u> <u>development programs</u> in place that are intended to enhance positive <u>impacts</u> for <u>local communities</u> , including the approach to providing employment, procurement, and training opportunities	S11.14.1
Topic Standards disclosu	res		
GRI 201: Economic Performance 2016	Disclosure 201-1 Direct economic value generated and distributed	Report direct economic value generated and distributed (EVG&D) by project.	S11.14.2
GRI 202: Market Presence 2016	Disclosure 202-2 Proportion of senior management hired from the local community		S11.14.3
GRI 203: Indirect Economic Impacts 2016	Disclosure 203-1 Infrastructure investments and services supported		S11.14.4
	Disclosure 203-2 Significant indirect economic impacts		S11.14.5
GRI 204: Procurement Practices 2016	Disclosure 204-1 Proportion of spending on local suppliers		S11.14.6

References and resources 1124

GRI 201: Economic Performance 2016 and GRI 202: Market Presence 2016 list authoritative 1125

intergovernmental instruments and additional references relevant to reporting on this topic. 1126

1127 The additional authoritative instruments and references used in developing this topic, as well as

1128 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the

1129 Bibliography.



1130 **S11.15 Local communities**

1131 Local communities comprise individuals living or working in areas that are affected or that

1132 could be affected by an organization's activities. An organization is expected to conduct

1133 community engagement to understand the vulnerabilities of local communities and how they

1134 may be affected by the organization's activities. This topic covers socioeconomic, cultural,

1135 health, and human rights impacts on local communities.

Organizations in the oil and gas sector can have positive economic <u>impacts</u> on <u>local communities</u>
through employment and local procurement, taxes, or other payments to local governments, as well
as through <u>community development programs</u> and investments in <u>infrastructure</u> or public services
(see also Economic impacts, Employment practices, and Payments to governments).

(see also Economic impacts, Employment practices, and Fayments to governments).

Activities of the oil and gas sector can also lead to negative impacts on local communities. Negative impacts can result from, for example, land use requirements for the sector's activities, an influx of people seeking employment and economic opportunities, environmental degradation, <u>exposure</u> to hazardous substances, and use of natural resources. When operating in areas of pre-existing conflict or where negative impacts from oil and gas activities are not addressed, conflicts can arise or become exacerbated (see also Conflict and security). <u>Vulnerable groups</u>, including women and <u>indigenous</u> peoples, may be disproportionally affected by these impacts.

- 1147 The oil and gas sector's land use can compete with other land use demands, such as for farming,
- 1148 fishing, or recreation. In addition, it can disrupt traditional livelihoods and increase the risk of
- 1149 impoverishment. It can eventually lead to displacement, which results in additional impacts such as
- restrictions on access to essential services, and impacts on <u>human rights</u> (see Land and resource
- 1151 rights). The activities of the sector can also result in damage to cultural heritage sites, potentially 1152 leading to loss of tradition, culture, or cultural identity, especially among indigenous peoples (see also
- 1152 leading to loss of tradition, culture, or cultural identity, especially among indigenous peoples (see also 1153 Rights of indigenous peoples).
- 1154 The influx of workers from the surrounding areas or as a result of use of fly-in fly-out (FIFO)
- 1155 arrangements, particularly during the construction, maintenance, and closure and rehabilitation
- 1156 phases of oil and gas projects might lead to greater economic inequality within the local community. A
- 1157 large-scale influx of workers can place local services and resources under pressure, induce inflation,
- 1158 and introduce new communicable diseases. Higher housing costs may lead to an increase in
- 1159 homelessness, especially among vulnerable groups. There may be an increase in activities that
- 1160 compromise social order, such as substance abuse, gambling, and prostitution, especially affecting
- 1161 vulnerable groups. The influx of predominantly male workers can change the gender balance of local
- 1162 communities. This can impact women in particular, as it can lead to a rise in sexual violence and
- trafficking as well as sexually transmitted diseases. Documented cases have also shown domestic
- and gender-based violence, both on operational sites and in local communities.
- 1165 Oil and gas activities can generate air, soil, and water pollution; increased levels of traffic, noise, light,
- and odors; <u>waste</u> streams and leaks; and dust. They may cause incidents such as explosions, fires,
- 1167 <u>spills</u>, and tailings dam or pipeline failures (see also Asset integrity and critical incident management).
- 1168 Documented cases have also shown that seismic activity induced by hydraulic fracturing can affect 1169 local communities.
- 1170 Effective local community engagement, <u>grievance mechanisms</u>, and other <u>remediation</u> processes can 1171 help organizations in the oil and gas sector prevent and mitigate the impacts of their activities. In their 1172 absence, the concerns of the community might not be understood or addressed, which can create 1173 negative impacts or exacerbate existing problems, such as gender inequality. Establishing or 1174 participating in grievance mechanisms and other remediation processes that are tailored to the
- 1175 specific needs of local communities can also help organizations address actual or potential negative
- 1176 impacts.



1177 What to report

1178 If the organization has determined local communities to be a <u>material topic</u>, this sub-section lists the 1179 disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the to	pic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 Describe the approach to identifying <u>stakeholders</u> within <u>local communities</u> and to engaging with them. List the <u>vulnerable groups</u> that the organization has identified within local communities. List any collective or individual rights that the organization has identified that are of particular concern for local communities.¹⁰ Describe the approach to engaging with vulnerable groups, including: how it seeks to ensure meaningful engagement; and how it seeks to ensure safe and equitable gender participation. 	S11.15.1
Topic Standards discle	osures		
GRI 413: Local Communities 2016	Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs		S11.15.2
	Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities	Describe <u>impacts</u> on the health of local communities as a result of <u>exposure</u> to pollution caused by operations or use of hazardous substances.	S11.15.3
This docume			

¹⁰ These additional sector recommendations are based on the guidance to clause 1.1 in *GRI* 413: *Local Communities* 2016.



Additional sector disclosures	
Report the number and type of grievances from local communities identified, including:	S11.15.4
 percentage of the grievances that were addressed and resolved; percentage of the grievances that were resolved through <u>remediation</u>. 	

- 1181 GRI 413: Local Communities 2016 lists authoritative intergovernmental instruments and additional references relevant to reporting on this topic. 1182
- The additional authoritative instruments and references used in developing this topic, as well as 1183
- e liste are liste of the another anoth 1184 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1185



1186 **S11.16 Land and resource rights**

1187 Land and resource rights encompass the rights to use, manage and control land, fisheries,

1188 forests, and other natural resources. An organization's impacts on the availability and

1189 accessibility of these can affect local communities and other users. This topic covers impacts

1190 from an organization's use of land and natural resources on human rights and tenure rights,

1191 including from resettlement of local communities.

1192 Oil and gas activities require access to land for prospecting, exploration, extraction, construction,

- 1193 <u>waste</u> storage and disposal, processing, transportation, and distribution of products. This can
- sometimes lead to displacement of other land users, restricted access to resources, and resettlement of local communities, including involuntary resettlement. <u>Impacts</u> from land use vary according to
- 1196 methods of extraction, resource location, the processing required, and transportation methods. For
- example, onshore oil and gas pipelines can have a large footprint due to their length and safety buffer
- 1198 zones.
- 1199 Unclear rules regarding tenure rights to access, use, and control land, often lead to disputes,
- economic and social tensions, and conflict. Insufficient consultation with, and inadequate
- 1201 compensation to affected communities can also exacerbate tensions and conflict. For example, the
- 1202 relationship between mineral rights and land rights might be unclear; formal statutory tenure
- rules might overlap or conflict with traditional customary rules; legitimate rights may not be recognized
- 1204 or enforced; or people may lack formal documentation of their rights to land.
- 1205 Involuntary resettlement of <u>local communities</u> can involve physical displacement (e.g., relocation or 1206 shelter loss) and economic displacement (e.g., loss or access to assets), having impacts on people's 1207 livelihoods and human rights. In such cases, organizations in the oil and gas sector may provide local
- 1208 communities with monetary compensation or land that is equivalent to the lost assets. However,
- 1209 determining the value of local communities' lost access to the natural environment is complex and
- 1210 includes consideration of income-generating activities, human health, and non-material aspects of
- 1211 quality of life, such as the loss of cultural or recreational opportunities. The amount of compensation
- 1212 provided may therefore not be equivalent to the loss borne. In some cases, individuals who are
- 1213 customary titleholders to the land may not be compensated at all or only for crops that they were
- 1214 cultivating on the land but not for the land itself.
- 1215 Community members resisting resettlement may also face threats and intimidation, or violent, 1216 repressive, or life-threatening removal from lands (see also Conflict and security).
- 1217 Addressing impacts on land and resource rights typically requires extensive and meaningful
- 1218 engagement between organizations in the oil and gas sector and local communities, including
- 1219 <u>vulnerable groups</u>. In cases of ineffective community consultation or in the absence of free, prior, and
- 1220 informed consent (FPIC), impacts on resettling communities or existing problems within a community
- 1221 can be exacerbated by an inadequate resettlement process or lack of transparency (see also Local 1222 communities and Rights of indigenous peoples). Community consultations may also fail to include
- 1223 all affected members. Women, for example, are often excluded from decision-
- making processes related to the development a new project.

1225 What to report

- 1226 If the organization has determined land and resource rights to be a <u>material topic</u>, this sub-section
- lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

1220	sector.
	CDI Stone

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic	c		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 Describe the approach of engaging with affected <u>vulnerable groups</u>, including 	S11.16.1



Additional sector disclosures	List the locations of operations that caused or contributed to such resettlement is ongoing. For each location, describe ho <u>rights</u> were affected and restored.	involuntary resettlement or where S11.16.2 w peoples' livelihoods and <u>human</u>
 Ito ensure engagement is meaningful; how the organization seeks to ensure safe and equitable gender participation. Describe the approach of to providing remediation to local communities or individuals 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. 	Additional sector disclosures	
to ensure engagement is		 meaningful; how the organization seeks to ensure safe and equitable gender participation. Describe the approach of to providing remediation to local communities or individuals 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.

The authoritative instruments and references used in developing this topic, as well as resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the Bibliography. 1230 a oil. 1231



1232 **S11.17 Rights of indigenous peoples**

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

1238 The presence of the oil and gas sector in proximity to indigenous communities can present economic 1239 opportunities and <u>benefits</u> for <u>indigenous peoples</u> through employment, training, and <u>community</u> 1240 <u>development programs</u> (see also <u>Economic impacts</u>). However, it can also disrupt indigenous 1241 peoples' cultural, spiritual, and economic ties to their lands or natural environments, compromise their 1242 rights and well-being, and cause displacement (see also Land and resource rights). It can also have 1243 an <u>impact</u> on availability of and access to water, which is a key concern for many indigenous 1244 communities.

1245 The collective and individual rights of indigenous peoples are recognized in authoritative international 1246 instruments. Indigenous peoples also often have a special legal status in national legislation and can be customary or legal owners of lands to which organizations in the oil and gas sector are granted 1247 use rights by governments. Before initiating development or other activities that could have potential 1248 1249 impacts on lands or resources that indigenous peoples use or own, organizations are expected to seek free, prior, and informed consent (FPIC) from indigenous peoples. This right is recognized in the 1250 1251 United Nations Declaration on the Rights of Indigenous Peoples and allows indigenous peoples to 1252 give or withhold consent to a project that may affect them or their territories and to negotiate project 1253 conditions [310]. However, some national governments may not recognize or enforce indigenous land 1254 rights or indigenous peoples' rights to consent. Documented cases show an absence of good faith 1255 consultations as well as undue pressure on indigenous peoples to accept projects, with opposition to 1256 such projects sometimes leading to violence or death (see also Conflict and security). Organizations 1257 in the sector and indigenous peoples regularly have disputes and conflicts over land ownership and 1258 rights.

An influx of workers from other areas can result in <u>discrimination</u> toward indigenous peoples in terms of access to jobs. It can further undermine their social cohesion, well-being, and safety. Impacts that may affect indigenous women more <u>severely</u> than men include risks of prostitution, <u>forced labor</u>,

1262 violence, and increased <u>exposure</u> to communicable diseases (see also Local communities).

1263 The contribution of the oil and gas sector to climate change can also exacerbate negative impacts on 1264 indigenous peoples, given their distinct relationship with and, at times, dependence on the natural 1265 environment.



1266 What to report

1267 If the organization has determined rights of rights of indigenous peoples to be a <u>material topic</u>, this

sub-section lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the to	pic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 Describe the <u>community</u> <u>development programs</u> in place that are intended to enhance positive <u>impacts</u> for <u>indigenous peoples</u>, including the approach to providing employment, procurement, and training opportunities. Describe the approach of engaging with indigenous peoples, including: how the organization seeks to ensure engagement is meaningful; how the organization seeks to ensure indigenous women are able to participate safely and equitably. 	S11.17.1
Topic Standards discle	osures		
GRI 411: Rights of Indigenous Peoples 2016	Disclosure 411-1 Incidents of violations involving rights of indigenous peoples	Describe the identified incidents of violations involving the rights of indigenous peoples.	S11.17.2
Additional sector discl	osures		
List the locations of op activities of the organi	perations where indigenous peoples a zation.	are present or affected by oil and gas	S11.17.3
Report if the organizat from indigenous peopl o whether the p indigenous pe o whether an ag	ion has been involved in a process o les for any of the organization's activi rocess has been mutually accepted b oples; greement has been reached, and if so	f seeking free, prior and informed consent ties, including, in each case: by the organization and the affected b, if the agreement is publicly available.	S11.17.4

1270 **References and resources**

- 1271 *GRI 411: Rights of Indigenous Peoples 2016* lists authoritative intergovernmental instruments and additional references relevant to reporting on this topic.
- 1273 The additional authoritative instruments and references used in developing this topic, as well as
- resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the Bibliography.



1276 **S11.18 Conflict and security**

1277 An organization's activities may trigger conflict or, in cases of existing conflict, intensify it.

1278 The use of security personnel to manage conflict can play an essential role in allowing an 1279 organization to operate safely and productively but also has the potential to impact on 1280 people's human rights. This topic covers the organization's security practices and its

1281 approach to operating in areas of conflict.

1282 Many organizations in the oil and gas sector operate in locations and situations of conflict including, 1283 for example, countries characterized by political and social instability.

1284 Conflict can also be caused by the presence of oil and gas activities. It can be triggered by negative

- 1285 environmental impacts; inadequate engagement of stakeholders and indigenous peoples in decision-
- 1286 making processes; uneven distribution of economic <u>benefits</u> or provision of benefits deemed disproportionate to impacts created; and disputes over use of land and resources (see also Land and
- 1288 resource rights). Conflict can also be triggered by the perceived mismanagement of funds at the
- expense of local interests (see also Anti-corruption). Such conflict can heighten the need to use
 security personnel, but also the potential for violations of human rights.
- Security personnel engaged by organizations in the oil and gas sector or public security directed by the host government may be present to protect organizations' assets or ensure <u>workers</u>' safety and security. Actions taken by security personnel against <u>local community</u> members, including during protest activities against development of oil and gas resources or to protect land and resources, can violate human rights, such as the rights to <u>freedom of association</u> and freedom of speech, as well as lead to violence, injuries, or deaths.
- 1297 When oil and gas activities are endorsed by the government but remain disagreeable to local
- <u>communities</u>, the presence of public security forces can increase tensions between communities,
 government, and organizations in the sector. This can in turn exacerbate local power imbalances and,
- 1300 potentially, use of force.
 - 1301 In cases where public or other third-party security forces, such as paramilitary groups, are active,
 - organizations in the oil and gas sector still have a responsibility to take steps to ensure security practices are consistent with the protection of human rights. This involves assessing security-related risks, identifying situations in which impacts on human rights are likely to occur, and working with
 - 1305 security providers to ensure human rights are respected.
 - 1306 Organizations in the oil and gas sector may also contribute more broadly to the safety and security of 1307 local communities, for example, by facilitating communication between communities and public
 - 1308 security forces or supporting efforts to address other sources of conflict.

1309 What to report

1310 If the organization has determined conflict and security to be a <u>material topic</u>, this sub-section lists the 1311 disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 List the locations of operations in areas of conflict. 	S11.18.1
		 Describe the approach to ensuring respect for <u>human</u> <u>rights</u> by of public and private security providers. 	



Topic Standards disclosures			
GRI 410: Security Practices 2016	Disclosure 410-1 Security personnel trained in human rights policies or procedures		S11.18.2

1313 GRI 410: Security Practices 2016 lists authoritative intergovernmental instruments and additional 1314 references relevant to reporting on this topic.

The additional authoritative instruments and references used in developing this topic, as well as 1315

e listedi, e listedi, this documentation resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1316 1317



1318 **S11.19 Anti-competitive behavior**

1319 Anti-competitive behavior refers to actions by an organization that can result in collusion with

potential competitors, abuse of dominant market position or exclusion of potential
 competitors, thereby limiting the effects of market competition. This can include fixing prices
 or coordinating bids, creating market or output restrictions, imposing geographic quotas, and
 allocating customers, suppliers, geographic areas, or product lines. This topic covers impacts

1324 as a result of anti-competitive behavior.

1325 The oil and gas sector faces high barriers to entry due to the sizable investments needed.

- Consequently, established organizations in the sector are often large and can dominate national or
 local markets. Mergers and acquisitions can intensify this concentration. Some segments of the sector
 depend on extensive <u>infrastructure</u> investments, such as investments in pipelines and liquefied
 natural gas (LNG) terminals, usually operated by a single organization or a small number of them.
- The global market for oil and gas is large and well-integrated, making it secure against collusion or
 market dominance from individual producers. However, specific segments of the oil and gas sector
 can be subject to <u>anti-competitive behavior</u>. Instances of cartels, monopolistic practices, and related

abuse of such positions have been documented in some jurisdictions in which oil and gas

1334 organizations are active. Agreements between producers and energy distributors, as well as mergers 1335 between organizations in the sector, can diminish competition by affecting output volume, and can

- between organizations in the sector, can diminish competition by affecting output volume, and can
 create monopolies over transportation, distribution and supply to consumers. Collusion can also take
- 1337 place when submitting bids for the rights to extract oil and gas. Organizations may coordinate their
- bids in connivence with competitors so as to obtain lower prices, depriving resource owners of faircompensation.

1340 Anti-competitive behavior can result in higher prices for oil, gas and raw materials derived from oil and

1341 gas. Given the key role of oil and gas in the world economy, even a small increase in price can have 1342 sizeable negative <u>impacts</u>.

1343 What to report

1344 If the organization has determined anti-competitive behavior to be a <u>material topic</u>, this sub-section

1345 lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas 1346 sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics		S11.19.1
Topic Standards disclosures			
GRI 206: Anti- competitive Behavior 2016	Disclosure 206-1 Legal actions for anti-competitive behavior, anti- trust, and monopoly practices		S11.19.2

1347 **References and resources**

1348 *GRI 206: Anti-competitive Behavior 2016* lists authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

1350 The additional authoritative instruments and references used in developing this topic, as well as 1351 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1352 Bibliography.



1353 S11.20 Anti-corruption

Anti-corruption refers to how an organization manages the potential of being involved with
 corruption. Corruption is practices such as bribery, facilitation payments, fraud, extortion,
 collusion, and money laundering, and the offer or receipt of an inducement to do something

1357 that is dishonest or illegal. This topic covers impacts related to corruption and an

1358 organization's approach related to contract and ownership transparency.

1359 <u>Corruption</u> in the oil and gas sector can occur throughout the <u>value chain</u> and has been linked to 1360 various negative <u>impacts</u>, such as misallocation of resources revenues, damage to the environment, 1361 abuse of democracy and <u>human rights</u>, and political instability. Corruption can lead to diversion of 1362 public revenues to private beneficiaries, at the expense of, for example, investments in <u>infrastructure</u> 1363 or services. This can be particularly critical in countries with high levels of poverty, and can lead to 1364 increased inequalities and conflicts over oil and gas resources (see Conflict and security).

- 1365 The oil and gas sector faces higher risks of corruption in comparison with other sectors.
- 1366 Characteristics of the sector that contribute to the potential for corruption include frequent interaction 1367 between oil and gas organizations and politically exposed persons¹¹, such as government officials for 1368 licenses and other regulatory approvals. Other relevant sector characteristics include the complex 1369 financial transactions and the international reach of the sector.
- 1370 State-owned enterprises (SOEs) face specific challenges in relation to corruption because they may
 1371 have less effective internal controls and be subject to partial independent oversight. In addition to
 1372 driving profit, SOEs may also pursue broader objectives such as local development. However, without
- 1373 adequate oversight, measures for local development may be abused for corrupt purposes.
- 1374 Organizations in the oil and gas sector partnering with SOEs in joint ventures may face additional
- 1375 risks related to corruption as a result of this business relationship.
- Cases of corruption during bidding processes for exploration and production licenses have been
 documented in the oil and gas sector. Organizations in the sector have used corrupt practices to
 obtain confidential information, influence decision-making, and avoid environmental or other
 requirements. Such cases may result in licenses being awarded to less qualified organizations,
 jeopardize public investments, or negatively impact the environment and <u>local communities</u>. Opaque
 licensing procedures may also obstruct public scrutiny of oil and gas investments and transactions
- 1382 that could result in reduced public revenue.
- In other cases, corrupt practices have aimed to block or shape policies and regulations or to influence
 their enforcement. This might include regulations concerning land and resource rights, taxes and
 other government levies, or environmental protection.
- 1386 Across the value chain, a lack of transparency in procurement procedures in the oil and gas sector
- can also create a risk of corruption or fraud. Examples of this can include paying bribes to get
 regulations or quality requirements waived, receiving kickbacks for securing contracts at inflated
- 1389 prices, or profiting from inflated prices charged by an entity established as a front organization.
- 1390 To combat corruption and prevent the negative impacts that stem from it, organizations in the oil and 1391 gas sector are expected by the marketplace, international norms, and <u>stakeholders</u> to demonstrate 1392 their adherence to integrity, governance, and responsible business practices.

¹¹ Politically exposed person is defined by the Financial Action Taskforce as "an individual who is or has been entrusted with a prominent public function" [364].



1393 **Box 7. Transparency about contracts and ownership structures**

Publication of government contracts is a growing practice. It is endorsed by organizations such as the
United Nations, the International Monetary Fund (IMF), the International Finance Corporation (IFC),
the International Bar Association, and the Organisation for Economic Co-operation and Development
(OECD).

Contracts governing the extraction of oil and gas resources are commonly devised by organizations in
the sector and governments on behalf of citizens or local communities without public oversight. Fair
terms for sharing risks and rewarding <u>benefits</u>, including those related to a just transition, are
particularly relevant because of the long-term time horizons and widespread impacts of projects.
Contract transparency helps local communities hold governments and organizations accountable for
their negotiated terms and obligations. It also reduces information asymmetries between governments
and oil and gas organizations and helps level the playing field in negotiations.

Lack of transparency about ownership structures can make it difficult to determine who benefits from
financial transactions in the oil and gas sector. Beneficial ownership transparency has been identified
as a significant opportunity to deter <u>conflicts of interest</u>, corruption, and tax avoidance and evasion.

1408 See references [362] and [366] in the Bibliography.

1409 What to report

1410 If the organization has determined anti-corruption to be a <u>material topic</u>, this sub-section lists the 1411 disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic			
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 Describe how potential impacts of <u>corruption</u> or risks of corruption are managed, including in the organization's <u>supply chain.</u> Describe the whistleblowing and other mechanisms in place for individuals to raise concerns about corruption. 	S11.20.1
Topic Standards disclosu	res		
GRI 205: Anti-corruption 2016	Disclosure 205-1 Operations assessed for risks related to corruption		S11.20.2
	Disclosure 205-2 Communication and training about anti-corruption policies and procedures		S11.20.3
	Disclosure 205-3 Confirmed incidents of corruption and actions taken		S11.20.4



Additional sector disclosures		
Describe the approach to contract transparency, including:		S11.20.5
 whether contracts and licenses are made publicly available and, if so, where they are published; 		
 if contracts or licenses are not publicly available, the reason for this and actions taken to make them public in the future.¹² 		
List the benefic	e organization's beneficial owners and explain how the organization identifies the cial owners of <u>business partners</u> , including joint ventures and <u>suppliers</u> . ¹³	S11.20.6

GRI 205: Anti-corruption 2016 lists authoritative intergovernmental instruments and additional 1413 1414 references relevant to reporting on this topic.

1415 The additional authoritative instruments and references used in developing this topic, as well as

is sector is sector in this is sector in the boom of the sector of the s resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1416 1417 Bibliography.

¹² This additional sector disclosure is based on Requirement 2.4.Contracts in the EITI Standard 2019. Definitions for contracts and licenses can be found in the EITI Standard 2019 [363].

¹³ This additional sector disclosure is based on Requirement 2.5. Beneficial ownership c,. d., and f. in the EITI Standard 2019 [363].



1418 **S11.21 Payments to governments**

1419 Lack of transparency about payments to governments can contribute to inefficient

management of public funds, illicit financial flows, and corruption. This topic covers impacts
 from an organization's practices related to payments to governments and the organization's
 approach to transparency of such payments.

Organizations in the oil and gas sector deal with a large number of complex financial transactions and
 make a variety of payments to governments. These include commodity trading revenues, exploration
 and production licensing fees, taxes and royalties, signature, discovery and production bonuses.

Transparency of payments to governments can help distinguish the economic importance of the oil
and gas sector to countries, enable public debate, and inform government decision-making. It can
also provide insights into the terms of contracts, increase government accountability and strengthen
revenue collection and management. Insufficient transparency of these payments, on the other hand,
can impede detection of misallocation of revenues and corruption.

- Taxes, royalties, and other payments from organizations in the oil and gas sector are an important
 source of investment and revenue for <u>local communities</u>, countries, and regions (see Economic
 impacts). However, opportunistic tax practices or tax non-compliance can lead to diminished tax
 revenues in countries where the organizations operate. This can be particularly damaging for
 developing countries who may lack or have high needs of public revenue. The sector also receives
 substantial subsidies from governments in many countries, which are of great interest to <u>stakeholders</u>,
 such as investors or civil society.
- When disclosing information on payments to governments, organizations in the oil and gas sector often report aggregate payments at an organizational level. However, this can provide limited insight into payments made in each country or related to a project. Reporting country-level and project-level payments enables comparison of the payments made to those stipulated in fiscal, legal, and contractual terms, as well as to assess the financial contribution of oil and gas activities to host countries and communities. It can also enable governments to address tax avoidance and evasion, correct information asymmetry and level the playing field for governments when negotiating contracts.

1445Box 8. State-owned enterprises

A state-owned enterprise (SOE) is, according to the Extractives Industries Transparency Initiative
(EITI), 'a wholly or majority government-owned company that is engaged in extractive activities on
behalf of the government' (see reference [384] in the Bibliography). SOEs often have special status,
which can involve financial advantages and preferential treatment.

1450 SOEs often sell shares of the produced resource to buyers, including commodity trading companies. This first trade¹⁴ is an important revenue stream for countries and can involve a high volume of 1451 1452 financial transactions. However, data on these transactions is often scarce or inaccessible. The first 1453 trade can be subject to trade mispricing in the form of under-invoicing of exports or over-invoicing of imports to obtain financial gain. Other risks may result from the selection of buyers and allocation of 1454 1455 sales contracts (which can involve bribery and conflicts of interest) and moving income to a state treasury, potentially causing misallocation of revenues or generating public mistrust of revenue 1456 1457 management (see also Anti-corruption).

1458Transparency in the operations and objectives of SOEs is crucial for monitoring their performance and1459maximizing their economic and social contributions.

¹⁴ First trade is defined by the Extractive Industries Transparency Initiative as "the sale of the state's share of production by government and state-owned enterprises" [381].



What to report 1460

1461

If the organization has determined payments to governments to be a <u>material topic</u>, this sub-section lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas 1462 1463 sector.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topic	:		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	65	S11.21.1
Topic Standards disclosu	ures		
GRI 201: Economic Performance 2016	Disclosure 201-1 Direct economic value generated and distributed	Sillon	S11.21.2
	Disclosure 201-4 Financial assistance received from government	 For state-owned organizations (SOE): Report the financial relationship between the government and the SOE. ¹⁵ 	S11.21.3
GRI 207: Tax 2019	Disclosure 207-1 Approach to tax		S11.21.4
	Disclosure 207-2 Tax governance, control, and risk management		S11.21.5
	Disclosure 207-3 Stakeholder engagement and management of concerns related to tax		S11.21.6
This document	Disclosure 207-4 Country-by- country reporting	 Report a breakdown of the payments to governments levied at the project-level, by project and the following revenue streams, if applicable: The host government's production entitlement; National state-owned company production entitlement; Royalties; Dividends: 	S11.21.7

¹⁵ This additional sector disclosure is based on Requirement 2.6 State participation in the EITI Standard 2019 [384].



	 Bonuses (e.g., signature, discovery, and production bonuses); License fees, rental fees, entry fees; and other considerations for licenses or concessions; Any other significant payments and material benefits to government.¹⁶ Report the value of any thresholds¹⁷ that have been applied and any other contextual information necessary to understand how the project-level payments to governments reported have been compiled. 	6
Additional sector disclosures		
For oil and gas purchased from the state, or from third partie their behalf, report:	es appointed by the state to sell on	S11.21.8
 volumes and types of oil and gas purchased; full names of the buying entity and of the recipie payments made for the purchase.¹⁸ 	ent of the payment;	

GRI 201: Economic Performance 2016 and GRI 207: Tax 2019 list authoritative intergovernmental 1465 instruments and additional references relevant to reporting on this topic. 1466

- 1467 The additional authoritative instruments and references used in developing this topic, as well as
- 1468 resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1469 Bibliography.

¹⁶ This additional sector disclosure is based on Requirement 4.1 Comprehensive disclosure of taxes and revenues and Requirement 4.7. Level of disaggregation in the EITI Standard 2019. A definition for project can be found in the EITI Standard 2019 [384].

¹⁷ The EITI Standard 2019 specifies that in countries implementing the EITI, the multi-stakeholder group for the country agree which payments and revenues are material, including appropriate thresholds [384]. The organization can use the relevant threshold set by the EITI multi-stakeholder group. If there is no relevant threshold set, the organization can use a threshold equivalent to that established for the European Union, which specifies that 'Payments, whether a single payment or a series of related payments, below EUR 100,000 within the reporting period can be excluded' [377].

¹⁸ This additional sector disclosure is based on Requirement 4.2 Sale of the state's share of production or other revenues collected in kind in the EITI Standard 2019 [384] and EITI Reporting Guidelines for companies buying oil, gas and minerals from governments [382].



1470 **S11.22 Public policy**

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

1478 The oil and gas sector can exert significant influence on government policies and is among the 1479 sectors with the largest lobbying expenditure. Documented cases have shown that lobbying by the oil 1480 and gas sector can obstruct progress toward the Sustainable Development Goals, or lead to policy 1481 and regulation that are inconsistent with the transition to a low-carbon economy. In regions where oil 1482 and gas generate significant revenue for governments, organizations in the sector may get better 1483 access to, and representation in meetings with, government representatives, which may lead to 1484 increased influence over public policy decisions. Organizations in the sector have made donations to 1485 political parties whose policies favor corporate agendas or to gain special access to politicians.

Advocacy and lobbying by the oil and gas sector have contributed to hindering environmental policies; blocking or amending legislation on environmental and social assessments of projects or fair participation of all <u>stakeholders</u>; overturning restrictions on resource development; acquiring permits for pipelines; and lowering labor standards, corporate taxes, and resource royalties. These activities have also been used to gain or retain government subsidies, which can result in commodity prices that do not reflect the full environmental costs of oil and gas products.

1491 that do not reliect the full environmental costs of oil and gas products.

1492 The oil and gas sector has actively advocated against ambitious climate policies as well as for 1493 ensuring continued subsidies to the sector, through individual organizations in the sector and industry 1494 bodies. These activities have often been targeted against enforcing meaningful carbon pricing, carbon 1495 budgets, or other measures to reduce GHG emissions that could leave oil and gas assets and 1496 resources stranded. Sometimes, efforts have contradicted publicly stated corporate strategies and 1497 positions that support policies addressing climate change. Excessive subsidies for the sector can 1498 impede the transition to a low-carbon economy, and consequently hinder sustainable development, in 1499 numerous ways, including by reducing or inefficiently allocating available national resources,

1500 increasing dependence on fossil fuels, and discouraging investment in renewable energy and energy 1501 efficiency (see Climate adaptation, resilience, and transition).

1502 What to report

1503 If an organization in the oil and gas sector has identified public policy to be a <u>material topic</u>, this 1504 section helps it determine what to report on this topic.

GRI Standard	Disclosure	Additional sector recommendations	GRI Sector Standard ref. no
Management of the topi	с		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	 Describe the organization's stance on significant issues that are the focus of its participation in public policy development and lobbying; and any differences between these positions and its stated policies, goals, or other public positions. Report whether the organization is a member of, or contributes to, any representative associations or committees that participate that 	S11.22.1



		 participate in public policy development and lobbying, including: the nature of this contribution; any differences between the organization's stated policies, goals, or other public positions on significant issues related to climate change, and the positions of the representative associations or committees.¹⁹ 	
Topic Standards disclos	ures		
GRI 415: Public Policy 2016	Disclosure 415-1 Political contributions		S11.22.2

1506 GRI 415: Public Policy 2016 lists authoritative intergovernmental instruments and additional 1507 references relevant to reporting on this topic.

The additional authoritative instruments and references used in developing this topic, as well as 1508

the oil a comment does not represent an office of the oil a comment does not represent an office resources that may be helpful for reporting on the topic by the oil and gas sector are listed in the 1509 1510 Bibliography.

¹⁹ These additional sector recommendations are based on reporting recommendations 1.2.1 and 1.2.2 in GRI 415: Public Policy 2016.



Glossary

1511 This glossary provides definitions for terms used in this Standard. The organization is required to 1512 apply these definitions when using the GRI Standards.

1513 The definitions included in this glossary may contain terms that are further defined in the complete 1514 *GRI Standards Glossary*. All defined terms are underlined. If a term is not defined in this glossary or in

1515 the complete *GRI Standards Glossary*, definitions that are commonly used and understood apply.

1516 **Note to GSSB:** no new terms have been added as a result of the development *GRI 11: Oil and Gas*

1517 Sector 2021. The following terms from the *GRI Standards Glossary* are used in *GR 11* and will be added at the time of publication.

Anti-competitive behavior	Governance body
Area of high biodiversity value	Greenhouse gas (GHG)
Baseline	Grievance
Basic salary	Grievance mechanism
Benefit	Groundwater
Business partner	Hazardous waste
Business relationships	High-consequence work-related injury
Child	Highest governance body
Circularity measures	Human rights
Collective bargaining	Impact
Community development program	Indigenous peoples
Conflict of interest	Infrastructure
Corruption	Local community
Direct (Scope 1) GHG emissions	Local supplier
Discrimination	Material topic
Disposal	Occupational health and safety management
	system
Due diligence	Occupational health services
Effluent	Other indirect (Scope 3) GHG emissions
Employee	Parental leave
Employee turnover	Political contribution
Energy indirect (Scope 2) GHG emissions	Produced water
Entry level wage	Protected area
Exposure	Recovery
Financial assistance	Recycling
Forced or compulsory labor	Remediation
Freedom of association	Remuneration
Freshwater	Renewable energy source
Reporting period	Supply chain
Scope of GHG emissions	Surface water
Seawater	Sustainable development
Security personnel	Value chain
Senior executive	Vulnerable group
Services supported	Waste
Severity (of impact)	Water consumption
Significant air emission	Water discharge
Significant operational change	Water stress
Significant spill	Water withdrawal
Spill	Work related hazard
Stakeholder	Worker
Supplier	



Bibliography

1519 This section lists authoritative intergovernmental instruments and additional references used in 1520 developing this Standard, as well as resources that can be consulted by the organization.

1521 Introduction

- 1522 1. European Communities, NACE Rev.2, Statistical classification of economic activities in the 1523 European Community (NACE), Eurostat, Methodologies and Working Papers, 2008.
- 1524 2. Executive Office of the President, Office Of Management and Budget, North American Industry 1525 Classification System (NAICS), 2017.
- 1526 3. FTSE Russell, ICB Structure. Taxonomy Overview, 2019.
- S&P Dow Jones Indices and MSCI Inc., *Revisions to the Global Industry Classification Standard* (GICS®) Structure, 2018.
- Sustainable Accounting Standards Boards (SASB), Sustainable Industry Classification System® (SICS®), <u>sasb.org/find-your-industry/</u>, accessed on 27 May 2021.
- 1531 6. United Nations, International Standard Industrial Classification of All Economic Activities, 1532 Revision 4, Statistical Papers Series M No. 4/Rev.4, 2008.

1533 Sector profile

1534 Authoritative instruments:

United Nations Framework Convention on Climate Change (UNFCCC), *Paris Agreement*, 2015.
 United Nations General Assembly, Resolution adopted by the General Assembly on 25
 September 2015. *Transforming our world: the 2030 Agenda for Sustainable Development*, 2015
 (A/RES/70/1).

1539 Additional references:

- 1540
 9. Cordaid, Informing Local Communities, Civil Society and Local Government about Oil & Gas: A
 1541
 Practical Guide on Technical Aspects, 2016.
- 1542 10. F. Denton, T. J. Wilbanks, et al., 'Climate-Resilient Pathways: Adaptation, Mitigation, and
 1543 Sustainable Development', Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A:
 1544 Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of
 1545 the Intergovernmental Panel on Climate Change, 2014.
- 1546 11. International Energy Agency (IEA), *Net-zero by 2050: A Roadmap for the Global Energy Sector*, 2021.
- 1548 12. International Energy Agency (IEA), *World Energy Balances: Overview*, 2020.
- International Finance Corporation (IFC), International Petroleum Industry Environmental
 Conservation Association (IPIECA), United Nations Development Program (UNDP), Mapping the
 oil and gas industry to the development goals: An atlas, 2017.
- 1552 14. International Panel on Climate Change (IPCC), *Global Warming of 1.5°C*, 2018.
- International Petroleum Industry Environmental Conservation Association (IPIECA), World
 Business Council on Sustainable Development (WBCSD), Accelerating action: an SDG
 Roadmap for the oil and gas sector, 2021.
- 1556 16. Organisation for Economic Co-operation and Development (OECD) and International Energy
 1557 Agency (IEA), OECD Green Growth Studies: Energy, 2011.
- 1558 17. United Nations Environment Programme (UNEP), Emissions Gap Report 2019, 2019.
- 1559 18. World Bank, Access to Electricity, <u>data.worldbank.org/indicator/EG.ELC.ACCS.ZS</u>, accessed on 31 May 2020.
- 1561 19. World Economic Forum (WEF), Which economies are most reliant on oil?,
- 1562 weforum.org/agenda/2016/05/which-economies-are-most-reliant-on-oil/, accessed 03 May 2021.

1563 **Resources:**

- 1564 20. GRI, *Linking the SDGs and the GRI Standards*, updated regularly.
- 1565 21. GRI and UN Global Compact, Integrating the SDGs into corporate reporting: A practical guide, 2018.



1567 **S11.1 GHG emissions**

1568 Authoritative instruments:

- 1569 22. Intergovernmental Panel on Climate Change (IPCC), Climate Change 2007: The Physical
 1570 Science Basis, 2007.
- 1571 23. Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2014: Synthesis Report*, 2014.

1573 24. Intergovernmental Panel on Climate Change (IPCC), Good Practice Guidance and Uncertainty
 1574 Management in National Greenhouse Gas Inventories, 2001.

1575 Additional references:

- 1576 25. Carbon Brief, Methane emissions from fossil fuels 'severely underestimated', 2020,
 1577 <u>carbonbrief.org/methane-emissions-from-fossil-fuels-severely-underestimated</u>, accessed on 31
 1578 May 2020.
- 1579 26. Climate Disclosure Project (CDP), CDP Technical Note: Guidance methodology for estimation of 1580 Scope 3 category 11 emissions for oil and gas companies, 2021.
- 1581 27. Environmental Defense Fund (EDF), *Taking Aim: Hitting the mark on oil and gas methane* 1582 *targets*, 2018.
- 1583 28. Ernst & Young (EY), Unconventional oil and gas in a carbon constrained world: A review of the 1584 environmental risks and future outlook for unconventional oil and gas, 2017.
- P. Forster, V. Ramaswamy, et al., 'Changes in Atmospheric Constituents and in Radiative Forcing', Climate Change 2007: The Physical Science Basis, 2007.
- 1587 30. Harvard John A. Paulson School of Engineering and Applied Sciences, *Oil and natural gas production emit more methane than previously thought*, 2021.
- 1589 31. International Energy Agency (IEA), *Energy Efficiency 2018: Analysis and Outlooks to 2040*, 2018.
- 1591 32. International Energy Agency (IEA), CO₂ Emissions from Fuel Combustion Highlights, 2019, <u>iea.org/data-and-statistics/data-products</u>, accessed on 22 April 2021.
- 1593 33. International Energy Agency (IEA), *Flaring Emissions*, 2020.
- 1594 34. International Energy Agency (IEA), Methane Tracker, <u>iea.org/reports/methane-tracker-2020</u>,
 1595 accessed on 31 May 2020.
- 1596 35. International Energy Agency (IEA), *The Oil and Gas Industry in Energy Transitions: World Energy Outlook special report*, 2020.
- 1598 36. International Petroleum Industry Environmental Conservation Association (IPIECA) and
 1599 American Petroleum Institute (API), *Estimating petroleum industry value chain (Scope 3)* 1600 greenhouse gas emissions: Overview of methodologies, 2016.
- 1601 37. International Petroleum Industry Environmental Conservation Association (IPIECA), American
 1602 Petroleum Institute (API), and International Association of Oil & Gas Producers (IOGP), Oil and
 1603 gas industry guidance on voluntary sustainability reporting, 3rd ed., 2015.
- 1604 38. International Petroleum Industry Environmental Conservation Association (IPIECA), Saving 1605 energy in the oil and gas industry, 2013.
- 1606 39. The Energy Resources Institute (TERI), *Towards an Energy Efficient Oil & Gas Sector*, 2015.
- 40. United Nations Climate Change (UNFCC), What do adaptation to climate change and climate resilience mean?, 2020, <u>unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean</u>, accessed on 31 May 2020.

1610 41. United Nations Environment Programme (UNEP) and Climate and Clean Air Coalition (CCAC)
 1611 *Oil and Gas Methane Partnership (OGMP) 2.0 Framework*, 2020

- 1612 42. United States Energy Information Administration (EIA), Assumptions to the Annual Energy
 1613 Outlook 2019: Industrial Demand Module, 2019.
- 43. United States Energy Information Administration (EIA), Natural gas explained,
 <u>eia.gov/energyexplained/natural-gas/</u>, accessed on 31 May 2020.
- 44. United States Environmental Protection Agency (US EPA), Overview of Greenhouse Gases, epa.gov/ghgemissions/overview-greenhouse-gases#methane, accessed on 31 May 2020.
 45. World Bank, Global Gas Flaring Reduction Partnership (GFFR),
- 1619 worldbank.org/en/programs/gasflaringreduction, accessed on 1 June 2021.
- 46. World Bank, Increased Shale Oil Production and Political Conflict Contribute to Increase in Global Gas Flaring, 2019, <u>worldbank.org/en/news/press-release/2019/06/12/increased-shale-oil-</u> production-and-political-conflict-contribute-to-increase-in-global-gas-flaring, accessed on 31 May 2020.



- 47. World Bank, Zero Routine Flaring by 2030, <u>worldbank.org/en/programs/zero-routine-flaring-by-</u>
 2030#7, accessed on 31 May 2020.
- 162648. World Resources Institute, Estimating and Reporting the Comparative Emissions Impacts of1627Products, 2019.

1628 Resources:

- 1629 49. Climate Disclosure Project (CDP), CDP Technical Note: Guidance methodology for estimation of
 1630 Scope 3 category 11 emissions for oil and gas companies, 2021.
- 1631 50. Greenhouse Gas Protocol, Corporate Value Chain (Scope 3) Accounting and Reporting 1632 Standard, 2011.
- 1633 51. Greenhouse Gas Protocol, *Global Warming Potential Values*, 2015.
- 1634
 1635
 1636
 1636
 1636
 1637
 1636
 1638
 1636
 1636
 1636
 1636
 1637
 1636
 1636
 1637
 1638
 1638
 1639
 1639
 1639
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630
 1630</l
- 1637 53. International Petroleum Industry Environmental Conservation Association (IPIECA), American
 1638 Petroleum Institute (API), International Association of Oil & Gas Producers (IOGP), Sustainability
 1639 reporting guidance for the oil and gas industry, 2020.
- 1640 54. United Nations Environment Programme (UNEP) and Climate and Clean Air Coalition (CCAC) 1641 *Oil and Gas Methane Partnership (OGMP) 2.0 Framework*, 2020
- 1642 55. World Bank, Global Gas Flaring Reduction Partnership (GFFR),
 1643 worldbank.org/en/programs/gasflaringreduction, accessed on 1 June 2021.
- 1644 56. World Resources Institute, *Estimating and Reporting the Comparative Emissions Impacts of* 1645 *Products*, 2019.

1646 S11.2 Climate, adaptation, resilience, and transition

1647 **Authoritative instruments**:

1648 57. Intergovernmental Panel on Climate Change (IPCC), Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, 2018.

1652 Additional references:

- 1653 58. A. Dagnachew, A. F. Hof, et al., *Insight into Energy Scenarios: A comparison of key transition indicators of 2°C scenarios*, 2019.
- 1655 59. C. Symon, Climate change: Action, trends and implications for business: The IPCC's Fifth
 1656 Assessment Report, Working Group 1, 2013.
- 1657
 60. Carbon Tracker Initiative, Balancing the Budget: Why deflating the carbon bubble requires oil & gas companies to shrink, 2019, <u>carbontracker.org/reports/balancing-the-budget/</u>, accessed on 31
 1659
 May 2020.
- 1660 61. Carbon Tracker Initiative, *Carbon Budgets Explainer*, 2018.
- 1661 62. Carbon Tracker, Unburnable Carbon: Are the World's Financial Markets Carrying a Carbon 1662 Bubble?, 2011.
- 1663 63. E. Stuart, 'Leaving No One Behind in Sustainable Development Pathways', 1664 wri.org/climate/expert-perspective/leaving-no-one-behind-sustainable-development-pathways, 1665 accessed on 31 May 2020.
- 1666
 1667
 1668
 1668
 1668
 1669
 1669
 64. F. Denton, T. J. Wilbanks, et al., 'Climate-Resilient Pathways: Adaptation, Mitigation, and Sustainable Development', *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2014.
- 1670 65. International Energy Agency (IEA), *Net-zero by 2050: A Roadmap for the Global Energy Sector*,
 1671 2021.
- 1672 66. International Energy Agency (IEA), *The Oil and Gas Industry in Energy Transitions: World Energy Outlook special report*, 2020.
- 1674
 67. Intergovernmental Panel on Climate Change (IPCC), Special Report on Carbon Dioxide Capture and Storage, 2005. International Petroleum Industry Environmental Conservation Association (IPIECA), Addressing adaptation in the oil and gas industry, 2013.
- 1677 68. International Union for Conservation of Nature (IUCN), Resolution adopted at the 2016 World
 1678 Conservation Congress. *Defining Nature-based Solutions*, 2016. (WCC-2016-Res-069-EN)



- 1679 69. J. G. J. Olivier and J. A. H. W. Peters, *Trends in global CO₂ and total greenhouse gas emissions:* 2019 Report, 2020.
- 1681 70. L. Fletcher, T. Crocker, et al., *Beyond the cycle: Which oil and gas companies are ready for the* 1682 *low-carbon transition? Executive summary*, 2018.
- M. F. Rahman, M. Mostofa, and S. Huq, Low-Carbon Futures in Least-Developed Countries, wri.org/climate/expert-perspective/low-carbon-futures-least-developed-countries, accessed on 31 May 2020.
- 1686 72. Organisation for Economic Co-operation and Development (OECD) and International Energy 1687 Agency (IEA), *OECD Green Growth Studies: Energy*, 2011.
- 168873. Organisation for Economic Co-operation and Development (OECD), Monitoring the transition to a
low-carbon economy: A strategic approach to local development, 2015.
- R. Hutt, Which economies are most reliant on oil?, <u>weforum.org/events/virtual-ocean-dialogues-</u>
 <u>2021</u>, accessed on 31 May 2020.
- 1692 75. Science Based Targets, Oil and Gas, <u>sciencebasedtargets.org/sectors/oil-and-gas</u>, accessed on 31 May 2021.
- 1694 76. Stockholm Environment Institute (SEI), International Institute for Sustainable Development
 1695 (IISD), Overseas Development Institute (ODI), Climate Analytics, CICERO, and United Nations
 1696 Environment Programme (UNEP), *The Production Gap: The discrepancy between countries'*1697 *planned fossil fuel production and global production levels consistent with limiting warming to*1698 1.5°C or 2°C, 2019.
- 1699 77. Stockholm Environment Institute (SEI), International Institute for Sustainable Development
 1700 (IISD), Overseas Development Institute (ODI), Third Generation Environmentalism (E3G), and
 1701 United Nations Environment Programme (UNEP), *The Production Gap Report: 2020 Special*1702 *Report*, 2021.
- T. Bruckner, I. A. Bashmakov, et al., 'Energy Systems', *Mitigation of Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report*of the Intergovernmental Panel on Climate Change, 2014.
- 1706 79. Task Force on Climate-Related Financial Disclosure (TCFD), The Use of Scenario Analysis in 1707 Disclosure of Climate-Related Risks and Opportunities, 2017.
- 1708 80. World Resources Institute (WRI), A Recommended Methodology for Estimating and Reporting
 1709 the Potential Greenhouse Gas Emissions from Fossil Fuel Reserves, 2016.

1710 Resources:

- 1711 81. Task Force on Climate-Related Financial Disclosure (TCFD), *Recommendations of the Task* 1712 Force on Climate-related Financial Disclosure, 2017.
- 1713 82. Task Force on Climate-Related Financial Disclosure (TCFD), *The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities*, 2017.
- 1715 83. Transition Pathway Initiative (TPI), *Methodology and Indicators Report*, 2019.
- 1716 84. World Resources Institute (WRI), A Recommended Methodology for Estimating and Reporting 1717 the Potential Greenhouse Gas Emissions from Fossil Fuel Reserves, 2016.

1718 S11.3 Air emissions

1719 Additional references:

1720 85. Earthworks, Air pollution from the Oil and Gas Industry,

1721 <u>earthworks.org/publications/fs_oilandgas_airpollution</u>, accessed on 31 May 2020.

- 1722 86. United States Environmental Protection Agency (US EPA), Controlling Air Pollution from the Oil
 1723 and Natural Gas Industry, <u>epa.gov/controlling-air-pollution-oil-and-natural-gas-industry</u>, accessed
 1724 on 1 June 2021.
- 1725 87. International Energy Agency (IEA), *Energy and Air Pollution: World Energy Outlook Special* 1726 *Report*, 2016.
- 1727 88. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Gas Distribution Systems*, 2007.
- 1729 89. United Nations Economic Commission for Europe (UNECE), Air pollution, ecosystems and biodiversity,

1731 unece.org/air-pollution-ecosystems-and-biodiversity, accessed on 31 May 2020.

World Health Organization (WHO), Air pollution, <u>who.int/health-topics/air-pollution#tab=tab 1</u>,
accessed on 31 May 2020.


1734 91. World Health Organization (WHO), *Air pollution and child health: Prescribing clean air*, advance copy, 2018.

1736 Resources:

- 1737 92. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Crude* 1738 *Oil and Petroleum Product Terminals*, 2007.
- 1739 93. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1740 *Liquefied Natural Gas Facilities*, 2017.
- 1741 94. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1742 Natural Gas Processing, 2017.
- 1743 95. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1744 Offshore Oil and Gas Development, 2015.
- 1745 96. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1746 Onshore Oil and Gas Development, 2017.
- 1747 97. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1748 *Petroleum Refining*, 2016.
- 1749 98. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Retail* 1750 *Petroleum Networks*, 2007.

1751 **S11.4 Biodiversity**

1752 **Authoritative instruments:**

- 1753 99. Intergovernmental Panel on Climate Change (IPCC), *Climate Change and Biodiversity*, 2002.
- 1754 100. Intergovernmental Panel on Climate Change (IPCC), Climate Change and Land An IPCC
 1755 Special Report on climate change, desertification, land degradation, sustainable land
 1756 management, food security, and greenhouse gas fluxes in terrestrial ecosystems: Summary for
 1757 Policymakers, 2019.

- 1759 101. N. Butt, H. L. Beyer, et al., *Biodiversity Risks from Fossil Fuel Extraction*, Science, 2013.
- 1760 102. Cross-Sector Biodiversity Initiative (CSBI), A cross-sector guide for implementing the Mitigation Hierarchy, 2015.
- 1762 103. The Energy & Biodiversity Initiative (EBI), Integrating Biodiversity Conservation into Oil & Gas
 1763 Development, 2003.
- 1764 104. M. B. J. Harfoot, D. P. Tittensor, et al., *Present and future biodiversity risks from fossil fuel* 1765 *exploitation*, Conservation Letters, 2018.
- 1766 105. International Finance Corporation (IFC), Guidance Note 6: *Biodiversity Conservation and* 1767 Sustainable Management of Natural Resources, 2019.
- 1768 106. International Finance Corporation (IFC), Performance Standard 6: *Biodiversity Conservation and* 1769 Sustainable Management of Natural Resources, 2012.
- 107. International Petroleum Industry Environmental Conservation Association (IPIECA), International
 Association of Oil & Gas Producers (IOGP), *Biodiversity and ecosystem services fundamentals*,
 2016.
- 1773 108. International Union for Conservation of Nature (IUCN), Issues Brief: Biodiversity offsets, iucn.org/resources/issues-briefs/biodiversity-offsets, accessed on 26 May 2021.
- 1775 109. K. Leach, S. E. Brooks, and S. Blyth, *Potential threat to areas of biodiversity importance from* 1776 *current and emerging oil and gas activities in Africa*, 2016.
- 1777 110. Organisation for Economic Co-operation and Development (OECD), *Biodiversity Offsets:* 1778 *Effective Design and Implementation*, 2016.
- 1779 111. Pembina Institute, *Fact sheet: Resource development in the North. Impacts of the cumulative effects of oil & gas, 2006.*
- 1781 112. United Nations Environment Programme (UNEP) and UN Environment Conservation Monitoring
 1782 Center (UNEP-WCMC), Mainstreaming of Biodiversity into the Energy and Mining Sectors: An
 1783 Information Document for the 21st Meeting of the Subsidiary Body on Scientific, Technical and
 1784 Technological Advice (SBSTTA-21), 2017.
- 1785 113. World Bank, Biodiversity Offsets: A User Guide, 2016.
- 1786



- 1788 114. Integrated Biodiversity Assessment Tool (IBAT) Alliance, Integrated Biodiversity Assessment
 1789 Tool, <u>ibat-alliance.org/</u>, accessed on 2 June 2021.
- 1790 115. International Council for Mining and Metals (ICMM), International Petroleum Industry
 1791 Environmental Conservation Association (IPIECA), and Equator Principles, *A cross-sector guide* 1792 for implementing the Mitigation Hierarchy. 2017.
- 1793 116. International Finance Corporation (IFC), Guidance Note 6: *Biodiversity Conservation and* 1794 Sustainable Management of Natural Resources, 2019.
- 1795 117. International Finance Corporation (IFC), Performance Standard 6: *Biodiversity Conservation and Sustainable Management of Natural Resources*, 2012.
- 1797 118. International Petroleum Industry Environmental Conservation Association (IPIECA), International 1798 Association of Oil & Gas Producers (IOGP), *Biodiversity and ecosystem services fundamentals*,
- 1799 2016.

1800 **S11.5 Waste**

- 1802 119. Alberta Energy Regulator, Tailings, <u>aer.ca/providing-information/by-topic/tailings</u>, accessed on 31
 1803 May 2020.
- 1804 120. Alberta Government, Lower Athabasca Region: Tailings Management Framework for the
 1805 Mineable Athabasca Oil Sands, 2015.
- 1806 121. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries*, 2017.
- 1808 122. Canada's Oil Sands, Tailings Ponds, <u>capp.ca/explore/tailings-ponds/</u>, accessed on 31 May 2020.
- 1809 123. Circle Economy, *The Circularity Gap Report*, 2019.
- 1810 124. European Commission, Mining waste, ec.europa.eu/environment/topics/waste-and-1811 recycling/mining-waste_de, accessed on 31 May 2020.
- 1812 125. International Association of Oil & Gas Producers (IOGP), *Drilling Waste Management Technology Review*, 2016.
- 1814 126. International Association of Oil & Gas Producers (IOGP), *Environmental management in Arctic oil & gas operations: Good practice guide*, 2013.
- 1816 127. International Association of Oil & Gas Producers (IOGP), *Guidelines for waste management with* 1817 special focus on areas with limited infrastructure, 2008.
- 1818 128. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Crude* 1819 *Oil and Petroleum Product Terminals*, 2007.
- 1820 129. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Gas* 1821 *Distribution Systems*, 2007.
- 1822 130. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Liquefied Natural Gas Facilities*, 2017.
- 1824 131. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1825 *Mining*, 2007.
- 1826 132. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1827 Natural Gas Processing, 2017.
- 1828 133. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1829 Offshore Oil and Gas Development, 2015.
- 1830 134. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1831 Onshore Oil and Gas Development, 2017.
- 1832 135. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for* 1833 *Petroleum Refining*, 2016.
- 1834 136. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Retail* 1835 *Petroleum Networks*, 2007.
- 1836 137. International Petroleum Industry Environmental Conservation Association (IPIECA), *Petroleum refinery waste management and minimization*, 2014.
- 1838 138. Union of Concerned Scientists (UCS), The Hidden Cost of Fossil Fuels, 2008,
 1839 ucsusa.org/resources/hidden-costs-fossil-fuels, accessed on 31 May 2020.
- 1339 United Nations Development Programme (UNDP), *Circular Economy Principles for NDCs and* 1841 Long-term Strategies, 2019.
- 1842 140. United Nations Environment Programme (UNEP), Towards a Pollution-Free Planet, 2017.



- 1843 141. United Nations Environment Programme Industry and Environment (UNEP IE), Environmental
 1844 management in oil and gas exploration and production: An overview of issues and management
 1845 approaches, 1997.
- 1846 142. United States Environmental Protection Agency (US EPA), Management of Exploration,
 1847 Development and Production Wastes: Factors Informing a Decision on the Need for Regulatory
 1848 Action, 2019.

- 143. International Association of Oil & Gas Producers (IOGP), *Drilling waste management technology review*, 2016.
- 1852 144. International Association of Oil & Gas Producers (IOGP), *Guidelines for waste management with* 1853 special focus on areas with limited infrastructure, 2008.
- 1854 145. International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines for Waste* 1855 *Management*, 2007.
- 1856 146. International Petroleum Industry Environmental Conservation Association (IPIECA), *Petroleum refinery waste management and minimization*, 2014.
- 1858 147. United Nations Environment Programme (UNEP), International Council for Mining and Metals
 (ICMM), and Principles for Responsible Investment (PRI), *Global Tailings Standard*, 2020.

1860 **S11.6 Water and effluents**

1861 Additional references:

- 148. L. Allen, M. Cohen, et al., 'Fossil Fuels and Water Quality', *The World's Water Volume 7: The Biennial Report on Freshwater Resources*, pp. 73-96, 2011.
- 149. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries*, 2017.
- 1866 150. International Energy Agency (IEA), Water Energy Nexus: Excerpt from the World Energy Outlook
 2016, 2016.
- 1868 151. International Energy Agency (IEA), 'Water for Energy', *World Energy Outlook 2012*, pp. 501-527, 2012.
- 1870 152. S. Osborn, A. Vengosh, et al., *Methane contamination of drinking water accompanying gas-well* 1871 *drilling and hydraulic fracturing*, Proceedings of the National Academy of Sciences, 2011.
- 1872 153. United Nations Conference on Trade and Development (UNCTAD), *Commodities at a Glance:* 1873 Special Issue on Shale Gas, 2017.
- 1874 154. United Nations Environment Programme (UNEP), *Towards a Pollution-Free Planet*, 2017.
- 1875 155. United States Environmental Protection Agency (US EPA), Hydraulic Fracturing for Oil and Gas:
 1876 Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United
 1877 States, 2016.
- 1878 156. United States Environmental Protection Agency (US EPA), *Profile of the Fossil Fuel Electric* 1879 *Power Generation Industry*, 1997.
- 1880 157. United States Environmental Protection Agency (US EPA), Study of Oil and Gas Extraction
 1881 Wastewater Management Under the Clean Water Act, EPA-821-R19-001, draft May 2019.
- 1882 158. World Bank, *Thirsty Energy (II): The Importance of Water for Oil and Gas Extraction*, 2016.

1883 Resources:

- 1884 159. International Council for Mining and Metals (ICMM), *Water Stewardship Framework*, 2014.
- 1885 160. International Petroleum Industry Environmental Conservation Association (IPIECA), *The IPIECA*

1886 Water Management Framework for onshore oil and gas activities, 2013.

1887 **S11.7 Closure and rehabilitation**

1888 Authoritative instruments:

- 161. International Maritime Organization (IMO), *Guidelines and Standards for the Removal of* Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic
 Zone (EEZ), 1989.
- 1892 162. United Nations (UN), United Nations Convention on the Law of the Sea (UNCLOS III), 1982.



- 1894 163. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries*, 2017.
- 1896 164. Environmental Protection Authority (EPA Western Australia), *Environmental Factor Guideline:* 1897 Benthic Communities and Habitats, 2016.
- 1898 165. International Association of Oil & Gas Producers (IOGP), Decommissioning of offshore concrete
 1899 gravity-based structures (CGBS) in the OSPAR maritime area/other global regions IOGP Report
 1900 484, 2018.
- 1901 166. International Association of Oil & Gas Producers (IOGP), Overview of International Offshore
 1902 Decommissioning Regulations Volume 1: Facilities IOGP Report 584, 2017.
- 1903 167. International Association of Oil & Gas Producers (IOGP), Overview of International Offshore
 1904 Decommissioning Regulations Volume 2: Wells Plugging & Abandonment IOGP Report 585,
 1905 2017.
- 1906 168. Merriam-Webster, Benthic, merriam-webster.com/dictionary/benthic, accessed on 26 May 2021.
- 1907 169. S. Trevisanut, 'Decommissioning of Offshore Installations: a Fragmented and Ineffective
 1908 International Regulatory Framework', *The Law of the Seabed*, pp. 431-453, 2020.
- 1909 170. United Nations Environment Programme Industry and Environment (UNEP IE), Environmental
 1910 management in oil and gas exploration and production: An overview of issues and management
 1911 approaches, 1997.

1912 171. World Bank, Towards Sustainable Decommissioning and Closure of Oil Fields and Mines: A
 1913 Toolkit to Assist Government Agencies, 2010.

1914 **Resources**:

- 1915 172. International Petroleum Industry Environmental Conservation Association (IPIECA), Oil and gas industry guidance on voluntary sustainability reporting, 3rd ed., 2015.
- 1917 173. United Nations, Guidance Note on the Tax Treatment of Decommissioning for the Extractive
 1918 Industries, 2016.

1919 S11.8 Asset integrity and critical incident management

- 1921 174. Alberta Energy Regulator, Tailings, <u>aer.ca/providing-information/by-topic/tailings</u>, accessed on 31
 1922 May 2020.
- 1923 175. Alberta Government, Lower Athabasca Region: Tailings Management Framework for the
 1924 Mineable Athabasca Oil Sands, 2015.
- 1925 176. American Petroleum Institute (API), *Recommended Practice 754: Process Safety Performance* 1926 *Indicators For The Refining And Petrochemical Industries*, updated periodically.
- 1927 177. Australian National University (ANU) and Investor Group on Climate Change (IGCC), Assessing
 1928 Climate Change Risks and Opportunities, Oil and Gas Sector, 2013.
- 1929 178. Canada's Oil Sands, Tailings Ponds, capp.ca/explore/tailings-ponds/, accessed on 31 May 2020.
- 1930 179. M. Christou and M. Konstantinidou, Safety of offshore oil and gas operations: Lessons from past accident analysis, 2012.
- 1932 180. Environmental Defense Fund (EDF), Why are natural gas leaks a problem?,
 <u>edf.org/climate/methanemaps/leaks-problem</u>, accessed on 31 May 2020.
- 1934 181. International Association of Oil & Gas Producers (IOGP), Asset integrity: the key to managing major incident risks, 2018.
- 1936 182. International Association of Oil & Gas Producers (IOGP), *Process safety: recommended practice* 1937 on key performance indicators, 2018.
- 1938 183. International Council on Mining and Metals (ICMM), United Nations Environment Programme
 (UNEP), and Principles for Responsible Investment (PRI), *Global Industry Standard on Tailings* 1940 *Management*, 2020.
- 1941 184. Organisation for Economic Co-operation and Development (OECD), *Guidance on Developing* 1942 Safety Performance Indicators Related to Chemical Accident Prevention, Preparedness and
 1943 Response for Industry, 2008.
- 1944 185. Pipeline and Hazardous Materials Safety Administration (PHMSA), Pipeline Incident 20 Year
 1945 Trends, <u>phmsa.dot.gov/data-and-statistics/pipeline/pipeline-incident-20-year-trends</u>, accessed on
 31 May 2020.



- 1947 186. R. Sullivan, D. Russell, et al., *Managing the Unavoidable: investment implications of a changing climate*, 2009.
- 1949 187. UK Health and Safety Executive, Step-By-Step Guide to Developing Process Safety Performance
 1950 Indicators, 2006.
- 1951 188. United Nations Environment Programme Industry and Environment (UNEP IE), Environmental
 1952 management in oil and gas exploration and production: An overview of issues and management
 1953 approaches, 1997.
- 1954 189. United States Environmental Protection Agency (US EPA), Oil and Natural Gas Sector Leaks, 2014.
- 1956 190. T. Williams, Pipelines: *Environmental Considerations*, Ottawa, Canada, Library of Parliament,
 2012.

- 1959 191. American Petroleum Institute (API), Recommended Practice 754: Process Safety Performance
 1960 Indicators For The Refining And Petrochemical Industries, updated periodically.
- 1961 192. International Council on Mining and Metals (ICMM), United Nations Environment Programme
 1962 (UNEP), and Principles for Responsible Investment (PRI), Global Industry Standard on Tailings
 1963 Management, 2020.
- 1964 193. International Petroleum Industry Environmental Conservation Association (IPIECA), *Oil and gas* 1965 *industry guidance on voluntary sustainability reporting*, 3rd ed., 2015.

1966 194. United Nations Environment Programme (UNEP), International Council for Mining and Metals
 (ICMM), and Principles for Responsible Investment (PRI), *Global Industry Standard on Tailings* Management, 2020.

1969 S11.9 Occupational health and safety

- 1971 195. The Advocates for Human Rights, *Promoting Gender Diversity and Inclusion in the Oil, Gas and Mining Extractive Industries: A Women's Human Rights Report*, 2019.
- 1973196. Canadian Centre for Occupational Health and Safety (CCOHS), Cold Environments: Working in the
Cold, ccohs.ca/oshanswers/phys_agents/cold_working.html, accessed on 31 May 2020.
- 1975 197. Health and Safety Executive (HSE), Biological hazards, <u>hse.gov.uk/offshore/biological-hazards.htm</u>, accessed on 31 May 2020.
- 1977 198. Health and Safety Executive (HSE), Heat stress, <u>hse.gov.uk/temperature/heatstress/</u>, accessed on
 31 May 2020.
- 1979 199. International Association of Oil & Gas Producers (IOGP), Safety performance indicators 2018
 1980 data Fatal incident reports, 2018.
- 1981 200. International Labour Organization (ILO), Current and future skills, human resources development
 1982 and safety training for contractors in the oil and gas industry, 2012.
- 1983 201. International Labour Organization (ILO), Oil and gas production and oil refining sector,
 1984 <u>ilo.org/global/industries-and-sectors/oil-and-gas-production-oil-refining/lang--en/index.htm</u>,
 1985 accessed on 31 May 2020.
- 1986 202. International Labour Organization (ILO), Social dialogue and industrial relations issues in the oil industry, 2009.
- 1988 203. International Labour Organization (ILO), Working Paper No. 276: Working conditions of contract
 1989 workers in the oil and gas industries, 2010.
- 1990 204. International Labour Organization (ILO), Working towards sustainable development: Opportunities
 1991 for decent work and social inclusion in a green economy, 2012.
- 1992 205. International Association of Oil & Gas Producers (IOGP) International Petroleum Industry
 1993 Environmental Conservation Association (IPIECA), *Health leading performance indicators*, updated
 1994 annually.
- 1995 206. International Petroleum Industry Environmental Conservation Association (IPIECA), *Human Rights* 1996 *Training Tool, 3rd ed.*, 2014.
- 1997 207. International Petroleum Industry Environmental Conservation Association (IPIECA) and
 1998 International Association of Oil & Gas Producers (IOGP), *Managing psychosocial risks on*1999 expatriation in the oil and gas industry, 2013.
- 2000 208. Occupational Safety and Health Administration (OSHA), Health and Safety Risks for Workers
 2001 Involved in Manual Tank Gauging and Sampling at Oil and Gas Extraction Sites, 2016.



- 2002 209. Occupational Safety and Health Administration (OSHA) US Department of Labor, Hydrogen
 2003 Sulfide: Hazards, osha.gov/hydrogen-sulfide, accessed on 31 May 2020.
- 2004 210. Occupational Safety and Health Administration (OSHA) US Department of Labor, Silica, 2005 Crystalline: Health Effects, osha.gov/silica-crystalline, accessed on 31 May 2020.
- 2006 211. World Health Organization (WHO), Preventing Disease through Healthy Environments: Exposure to Benzene: A Major Public Health Concern, 2010.
- 2008 212. Wipro, Safety and Health Management in Oil and Gas Industry, <u>wipro.com/oil-and-gas/safety-and-</u> 2009 <u>health-management-system-in-oil-and-gas-industry/</u>, accessed on 31 May 2020.
- 2010 213. World Nuclear Association, Naturally-Occurring Radioactive Materials, 2019, <u>world-</u>
 2011 <u>nuclear.org/information-library/safety-and-security/radiation-and-health/naturally-occurring-</u>
 2012 radioactive-materials-norm.aspx, accessed on 31 May 2020.

- 2014 214. International Association of Oil & Gas Producers (IOGP) International Petroleum Industry
 2015 Environmental Conservation Association (IPIECA), Health management in the oil and gas industry,
 2019.
- 2017 215. International Association of Oil & Gas Producers (IOGP) International Petroleum Industry
 2018 Environmental Conservation Association (IPIECA), Health Performance Indicators: A guide for the
 2019 oil and gas industry, 2007.
- 2020 216. International Association of Oil & Gas Producers (IOGP) International Petroleum Industry
 2021 Environmental Conservation Association (IPIECA), Performance indicators for fatigue risk
 2022 management systems, 2012.

2023 S11.10 Employment practices

2024 Authoritative instruments:

- 2025 217. International Labour Organization (ILO), *Maritime Labour Convention*, 2006.
- 2026 218. Organisation for Economic Co-operation and Development (OECD), *Due Diligence Guidance for* 2027 *Meaningful Stakeholder Engagement in the Extractives Sector*, 2015.

- 2029 219. C. Forde, R. MacKenzie, et al., *Good industrial relations in the oil industry in the United Kingdom*, 2030 2005.
- 2031 220. C. Hidalgo, K. Peterson, et al., *Extracting with Purpose: Creating Shared Value in the Oil and Gas* 2032 and Mining Sectors' Companies and Communities, 2015.
- 2033 221. IndustriaAll Global Union, Nigerian oil and gas unions fight against precarious work, 8 August
 2034 2017, <u>industriall-union.org/nigerian-oil-and-gas-unions-fight-against-precarious-work</u>, accessed on
 2035 31 May 2020.
- 2036 222. IndustriAll Global Union, Norwegian oil company DNO targeted by unions, 12 January 2017,
 2037 industriall-union.org/norwegian-oil-company-dno-targeted-by-unions, accessed on 31 May 2020.
- 2038 223. IndustriAll Global Union, Shell's hidden shame: Contract workers on the poverty line in Nigeria, 5
 2039 December 2018, <u>industriall-union.org/shells-hidden-shame-contract-workers-on-the-poverty-line-in-</u>
 2040 nigeria, accessed on 31 May 2020.
- 2041 224. Industri Energi, The strike is necessary to level out differences in the oil industry, 7 October 2016, 2042 industrienergi.no/nyhet/the-strike-is-necessary-to-level-out-differences-in-the-oil-industry/, 2043 accessed on 31 May 2020.
- 2044 225. Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on 2045 Implementing the UN Guiding Principles on Business and Human Rights, 2017.
- 2046 226. International Finance Corporation (IFC), IPIECA, and United Nations Development Programme (UNDP), *Mapping the oil and gas industry to the Sustainable Development Goals: An Atlas*, 2017.
- 2048 227. International Labour Organization (ILO), Social dialogue and industrial relations issues in the oil
 2049 industry: Report for discussion at the Tripartite Meeting on Promoting Social Dialogue and Good
 2050 Industrial Relations from Oil and Gas Exploration and Production to Oil and Gas Distribution, 2009.
- 2051 228. F. Todd, What are the pros and cons of automation in the oil and gas industry?, 19 March 2019,
- 2052 <u>nsenergybusiness.com/features/oil-and-gas-automation</u>, accessed on 31 May 2020.
- 2053 229. S. Tordo, M. Warner, et al., *Local Content Policies in the Oil and Gas Sector*, 2013.
- 2054 230. United Steelworkers (USW), National Oil Bargaining Talks Break Down: USW Calls for Work 2055 Stoppage at Nine Oil Refineries, Plants, 1 February 2015, usw.org/news/media-



2056 <u>center/releases/2015/national-oil-bargaining-talks-break-down-usw-calls-for-work-stoppage-at-</u> 2057 nine-oil-refineries-plants, accessed on 31 May 2020.

2058 **S11.11 Non-discrimination and equal opportunity**

2059 Additional references:

- 2060 231. The Advocates for Human Rights, *Promoting Gender Diversity and Inclusion in the Oil, Gas and* 2061 *Mining Extractive Industries: A Women's Human Rights Report*, 2019.
- 2062 232. The Boston Consulting Group (BCG) and World Petroleum Council, Untapped Reserves:
 2063 Promoting Gender Balance *in Oil and Gas*, 2017.
- 2064 233. Business & Human Rights Resource Centre (BHRRC), Azerbaijan: Abuses by oil companies include workplace discrimination, illegal termination of contracts, health & safety violations, sexual harassment, environmental pollution, say NGO reports; includes company comments, <u>businesshumanrights.org/en/latest-news/azerbaijan-abuses-by-oil-companies-include-workplacediscrimination-illegal-termination-of-contracts-health-safety-violations-sexual-harassmentenvironmental-pollution-say-ngo-reports-includes-company-comments/, accessed on 31 May 2020.
 </u>
- 2070 234. Digby Brown Solicitors, Oil and Gas contract restrictions removed after discrimination employment advice, <u>digbybrown.co.uk/clients-we-have-helped/oil-and-gas-contract-restrictions-removed-after-</u>
 2072 discrimination-employment, accessed on 31 May 2020.
- 2073 235. N. Hill, A. Alook, and I. Hussey, How gender and race shape experiences of work in Alberta's oil industry,
- 2075parklandinstitute.ca/how_gender_and_race_shape_experiences_of_work_in_albertas_oil_industry,2076accessed on 31 May 2020.
- 2077 236. Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on 2078 Implementing the UN Guiding Principles on Business and Human Rights, 2017.
- 2079 237. International Labour Organization (ILO), *Current and future skills, human resources development* 2080 and safety training for contractors in the oil and gas industry, 2012.
- 2081 238. International Labour Organization (ILO), *Social dialogue and industrial relations issues in the oil industry*, 2009.
- 2083 239. Iraqi Center for Policy Analysis & Research (ICPAR), Institutional Discrimination in Iraq's Oil and 2084 Gas Sector, <u>researchiraq.com/?p=306</u>, accessed on 31 May 2020.
- 2085 240. J. Soper, Ghanaian Workers Fight Pay Discrimination, <u>pulitzercenter.org/stories/ghanaian-workers-</u>
 2086 <u>fight-pay-discrimination</u>, accessed on 31 May 2020.
- 2087 241. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance
 2088 Tool for the Financial Sector, Oil and Gas, <u>unepfi.org/humanrightstoolkit/oil.php</u>, accessed on 31
 2089 May 2020.

2090 S11.12 Forced labor and modern slavery

- 2091 Authoritative instruments:
- 2092 242. International Labour Organization (ILO) Convention 29, Forced Labour Convention, 1930.

- 2094 243. EarthRights International, *Total Impact: The Human Rights, Environmental, and Financial Impacts* 2095 of Total and Chevron's Yadana Gas Project in Military-Ruled Burma (Myanmar), 2009.
- 2096 244. Fédération Internationale pour les Droits Humains (FIDH), Info Birmanie, *la Ligue des droits de 2097 l'Homme et la FIDH dénoncent l'accord intervenu entre Total et Sherpa*, 2005.
- 2098 245. Global Slavery Index, 'Global Findings', Global Slavery Index 2018, pp. 24-45.
- 2099 246. GRI, Responsible Labor Initiative, *Advancing modern slavery reporting to meet stakeholder* 2100 *expectations*, 2019.
- 247. International Labour Organization (ILO), Labour Migration in the Arab States,
 ilo.org/beirut/areasofwork/labour-migration/WCMS_514910/lang--en/index.htm, accessed on 31
 May 2020.
- 2104 248. International Labour Organization (ILO) and Walk Free Foundation, *Global Estimates of Modern* 2105 Slavery: Forced Labour and Forced Marriage, 2017.
- 249. International Transport Workers' Federation (ITF), ITF and Malaviya Seven crew dismayed by
 2107 delay, <u>itfglobal.org/en/news/itf-and-malaviya-seven-crew-dismayed-delay</u>, accessed on 31 May
 2020.



- 2109 250. National Union of Rail, Maritime and Transport Workers (RMT), Modern day slavery charge made
 2110 by RMT, <u>live.rmt.netxtra.net/news/modern-day-slavery-charge-made-by-rmt/</u>, accessed on 31 May
 2020.
- 2112 251. UNICEF, Oil and Gas Scoping Paper, 2015.

2114 252. GRI, Responsible Labor Initiative, Advancing modern slavery reporting to meet stakeholder
 2115 expectations, 2019.

2116 **S11.13 Freedom of association and collective bargaining**

2117 **Authoritative instruments**:

 2118 253. International Labour Organization (ILO), 386th Report of the Committee on Freedom of Association, 2018.

2120 Additional references:

- 2121 254. M. Carpenter, Restrictions on freedom of association potential powder keg for oil companies,
 2122 <u>maplecroft.com/insights/analysis/restrictions-on-freedom-of-association-potential-powder-keg-for-</u>
 2123 <u>oil-companies/</u>, accessed on 31 May 2020.
- 2124 255. I. Graham, International Labour Organization (ILO), *Working conditions of contract workers in the* 2125 *oil and gas industries*, 2010.
- 2126 256. IndustriAll, Nigerian oil and gas unions fight against precarious work, industriall-union.org/nigerian 2127 oil-and-gas-unions-fight-against-precarious-work, accessed on 31 May 2020.
- 2128 257. International Trade Union Confederation (ITUC), ITUC Global Rights Index: The World's Worst
 2129 Countries for Workers, 2016.
- 2130 258. International Trade Union Confederation (ITUC), Saudi Arabia bans trade unions and violates all
 international labour standards, <u>ituc-csi.org/saudi-arabia-bans-trade-unions-and?lang=en</u>, accessed
 on 31 May 2020.
- 2133 259. United States Central Intelligence Agency (CIA), Country comparison: Crude oil: Exports,
 2134 <u>cia.gov/the-world-factbook/field/crude-oil-exports/country-comparison</u>, accessed on 31 May 2020.

2135 S11.14 Economic impacts

2136 Authoritative instruments:

2137 260. Organisation for Economic Co-operation and Development (OECD), OECD Principles for Private
 2138 Sector Participation in Infrastructure, 2007.

- 2140 261. Bill & Melinda Gates Foundation, Paper 7: Leveraging extractive industries for skills development
 2141 to maximize sustainable growth and employment, 2015.
- 2142 262. C. Sigam and L. Garcia, *Extractive industries: Optimizing the value retention in host countries*, 2143 2012.
- 2144 263. Extractive Industries Transparency Initiative (EITI), Social and economic spending: The impact of
 2145 the extractive industries on economic growth and social development, <u>eiti.org/social-economic-</u>
 2146 spending, accessed on 31 May 2020.
- 2147 264. International Petroleum Industry Environmental Conservation Association (IPIECA), *Local content:* 2148 *A guidance document for the oil and gas industry*, 2nd ed., 2016.
- 2149 265. J.-F. Mercure, H. Pollitt, et al., 'Macroeconomic impacts of stranded fossil fuels assets', Nature
 2150 Climate Change, vol. 8, pp. 588-593, 2018, <u>nature.com/articles/s41558-018-0182-1</u>, accessed on
 2151 31 May 2020.
- 2152 266. Organisation for Economic Co-operation and Development (OECD), Collaborative Strategies for In-2153 Country Shared Value Creation, 2016.
- 2154 267. K. Storey, 'Fly-in/Fly-out: Implications for Community Sustainability', Sustainability, vol. 2, pp. 1161-2155 1181, 2010.
- 2156 268. United Nations Office for Disaster Risk Reduction (UNISDR), 'Words into Action Guidelines:
 2157 National Disaster Risk Assessment', Special Topics, *Direct and Indirect Economic Impact*, 2017.
- 2158 **Resources:**



2159 269. International Petroleum Industry Environmental Conservation Association (IPIECA), *Local content:* 2160 *A guidance document for the oil and gas industry*, 2nd ed., 2016.

2161 **S11.15 Local communities**

2162 Authoritative instruments:

2163 270. Organisation for Economic Co-operation and Development (OECD), Due Diligence Guidance for
 2164 Meaningful Stakeholder Engagement in the Extractives Sector, 2015.

2165 Additional references:

- 2166 271. Cordaid, Informing Local Communities, Civil Society and Local Government about Oil & Gas: A
 2167 Practical Guide on Technical Aspects, 2016.
- 2168 272. Cordaid, When Oil, Gas or Mining Arrives in Your Area: Practical Guide for Communities, Civil
 2169 Society and Local Government on the Social Aspects of Oil, Gas and Mining, 2016.
- 2170 273. E&P Forum and United Nations Environment Programme Industry and Environment (UNEP IE),
 2171 Environmental management in oil and gas exploration and production: An overview of issues and
 2172 management approaches, 1997.
- 2173 274. Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on Implementing the UN Guiding Principles on Business and Human Rights, 2017International
 2175 Finance Corporation (IFC), Unlocking Opportunities for Women and Business: A Toolkit of Actions and Strategies for Oil, Gas, and Mining Companies, 2018, ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/gender+at+ifc/resources/u
- 2178 <u>nlocking-opportunities-for-women-and-business</u>, accessed on 31 May 2020.
- 2179 275. International Finance Corporation (IFC), International Petroleum Industry Environmental
 2180 Conservation Association (IPIECA), and United Nations Development Programme (UNDP),
- 2181 276. International Finance Corporation (IFC), *Guidance Note 4 Community Health, Safety, and Security*,
 2182 2012.
- 2183 277. International Finance Corporation (IFC), *Performance Standard 4 Community Health, Safety, and* 2184 Security, 2012.
- 2185 278. Mapping the oil and gas industry to the Sustainable Development Goals: An Atlas, 2017.
- 2186 279. Oil and Gas Accountability Project (OGAP), Oil and Gas At Your Door? A Landowner's Guide to Oil and Gas Development, 2nd ed., 2005.
- 2188 280. Oxfam International, Position Paper on Gender Justice and the Extractive Industries, 2017.
- 2189 281. R. Schultz, R. Skoumal, et al., 'Hydraulic Fracturing-Induced Seismicity', *Reviews of Geophysics*, vol. 58, 12 June 2020.
- 2191 282. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance
 2192 Tool for the Financial Sector, Oil and Gas, <u>unepfi.org/humanrightstoolkit/oil.php</u>, accessed on 31
 2193 May 2020.

2194 **Resources**:

- 2195 283. Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on
 2196 Implementing the UN Guiding Principles on Business and Human Rights, 2017.
- 2197 284. International Finance Corporation (IFC), *Guidance Note 4 Community Health, Safety, and Security*, 2198 2012.
- 2199 285. International Finance Corporation (IFC), *Performance Standard 4 Community Health, Safety, and* 2200 *Security*, 2012.
- 2201 286. International Petroleum Industry Environmental Conservation Association (IPIECA), American
 2202 Petroleum Institute (API), and International Association of Oil & Gas Producers (IOGP),
 2203 Sustainability reporting guidelines for the oil and gas industry, 2020.

2204 **S11.16 Land and resource rights**

2205 Authoritative instruments:

- 2206 287. European Union and UN Interagency Framework Team for Preventive Action, *Toolkit and* 2207 *Guidance for Preventing and Managing Land and Natural Resources Conflict: Land and Conflict*,
 2208 2012.
- 2209 288. Organisation for Economic Co-operation and Development (OECD), *Due Diligence Guidance for* 2210 *Meaningful Stakeholder Engagement in the Extractives Sector*, 2015.



- 2212 289. Avocats Sans Frontières, Human Rights Implications of Extractive Industry Activities in Uganda: A 2213 Study of the Mineral Sector in Karamoja and the Oil Refinery in Bunyoro, 2014.
- 2214 290. P. D. Cameron and M. C. Stanley, *Oil, Gas, and Mining: A Sourcebook for Understanding the* 2215 *Extractive Industries*, 2017.
- 2216 291. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES),
 2217 Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and
 2218 Ecosystem Services on the work of its seventh session, 2019.
- 2219 292. International Council on Mining & Metals (ICMM), Land Acquisition and Resettlement, 2015.
- 2220 293. International Finance Corporation (IFC), Good Practice Handbook: *Land Acquisition and* 2221 *Resettlement (draft)*, 2019.
- 2222 294. International Finance Corporation (IFC), *Guidance Note 5, Land Acquisition and Involuntary* 2223 *Resettlement*, 2012.
- 2224 295. International Finance Corporation (IFC), *Performance Standard 5, Land Acquisition and Involuntary* 2225 *Resettlement*, 2012.
- 2226 296. International Finance Corporation (IFC), Guidance Note 8: Cultural Heritage, 2012.
- 2227 297. International Finance Corporation (IFC), Performance Standard 8: Cultural Heritage, 2012.
- 2228 298. International Petroleum Industry Environmental Conservation Association (IPIECA) and
 2229 International Association of Oil & Gas Producers (IOGP), *Key questions in managing social issues* 2230 *in oil & gas projects*, 2002.
- 2231 299. Pensamiento y Acción Social (PAS) and L. Turrriago, 'Caso El Hatillo: El re-asentamiento como la legalización del despojo y el acaparamiento de las tierras por el modelo extractivista',
 2233 pas.org.co/hatillo-despojo-extractivista, accessed on 1 June 2020.
- 300. United Nations Human Rights Office of the High Commissioner (OHCHR), Land and Human
 Rights, <u>ohchr.org/EN/Issues/LandAndHR/Pages/LandandHumanRightsIndex.aspx</u>, accessed on
 31 May 2020.
- 301. F. Vanclay, 'Project-induced displacement and resettlement: from impoverishment risks to an
 opportunity for development?', Impact Assessment and Project Appraisal Journal, vol. 35, pp. 3-21,
 2017, DOI: 10.1080/14615517.2017.1278671.
- 302. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance
 Tool for the Financial Sector, Oil and Gas, <u>unepfi.org/humanrightstoolkit/oil.php</u>, accessed on 31
 May 2020.

2243 Resources:

- 303. Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on
 Implementing the UN Guiding Principles on Business and Human Rights, 2017.
- 2246 304. International Finance Corporation (IFC), *Good Practice Handbook: Land Acquisition and* 2247 *Resettlement (draft)*, 2019.
- 305. International Finance Corporation (IFC), Guidance Note 5, Land Acquisition and Involuntary
 Resettlement, 2012.
- 306. International Finance Corporation (IFC), Performance Standard 5, Land Acquisition and Involuntary
 Resettlement, 2012.
- 2252 307. International Finance Corporation (IFC), *Guidance Note 8: Cultural Heritage*, 2012.
- 2253 308. International Finance Corporation (IFC), *Performance Standard 8: Cultural Heritage*, 2012.
- 309. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance
 Tool for the Financial Sector, Oil and Gas, <u>unepfi.org/humanrightstoolkit/oil.php</u>, accessed on 31
 May 2020.

2257 S11.17 Rights of indigenous peoples

2258 Authoritative instruments:

- 310. International Labour Organization (ILO) Convention 169, *Indigenous and Tribal Peoples Convention*, 1989.
- 311. United Nations (UN), United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP);
 2007.
 2263



- 2265 312. The Advocates for Human Rights, *Promoting Gender Diversity and Inclusion in the Oil, Gas, and Mining Extractive Industries*, 2019.
- 313. Amnesty International, Inter-American Court ruling marks key victory for indigenous peoples,
 amnesty.org/en/press-releases/2012/07/ecuador-inter-american-court-ruling-marks-key-victoryindigenous-peoples-20/, accessed on 31 May 2020.
- 2270 314. Amnesty International, Out of sight, out of mind: Gender, indigenous rights, and energy 2271 development in Northeast British Columbia, Canada, 2016.
- 2272 315. A. Anongos, D. Berezhkov, et al., *Pitfalls and pipelines: Indigenous peoples and extractive industries*, 2012.
- 2274 316. J. Burger, *Indigenous peoples, extractive industries and human rights*, 2014.
- 317. European Parliament, Committee on Foreign Affairs, Report on Violation of the Rights of Indigenous Peoples in the World, Including Land Grabbing, 2018.
- 318. G. Gibson, K. Yung, et al. with Lake Babine Nation and Nak'azdii Whut'en, Indigenous
 communities and industrial camps: Promoting healthy communities in settings of industrial change,
 2017.
- 2280 319. Global Witness, Defenders of the earth: Global killings of land and environmental defenders in 2016, 2017.
- 2282 320. N. Hill, A. Alook, and I. Hussey, How gender and race shape experiences of work in Alberta's oil 2283 industry,

2284parklandinstitute.ca/how gender and race shape experiences of work in albertas oil industry,2285accessed on 31 May 2020.

- 321. Indigenous Environmental Network, Native Leaders Bring Attention to Impact of Fossil Fuel
 Industry on Missing and Murdered Indigenous Women and Girls, <u>popularresistance.org/native-</u>
 <u>leaders-bring-attention-to-impact-of-fossil-fuel-industry-on-missing-and-murdered-indigenous-</u>
 women-and-girls, accessed on 27 May 2021.
- 322. International Finance Corporation (IFC), Guidance Note 7: Indigenous Peoples, 2012.
- 323. International Finance Corporation (IFC), *Performance Standard 7: Indigenous Peoples*, 2012.
- 2292 324. International Finance Corporation (IFC), *Projects and People: A Handbook for Addressing Project* 2293 *Induced In-Migration*, 2009.
- 2294 325. International Petroleum Industry Environmental Conservation Association (IPIECA), *Free, prior and informed consent (FPIC) toolbox*, 2018.
- 326. International Petroleum Industry Environmental Conservation Association (IPIECA), Indigenous
 Peoples and the oil and gas industry: context, issues and emerging good practice, 2012.
- 2298 327. United Nations Global Compact, A Business Reference Guide: United Nations Declaration on the 2299 Rights of Indigenous Peoples, 2013.
- 2300 328. B. McIvor, First Peoples Law, Essays in Canadian Law and Decolonization, 2018.
- 2301 329. T. Perreault, Natural Gas, Indigenous Mobilization and the Bolivian State, 2008.
- 330. United Nations Department of Economic and Social Affairs (UN DESA), Report of the international expert group meeting on extractive industries, Indigenous Peoples' rights and corporate social responsibility, 2009.
- 331. United Nations Economic and Social Council (UN ECOSOC), Combating violence against indigenous women and girls: article 22 of the United Nations Declaration on the Rights of Indigenous Peoples: Report of the international expert group meeting, 2012.
- 332. United Nations Human Rights Council (HRC), Report of the Special Rapporteur on the rights of
 indigenous peoples, James Anaya Extractive industries and indigenous peoples, 2013.

2310 Resources:

- 2311 333. Equator Principles, EP4, 2020.
- 2312 334. International Finance Corporation (IFC), Guidance Note 7: Indigenous Peoples, 2012.
- 2313 335. International Finance Corporation (IFC), *Performance Standard 7: Indigenous Peoples*, 2012.

2314 **S11.18 Conflict and security**

2315 Authoritative instruments:

2316 336. European Union and United Nations Interagency Framework Team for Preventive Action, Toolkit
 2317 and Guidance for Preventing and Managing Land and Natural Resources Conflict: Extractive
 2318 Industries and Conflict, 2012.



- 337. Office of the High Commissioner for Human Rights (OHCR), Basic Principles on the Use of Force
 and Firearms by Law Enforcement Officials, 1990.
- 338. Office of the High Commissioner for Human Rights (OHCR), Code of Conduct for Law Enforcement
 Officials, 1979.
- 339. Voluntary Principles on Security and Human Rights, Voluntary Principles on Security and Human
 Rights, 2000.

- 340. Institute for Human Rights and Business (IHRB), From Red to Green Flags: The Corporate
 Responsibility to Respect Human Rights in High-Risk Countries, 2011.
- 341. Geneva Centre for the Democratic Control of Armed Forces (DCAF), International Committee of the Red Cross (ICRC), Addressing Security and Human Rights Challenges in Complex Environments: Toolkit, 3rd ed., 2015.
- 342. Global Compact Network Canada, Auditing Implementation of Voluntary Principles on Security and Human Rights, 2016.
- 343. International Alert, Human rights due diligence in conflict-affected settings: Guidance for extractive
 industries, 2018.
- 344. International Association of Oil & Gas Producers (IOGP), Conducting security risk assessments
 (SRA) in dynamic threat environments, 2016.
- 345. International Association of Oil & Gas Producers (IOGP), Integrating security in major projects –
 principles and guidelines, 2014.
- 346. International Association of Oil & Gas Producers (IOGP), Security management system –
 Processes and concepts in security management, 2014.
- 347. International Council on Mining & Metals (ICMM), International Committee of the Red Cross
 (ICRC), International Finance Corporation (IFC), and International Petroleum Industry
 Environmental Conservation Association (IPIECA), Voluntary Principles on Security and Human
 Rights: Implementation Guidance Tools, 2011.
- 348. International Petroleum Industry Environmental Conservation Association (IPIECA), *Guide to* Operating in Areas of Conflict, 2008.
- 349. K. Neu and D. Avant, Overview of the relationship between PMSCs and extractive industry
 companies from the Private Security Events Database, 2019.
- 350. Office of the High Commissioner for Human Rights (OHCHR), Call for submissions: the relationship
 between private military and security companies and extractive industry companies from a human
 rights perspective in law and practice, 2019.
- 2352 351. Office of the High Commissioner for Human Rights (OHCR), *Private military and security* 2353 *companies in extractive industries – impact on human rights*, 2017.
- 352. United Nations Environment Programme (UNEP), From Conflict to Peacebuilding: The Role of
 Natural Resources and the Environment, 2009.
- 2356 353. United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance
 2357 Tool for the *Financial Sector, Oil and Gas*, <u>unepfi.org/humanrightstoolkit/oil.php</u>, accessed on 31
 2358 May 2020.

2359 Resources:

- 354. International Alert, Human rights due diligence in conflict-affected settings: Guidance for extractive
 industries, 2018.
- 355. International Council on Mining & Metals (ICMM), International Committee of the Red Cross
 (ICRC), International Finance Corporation (IFC), and International Petroleum Industry
 Environmental Conservation Association (IPIECA), Voluntary Principles on Security and Human
- 2365 Rights: Implementation Guidance Tools, 2011.

2366 S11.19 Anti-competitive behavior

- 2368 356. European Commission, *Case AT.39816: Upstream Gas Supplies in Central and Eastern Europe*, 2018.
- 2370 357. International Trade Center (ITC), Combating Anti-Competitive Practices: A Guide for Developing
 2371 Economy Exporters, 2012.
- 2372 358. Organisation for Economic Co-operation and Development (OECD), Cartels and anti-competitive
 2373 agreements, <u>oecd.org/competition/cartels/</u>, accessed on 31 May 2020.



2374 359. Vinsion & Elkins, 2018 Energy and Chemicals Antitrust Report, 2019.

2375 S11.20 Anti-corruption

2376 Authoritative instruments:

2377 360. Organisation for Economic Co-operation and Development (OECD), Convention on Combating
 2378 Bribery of Foreign Public Officials in International Business Transactions and Related Documents,
 2379 1997.

2380 Additional references:

- 2381 361. Ernst & Young (EY), Managing bribery and corruption risks in the oil and gas industry, 2014.
- 2382 362. Extractives Industries Transparency Initiative (EITI), *Disclosing beneficial ownership: The key to* 2383 *fighting corruption*, 2017.
- 2384 363. Extractives Industries Transparency Initiative (EITI), *The EITI Standard*, 2019.
- 364. Financial Action Task Force (FATF), FATF guidance: Politically exposed persons (recommendations 12 and 22), 2013.
- 365. Global Witness, Shell knew: Emails show senior executives at UK's biggest company knew it was
 party to a vast bribery scheme, <u>globalwitness.org/en/campaigns/oil-gas-and-mining/shell-knew/</u>,
 accessed on 31 May 2020.
- 366. International Monetary Fund (IMF), Fiscal Transparency Initiative: Integration of Natural Resource
 Management Issues, 2019.
- 2392 367. M. Martini and Transparency International, *Local content policies and corruption in the oil and gas* 2393 *industry*, 2014.
- 368. Natural Resource Governance Institute (NRGI), Beneath the Surface: The Case for Oversight of
 the Extractive Industry Suppliers, 2020.
- 369. Natural Resource Governance Institute (NRGI), Twelve Red Flags: Corruption Risks in the Award
 of Extractive Sector Licenses and Contracts, 2017.
- 370. Organisation for Economic Co-operation and Development (OECD), Corruption in the Extractive
 Value Chain: Typology of risks, Mitigation Measures and Incentives, 2016
- 371. Organisation for Economic Co-operation and Development (OECD), OECD Foreign Bribery Report:
 An Analysis of the Crime of Bribery of Foreign Public Officials, 2014.
- 2402 372. Transparency International, *Corruption Perceptions Index 2018*, 2018.
- 373. A. Sayne, A. Gillies, and A. Watkins, *Twelve Red Flags: Corruption Risks in the Award of Extractive Sector Licenses and Contracts*, 2017.
- 374. E. Westenberg and A. Sayne, *Beneficial Ownership Screening: Practical Measures to Reduce* Corruption Risks in Extractives Licensing, 2018.
- 375. A. Williams and K. Dupuy, Deciding over nature: Corruption and environmental impact
 assessments, 2016.

2409 **Resources:**

2410 376. Extractives Industries Transparency Initiative (EITI), The EITI Standard, 2019.

2411 S11.21 Payments to governments

2412 Authoritative instruments:

- 377. European Parliament, Directive 2013/34/EU of the European Parliament and the Council of 26
 June 2013 on the annual financial statements, consolidated financial statements and related
 reports of certain types of undertakings, 2013.
- 378. Organisation for Economic Co-operation and Development (OECD), Inclusive Framework on Base
 Erosion and Profit Shifting, Action 13 Country-by-Country Reporting, <u>oecd.org/tax/beps/beps-</u>
 actions/action13, accessed on 1 June 2020.

- 2420 379. Extractive Industries Transparency Initiative (EITI), *Nigeria EITI: Making transparency count,* 2421 *uncovering billions*, 2012.
- 380. Extractive Industries Transparency Initiative (EITI), *Project-level reporting in the extractive industries, 2018.*



- 2424 381. Extractive Industries Transparency Initiative EITI), *Guidance note 26 Reporting on first trades in oil*, 2017.
- 2426 382. Extractives Industries Transparency Initiative (EITI), *Reporting Guidelines for companies buying oil,* 2427 gas and minerals from governments, 2020.
- 2428 383. Extractives Industries Transparency Initiative (EITI), Upstream Oil, Gas, and Mining State-Owned
 2429 Enterprises, Governance Challenges and the Role of International Reporting Standards in
 2430 Improving Performance, 2018.
- 2431 384. Extractives Industries Transparency Initiative (EITI), *The EITI Standard*, 2019.
- 385. Global Witness, Shell knew: Emails show senior executives at UK's biggest company knew it was party to a vast bribery scheme, <u>globalwitness.org/en/campaigns/oil-gas-and-mining/shell-knew/</u>, accessed on 31 May 2020.
- 2435 386. International Monetary Fund (IMF), Fiscal Transparency Code (FTC), *Pillar IV on natural resource* 2436 *revenue management*, 2019.
- 2437 387. P. Poretti, *Transparency in the First Trade*, 2019.
- 388. PricewaterhouseCoopers (PwC), Financial reporting in the oil and gas industry: International
 Financial Reporting Standards, 2017.
- 389. A. Sayne, A. Gillies, and A. Watkins, *Twelve Red Flags: Corruption Risks in the Award of Extractive Sector Licenses and Contracts*, 2017.
- 390. Tax Justice and Extractive Transparency: Two faces of the same coin, <u>pwyp.org/pwyp-</u>
 resources/tax-justice-extractive-transparency-two-faces-coin/, accessed on 19 February 2021.
- 2444 391. Transparency International, Under the Surface: Looking into Payments by Oil, Gas and Mining
 2445 Companies to Governments, 2018.

- 2447 392. Extractives Industries Transparency Initiative (EITI), *Reporting Guidelines for companies buying oil,* 2448 gas and minerals from governments, 2020.
- 2449 393. Extractives Industries Transparency Initiative (EITI), *The EITI Standard*, 2019.

2450 **S11.22 Public policy**

- 2452 394. Australasian Centre for Corporate Responsibility (ACCR), *Politics BHP*, 2017.
- 395. D. Coady, I. Parry, et al., Global Fossil Fuel Subsidies Remain Large: An Update Based on
 Country-Level Estimates, 2019.
- 396. N. Graham, S. Daub, and B. Carroll, *Mapping Political Influence: Political donations and lobbying* by the fossil fuel industry in BC, 2017.
- 2457 397. S. Hayer, Fossil Fuel Subsidies, 2017.
- 398. InfluenceMap, Big Oil's Real Agenda on Climate Change, <u>influencemap.org/report/How-Big-Oil-</u>
 <u>Continues-to-Oppose-the-Paris-Agreement-38212275958aa21196dae3b76220bddc</u>, accessed on
 31 May 2020.
- 399. InfluenceMap, Climate Lobbying: How Companies Really Impact Progress on Climate, 2018, influencemap.org/climate-lobbying, accessed on 31 May 2020.
- 400. InfluenceMap, Trade association and climate: Shareholders make themselves heard, May 2018,
 influencemap.org/report/Trade-associations-and-climate-shareholders-make-themselves-heardcf9db75c0a4e25555fafb0d84a152c23, accessed on 31 May 2020.
- 401. D. Koplow, C. Lin, et al., Mapping the Characteristics of Producer Subsidies: A review of pilot
 country studies, 2010.
- 402. J. Levin, We stopped the oil and gas industry from gutting Canada's environmental laws!,
 environmentaldefence.ca/2019/06/27/we-stopped-the-oil-gas-industry-from-gutting-canadasenvironmental-laws/, accessed on 2 June 2021.
- 403. Organisation for Economic Co-operation and Development (OECD), Anti-corruption & Integrity
 Hub, Lobbying, <u>oecd.org/corruption-integrity/explore/topics/lobbying.html</u>, accessed on 2 June
 2021.
- 404. J. B. Skjærseth and T. Skodvin, *Climate change and the oil industry: Common problem, varying* strategies, 2003.

