



GRI Sector Standard: Oil and Gas - Exposure draft

8 July 2020

Comments to be received by 6 October 2020

This exposure draft of the Sector Standard: Oil and Gas has been published for public comment by the Global Sustainability Standards Board (GSSB), the independent standard-setting body of GRI.

This exposure draft is accompanied by the Explanatory memorandum, which sets out the objectives for developing the pilot GRI Sector Standard, GRI Sector Standard: Oil and Gas, the significant proposals contained in the exposure draft, and a summary of the GSSB's involvement and views on the development of the draft.

All references to the GRI Universal Standards in this document are to the exposure drafts made available for public comment as part of the review of GRI's Universal Standards. GRI Sector Standard: Oil and Gas is subject to changes as a result of outcomes from public comments on the Universal Standards as well as on this exposure draft.

Any interested party can submit comments on the draft by 6 October 2020 using this Exposure draft survey.

For more information, visit the GRI Standards website. For questions regarding the project, the exposure draft, or the public comment period, please email oil@globalreporting.org.

Users can navigate to specific sections of the exposure draft by clicking the hyperlinked bookmarks that function in most browsers and in Adobe Acrobat Reader.

GRI Sector Standard: Oil and Gas

EXPOSURE draft for Public comment

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I. Introduction

- 2 GRI Sector Standard: Oil and Gas, which is part of the GRI Sustainability Reporting Standards (GRI
- 3 Standards), applies to any organization that undertakes activities in the oil and gas sector. It helps an
- 4 organization in the sector identify and report on its most significant impacts and assists information
- 5 users in examining and appraising the organization's reporting.



6 1.1. Purpose of the GRI Sector Standards

- 7 The GRI Sector Standards (Sector Standards) are intended to help organizations prepare and report
- 8 information on their material topics, enhancing transparency and accountability as well as supporting
- 9 decision-making.

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- 10 Through their activities and <u>business relationships</u>, organizations <u>impact</u> the economy, environment,
- II and people, and in turn make negative and positive contributions to sustainable development. Material
- 12 topics are those that reflect the organization's most significant impacts on the economy, environment,
- 13 and people, including human rights.
- 14 The topics an organization identifies as material may vary according to specific circumstances, such as
- 15 its business model; sector; geographic, cultural, and legal operating contexts; ownership structure; and
- 16 the nature of its impacts.
- 17 Sector Standards provide information on the likely material topics for an organization in a given
- 18 sector. These topics have been identified through a transparent, multi-stakeholder process, and are
- 19 based on available authoritative instruments and other relevant references. They need to be
- 20 considered for reporting by an organization in that sector.
- 21 If an organization identifies a topic in an applicable Sector Standard as material, the Sector Standard
- 22 also helps it determine what to report for that topic.

1.2. GRI Standards

- 24 The GRI Standards enable an organization to publicly disclose its most significant impacts and how it
- 25 manages these impacts. The GRI Standards consist of three sets of Standards: Universal Standards,
- 26 Sector Standards, and Topic Standards (Figure 1).
- 27 Note: All references to the GRI Universal Standards in this document are to the exposure drafts
- 28 made available for public comment as part of the review of GRI's Universal Standards.

¹ The development of Sector Standards is overseen by the <u>Global Sustainability Standards Board</u> and governed by the formally defined <u>Due Process Protocol</u>.



GRI Sector Standard: Oil and Gas

Figure I. GRI Standards: Universal, Sector, and Topic Standards

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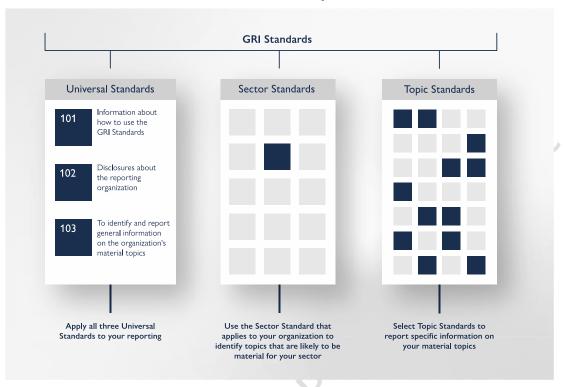
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For more information on how to use the GRI Standards system, see GRI 101: Using the GRI Standards.

1.3. Organizations this Standard applies to

- 32 GRI Sector Standard: Oil and Gas applies to organizations undertaking the following activities:
 - Exploration and production of onshore and offshore oil and gas, including by integrated oil and gas companies.
 - Supply of equipment and <u>services</u> to oil fields and offshore platforms, such as drilling, exploration, seismic information services and platform construction, including by owners and contractors of drilling rigs
 - Storage and transportation of oil and gas, such as that conducted by midstream natural gas companies, pipeline operators, and oil and gas shipping.
 - Manufacturing and marketing of oil and gas products, such as refined petroleum products and consumable fuels.
- This Standard can be used by oil and gas organizations of any size or type in any geographic location.

1.4. Overview of this Standard

- The next section, Section 1.5, sets out how this Standard is used. The rest of the Standard is structured as follows:
- Section 2 provides an overview of the sector, including its activities, types of business relationships, and context.



- Section 3 describes sector topics, which are topics to have been identified as likely material for an organization in the oil and gas sector and therefore potentially merit inclusion in its reporting.
- Each sector topic description in Section 3 contains a 'What to report' section that lists disclosures identified for reporting on the topic by an organization in the oil and gas sector. This section specifies appropriate disclosures from the GRI Topic Standards and, where relevant, includes additional appropriate disclosures and sector-specific guidance. It also lists resources that can assist an organization with reporting.

1.5. Using this Standard

56 Identifying material topics

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- 57 An organization reporting in accordance with the GRI Standards is required to identify its material
- 58 topics. Material topics are the topics an organization has prioritized to report on because they reflect
- its most significant impacts on the economy, environment, and people, including impacts on human
- 60 rights. GRI 103: Material Topics includes guidance for identifying material topics.
- 61 Section 3 of this Sector Standard outlines topics that are likely material for an organization in the oil
- and gas <u>sector</u> based on the sector's most significant impacts.
- 63 GRI 101: Using the GRI Standards requires that when identifying its material topics, an organization use
- the Sector Standard(s) that apply to its sector(s) where available. As such, an organization in the oil
- and gas sector needs to review each topic described in this Standard and determine whether it is
- 66 material for it to report on. The organization may need to use more than one Sector Standard,
- 67 depending on its activities.
- Using this Standard is not intended to substitute the organization's own process for identifying material
- 69 topics. Not all topics listed in this Standard may be material for all organizations in the oil and gas sector,
- and other topics may be material that are not listed in this Standard. An organization is therefore still
- 71 required to identify material topics according to its unique circumstances.

Sustainability context

- 73 | Sections 2 and 3 include contextual information for the sector, including highlighting authoritative
- 74 measures of sustainable development, referencing broader sustainable development conditions and
- 75 goals set out in recognized sector-specific or global instruments, and describing expectations of
 - responsible business conduct and transparency. This will assist an organization to report on its
- 77 impacts in the wider context of sustainable development.

Identifying what to report

- 79 GRI 101: Using the GRI Standards requires the organization to report appropriate disclosures from the
- 80 corresponding GRI Topic Standard for each material topic. If a material topic is not covered by a
- 81 Topic Standard or the Topic Standard does not provide appropriate disclosures for the organization's
- 82 impacts for a material topic, the organization should report appropriate disclosures from other
- 83 sources.
- 84 The Sector Standard lists disclosures from the Topic Standards and other sources that have been
- 85 identified as appropriate for reporting on each sector topic.



- 86 If a sector topic is not covered by the Topic Standards or if the disclosures in the Topic Standards do
 87 not sufficiently capture the impacts associated with the sector for that topic, additional disclosures
 88 and/or guidance are also listed.
- If the organization determines that some disclosures listed for a sector topic do not adequately capture the impacts it has identified for a material topic, it does not need to report them. It only needs to report those disclosures that adequately capture its impacts.
- Along with any appropriate disclosures, the organization is required to report how it manages each material topic and related impacts using *GRI 103*: *Material Topics*.
 - Figure 2 illustrates how the 'What to report' sections are structured.



Including the Sector Standard in a GRI Content Index

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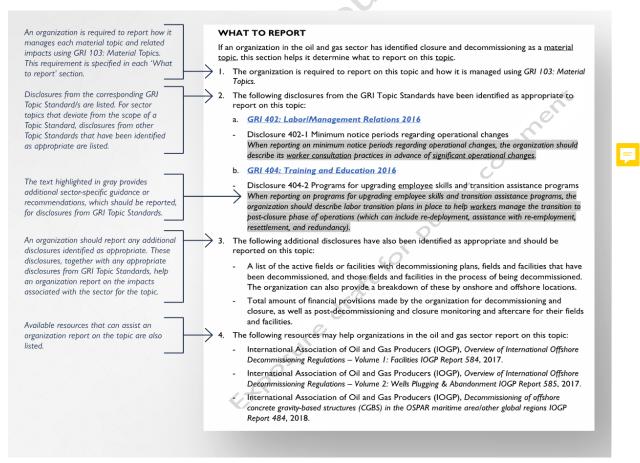
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102 103 An organization reporting in accordance with the GRI Standards is required to publish a GRI Content Index using the template set out in GRI 101: Using the GRI Standards. As part of this content index, the organization is required to list the Sector Standard(s) it has used when identifying its material topics.

For more information on the elements an organization should include in the GRI Content Index, see Appendix I in GRI 101: Using the GRI Standards.

Figure 2. Content overview of 'What to report' section included in each sector topic





104 2. Sector description

- The oil and gas sector is a large, global industry producing energy and raw materials for products, such
- as specialty chemicals, polymers, and petrochemicals. In addition to impacts related to the activities
- described below, significant impacts are associated with the use of oil and gas products, the
- 108 combustion of which generates air emissions, including greenhouse gases (GHG). GHG emissions, in
- turn, are the main contributor to climate change. Along with end users, organizations extracting these
- products are increasingly expected to take responsibility for product use emissions from combustion
- and to disclose GHG emissions that occur from the use of its products (Scope 3 emissions).

2.1. Oil and gas sector activities

- 113 The following describes upstream and downstream oil and gas activities and related project lifecycle
- 114 phases.

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- 115 **Exploration**: Surveying of resources, which can include aerial surveys, seismic testing, and exploratory
- 116 drilling.
- 117 **Development**: Design, planning, and construction of oil and gas fields, including processing and
- 118 worker facilities.
- 119 **Production**: Production of oil and gas from reservoirs offshore or onshore, and separation of fluids
- 120 through processing.
- 121 Mining oil sands: Extraction of bitumen from oil sands using surface mining or in-situ techniques.
- 122 **Decommissioning and rehabilitation**: Dismantling, removal, disposal, or modification of a physical
- 123 asset and site rehabilitation.
- 124 **Refining**: Refining of oil into petroleum products for use as fuels and as feedstocks for chemicals.
- 125 **Processing**: Processing of gas into pipe-quality natural gas and natural gas liquids, including removing
- 126 hydrocarbons and fluids.
- 127 Transport: Marine and land transportation of oil and gas products.
- 128 Storage and pipelines: Distribution and storage of oil and gas in tanks and marine vessels and
- 129 distribution via marine and land-based pipelines.
- 130 Sales and marketing: Trading and customer sales of products, for example, transport fuels, gas for
- retail use, and inputs into lubricants, plastics, and chemicals manufacturing.

133 BUSINESS RELATIONSHIPS

- 134 In the GRI Standards, impact refers to the effect an organization has or could have on the economy,
- 135 environment, or people, including on human rights, as a result of its activities or business relationships.
- When identifying its material topics and related impacts, the organization should consider the impacts
- of additional entities with which it has business relationships. See GRI 103: Material Topics for more
- 138 | information

- 139 The following business relationships are of particular relevance for the oil and gas sector:
- | Joint ventures: these are common arrangements, particularly in upstream oil and gas operations.
- Within a joint venture, companies share the costs, benefits, and liabilities of assets or a project. An



- organization can be involved with negative impacts as a result of a joint venture, even if it is a non-operating partner.
- State-owned enterprises (SOEs): these are prevalent in the oil and gas sector. They often represent
- the largest producers of the commodities and hold ownership of the majority of reserves. SOEs often
- have specific governance challenges, which are addressed in the section Transparency and governance.
- Suppliers and contractors: these are used, often in large number, by oil and gas organizations during
- certain phases of the project, such as drilling or construction, or to provide services. Some of the
- most significant impacts related to the topics in this Sector Standard occur mainly through the supply
- 150 chain

2.2. Sector context

- 151 The oil and gas sector currently plays an important role in meeting society's need for energy and raw
- 152 materials. The sector's activities are associated with extensive infrastructure development, project
- 153 lifecycles lasting several decades, and immobile production, which can result in various and long-lasting
- 154 <u>impacts</u> on the environment and people. Presently, extraction of oil and gas also generates critical
- 155 revenue streams for governments that can contribute to local and national economic development,
- 156 along with job creation, investments, and local skills and business development. At the same time, the
- large revenues derived from the sector can contribute to <u>corruption</u> and mismanagement of resources.
- 158 Economies dependent on these finite resources can also be vulnerable to commodity price and
- 159 production fluctuations.
- 160 The sector's main business model has historically been based on the production of energy, which is an
- essential driver of <u>sustainable development</u>. The world's energy systems have thus far relied on fossil
- 162 fuels, such as oil and gas, to generate electricity and to fuel global economic development. With world
- population and economies growing, the demand for energy and electricity is burgeoning. At present,
- more than one in ten people globally still lack access to electricity, highlighting the need for modern
- 165 energy that everyone can afford and depend on. However, extracting and burning oil and gas releases
- 166 greenhouse gases, which are the largest single contributor to climate change.
- 167 Almost every country in the world has committed to combating climate change, as outlined in the
- 168 2015 Paris Agreement. Leading scientists warn in the Intergovernmental Panel on Climate Change
- 169 (IPCC) special report Global Warming of 1.5°C that continuing on a 'business-as-usual' basis to
- 170 consume and produce fossil fuels, including existing and future reserves, could result in dangerous
- 171 global temperature increases and magnified risks of extreme weather and climate events. Further
- 172 reports show that with current commitments, the world is heading toward a 3.2°C rise in
- 173 temperature by 2100.3
- 174 Combating climate change and avoiding dangerous temperature increases will require the global
- energy system to transition to low-carbon economies. Actions taken by high-emitting sectors, such as
- oil and gas, are essential to this transition. This can include making business model changes, investing

³ United Nations Environment Programme (UNEP), *Emissions Gap Report 2019*, 2019, wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y.



GRI Sector Standard: Oil and Gas

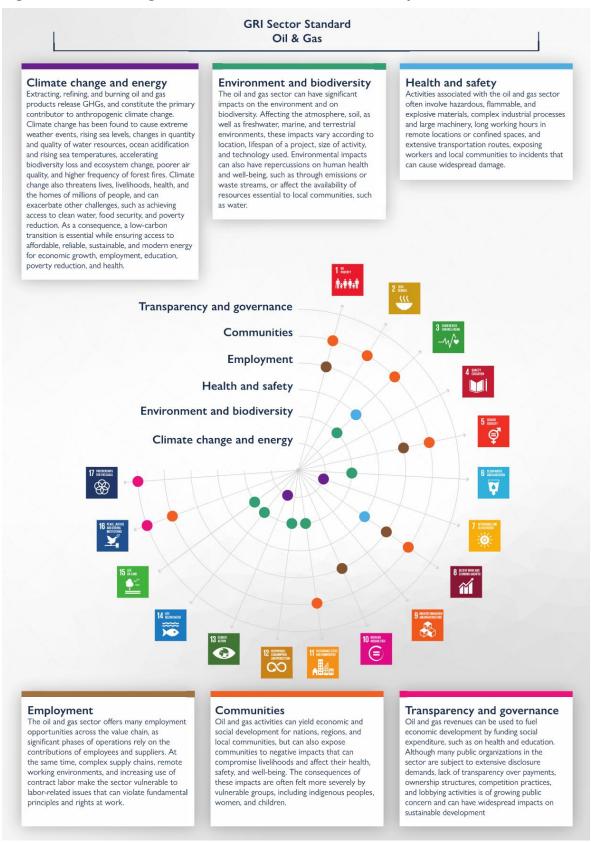
² World Bank Group, Access to Electricity, data.worldbank.org/indicator/EG.ELC.ACCS.ZS, accessed on 31 May 2020.

- in renewable energy resources, prioritizing energy-efficient practices, and developing and adopting new technologies and nature-based solutions to remove carbon from the atmosphere.⁴
- As laid out by the Paris Agreement, organizations and governments must work together to ensure a least transition. This entails accommodating countries' differing capabilities to respond to and mitigate mpacts and ensuring equitable access to sustainable development, while contributing to poverty eradication and creating quality jobs for people affected by the transition.⁵
- Posture direction of Philippins 183 The oil and gas sector activities can support a number of United Nations Sustainable Development 184 Goals (SDGs), either through their positive contributions or by preventing or mitigating negative 185 impacts. Figure 3 presents linkages between the sector's high-level impacts and the SDGs.

⁴ Organisation for Economic Co-operation and Development (OECD) and International Energy Agency (IEA), *OECD Green Growth Studies: Energy*, 2011, oecd.org/greengrowth/greening-energy/49157219.pdf.
⁵ United Nations Framework Convention on Climate Change (UNFCCC), *Paris Agreement*, 2015, unfccc.int/files/essential background/convention/application/pdf/english paris agreement.pdf.



Figure 3. The oil and gas sector and the Sustainable Development Goals





3. Sector topics

3.1. Overview of likely material topics

- 189 The following topics have been identified as likely material for organizations in the oil and gas sector.
- 190 The topics are grouped by theme and elaborated on in Section 3.2.

191 Climate change

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Greenhouse gas (GHG) emissions

Greenhouse gas (GHG) emissions comprise air emissions that contribute to climate change, such as carbon dioxide and methane. This topic covers direct and indirect GHG emissions (Scope I and Scope 2) as well as emissions related to construction activities, transportation, processing and refining, and end use of products (Scope 3).

• Climate resilience and transition

Climate resilience refers to how organizations are adapting to current and anticipated future climate risks and hazards. This topic also covers approaches and actions organizations can take toward a just transition to low-carbon economies.

Environment and biodiversity

Air emissions

Air emissions are pollutants that can have adverse <u>impacts</u> on ecosystems, air quality, agriculture, and human and animal health. This topic covers impacts from such pollutants, including sulfur dioxides, nitrogen oxides, particulate matter, volatile organic compounds, carbon monoxide, and heavy metals, such as lead, mercury, and cadmium.

207 • Biodiversity

Biodiversity has intrinsic value, and is closely connected to climate, human health and well-being, and economic prosperity. This topic covers impacts on biodiversity, including on plant and animal species, genetic diversity, and ecosystems.

211 • Waste

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

When inadequately managed, waste can have significant negative impacts on the environment and human health, often extending beyond locations where waste is generated and discarded. This topic covers impacts from waste, including as a result of construction and <u>remediation</u> activities from active and inactive sites.

Water and effluents

The amount of water withdrawn and consumed by an organization and the quality of its discharges can impact the functioning of an ecosystem and have economic and social consequences for <u>local communities</u> and <u>indigenous peoples</u>. This topic covers impacts on <u>freshwater</u> – including <u>groundwater</u>, <u>surface water</u>, and <u>seawater</u>.

Closure and decommissioning

At the end of commercial use, organizations are expected to decommission assets and facilities and rehabilitate operational sites. The planning and execution of this phase is expected to take environmental as well as socioeconomic consequences into consideration. This topic covers impacts from closure and decommissioning on the environment, local communities, and workers.



227 Health and safety

• Asset integrity and process safety

Asset integrity and process safety deal with prevention and control of events and incidents that can result in, for example, toxic effects, loss of containment, fires, or explosion. These, in turn, can lead to casualties or major injuries, property damage, production decrease, and environmental impacts. This topic covers impacts from such events and incidents on local communities and workers.

• Occupational health and safety

Occupational health and safety include prevention of physical and mental harm and promotion of workers' health. This topic covers impacts related to workers' health and safety, including workers who are not employees.

238 Employment

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• Employment practices

Employment practices refer to an organization's approach to job creation, recruitment, retention, training, and development, as well as the working conditions set for its workers and <u>suppliers</u>.

This topic covers impacts on workers as a result of employment practices.

• Diversity and non-discrimination

Freedom from <u>discrimination</u> is a fundamental labor right. Discrimination can impose unequal burdens on or deny <u>benefits</u> to individuals instead of treating them fairly and on the basis of individual merit. This topic covers impacts from discrimination and an organization's practices related to diversity and inclusion.

Forced labor and modern slavery

Freedom from forced labor is a fundamental labor right. This topic covers concepts such as <u>forced</u> <u>or compulsory labor</u>, debt bondage, forced marriage, slavery and slavery-like practices, and human trafficking.

• Freedom of association and collective bargaining

<u>Freedom of association</u> and <u>collective bargaining</u> are fundamental labor rights. They include the rights of employers and workers to form, join, and run their own organizations without prior authorization or interference, as well as to collectively negotiate working conditions and terms of employment. This topic covers impacts resulting from interference with freedom of association and collective bargaining.

Communities

Economic impacts

Organizations' activities can have direct impacts on the economic conditions of its <u>stakeholders</u> and on economic systems through, for example, revenues and other payments, local hiring, and local procurement. Indirect impacts can influence a community's well-being and long-term development through, for example, <u>infrastructure</u> investments and <u>services supported</u>. This topic covers economic impacts at local, national, and global levels.

Local community impacts

Local communities can comprise a range of persons, from those living adjacent to an organization's activities to those at a distance who are still likely to be affected by them. This topic covers socioeconomic, cultural, and environmental impacts on local communities.

269 • Land use and resettlement



The extensive land use required by oil and gas activities can affect a community's rights by restricting its access to that land and lead to involuntary resettlement of communities and individuals using the land. This topic covers impacts on local communities as a result of land use and resettlement.

• Rights of indigenous peoples

Indigenous peoples often have distinct customary cultural, economic, social, and political institutions, or lack economic resources, which renders them vulnerable to impacts caused by large-scale development projects. This topic covers impacts on the rights of indigenous peoples.

Conflict and security

An organization's use of <u>security personnel</u> to safeguard its workers and operations can pose risks to the human rights of local communities. This topic covers impacts related to operating in areas of conflict and the conduct of security personnel toward third parties, such as local communities.

282 Transparency and governance

Anti-competitive behavior

Anti-competitive behavior and anti-trust practices can result in collusion with potential competitors, with the purpose of limiting the effects of market competition. This topic covers impacts as a result of such practices.

• Anti-corruption

<u>Corruption</u> refers to corrupt practices, such as bribery, facilitation payments, fraud, extortion, collusion, and money laundering. It can also include self-dealing, influence peddling, and <u>conflicts of interest</u>. This topic covers impacts as a result of such practices.

Payments to governments

Payments to governments include paid taxes; production rights; royalties; signature, discovery, and production bonuses; commodity trading activities; and other payments. Lack of transparency about such payments can contribute to inefficient management of public funds, illicit financial flows, and corruption. This topic covers impacts related to lack of transparency on these payments.

• Public policy and lobbying

An organization's participation in public policy development can include activities, such as lobbying and, directly or through an intermediary organization, making financial or in-kind contributions to political parties, politicians, or causes. This topic covers impacts related to public policy development and lobbying activities.



301 3.2. Topic descriptions and what to report

The following section describes the most significant <u>impacts</u> related to the likely <u>material topics</u> for the oil and gas <u>sector</u> across upstream and downstream activities. An organization in the oil and gas sector needs to review each <u>topic</u> described in this section and determine whether it is material for it to report on. This section also assists the organization in determining what to report for each of these topics.

CLIMATE CHANGE

GHG emissions

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- Oil and gas are responsible for a large portion of two of the most significant greenhouse gas (GHG)
- emissions causing climate change: carbon dioxide (CO₂) and methane (CH₄). CO₂ and CH₄ constitute
- 311 over 90% of global GHG emissions. The sector's activities and product use makes up roughly half of
- the global CO₂ emissions and close to a quarter of CH₄ emissions caused by human activities.⁶ Recent
- 313 measurements show a high degree of uncertainty in estimates of global CH₄ emissions from oil and gas
- activities, which has a significantly higher global warming potential than CO₂.
- Other greenhouse gases from oil and gas activities include ethane (C_2H_6) , nitrous oxide (N_2O) ,
- 316 hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen
- 317 trifluoride (NF₃).

Scope I and 2 emissions

- Oil and gas activities consume significant amounts of energy. Unless powered by renewable energy
- 320 <u>sources</u>, these activities generate GHG emissions, which are classified as <u>direct (Scope 1)</u> GHG
- emissions for activities owned or controlled by the organization or indirect (Scope 2) GHG emissions,
- which are a result of purchased or acquired electricity, heating, cooling, and steam consumed by the
- organization. GHG emissions originate from stationary and mobile sources (e.g., transportation of
- materials, products, or waste); extraction; operation of facilities and equipment; transportation;
- 325 liquefaction and regasification of natural gas; and oil refining.
- 326 Direct GHG emissions from oil and gas include emissions from fuel combustion during operations,
- process emissions such as those during loading and tankage, and fugitive emissions such as those from
- 328 piping and equipment leaks.
- In addition, flaring and venting are one of the most significant sources of GHG emissions from oil and
- gas activities. These practices are aimed to dispose of gas that cannot be contained or otherwise
- 331 handled for safety, technical, or economic reasons. They occur during production, storage, refining,
- 332 and electricity generation.

⁶ J. G. J. Olivier and J. A. H. W. Peters, *Trends in global CO*₂ and total greenhouse gas emissions: 2019 Report, 2020, pbl.nl/sites/default/files/downloads/pbl-2020-trends-in-global-co2-and-total-greenhouse-gas-emissions-2019-report_4068.pdf, p. 12.



- 333 Though improvements in production efficiency have reduced direct emissions, increasing depletion of
- 334 traditional oil and gas resources moves production to complex or sensitive environments, such as
- 335 offshore deep water and oil sands. These difficult settings and the unconventional extraction methods
- 336 they necessitate have led to increased energy use and GHG emissions during production activities.



Scope 3 emissions

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338 For oil and gas, end-use activities are responsible for the most significant GHG emissions, which are 339

classified as other indirect (Scope 3) GHG emissions. Higher energy demands have led to higher GHG

340 emissions, the majority of which originates from combustion processes. Oil and natural gas

341 combustion represent over half of global CO₂ emissions.^{7 8} These emissions mostly originate from

342 activities, such as electricity and heat generation, transportation, manufacturing, and construction.

Flaring and venting



Routine venting of associated gases is widely considered poor industry practice. Venting releases CH₄

345 directly to the atmosphere, whereas flaring converts the gas to CO_{2...} which has a lower global 346

warming potential. The International Finance Corporation recommends routing associated gas streams

to an efficient flare system instead of venting it.

348 However, continuous flaring of gas should also be avoided. Although large amounts of associated gases 349 from oil and gas activities are utilized or conserved, routine flaring still occurs in many major oil- and

gas-producing countries. The World Bank defines routine flaring as that which occurs 'during normal

350 oil production operations in the absence of sufficient facilities or amenable geology to re-inject the 35 I

352 produced gas, utilize it on-site, or dispatch it to a market', and in 2019, estimated that around 4% of

all natural gas produced was wasted by flaring. The uptick of shale oil production has also increased

flaring volumes. Paradoxically, better regulation and detection of flaring could also result in increased

355 venting, creating a net increase in global warming.

* The World Bank, Zero Routine Flaring by 2030, worldbank.org/en/programs/zero-routine-flaring-by-2030#7, accessed 31 May 2020

WHAT TO REPORT

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

1. The organization is required to report on this topic and how it is managed using GRI 103: Material Topics.

When reporting on actions taken to manage GHG emissions and related impacts and the effectiveness of these actions, the organization should report the actions taken to manage flaring and venting as well as the effectiveness of these actions.

When reporting on goals and targets, the organization should report the following.

How goals and targets are set;



⁸ International Energy Agency (IEA), CO2 Emissions from Fuel Combustion Highlights, 2019, webstore.iea.org/co2emissions-from-fuel-combustion-2019-highlights.



⁷ International Energy Agency (IEA), Energy Efficiency 2018: Analysis and Outlooks to 2040, 2018, webstore.iea.org/market-report-series-energy-efficiency-2018.

367 368 369 370 371 372 373 374		 Whether, and how, goals and targets take into account the context in which the impacts take place and are informed by expectations in internationally recognized instruments and, where relevant, by scientific consensus; Whether goals and targets are voluntary or mandatory (if mandatory, the organization can list the mandating legislation); Activities or <u>business relationships</u> to which the goals and targets apply; <u>Baseline</u> for the goals and targets; and Timeline for achieving the goals and targets.
375 376	2.	The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
377 378 379		 GRI 302: Energy 2016 Disclosure 302-1 Energy consumption within the organization Disclosure 302-3 Energy intensity
380		b. GRI 305: Emissions 2016
381 382 383 384 385		 Disclosure 305-1 Direct (Scope I) GHG emissions When reporting on direct (Scope I) GHG emissions, the organization should report: Percentage of methane emissions from gross direct (Scope I) GHG emissions; and Breakdown of direct (Scope I) GHG emissions by type of source, including from flared gas, vented gas, and fugitive emissions.
386		- Disclosure 305-2 Energy indirect (Scope 2) GHG emissions
387		- Disclosure 305-3 Other indirect (Scope 3) GHG emissions
388 389		 Disclosure 305-4 GHG emissions intensity Disclosure 305-5 Reduction of GHG emissions
390 391 392	3.	In addition to the disclosures listed above, when reporting ACT-1 Activities, value chain, and other business relationships in GRI 102: About the Organization, the organization should report efforts to move toward less GHG-intensive operations and products.
393	4.	The following resources may help an organization in the oil and gas sector report on this topic:
394 395 396 397		International Petroleum Industry Environmental Conservation Association (IPIECA), American Petroleum Institute (API), International Association of Oil and Gas Producers (IOGP), Sustainability reporting guidance for the oil and gas industry, 2020. The World Bank, Global Gas Flaring Reduction Partnership.
398 399		 World Resources Institute, Estimating and Reporting the Comparative Emissions Impacts of Products, 2019.
400 401		Greenhouse Gas Protocol, Corporate Value Chain (Scope 3) Accounting and Reporting Standard, 2011



Climate resilience and transition

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- Climate change cuts across environmental and socioeconomic systems. To achieve sustainable development while addressing climate change, both mitigation and adaptation strategies are required. Mitigation, in order to avoid extreme climate change effects by, for example, investing in renewable energy, nature-based solutions to climate mitigation, and technologies to remove CO₂ from the atmosphere. Adaption, in order to cope with impacts that cannot be avoided. If climate change is moderate rather than substantial, the resulting risks to sustainable development may also be limited.
- For organizations in the oil and gas sector, climate-related risks include transition risks that can affect the organization's financial performance as well as physical risks driven by acute events and long-term shifts in climate patterns, which can have impacts on the health and safety of workers and local communities. Disruptions in operations can also cause gaps in energy supply and impact energy
- 413 security.
- Climate resilience and transition to low-carbon economies can limit these impacts and provide opportunities for organizations in the oil and gas sector, including improved resource efficiency, low-emission energy sources and consumption patterns, new <u>products</u> and <u>services</u>, and access to new markets.

Transition to low-carbon economies

- There is wide agreement that to mitigate climate change and stabilize global temperatures, global CO₂ emissions need to be limited. They need to 'eventually approach zero', which requires a 'fundamental transformation of the energy supply system' involving a key role for low-GHG energy supply technologies.¹⁰ For an organization in the oil and gas sector, this poses a 'strategic challenge of balancing short-term returns with its long-term license to operate'¹¹ while also facing increasing pressure to align with the transition to low-carbon energy in portfolios and business models.
 - Currently, proven global reserves of fossil fuels significantly exceed that which can be combusted while still keeping warming 'well below 2 degrees', the global goal established by the Paris Agreement. Aligning with this goal requires organizations to set carbon emission targets that are compatible with carbon budgets, which indicate 'the cumulative amount of CO₂ emissions permitted over a period of time to keep within a certain temperature threshold'. These projections are also referred to as 'scenarios'. By making targets compatible with carbon budgets, organizations can better establish relevant mitigation and adaptation measures to navigate a climate-resilient pathway. The more limited

¹² Carbon Tracker Initiative, *Carbon Budgets Explainer*, 2018, carbontracker.org/wp-content/uploads/2018/02/Carbon-Budgets_Eplained_02022018.pdf.



⁹ 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, ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap20_FINAL.pdf, pp. 1101-1131.

¹⁰ T. Bruckner, I. Alexeyevich 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, ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter7.pdf, pp. 511-597.

¹¹ International Energy Agency (IEA), The Oil and Gas Industry in Energy Transitions: World Energy Outlook special report, 2020, iea.org/reports/the-oil-and-gas-industry-in-energy-transitions.

- the budget, the greater the required changes, which can include diversification and portfolio
- 433 reassessment.
- 434 Such changes in business models can have economic impacts, including loss of economic activity
- affecting sector workforces, local communities, and entire nations. Countries particularly those with
- emerging economies whose gross domestic products heavily rely on fossil fuels face greater
- 437 transition-related challenges. Stricter climate policies, environmental regulations, and technological
- developments can increase the risk of stranded assets when demand for oil and gas decreases and
- production costs remain stable or increase. This can increase the need to retire production
- infrastructure, which can be a major economic burden for governments and taxpayers.
- 441 As oil and gas fields have finite lifespans, the coming decades are likely to see increases in closure
- and decommissioning without being counterbalanced by new developments. The social impact can
- be significant when substantial direct employment, broader job creation, and economic development
- in the region depend on the sector. Workers face other potential impacts related to employment,
- specifically surrounding employability, reskilling, and desirable re-employment.
- Transitioning to low-carbon economies can also offer communities opportunities to transform
- economic activity, in turn, creating new jobs and skills development. To create opportunities and
- ensure a just transition for those most affected, it is essential to anticipate and facilitate workforce
- retraining and mobility through active dialogue between governments, employers, and workers.

WHAT TO REPORT

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- If an organization in the oil and gas sector has identified climate resilience and transition as a <u>material</u> topic, this section helps it determine what to report on this <u>topic</u>.
- 1. The organization is required to report on this topic and how it is managed using *GRI 103: Material Topics*.
 - When reporting on actions taken to manage climate resilience and transition and related impacts, the organization should report:
 - Level and function within the organization assigned responsibility for managing the impacts (this can also be reported as part of GOV-3 Responsibilities for sustainable development topics and delegation in GRI 102: About the Organization);
 - Internal decision-making, budget allocation, and oversight processes to enable effective actions to manage the impacts (this can also be reported as part of GOV-13 Remuneration policies in GRI 102: About the Organization);
 - How performance criteria in the remuneration policies for highest governance body members and senior executives relate to the topic; and
 - Whether responsibility to manage the topic is linked to performance assessments or incentive mechanisms.
 - b. When describing its policies on or commitments to the topic, the organization should report:
 - Policy commitments to climate change (this can be reported as part of RBC-2 Policy commitments in GRI 102: About the Organization);
 - Approach to public advocacy on climate change, including stance on issues related to climate change, and any differences between its lobbying positions and any stated policies, goals, or other public positions; and
 - Any industry and other membership associations and national and international advocacy
 organizations that participate in public advocacy on climate change in which the organization has a
 significant role (this can also be reported as part of RBC-7 Membership associations in GRI 102:
 About the Organization).



477 478 479 480 481 482 483 484 485	C.	 When reporting on goals and targets, the organization should report targets related to reducing Scrope 3 Strategy to achieve targets, including through investments in renewable energy, nature-based solutions to climate mitigation, and technologies to remove CO₂ from the atmosphere; Baseline for the targets; Whether and how the goals and targets take into account the context in which the impacts take place and are informed by expectations in internationally recognized instruments and, where relevant, by scientific consensus; and Timeline for achieving goals and targets.
486 487		(Note: Reporting on goals and targets related to <u>Scope I emissions</u> and <u>Scope 2 emissions</u> is included in GHG emissions .)
488 489	2.	The following disclosure from the GRI Topic Standards has been identified as appropriate to report on this topic:
490		GRI 201: Economic Performance 2016
491 492 493 494 495 496 497 498 499		 Disclosure 201-2 Financial implications and other risks and opportunities due to climate change When reporting on financial implications and other risks and opportunities due to climate change, the organization should report: Whether climate change is considered in the organization's strategy; Scenarios used for outlining risks and opportunities; Assumptions and/or projections used to address stranded asset risks; and How the concept of just transition is considered to prevent or mitigate systemic negative impacts.
500 501 502 503 504 505		 When reporting on methods used to manage risks or opportunities, the organization should report: Investments in nature-based solutions to climate mitigation and technologies to remove CO₂, and net captured value of CO₂ removed; Decisions not to invest in new oil and gas reserves and project divestments; Investments in exploration of new oil and gas reserves and development of new fields (percentage of total CAPEX)¹³.
506 507	3.	The organization should also report its business model and lines of business when reporting ACT-1 Activities, value chain, and other business relationships, using GRI 102: About the Organization, including:
508 509 510 511 512 513		 Oil and gas production volumes for the reporting year and projected volumes for the next five years in percentages by crude oil, natural gas, oil sands, tight oil, and shale gas; Energy production from renewable sources by type of energy source and investment into renewable energy as well as projections for the next five years (percentage of total CAPEX and current total revenue); and Estimated reserves by resource type and emission potential of these reserves.

 $^{^{13}}$ The definition of reserves refers to the one applied in the organization's consolidated financial statements or equivalent documents.



- 514 4. The following resources may help organizations in the oil and gas sector report on this topic:
- 515 Task Force on Climate-Related Financial Disclosure (TCFD), Recommendations of the Task Force on Climate-related Financial Disclosure, 2017. 516
- Task Force on Climate-Related Financial Disclosure, The Use of Scenario Analysis in Disclosure of 517 518 Climate-Related Risks and Opportunities, 2017.
- 519 Transition Pathway Initiative, Methodology and Indicators Report, 2019.
- eporting the confidence of Public Confidence of Pub 520 521



ENVIRONMENT AND BIODIVERSITY

523 Air emissions

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- In addition to GHGs, emissions from oil and gas activities and use constitute significant anthropogenic
- sources of air pollutants. Globally, these emissions result in severe negative health impacts and
- 526 millions of deaths annually by contributing to heart and lung diseases, strokes, respiratory infections,
- and neurological damage. Children, the elderly, and the poor are disproportionately affected, as are
- 528 communities adjacent to operations.
- Air pollution also impacts ecosystems. For example, nitrogen emissions that enter the oceans can
- alter ocean chemistry, impacting marine life. Sulfur oxides can lead to acid rain and increase ocean
- acidification. Air pollution can also cause damage to plant life, such as impaired photosynthesis and
- 532 reduced growth.
- Air emissions from oil and gas activities include nitrogen oxides (NO_x), sulfur oxides (SO_x), volatile
- organic compounds (VOC), particulate matter (PM), ozone (O₃), and other hazardous air pollutants,
- such as hydrogen sulfide (H_2S) and benzene (C_6H_6). ¹⁴ These can occur from venting, flaring, and
- blowdowns; equipment leaks, evaporation losses, accidents, and equipment failures (in the form of
- fugitive emissions); waste impoundments and storage; fuel combustion; refining and processing
- activities; and transportation of supplies and products.

WHAT TO REPORT

- If an organization in the oil and gas <u>sector</u> has identified air emissions as a <u>material topic</u>, this section helps it determine what to report on this <u>topic</u>.
- 542 I. The organization is required to report on this topic and how it is managed using *GRI 103*: Material Topics.
- The following disclosure from the GRI Topic Standards has been identified as appropriate to report:

GRI 305: Emissions 2016

- Disclosure 305-7 Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other <u>significant air</u> emissions
- 3. The organization can also report the following disclosure:

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GRI 416: Customer Health and Safety 2016

- Disclosure 416-1 Assessment of the health and safety impacts of product and service categories
- When reporting on the assessment of the health and safety impacts of product and service categories, the organization can also describe efforts to improve product quality to reduce air emissions.

¹⁴ This scope does not include carbon dioxide (CO_2) and methane (CH_4), which are to be reported under <u>GHG emissions</u>.



GRI Sector Standard: Oil and Gas

555 Biodiversity

- Oil and gas activities typically require large-scale infrastructure development, which have direct,
- 557 indirect, and cumulative impacts on biodiversity occurring in the short and long term. Direct impacts
- 558 can include air, soil, and water contamination, deforestation, soil erosion, and sedimentation of
- 559 waterways. Other direct impacts involving species include mortality; habitat fragmentation and
- conversion; and the introduction of invasive species and pathogens.
- These impacts can result from land clearance; seismic testing and drilling of exploration wells;
- construction of facilities, infrastructure, and pipelines; transportation; increased levels of noise and
- light; generation, use, and disposal of <u>produced water</u> and other <u>effluents</u>; disposal of drilling waste;
- spills and leaks; gas leakage and methane migration into freshwater; and contamination from tailings
- 565 ponds.
- 566 Oil and gas resources are often located in sensitive ecosystems or areas with high biodiversity value,
- 567 which can exacerbate the impacts on biodiversity. Threats to biodiversity will increase as easily
- accessible oil and gas resources are depleted and exploration moves into more remote areas.
- Unconventionally produced oil and gas, such as shale oil and gas, have a greater environmental
- footprint than conventional production.
- Increased human settlement around operational sites can have indirect impacts, such as opening of
- 572 routes to previously inaccessible areas and adding stress on areas of high biodiversity value.
- 573 Effects on species and ecosystems can also be the result of cumulative impacts. For example, habitat
- fragmentation caused by a pipeline can be compounded by land use change from agricultural
- operations. Impacts can also accumulate over time. Due to the scale and long lifespans of oil and gas
- activities, impacts can occur well beyond a project's direct activities, including after closure and
- 577 decommissioning.
- Impacts on biodiversity can also generate other effects. Activities related to oil and gas can have
- 579 impacts on local communities by limiting resource availability, accessibility, or quality. Due to
- 580 extensive land use required for many projects, the <u>sector's</u> activities can further contribute to GHG
- 581 emissions and climate change through land-use change resulting in removal of carbon sinks. Climate
- change is expected to affect all aspects of biodiversity including individual organisms, populations,
- 583 species distribution, and ecosystem composition and function and the impacts are anticipated to
- worsen with increasing temperatures.
- To limit and manage its negative impacts on biodiversity and ecosystems, the oil and gas sector has
- been active in developing a mitigation hierarchy tool, which can be used to limit and manage its
- negative impacts on biodiversity and ecosystems.



588 WHAT TO REPORT

- If an organization in the oil and gas sector has identified biodiversity as a <u>material topic</u>, this section helps it determine what to report on this <u>topic</u>.
- 591 I. The organization is required to report on this topic and how it is managed using *GRI 103: Material Topics*.
- When describing the actions taken to manage the topic and related impacts, the organization should describe whether it has implemented the <u>mitigation hierarchy</u> and how local community engagement is incorporated.
- 596 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report:

GRI 304: Biodiversity 2016

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- Disclosure 304-1 Operational sites owned, leased, managed in, or adjacent to, <u>protected areas</u> and areas of high biodiversity value outside protected areas
- Disclosure 304-2 Significant impacts of activities, <u>products</u>, and <u>services</u> on biodiversity When reporting significant impacts of activities, products, and services on biodiversity, the organization should report significant direct and indirect impacts on biodiversity with reference to habitats or ecosystems.
- Disclosure 304-3 Habitats protected or restored
 When reporting habitats areas, the organization should provide a breakdown of those protected or restored through the application of the mitigation hierarchy and/or additional conservation actions.
- Disclosure 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations
- 3. The following resources may help organizations in the oil and gas sector report on this topic:
 - International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Natural Resources, 2012.
 - International Council for Mining and Metals (ICMM), International Petroleum Industry. Environmental Conservation Association (IPIECA), Equator Principles, A cross-sector guide for implementing the Mitigation Hierarchy, 2017.
- Integrated Biodiversity Assessment Tool (IBAT) Alliance, Integrated Biodiversity Assessment
 Tool.
- International Petroleum Industry Environmental Conservation Association (IPIECA), International Association of Oil and Gas Producers (IOGP), *Biodiversity and ecosystem services* fundamentals, 2016.



621 Waste

- 622 Extraction of oil and gas generates various <u>waste</u> streams, often in large quantities, which can contain
- toxic or noxious substances, including heavy metals. Effective waste management and minimization are
- 624 critical for protecting <u>local communities</u> and preventing damage to the environment.
- Waste impacts from oil and gas can include contamination of surface water, groundwater, and food
- sources with chemicals or heavy metals. Further effects can be loss of land productivity and erosion.
- 627 Certain wastes require particularly robust management due to their type or volume. In remote areas
- 628 with limited disposal methods, waste impacts can be more severe or slower to manifest.
- Wastes are generated throughout oil and gas activities. In traditional oil and gas exploration and
- 630 production, the largest waste stream derives from drilling, which can consist of rock cuttings and
- water and drilling muds. These, in turn, can contain salts, metals, hydrocarbons, chemical additives,
- and naturally occurring radioactive material (NORM). Drilling waste can pose risks to the
- environment if released in an uncontrolled manner. When disposed of in underground injection wells,
- drilling waste can cause earthquakes or contamination of groundwater. In the absence of an alternative
- outlet, drilling fluids might also be discharged into waterways or the ocean.
- In oil sands surface mining, the largest waste streams constitute topsoil, overburden, and tailings. The
- process of separating oil from sand and clay produces tailings, a toxic waste. Some tailings ponds have
- been found to leach chemicals into the environment, causing health risks for local communities and
- 639 wildlife, including birds that land on ponds and can drown from oiling.
- At the end of an oil and gas exploration or extraction project, decommissioning and closure also
- yield significant waste, which can have lasting environmental and socioeconomic consequences.
- Other typical wastes from oil and gas facilities include chemicals and waste oils, construction waste,
- office and packaging waste, and medical waste.

Use of materials

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- The use of materials is increasing globally, requiring better and more efficient management as well as reduction in waste generation. Production of oil and gas largely consists of using water and chemicals
- for extraction and processing. However, much of the <u>sector's</u> impacts from the use of materials
- comes from infrastructure development. Project construction, commissioning, and
- decommissioning and closure involve substantial use of steel and concrete. The oil and gas sector
- has opportunities for implementing more efficient use of materials as well as leveraging its significant
 - purchasing power to create demand for more responsibly produced materials.
 - → The use of materials is addressed in GRI 301: Materials 2016.



653 WHAT TO REPORT

- lf an organization in the oil and gas sector has identified waste as a <u>material topic</u>, this section helps it determine what to report on this <u>topic</u>.
- 1. The organization is required to report on this topic and how it is managed using *GRI 103: Material Topics*.
- The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
- 660 **GRI 306: Waste 2020**

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- Disclosure 306-1 Waste generation and significant waste-related impacts
 - Disclosure 306-2 Management of significant waste-related impacts
- Disclosure 306-3 Waste generated
 - Disclosure 306-4 Waste diverted from disposal
- Disclosure 306-5 Waste directed to disposal
- When reporting on waste generated, diverted from disposal, and directed to disposal, the organization should report the composition of the waste broken down by:
 - Drilling waste (muds and cuttings);
 - o Total amounts of overburden, rock, and sludges; and
- o Tailings waste.
- The following additional disclosures have also been identified as appropriate and should be reported on this topic by organizations with oil sands mining operations:
- Volume (m³) and area (m²) of tailings ponds
- Types of tailings facilities the organization operates
- 4. The following resources may help organizations in the oil and gas sector report on this topic:
- International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Waste Management, 2007.
- United Nations Environment (UN environment), International Council for Mining and Metals (ICMM), Principles for Responsible Investment (PRI), Global Tailings Standard.
 - International Association of Oil and Gas Producers (IOGP) Guidelines for waste management with special focus on areas with limited infrastructure.
- International Petroleum Industry Environmental Conservation Association (IPIECA), Petroleum refinery waste management and minimization, 2014.



Water and effluents 684

- 685 Oil and gas activities can have impacts on the availability of water resources, which can have
- 686 consequences for local communities as well as other sectors. The sector's impacts from water use
- 687 depend on the quantity of water resources in the local context; where water is scarce, the sector has
- 688 a greater impact and can increase conflicts between water users.
- 689 Water is used in the development, extraction, and processing of oil and gas. The quantity of water
- 690 required for production varies depending on fuel type and extraction method, geology, and the degree
- 691 of processing required. Unconventional extraction methods, including hydraulic fracturing and oil
- 692 sands operations, are particularly water-intensive. The amount of water resources is further impacted
- 693 by the ability to substitute water, water quality, reservoir characteristics, and recycling infrastructure.
- 694 In regions where water is scarce or in high demand for other uses, operations can use alternative
- 695 sources, such as saline water or recycled wastewater.
- 696 Oil and gas activities can also have significant impacts on surface water and groundwater quality. In
- 697 turn, long-term impacts on ecosystems and biodiversity can spread waterborne diseases, cause
- 698 problems for human health and development, and impair food-chain productivity. Heavy metals and
- 699 pollutants can accumulate in groundwater, lakes, and reservoirs; contaminate aquifers with methane;
- 700 and pollute streams receiving water discharges and downstream communities.
- 70 I Impacts on water quality can derive from inefficient treatment of water discharges, spills, and leaks. By
- 702 volume, produced water is the largest wastewater source from the sector. Produced water that is not
- 703 reinjected into a well or discharged into the ocean might be discarded to land or water or held in
- 704 retention ponds, potentially causing surface water and groundwater contamination.
- 705 Contamination can also occur from spills and injection of drilling fluids into wells and flowback from
- 706 hydraulic fracturing. Hydraulic fracturing and other forms of well stimulation for extracting oil and tar
- 707 sands can cause underground contaminants to seep further and pollute groundwater resources.
- 708 Seepage or failure of an oil sands tailings dam can also have significant impacts on surface and
- 709 groundwater quality. Oil spills from transportation accidents and ruptured pipelines can similarly have
- 710 negative impacts on local water resources.
- 711 Droughts, floods, and other extreme weather events related to climate change will likely pose further
- 712 challenges to water availability and quality and exacerbate the impacts of this sector.

WHAT TO REPORT

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- If an organization in the oil and gas sector has identified water and effluents as a material topic, this 714
- 715 section helps it determine what to report on this topic.
- 716 1. The organization is required to report on this topic and how it is managed using GRI 103: Material 717 Topics.
- 718 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to 719 report on this topic:

GRI 303: Water and Effluents 2018

- Disclosure 303-1 Interactions with water as a shared resource
- 722 Disclosure 303-2 Management of water discharge-related impacts
- 723 Disclosure 303-3 Water withdrawal
 - Disclosure 303-4 Water discharge
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- When reporting on water discharge, the organization should report the total volume of hydrocarbon 726 discharged within produced water.



- 727 Disclosure 303-5 Water consumption
- 728 3. The following resources may help organizations in the oil and gas sector report on this topic:
- 729 International Council for Mining and Metals (ICMM): Water Stewardship Framework, 2014.
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 A): The 730 International Petroleum Industry Environmental Conservation Association (IPIECA): The 73 I



732 Closure and decommissioning

- Developing oil and gas fields can impact the surrounding area and cause changes beyond the location
- or lifespan of a project. Impacts following closure may include soil and water contamination, changes
- 735 to landforms, disturbance of biodiversity and wildlife, and lasting socioeconomic consequences for
- 736 local communities.
- 737 Closure and decommissioning often requires planning from the early phases of a project's lifecycle, to
- 738 consider potential impacts on the economy, environment, and people. Failure to decommission assets
- and rehabilitate sites soundly can render land unusable for other productive uses, due to the presence
- of toxic materials or contamination, as well as cause health and safety hazards. Without clearly
- assigned responsible parties or allocated funds, closed and decommissioned oil and gas fields can also
- leave behind legacy environmental issues and financial burden for communities and governments.
- Over the course of an oil and gas project, communities might come to depend on the sector's
- activities for jobs, income, royalties, tax payments, charitable donations, and other benefits. This can
- lead to negative economic and social impacts after the project ends. For example, insufficient notice of
- 746 closure or lack of adequate planning for economic revitalization, social protection, and labor transition
- can hinder the transition of workers and local communities to a post-closure phase and cause
- retrenchment, economic downturn, and social unrest.
- 749 The need to reduce GHG emissions and transition to low-carbon economies increases the
- 750 likelihood of more frequent closures, which will not, as in the past, be counterbalanced by openings. In
- 751 areas where employment largely derives from oil and gas activities, social impacts will be significant,
- 752 requiring collaboration between local and national governments, companies, workers and unions to
- 753 ensure a just transition.
- 754 Closure and decommissioning of oil and gas fields can include removal and final disposal of hazardous
- 755 materials and chemicals; capping or plugging of abandoned wells; dismantling and discarding structures;
- remediation of land or water; and restoration of lands to a condition or economic value approximates
- 757 pre-development state. Closing oil sands operations also involves management of tailings ponds (see
- 758 also **Waste**).
- 759 Decommissioning offshore structures can be more complex and costly than for onshore operations.
- 760 International conventions require decommissioning all offshore platforms at the end of field life.
- Leaving offshore installations intact, after decommissioning, might cause marine pollution from
- corrosion, ecosystem changes, damage to fishing equipment, and navigational hazards to shipping.
- 763 However, leaving them intact might be an appropriate solution in cases where rigs have become
- 764 integral to the benthic community and habitat.¹⁵
- The closure and decommissioning phase can create significant employment opportunities at the end
- of an asset lifecycle and involve an influx of additional workers for an extended period of time. The
- arrival of workers from the surrounding areas or through a fly-in-fly-out approach during this project's
- 768 phase can, in turn, exacerbate other pressures on the environment.

¹⁵ Benthic communities 'are biological communities that live in or on the seabed', as defined by the Australian Environmental Protection Authority (EPA, *Environmental Factor Guideline: Benthic Communities and Habitats*, 2016, epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Guideline-Benthic-Communities-Habitats-131216_2.pdf).



GRI Sector Standard: Oil and Gas

769 WHAT TO REPORT

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- If an organization in the oil and gas sector has identified closure and decommissioning as a <u>material</u> topic, this section helps it determine what to report on this <u>topic</u>.
- The organization is required to report on this topic and how it is managed using GRI 103: Material
 Topics.
- 774 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
 - a. GRI 402: Labor/Management Relations 2016
 - Disclosure 402-1 Minimum notice periods regarding operational changes

 When reporting on minimum notice periods regarding operational changes, the organization should describe its worker consultation practices in advance of significant operational changes.
- 780 b. GRI 404: Training and Education 2016
 - Disclosure 404-2 Programs for upgrading <u>employee</u> skills and transition assistance programs When reporting on programs for upgrading employee skills and transition assistance programs, the organization should describe labor transition plans in place to help <u>workers</u> manage the transition to post-closure phase of operations (which can include re-deployment, assistance with re-employment, resettlement, and redundancy).
 - 3. The following additional disclosures have also been identified as appropriate and should be reported on this topic:
 - A list of the active fields or facilities with decommissioning plans, fields and facilities that have been decommissioned, and those fields and facilities in the process of being decommissioned. The organization can also provide a breakdown of these by onshore and offshore locations.
 - Total amount of financial provisions made by the organization for decommissioning and closure, as well as post-decommissioning and closure monitoring and aftercare for their news and facilities.
- 794 4. The following resources may help organizations in the oil and gas sector report on this topic:
 - International Association of Oil and Gas Producers (IOGP), Overview of International Offshore Decommissioning Regulations Volume 1: Facilities IOGP Report 584, 2017.
 - International Association of Oil and Gas Producers (IOGP), Overview of International Offshore Decommissioning Regulations Volume 2: Wells Plugging & Abandonment IOGP Report 585, 2017.
 - International Association of Oil and Gas Producers (IOGP), Decommissioning of offshore concrete gravity-based structures (CGBS) in the OSPAR maritime area/other global regions IOGP Report 484, 2018.



803 Asset integrity and process safety

- Major incidents in the oil and gas sector can have catastrophic consequences on workers, local
- 805 communities, and the environment, as well as cause damage to assets and infrastructure. Significant
- 806 <u>impacts</u> include fatalities, injuries, and health impacts, including toxicological and mental health effects
- 807 for communities and workers, economic loss, conflict, threats to livelihoods and food safety and
- 808 security, social disruption, cultural erosion, litigation stress, environmental degradation, and direct
- species mortality. Events or incidents that cause methane and other GHG emissions, such as well
- 810 blowouts, pipeline pigging, and refinery releases, further contribute to climate change.
- 811 Focus areas associated with asset integrity and process safety in the oil and gas sector commonly
- 812 involve unplanned or uncontrolled hydrocarbon releases. Distribution of oil and gas in pipelines and by
- water, road, or rail also come with the risk of spills, which can pollute soil and water as well as harm
- 814 species and livelihoods (see also Water and effluents and Biodiversity). Other events or incidents
- 815 include oil or gas well blowout, explosions, fires, unplanned plant disruption and shutdown, and tailings
- dam failures from oil sands operations. Gas leaks from oil and gas equipment and distribution systems
- are also common, yet often insufficiently monitored and regulated.
- 818 Besides prevention of events and incidents with sound asset integrity and process safety systems, the
- 819 consequences of incidents can be minimized through measures ensuring emergency preparedness and
- 820 response. A highly effective process safety management system can also limit impacts associated with
- 821 extreme weather events, the frequency and intensity of which will likely increase due to the effects of
- 822 climate change.

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WHAT TO REPORT

- lf an organization in the oil and gas sector has identified asset integrity and process safety as a material topic, this section helps it determine what to report on this topic.
- I. The organization is required to report on this topic and how it is managed using *GRI 103: Material Topics*.
- When describing its policies or commitments for this topic, the organization should describe its emergency preparedness and response programs and plans.
- 2. The following disclosure from the GRI Topic Standards has been identified as appropriate to report on this topic:

GRI 306: Effluents and Waste 2016

- 833 Disclosure 306-3 Significant spills
- When reporting on <u>significant spills</u>, the organization should report cause of spill and volume of substance recovered.
- Note: GRI 306: Effluents and Waste 2016 can continue to be used for reports or other materials only if they are published on or before 31 December 2021.
- 3. The following additional disclosures have also been identified as appropriate and should be reported on this topic:
 - Number of Tier I and Tier 2 process safety events per API RP 754 definitions, reported per business activity (e.g., refining, upstream).
- 4. The following resources may help organizations in the oil and gas sector report on this topic:



843 844 845	-	Organisation for Economic Co-operation and Development (OECD), Guidance on Developing Safety Performance Indicators Related to Chemical Accident Prevention, Preparedness and Response for Industry, 2008.
846 847	-	International Association of Oil and Gas Producers (IOGP), Asset Integrity – the Key to Managing Major Incident Risks, 2018.
848 849	-	International Association of Oil and Gas Producers (IOGP), Process safety: recommended practice on key performance indicators, 2018.
850 851	-	practice on key performance indicators, 2018. UK Health and Safety Executive, Step-By-Step Guide to Developing Process Safety Performance Indicators, 2006.
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852 Occupational Health and Safety

- Some occupations in the oil and gas sector can potentially have significant impacts on workers' health
- and safety. Many of the work-related hazards are associated with key processes in exploration and
- production phases, such as working with heavy machinery and exposure to or handling of explosive,
- 856 flammable, poisonous, or harmful substances. Despite the sector's efforts to eliminate work-related
- hazards and achieve improvements, exposure to these hazards has resulted in higher fatality rates than
- 858 in many other sectors.
- 859 Other hazards to workers' health and safety can derive from working in confined spaces or isolated
- locations; long working hours; and the type of physical, often repetitive, labor required by the oil and
- gas sector. Work-related hazards can vary according to the extraction method. For example, offshore
- workers can be exposed to more health and safety risks due to, for example, challenging working
- 863 conditions and remote locations.
- The oil and gas sector extensively uses <u>suppliers</u> to perform sometimes significant parts of projects.
- Suppliers are often subject to lower occupational health and safety standards than employees.
- 866 Suppliers can also have higher accident and fatality rates, which can be the result of suppliers
- undertaking the most dangerous jobs. They might also not be covered by the oil and gas organization's
- 868 occupational health and safety management system, be less familiar with the workplace and the
- organization's safety practices or be less committed to those practices.
- The following hazards present occupational health and safety risks for the oil and gas sector, with the
- potential to result in a <u>high-consequence work-related injury</u> or ill health.

Hazards with a potential to result in injury

- 873 Transportation incidents are the most common source of fatalities and injuries in the oil and gas
- 874 sector. These can occur when workers and equipment are transported to and from wells and offshore
- rigs, sometimes over long distances along dangerous routes.
- 876 Fires and explosions are another major hazard, which can originate from dust and flammable gases,
- such as methane, well gases, and vapors during oil and gas production, transportation, and processing.
- 878 Electrical hazards can be associated with high-voltage systems used in exploration and production
- 879 facilities or equipment.

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- 880 Incidents categorized as 'struck-by', 'caught-in', or 'caught-between' can involve falling equipment or
- 881 structures, faulty operation of heavy machinery, or malfunctioning of electrical, hydraulic, or
- mechanical installations. Workers can also be at risk of falls, slips, and trips, such as when accessing
- platforms and equipment located high above the ground or water.

Hazards with a potential to result in ill health

- 885 Commonly reported chemical hazards include respirable free crystalline silica, which is released
- during, for example, hydraulic fracturing, and can cause silicosis and lung cancer. Exposure to
- hydrogen sulfide released by oil and gas wells can lead to incapacitation or death. Workers can also be
- 888 exposed to harmful or carcinogenic hydrocarbon gases and vapors. Concentration of gases such as
- methane, carbon monoxide, and nitrogen in confined spaces can create poisonous environments
- which may lead to asphyxiation.
- 891 Physical hazards in the sector include extreme temperatures, causing fatigue and body stress
- 892 reactions; harmful levels of carcinogenic radiation from industrial processing; harmful levels of
- 893 machinery noise or vibration causing impaired hearing or musculoskeletal disorders; and ergonomics-
- related injury risks.



- Biological hazards faced by many oil and gas workers include communicable diseases present in the local community or diseases due to poor hygiene and quality of water or food.
- 897 Hazards related to work organization and psychosocial well-being due to common employment
- 898 practices in the sector, such as the use of fly-in-fly-out work organization, can increase risks of
- fatigue, strain, or stress, and affect physical, psychological, and social health. These hazards include
- 900 expatriation, rotational work, long shifts, irregular or odd working hours, and solitary or monotonous
- 901 work. Psychological reactions, such as post-traumatic stress disorder, can also occur when, for
- 902 example, being involved in a major incident. Finally, gender imbalance can contribute to stress,
- 903 <u>discrimination</u>, or sexual harassment (see also **Diversity and non-discrimination**).

WHAT TO REPORT

- If an organization in the oil and gas sector has identified occupational health and safety as a <u>material</u> topic, this section helps it determine what to report on this topic.
- 907 I. The organization is required to report on this topic and how it is managed using *GRI 103*: *Material Topics*.
- 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
- 911 GRI 403: Occupational Health and Safety 2018
- 912 Disclosure 403-1 Occupational health and safety management system
- 913 Disclosure 403-2 Hazard identification, risk assessment, and incident investigation
- 914 Disclosure 403-3 Occupational health services
- 915 Disclosure 403-4 <u>Worker participation</u>, consultation, and communication on occupational health and safety
- 917 Disclosure 403-5 Worker training on occupational health and safety
- 918 Disclosure 403-6 Promotion of worker health
- Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly
 linked by business relationships
- 921 Disclosure 403-8 Workers covered by an occupational health and safety management system
- 922 Disclosure 403-9 Work-related injuries
- 923 Disclosure 403-10 Work-related ill health
- 3. The following resources may help organizations in the oil and gas sector report on this topic:
- International Association of Oil and Gas Producers (IOGP) International Petroleum Industry
 Environmental Conservation Association (IPIECA), Health management in the oil and gas industry,
 2019.
- 928 International Association of Oil and Gas Producers (IOGP) International Petroleum Industry 929 Environmental Conservation Association (IPIECA), Health Performance Indicators: A guide for the 930 oil and gas industry, 2007.



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Employment practices

- Employment opportunities generated by the oil and gas sector across the value chain can have positive
- 934 socioeconomic impacts on communities, countries, and regions. While usually offering well-paid
- opportunities for skilled workers, employment practices in the sector are associated with a number of
- 936 negative impacts related to, for example, working conditions, use of contract labor and related
- 937 disparities in working conditions, shortfalls of labor-management consultations, and job security.
- 938 Many oil and gas jobs have complex shift patterns to ensure continuity of operations around the clock,
- 939 sometimes requiring overtime employment and night shifts, which can cause high fatigue levels and
- augment risks related to occupational health and safety and process safety. An organization may
- also use fly-in-fly-out work arrangements, in which workers are flown to the site of operations for a
- 942 number of weeks at a time and often required to work extended shifts. Irregular work shifts and
- schedules and time spent away from families can have further psychosocial impacts on workers.
- Various oil and gas activities are commonly outsourced to <u>suppliers</u>. This is prevalent during peak
- periods, such as construction or maintenance works, or for specific activities, such as drilling, catering,
- 946 transportation, and security. Outsourcing operations and using agency workers could allow
- organizations in the oil and gas sector to reduce their labor costs by, for example, avoiding legal
- 948 obligations to employ a worker following a period of employment as a contract worker or by
- 949 bypassing collective agreements that are in place for workers in direct employment (see also
- 950 Freedom of association and collective bargaining).
- 951 Compared to employees, agency workers commonly have less favorable employment conditions,
- lower compensation, less training, higher accident rates, and less job security. They often lack social
- 953 protection and access to grievance mechanisms. Suppliers' standards for working conditions can also
- be lower and, as a consequence, expose organizations in the oil and gas sector to human and labor
- 955 rights violations through their <u>business relationships</u> (see also <u>Forced labor</u> and <u>modern slavery</u>).
- 956 Employment terms can also vary significantly when offered to local workers, expatriates (temporary
- 957 oil and gas workers who are usually brought in by employers), and contract workers. Remuneration
- 958 might be unequal, and benefits, such as bonuses, housing allowances, and private insurance plans, might
- only be offered to expatriates. Lack of relevant skills, knowledge, or accessible training programs can
- 960 restrict the local communities from accessing employment opportunities created by the sector in the
- 961 first place (see also **Economic impacts**).
- Job security is another concern in this sector. For example, closure and decommissioning phases
- or oil price drops can occur suddenly, leading to job losses and increasing pressure on remaining
- workers. Low job security is further compounded by automation and changing operating models, such
- as when triggered by the transition to low-carbon economies. Without timely skills development
- 966 measures that aim to improve employability, many workers might end up with an inadequate skill set
- 967 and face unemployment.

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WHAT TO REPORT

- lf an organization in the oil and gas sector has identified employment practices as a <u>material topic</u>, this section helps it determine what to report on this topic.
- 971 I. The organization is required to report on this topic and how it is managed using *GRI 103: Material Topics*.



973 974	2.		e following disclosures from the GRI Topic Standards have been identified as appropriate to port on this topic:			
975		a.	GRI 401: Employment 2016			
976		_	Disclosure 401-1 New employee hires and employee turnover			
977 978		-	Disclosure 401-2 <u>Benefits</u> provided to full-time employees that are not provided to temporary or part-time employees			
979		-	Disclosure 401-3 Parental leave			
980		b.	GRI 402: Labor/Management Relations 2016			
981		-	Disclosure 402-1 Minimum notice periods regarding operational changes			
982		c.	GRI 404: Training and Education 2016			
983		-	Disclosure 404-1 Average hours of training per year per employee			
984		-	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs			
985		d.	GRI 414: Supplier Social Assessment 2016			
986		-	Disclosure 414-1 New suppliers that were screened using social criteria			
987		-	Disclosure 414-2 Negative social impacts in the supply chain and actions taken			
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988 Diversity and non-discrimination

- The oil and gas sector commonly requires skilled workers, which can set a high barrier for entry and
- 990 hinder employee diversity. The condition, location, and type of work associated with jobs in the
- 991 sector can be a further impediment to having a diverse workforce. This can result in discrimination,
- which has been documented in the oil and gas sector in relation to, for example, race, color, sex,
- 993 gender, religion, national extraction, and worker status. The sector's widespread use of contract
- labor, often with differing terms of employment, can also be a source of discrimination.
- 995 Discriminatory practices can impede access to jobs and career development, as well as lead to unequal
- treatment and remuneration. Jobseekers from <u>local communities</u> are sometimes excluded from the
- 997 hiring process because of a recruitment system bias that favors a dominant ethnic group. Compared
- 998 to expatriates, local workers might receive significantly lower pay for equal work.
- The oil and gas sector is also characterized by a significant gender imbalance. In many countries, the
- 1000 percentage of women working in this sector is significantly lower compared to the overall number of
- 1001 working women. Women are especially underrepresented in senior management. One of the root
- 1002 causes of this imbalance is that fewer women graduate with degrees in disciplines pertinent to the
- sector, such as science, technology, engineering, and mathematics. In addition, some resource-rich
- 1004 countries have laws that prevent women from working in hazardous or arduous occupations. Social or
- 1005 cultural customs and beliefs can also limit women's access to jobs in this sector or prevent them from
- 1006 taking on specific roles.

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WHAT TO REPORT

- If an organization in the oil and gas sector has identified diversity and non-discrimination as a <u>material</u> topic, this section helps it determine what to report on this topic.
- 1010 I. The organization is required to report on this topic and how it is managed using GRI 103: Material
 1011 Topics.
- 1012 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
- 1014 a. GRI 202: Market Presence 2016
- 1015 Disclosure 202-1 Ratios of standard <u>entry level wage</u> by gender compared to <u>local minimum</u> wage
- 1017 Disclosure 202-2 Proportion of senior management hired from the local community
- 1018 b. GRI 405: Diversity and Equal Opportunity 2016
- 1019 Disclosure 405-1 Diversity of governance bodies and employees
- 1020 Disclosure 405-2 Ratio of <u>basic salary</u> and <u>remuneration</u> of women to men
- 1021 c. GRI 406: Non-discrimination 2016
- 1022 Disclosure 406-1 Incidents of discrimination and corrective actions taken
- d. GRI 414: Supplier Social Assessment 2016
- 1024 Disclosure 414-1 Average hours of training per year per employee
- 1025



1026 Forced labor and modern slavery

- 1027 Organizations in the oil and gas sector interact with a large number of suppliers, including in countries characterized as having low rates of enforcement of labor rights. This can increase the potential of 1028 1029 using suppliers that do not adhere to labor rights or relevant codes of conduct, leaving supply chains 1030 vulnerable to human rights violations. These include modern slavery, which refers to forced labor and 1031 marriage, debt bondage, other slavery-like practices, and human trafficking. The violations most 1032 frequently reported in the oil and gas sector are forced labor and situations of exploitation where a 1033 person cannot refuse or leave because of coercion, deception, threats, violence, or other abuse of 1034 power. Increased attention to modern slavery has prompted a global response to address the issue, 1035 with a number of governments issuing legislation for businesses to publicly report on progress toward 1036 addressing these impacts.
- 1037 In addition to impacts through their supply chains, oil and gas organizations can be directly linked to 1038 occurrences of modern slavery through joint ventures and other business relationships, including 1039 state-owned enterprises in countries where international human rights standards violations occur. 1040 Documented cases show forced labor and modern slavery in oil and gas activities such as shipping, 1041 construction, cleaning, catering, onshore transportation, supply base activities, waste management, 1042 maintenance, and modifications services. Offshore oil and gas workers can be at higher risk of forced 1043 labor due to the isolation of extraction sites, making it more challenging to reinforce measures. Higher 1044 risk related to shipping is tied to ships being registered in a country other than that of the beneficial 1045 owner, obscuring accountability through layers of management and crewing companies.
- 1046 Migrant workers also face higher risks of modern slavery. For example, third-party employment
 1047 agencies have been found to overcharge workers for visas and flights or to demand recruitment costs
 1048 be paid by employees rather than employers.

Impacts on children's rights

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- Risks of <u>child</u> labor in the oil and gas sector mainly occur through business relationships, including joint ventures and the supply chain, such as during facilities construction or pipeline operations.

 Suppliers can operate in countries with working ages below the ILO's minimum age.
- Other impacts on children's rights and well-being can come from an oil or gas project's proximity to the <u>local community</u> through, for example, environmental impacts or land use and resettlement. Parents' labor conditions, including hours, shift work, and fly-in-fly-out practices, can also have indirect impacts on children (see also <u>Employment practices</u>).
- 1057 → Child labor is addressed in GRI 408: Child Labor 2016.

WHAT TO REPORT

- If an organization in the oil and gas sector has identified forced labor and modern slavery as a <u>material</u> topic, this section helps it determine what to report on this <u>topic</u>.
- 1061 1. The organization is required to report on this topic and how it is managed using GRI 103: Material Topics.
- 1063 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
 - a. GRI 409: Forced or Compulsory Labor 2016
 - Disclosure 409-1 Operations and suppliers at significant risk for incidents of <u>forced or compulsory labor</u>



b. GRI 414: Supplier Social Assessment 2016

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1069 – Disclosure 414-1: New suppliers that were screened using social criteria

Exposure draft for public comment

1070 Freedom of association and collective bargaining

- The right to organize and take collective action is critical for the oil and gas sector to enable public
- 1072 debate about the sector's governance and practices, reduce social inequality, and improve labor
- standards, including occupational health and safety, working conditions, wages, and job security.
- Many professions associated with the sector have traditionally been represented by trade unions and
- 1075 covered by collective bargaining agreements, which are negotiated by national, regional, or global
- sectoral federations and associations. However, some oil and gas resources are located in countries
- 1077 where these rights are restricted. Workers in such locations face risks when seeking to join trade
- 1078 unions and engage in collective bargaining. Even in countries where unions are legal, restrictions might
- exist to prevent effective representation, and workers joining unions might face intimidation or unfair
- 1080 treatment.

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- 1081 Documented cases of interference with <u>freedom of association</u> and collective bargaining include
- detention of managers and employees; invasion of privacy; not adhering to collective agreements;
- prevention of union access to workplaces so as to assist workers; refusal to bargain in good faith with
- workers' chosen unions; unfair dismissal of trade union members and leaders; and unilateral
- 1085 cancellation of collective bargaining agreements.
- 1086 Contract workers, who are widely used in these sectors, are often excluded from the scope of
- 1087 collective bargaining agreements, which can cause them to have reduced benefits and worse working
- 1088 conditions (see also **Employment practices**).

Freedom of association and civic space

- Freedom of association is a fundamental human right, which comprises the right to freedom of
- 1091 peaceful assembly and association. This entails engaging in free speech about sector policies and
- organizations' practices not only for workers and employees, but also through active participation of
- independent civil society. Restrictions on civic space can limit citizens' ability to engage in public
- debate about sector policies and company practices.

WHAT TO REPORT

- If an organization in the oil and gas sector has identified freedom of association and collective bargaining as a material topic, this section helps it determine what to report on this topic.
- 1. The organization is required to report on this topic and how it is managed using GRI 103: Material
 1. Topics.
- 1100 2. The following disclosure from the GRI Topic Standards has been identified as appropriate to report on this topic:

I 102 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



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Economic impacts

- Oil and gas activities can be an important source of investment and income for local communities,
- 1108 countries, and regions. Impacts can vary according to the scale of operations and the importance of
- 1109 the activity in the economic context. For example, in some resource-rich countries, oil and gas
- 1110 development-related investments and operational revenues account for a significant amount of
- 1111 national gross domestic product. However, if not well managed, this can harm economic performance
- 1112 and lead to macroeconomic instability and distortions. Economies dependent on these finite resources
- 1113 can also be vulnerable to commodity price and production fluctuations.
- The <u>sector</u> can have positive impacts on communities, countries, and regions through royalty
- 1115 payments, taxes, and wealth creation. Investments by oil and gas organizations in the development of
- 1116 enabling infrastructure, such as public power utilities to improve access to energy or other public
- 1117 services can be beneficial for communities. Oil and gas activities can also stimulate economies and
- 1118 create benefits through local employment. Increased wages for jobs in the oil and gas sector can
- 1119 potentially lead to increased purchasing power and positive impacts on local businesses, local
- 1120 procurement of products and services, and supplier development. Skills development of local
- 1121 communities through education and training can help increase access to jobs in the sector.
- The extent to which local communities can benefit from the presence of the oil and gas depends on
- 1123 existing development and industrialization levels as well as the community's capacity to offer qualified
- 1124 workers for the new employment opportunities or supporting activities related to the project. In
- 1125 addition, the net employment impacts depend on how employment by the sector affects existing
- 1126 employment in other sectors. These impacts can also be affected by an organization's employment
- 1127 practices. For example, a fly-in fly-out work approach can offset pressures associated with influxes of
- 1128 people in small communities while still supplying the necessary workers (see also Local community
- 1129 impacts). However, this approach reduces the employment opportunities available to local
- 1130 communities, detracting from the potential economic benefits.
- 1131 The introduction of new oil and gas sector activities can also generate negative impacts on local
- 1132 communities, including competition over jobs and economic disparity, with vulnerable groups often
- 1133 disproportionately negatively affected. The resulting influx of external workers can also increase
- 1134 pressure on housing, infrastructure, and public services. Other economic impacts include
- 1135 environmental legacy costs, related to, for example, contamination, incidents, or lack of proper
- 1136 rehabilitation after closure and decommissioning.
- 1137 Governments and regions currently face the risk of stranded assets due to stricter climate policies and
- 1138 technological developments driving the transition to low-carbon economies (see also Climate
- 1139 resilience and transition). The transition is expected to lead to decreased sector activity, making
- 1140 communities and countries that depend on the sector's revenues or employment more vulnerable to
- 1141 resulting economic downturn. In these cases, collaboration between local and national governments
- 1142 and organizations in the oil and gas sector is essential to ensure a just transition.

WHAT TO REPORT

- If an organization in the oil and gas sector has identified economic impacts as a <u>material topic</u>, this section helps it determine what to report on this <u>topic</u>.
- 1. The organization is required to report on this topic and how it is managed using GRI 103: Material1. Topics.



- 1148 When describing policies on or commitments to the topic, the organization should describe its approach to 1149 providing local employment opportunities. 1150 The following disclosures from the GRI Topic Standards have been identified as appropriate to
- 1151 report on this topic:
- 1152 a. GRI 201: Economic Performance 2016
- 1153 Disclosure 201-1 Direct economic value generated and distributed When reporting on direct economic value generated and distributed, the organization should report by 1154 country, regional, and project levels. 1155
- 1156 b. GRI 202: Market Presence 2016
- 1157 Disclosure 202-1 Ratios of standard entry level wage by gender compared to local minimum 1158 wage
- 1159 Disclosure 202-2 Proportion of senior management hired from the local community
- c. GRI 203: Indirect Economic Impacts 2016 1160
- 1161 Disclosure 203-1 Infrastructure investments and services supported When reporting on indirect economic impacts, the organization should report the extent to which 1162 1163 different communities or local economies are impacted by the organization's infrastructure 1164 investments and services supported.
- 1165 Disclosure 203-2 Significant indirect economic impacts
- d. GRI 204: Procurement Practices 2016 1166
- 1167 Disclosure 204-I Proportion of spending on local suppliers
- 1168 3. The following resources may help an organization in the oil and gas sector report on this topic:
- International Petroleum Industry Environmental Conservation Association (IPIECA), Local 1169 1170 content, A guidance document for the oil and gas industry, second edition, 2016.
- 1171 Organisation for Economic Co-operation and Development (OECD), Collaborative Strategies 1172 for In-Country Shared Value Creation, 2016.



1173 Local community impacts

- Oil and gas activities can result in various social and human rights impacts on local communities.
- 1176 and distribution of products; influx of people seeking employment and economic opportunities;
- 1177 environmental degradation; and use of local resources for sector activities. Types and significance of
- 1178 impacts commonly associated with the oil and gas sector vary according to the characteristics and
- 1179 context of the local community.
- 1180 Land use requirements can cause displacement and loss of access to land and water, as well as lead to
- 1181 competition over other land uses, such as farming, fishing, or recreational uses (see also Land use
- 1182 and resettlement). This can disrupt traditional livelihoods, increase risks of impoverishment, and
- restrict access to essential services, such as education and healthcare. The sectors' activities can also
- 1184 incur damage to cultural heritage sites, potentially leading to loss of culture, tradition, or cultural
- 1185 identity, especially among indigenous peoples.
- 1186 The arrival of workers from the surrounding areas or through a fly-in-fly-out approach during a
- 1187 project's construction or expansion phase can result in a range of impacts. A large-scale influx of
- 1188 expatriate workers can put local services and resources under pressure. Local communities can suffer
- 1189 from inflation of housing and food costs, which might lead to an increase in homelessness, especially
- among vulnerable groups. Inflows of cash associated with in-migration and new employment
- 1191 opportunities might be unevenly distributed, leading to increased inequalities and social disruption
- through, for example, increased alcohol consumption, gambling, and prostitution.
- 1193 Further impacts on community health and well-being might come from air, soil, and water pollution
- related to chemical use, dust from transportation, emissions, increased levels of noise and light, leaks
- and waste streams, all of which can lead to a reduced standard of living. Expatriate or migrant workers
- 1196 can also introduce new communicable diseases. The influx of predominantly male migrant workers can
- also change the composition of the local community. This can impact women in particular, as it can
- 1198 lead to a rise in sexual violence and trafficking, as well as sexually transmitted diseases (see also
- 1199 Rights of indigenous peoples). The sector has also been linked to domestic and gender-based
- 1200 violence, both on operational sites and in local communities. 16
- 1201 Safety of local communities can be threatened by potential incidents, such as explosions, fires, mine
- 1202 collapses, spills, tailings dams, and pipelines failures (see also Asset integrity and process safety).
- 1203 Increased traffic to operational sites can pose additional road accident hazards.
- 1204 Communities can also experience conflicts when faced with impacts that are disproportionately
- 1205 negative in proportion to the benefits gained through oil and gas activities (see also Conflict and
- 1206 security).
- 1207 Effective local community engagement can mitigate the social impacts of oil and gas activities. If
- 1208 community engagement is flawed or overlooked, community concerns might not be understood or
- 1209 addressed, which can exacerbate existing impacts or create new ones.

ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/gender+at+ifc/resources/unlocking-opportunities-for-women-and-business, accessed on 31 May 2020.



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¹⁶ International 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/unlocking

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- If an organization in the oil and gas sector has identified local community impacts as a <u>material topic</u>,
- 1212 this section helps it determine what to report on this <u>topic</u>.
- 1213 I. The organization is required to report on this topic and how it is managed using GRI 103: Material1214 Topics.
- 1215 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:

GRI 413: Local Communities 2016

- When reporting clause 1.1 in GRI 413: Local Communities, the organization should report:
 - o the means by which stakeholders are identified and engaged with;
 - o which vulnerable groups have been identified;
 - if any collective or individual rights have been identified that are of particular concern for the community
 - o how it engages with stakeholder groups particular to the community; and
 - the means by which it addresses risks and impacts or supports independent third parties to engage with stakeholders and address risks and impacts.
- Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs
- 1228 Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities
- When reporting on operations with significant actual and potential negative impacts on local communities, the organization should report the local community's <u>exposure</u> to its operations resulting from volume and type of pollution released or the use of hazardous substances that impact the environment and human health.
 - 3. The following additional disclosures have also been identified as appropriate and should be reported on this topic:
 - Number and description of significant disputes with local communities and indigenous peoples, including actions taken and outcomes.
- 1238 4. The following resources may help organizations in the oil and gas sector report on this topic:
- 1239 International Finance Corporation (IFC), *Performance Standard 4 Community Health*, Safety, and Security, 2012.
- International Petroleum Industry Environmental Conservation Association (IPIECA), American
 Petroleum Institute (API), International Association of Oil and Gas Producers (IOGP),
 Sustainability reporting guidelines for the oil and gas industry, 2020.



1244 Land use and resettlement

- Oil and gas activities require land for a number of purposes, including operations, access routes, and
- 1246 distribution of products. This can sometimes lead to involuntary resettlement of local communities,
- 1247 which can have widespread impacts on people's livelihoods, access to resources and services, and
- 1248 human rights. Involuntary resettlement can involve physical displacement (e.g., relocation or shelter
- loss) and economic displacement (e.g., loss or access to assets).
- 1250 Impacts from land use vary according to methods of extraction, resource location, processing
- required, and transportation methods. For example, oil and gas pipelines can have a large footprint
- due to their geographical reach and large safety buffer zones.
- Unclear tenure rules regarding rights to land access, use, and control or lack of proper compensation
- 1254 to affected communities often cause disputes, economic and social tensions, and conflict. Local
- 1255 communities can receive monetary compensation or equivalent land for lost assets. However,
- determining the value of lost access to the natural environment is complex, as considerations must
- 1257 include income-generating activities, human health, and non-material aspects of quality of life. The
- 1258 amount of compensation might therefore prove unrepresentative of the loss. In some cases,
- 1259 individuals who are customary titleholders to the land might not be compensated at all or might only
- 1260 be compensated for crops but not the land.
- 1261 Resettlement typically requires more extensive engagement between organizations and local
- 1262 communities. Impacts of resettling communities can be exacerbated by a flawed process or lack of
- transparency in cases of, for example, poor community consultation or the absence of free, prior, and
- 1264 <u>informed consent (FPIC)</u>, specifically for <u>indigenous peoples</u>. Community members resisting
- resettlement can also face threats and intimidation, as well as violent, repressive, or life-threatening
- removal from lands by security forces or government agents (see also Conflict and security).

WHAT TO REPORT

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- If an organization in the oil and gas <u>sector</u> has identified land use and resettlement as a <u>material topic</u>, this section helps it determine what to report on this <u>topic</u>.
 - 1. The organization is required to report on this topic and how it is managed using GRI 103: Material Topics.
- When reporting actions taken to manage land use and resettlement and related impacts, the organization should report approaches taken to prevent or <u>mitigate</u> systemic negative impacts.
- 1272 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:

1274 GRI 413: Local Communities 2016

- Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs
 - When reporting on operations with local community engagement, impact assessments, and development programs, the organization should report how communities' reliance on natural resources and ecosystem services is measured and valued.
- Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities
 - When reporting on operations with significant actual and potential negative impacts on local communities, the organization should report locations of operations or facilities where involuntary resettlements took place or are ongoing and how resettled peoples' livelihoods were affected and restored (e.g., customary rights, economic impacts, access to services, and cultural impacts).



- 1286 3. The following resources may help organizations in the oil and gas sector report on this topic:
- Global Reporting Initiative (GRI), Land Tenure Rights: The Need for Greater Transparency Among 1287 1288 Companies Worldwide, 2016.
- 1289 International Finance Corporation (IFC), Good Practice Handbook: Land Acquisition and Resettlement (draft), 2019. 1290
- 1291 International Finance Corporation (IFC), Performance Standard 5, Land Acquisition and eitage, 201

 A public confined

 A public confined Involuntary Resettlement, 2012. 1292
- 1293



1294 Rights of indigenous peoples

- Oil and gas activities can have particularly significant <u>impacts</u> on <u>indigenous peoples</u>. These impacts can be connected to various sociocultural factors, for example, <u>indigenous peoples</u>' special relationship with land, traditional lifestyles, cultural heritage, and social vulnerability.
- The <u>sector</u>'s activities can disrupt indigenous peoples' cultural, spiritual, and economic ties to their lands or natural environments, compromise their rights and well-being, and cause displacement (see also **Land use and resettlement**). Availability of and access to water, which is a key concern for indigenous communities, can also be compromised. Considering indigenous peoples' distinct relationship with and sometimes dependence on nature, the oil and gas sector's role as a major contributor to climate change exacerbates these impacts.
- The sector's presence in indigenous communities can also impact social cohesion and well-being. The in-migration of workers from other areas might create social tensions and result in discrimination.

 Other impacts on indigenous peoples' welfare and safety include risks of prostitution, bonded labor, violence against women, and increased exposure to communicable diseases (see also Local community impacts).¹⁷
- 1309 Indigenous peoples often also have a special legal status in national legislation. Before initiation of 1310 development projects that require resettlement or have potential impacts on lands or resources that 1311 indigenous peoples use or own, organizations are expected to seek free, prior, and informed consent 1312 (FPIC) from indigenous peoples. However, disputes and conflicts between indigenous peoples and 1313 organizations in the oil and gas sector regularly occur over land ownership and rights. Indigenous 1314 peoples can be customary or legal owners of lands to which organizations in the oil and gas sector are 1315 granted use rights by governments. Further, some national governments might not recognize or 1316 enforce indigenous land rights or indigenous peoples' rights to consent. Documented cases show an 1317 absence of good faith consultations as well as undue pressure and harassment toward indigenous 1318 peoples to accept projects, with opposition to such projects sometimes leading to violence and 1319 death.18

¹⁸ See, for example, International Labour Organization (ILO), Observation (CEACR) - adopted 2018, published 108th ILC session (2019) Indigenous and Tribal Peoples Convention, 1989 (No. 169) - Venezuela, Bolivarian Republic of



¹⁷ See, for example, UN Permanent Forum on Indigenous Issues, 11th session, *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, undocs.org/E/C.19/2012/6; G. Gibson, K. Yung, et al. with Lake Babine Nationa and Nak'azdii Whut'en, <i>Indigenous communities and industrial camps: Promoting healthy communities in settings of industrial change,* 2017, firelight.ca/wp-content/uploads/2016/03/Firelight-work-camps-Feb-8-2017_FINAL.pdf; Amnesty International, *Out of sight, out of mind: Gender, indigenous rights, and energy development,* 2016, amnesty.ca/sites/amnesty/files/Out of Sight Out of Mind EN FINAL web.pdf; A. Alook, I. Hussey, and N. Hill, *Indigenous gendered experiences of work in an oil-dependent, rural Alberta community,* 2019, assets.nationbuilder.com/parklandinstitute/pages/1681/attachments/original/1550688239/indigenousexperiences.pdf?1550688239; Indigenous Environmental Network, 'Native Leaders Bring Attention to Impact of Fossil Fuel Industry on Missing and Murdered Indigenous Women and Girls', 2018, ienearth.org/native-leaders-bring-attention-to-impact-of-fossil-fuel-industry-on-missing-and-murdered-indigenous-women-and-girls, accessed on 31 May 2002.

- 1320 Oil and gas development projects can present significant economic opportunities and benefit sharing
- for indigenous peoples, especially when indigenous peoples are provided the opportunity to control
- 1322 and develop the resources themselves. Indigenous peoples can also benefit from oil and gas activities
- through employment, training, and community development programs (see also Economic impacts).
- 1324 However, conflicts can arise when benefits to indigenous peoples are or appear to be of less
- economic value than profits generated by the organization or are insufficient to compensate the
- 1326 negative impacts of the development (see also Conflict and security).

WHAT TO REPORT

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- If an organization in the oil and gas sector has identified rights of indigenous peoples as a <u>material</u> topic, this section helps it determine what to report on this <u>topic</u>.
- 1330 I. The organization is required to report on this topic and how it is managed using GRI 103: Material
 1331 Topics.
- When describing actions taken to manage the topic and related impacts, the organization should explain how commitment to manage the topic incorporates the right to free, prior, and informed consent (FPIC)
- and other rights as set out in the United Nations Declaration on the Rights of Indigenous Peoples and the International Labour Organization Convention 169 'Indigenous and Tribal Peoples'.
- 1336 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
- 1338 a. GRI 411: Rights of Indigenous Peoples 2016
- 1339 Disclosure 411-1 Incidents of violations involving rights of indigenous peoples
- 1340 b. **GRI 413: Local Communities 2016**
- 1341 Disclosure 413-1 Operations with local community engagement, impact assessments, and
 development programs
- When reporting on operations with local community engagement, impact assessments, and development programs, the organization should report:
 - engagement strategies and processes in place aimed to avoid, minimize, mitigate, or compensate negative impacts on indigenous peoples; and

(Ratification: 2002), 2019,

ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID,P11110_COUNTRY_ID,P11110_COUNTRY_ID,P11110_COUNTRY_NAME,P11110_COMMENT_YEAR:3962283,102880,Venezuela, Bolivarian Republic of,2018; J. Burger, Indigenous peoples, extractive industries and human rights, 2014,

europarl.europa.eu/RegData/etudes/STUD/2014/534980/EXPO_STU(2014)534980_EN.pdf; A. Anongos, D. Berezhkov, et al., *Pitfalls and pipelines: Indigenous peoples and extractive industries*, 2012,

iwgia.org/images/publications/0596_Pitfalls_and_Pipelines_-_Indigenous_Peoples_and_Extractive_Industries.pdf; Global Witness, Defenders of the earth: Global killings of land and environmental defenders in 2016, 2017, globalwitness.org/en/campaigns/environmental-activists/defenders-earth; 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, un.org/development/desa/indigenouspeoples/meetings-and-workshops/7136-2.html; B. McIvor, First Peoples Law: Essays in Canadian Law and Decolonization, 2018, firstpeopleslaw.com/public-education/publications.php.



1348 1349			to jobs, supply opportunities, and benefit-sharing contracts, or an indigenous employment strategy.
1350 1351 1352 1353 1354		-	Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities When reporting on operations with significant actual and potential negative impacts on local communities, the organization should report operations where indigenous peoples are present or affected by its activities.
1355	3.	Th	e following resources may help organizations in the oil and gas sector report on this topic:
1356		-	International Finance Corporation (IFC), Performance Standard 7: Indigenous Peoples, 2012.
1357 1358		-	International Petroleum Industry Environmental Conservation Association (IPIECA), <i>Indigenous Peoples and the oil and gas industry: context, issues and emerging good practice, 2012.</i>
1359 1360		-	International Petroleum Industry Environmental Conservation Association (IPIECA), Free, prior and informed consent (FPIC) toolbox, 2018.
1361			A Posture draft for Public

how it identifies and implements development benefits for indigenous peoples, such as access



1362 Conflict and security

- 1363 Many organizations in the oil and gas sector operate in conflict situations. Pre-existing conflicts are
- 1364 common when, for example, organizations operate in countries characterized by political and social
- instability. The risk of human rights abuses is also heightened in areas of conflict.
- 1366 Conflict can be directly linked to the presence of oil and gas activities. These conflicts can be triggered
- by poor engagement with or exclusion of <u>local communities</u> and <u>indigenous peoples</u>; uneven
- 1368 distribution of economic benefits; excessive negative impacts on the economy, environment, or
- people; and disputes over use of scarce resources. Conflict can also be triggered by mismanagement
- of funds for individual gains at the expense of local interests (see also **Anti-corruption**).
- Organizations in the oil and gas sector might use <u>security personnel</u> to protect their assets or ensure
- 1372 their employees' safety. Security personnel can take action against community members, including
- 1373 when they are protesting projects or protecting their lands. These actions can violate human rights,
- such as rights to <u>freedom of association</u> and free speech, as well as lead to violence, injuries, or
- deaths. Security contractors can also be connected to military or paramilitary groups.
- Security might also be provided by national police or military forces. In such cases, organizations in the
- 1377 oil and gas sector might be contributing to potential negative human rights impacts through their
- 1378 <u>business relationship</u> with these military and security forces though have limited control over their
- 1379 actions. When oil and gas projects are endorsed by local governments but remain disagreeable to
- local populations, the use of private military or security forces might increase tensions between
- 1381 companies and local communities, exacerbating a power imbalance.

1382 WHAT TO REPORT

- If an organization in the oil and gas sector has identified conflict and security as a <u>material topic</u>, this section helps it determine what to report on this topic.
- 1385 I. The organization is required to report on this topic and how it is managed using *GRI 103*: *Material Topics*.
- When reporting how it has identified and prioritized impacts for reporting, the organization should report whether it has fields or facilities in areas of conflict.
- 1389 2. The following disclosure from the GRI Topic Standards has been identified as appropriate to report on this topic:

1391 GRI 410: Security Practices 2016

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- Disclosure 410-1 Security personnel trained in human rights policies or procedures
- 1393 3. The following resources may help organizations in the oil and gas sector report on this topic:
- I International Association of Oil and Gas Producers (IOGP), Conducting security risk assessments (SRA) in dynamic threat environments, 2016.
- International Association of Oil and Gas Producers (IOGP), Security management system Processes and concepts in security management, 2014.
 - International Association of Oil and Gas Producers (IOGP), Integrating security in major projects principles and guidelines, 2014.
- Voluntary Principles on Security and Human Rights, Voluntary Principles on Security and Human
 Rights, 2000.



1403 Anti-competitive behavior

- 1404 The significant investments, reliance on high technology, and high risks associated with the oil and gas
- 1405 sector mean that barriers to entry are high. A limited number of multinational corporations continues
- 1406 to dominate the global market for oil and gas. As such, fair competition is essential to enable adequate
- 1407 access to oil and gas resources and to avoid excessive price variations and low quality of products.
- 1408 Anti-competitive behavior, including violations of anti-trust and monopoly legislation, can affect the
- 1409 commodity prices of oil and gas as well as other market conditions. As producers of an essential
- 1410 commodity, organizations in the oil and gas sector can behave in ways that affect other industries
- 1411 using their products.
- 1412 Anti-competitive behavior can occur throughout the value chain, from license allocations to final sales
- 1413 and marketing. Horizontal agreements between producers, also known as cartels, can affect output
- 1414 volume by restricting supply contracts and imposing penalties that threaten supply security. Bid rigging
- can inflate prices or reduce the quality of goods or <u>services</u> in a public procurement process, which
- 1416 can be costly for taxpayers and can erode public confidence (see also Anti-corruption).
- Organizations in the oil and gas sector can also deliberately limit competitors' access to transportation
- 1418 networks and shipping lines. Anti-competitive mergers in the oil and gas sector can further diminish
- direct competition by, for example, creating monopolies over transmission and supply to consumers.
- 1420 Vertical agreements among organizations and energy distributors can include unfair contractual
- obligations, which might, for example, restrain distributors from switching to an alternative energy
- 1422 <u>supplier</u>. High presence of vertical integration in the oil and gas sector, in which one organization
- owns an entire supply chain, also creates risks of discrimination against other market players.
- National state-owned oil and gas monopolies and international cartels can get exemptions from anti-
- 1425 trust laws or regulatory regimes. State-owned enterprises control two-thirds of the oil market, thus
- 1426 being able to set prices and control outputs and imports. However, the consequences of anti-
- 1427 competitive practices can be as harmful as private organizations' restrictions on competition.

1428 WHAT TO REPORT

- 1429 If an organization in the oil and gas sector has identified anti-competitive behavior as a material topic,
- this section helps it determine what to report on this topic.
- 1431 I. The organization is required to report on this topic and how it is managed using GRI 103: Material
 1432 Topics.
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- 2. The following disclosure from the GRI Topic Standards has been identified as appropriate to report on this topic:
- 1436 GRI 206: Anti-competitive Behavior 2016
 - Disclosure 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices
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1440 Anti-corruption

- 1441 Organizations in the oil and gas sector often operate in emerging countries characterized by weaker
- 1442 governance and transparency requirements, which exposes the sector to corruption. Corruption in
- 1443 the oil and gas sector has been linked to various negative impacts, such as misallocation of resource
- 1444 revenues and related investments, damage to the environment, abuse of democracy and human rights,
- 1445 and political instability.
- 1446 Corruption can occur throughout the value chain. Documented cases of corruption include bribery of
- 1447 officials, misappropriation and diversion of public funds, abuse of office, influence peddling, favoritism,
- 1448 extortion, and manipulation of policies and practices for personal and political benefit to the detriment
- 1449 of public interest.19

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- 1450 Corruption can lead to diversion of resource revenues from public needs, such as infrastructure or
- 1451 basic services, which can have major impacts, especially in countries with high levels of poverty. This
- 1452 can lead to increased inequalities and conflicts over oil and gas resources (see Conflict and
- 1453 security). Other factors exposing the sector to corruption include the frequent interaction between
- 1454 oil and gas companies and government officials; centralized government ownership and control over
- 1455 natural resources leads to companies dealing with politically exposed persons²⁰ for licenses and
- 1456 regulation. The sector's international reach and complex transactions and flows of money can further
- 1457 reduce transparency and enable corruption.
- 1458 Some organizations in the oil and gas sector have been found to use corrupt practices to:
 - influence the decision-making process in order to extract resources; avoid or overlook environmental requirements; shape policies and rules; or influence protection of land rights and land access restrictions affecting livelihoods of local communities and indigenous peoples;
 - gain preferential terms or permit approvals;
 - gain favorable treatment or confidential information in awarding in the bidding process for exploration and production rights through a bidding process; or for avoiding specific requirements, potentially resulting in awarding licenses or contracts being awarded to less qualified organizations and/or securing contracts at inflated prices;
 - influence environmental, social, and other regulations, and the enforcement of these regulations, related to impact assessment processes or consultation with local communities;
 - incentivize suppliers of equipment, products, and services to secure contracts by using bribes and kickbacks to, for example, cover up fraud or to get a waiver of regulations or quality requirements for products and services;
 - gain favorable treatment in relation to taxes and other government levies, such as royalties and import duties, to deny the state revenue, or to divert payments to private beneficiaries instead;
 - block unfavorable legislation, including environmental policies or pollution taxes (see also Public policy and lobbying).

²⁰ According to the Financial Action Task Force, a politically exposed person is 'an individual who is or has been entrusted with a prominent public function'; FATF, FATF guidance: Politically exposed persons (recommendations 12 and 22), 2013, fatf-gafi.org/media/fatf/documents/recommendations/Guidance-PEP-Rec12-22.pdf.



¹⁹ Organisation for Economic Co-operation and Development (OECD), Corruption in the Extractive Value Chain, 2016, oecd-ilibrary.org/development/corruption-in-the-extractive-value-chain 9789264256569-en.

Transparency about contracts and ownership structures

Contracts governing the extraction of oil and gas resources are devised by companies and governments on behalf of citizens or <u>local communities</u>, commonly without public oversight. Due to the long-term horizons and various impacts of projects, fair terms for sharing risk and rewards <u>benefits</u> are particularly important. Contract transparency helps local communities hold governments and companies accountable for their negotiated commitments and obligations, as well as helps create a level playing field that enables governments to negotiate for better deals. Contract transparency has been 'established as an international norm',* and is endorsed by organizations such as the UN, the International Bar Association, and the OECD.

Lack of transparency about ownership structures can make it difficult to determine who benefits from financial transactions in the sector. Insufficient disclosure about beneficial ownership has been identified as a significant problem, enabling tax evasion and avoidance, money laundering, conflicts of interest, and corruption.

* IMF (2019), Fiscal Transparency Initiative: Integration of Natural Resource Management Issues.

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- If an organization in the oil and gas sector has identified anti-corruption as a <u>material topic</u>, this section helps it determine what to report on this <u>topic</u>.
- The organization is required to report on this topic and how it is managed using GRI 103: Material
 Topics.
- 1495 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:

1497 GRI 205: Anti-corruption 2016

- Disclosure 205-1 Operations assessed for risks related to corruption
- Disclosure 205-2 Communication and training about <u>anti-corruption</u> policies and procedures
- Disclosure 205-3 Confirmed incidents of corruption and actions taken
- 1501 3. The following additional disclosures have also been identified as appropriate and should be reported on this topic:
 - A description of the company's policy on contract transparency and a link to publicly available contracts and licenses, in line with EITI Requirement 2.4. If a contract or license is not publicly available, an explanation of the reasons why along with a description of any actions taken by the company to overcome any barriers to publication.
 - A description of the organization's corporate structure and beneficial owners and a
 description of how the organization identifies the beneficial owners of business partners,
 including joint ventures and suppliers, in line with EITI Requirement 2.5. Publicly listed
 companies should report the stock exchange where they have made filings that include
 beneficial ownership information and a link to those filings.
- 1512 4. The following resource may help organizations in the oil and gas sector report on this topic:
- 1513 Extractives Industry Transparency Initiative (EITI), The EITI Standard, 2019.



Payments to governments

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- 1515 Organizations in the oil and gas sector deal with a large number of complex financial transactions 1516 subject to a variety of taxes and other payments to governments. Insufficient transparency about these 1517 transactions can impede detection of misuse or misappropriation of funds and corruption; prevent 1518 civil society from monitoring the sector's activities, including infrastructure and other community 1519 development spending; and decrease economic stability. Payment transparency can help organizations 1520 in the oil and gas sector demonstrate their economic contribution to the host country via taxes and 1521 other payments to government, allow informed decision-making and public debate, and help 1522 governments strengthen revenue collection and management.
- 1523 Taxes, royalties, and other payments from organizations in the oil and gas sector represent significant 1524 revenues for governments. Tax non-compliance in the form of tax evasion and tax avoidance can 1525 direct significant funds away from governments. This can be particularly damaging for developing 1526 economies incapable of pursuing enforcement of tax legislation. In addition, organizations in this 1527 sector are often liable for taxes in locations distinct from the locations of their operations. When an 1528 organization has oil and gas entities across different locations, it can make inter-company payments, 1529 moving profits to locations with more advantageous taxation. National tax authorities might lack 1530 access to specific information to determine where profits are to be reported.
- 1531 When disclosing information on payments to governments, organizations in the oil and gas sector 1532 often report aggregate payments at a global level. However, aggregated figures provide limited insight 1533 into payments made in each country or per project. Reporting country-level or project-level payments 1534 enables governments to compare the actual payments made to those stipulated in fiscal, legal, and 1535 contractual terms and to assess the financial contribution of oil and gas projects to communities. It can 1536 also enable tax authorities to address tax avoidance and evasion by revealing information on transfer 1537 pricing arrangements and transactions. This can remove information asymmetry and provide a level 1538 playing field for governments when negotiating contracts.

State-owned enterprises

- A state-owned enterprise (SOE) is, according to the Extractives Industry Transparency Initiative (EITI), 'a wholly or majority government-owned company that is engaged in extractive activities on behalf of the government'*. SOEs often have special status, which can involve financial advantages and preferential treatment.
- SOEs usually sell shares of the produced resource to commodity trading companies. This first sale represents an important revenue stream for countries and can involve a high volume of financial transactions. However, data on these transactions is often scarce or inaccessible. The first trade can be subject to trade mispricing in the form of under-invoicing exports or over-invoicing imports to obtain financial gain. Other risks include selection of buyers and allocation of 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 management (see also Anti-corruption).
- Transparency in the operations and objectives of SOEs is crucial for monitoring their performance and maximizing their economic and social contributions.
- * Extractive Industry Transparency Initiative (EITI), Requirement 2.6 State participation, eiti.org/document/eiti-standard-2019#r2-6, accessed 3 July 2020



1556 WHAT TO REPORT

- 1557 If an organization in the oil and gas sector has identified payments to governments as a <u>material topic</u>,
- 1558 this section helps it determine what to report on this topic.
- 1559 I. The organization is required to report on this topic and how it is managed using GRI 103: Material1560 Topics.
- 1561 2. The following disclosures from the GRI Topic Standards have been identified as appropriate to report on this topic:
- a. GRI 201: Economic Performance 2016
- 1564 Disclosure 201-1 Direct economic value generated and distributed
- 1565 Disclosure 201-4 <u>Financial assistance</u> received from government
- 1566 b. <u>GRI 207: Tax 2019</u>
- 1567 Disclosure 207-1 Approach to tax
- 1568 Disclosure 207-2 Tax governance, control, and risk management
- 1569 Disclosure 207-3 <u>Stakeholder</u> engagement and management of concerns related to tax
- 1570 Disclosure 207-4 Country-by-country reporting
- 15713. The following additional disclosures have also been identified as appropriate and should be reported on this topic:
- 1573 Payments to governments broken down by revenue stream and project, in line with the EITI Requirement 4.1 and EITI Requirement 4.7.
- Volumes and type of oil and gas purchased from the state or third parties appointed by the state to sell on their behalf, the full name of the buying entity, the payments made for the purchase, and the recipient of the payment, in line with the EITI Requirement 4.2 and the EITI guidelines for buying companies.
- 1579 4. The following additional disclosures have also been identified as appropriate and should be reported on this topic by State-owned enterprises (SOEs):
- The level of state ownership in the organization and the financial relationship between the government and the SOE, in line with the EITI Requirement 2.6.
- 1583 5. The following resources may help organizations in the oil and gas sector report on this topic:
- 1584 Extractives Industry Transparency Initiative (EITI), The EITI Standard, 2019.
- Organisation for Economic Co-operation and Development (OECD), Upstream Oil, Gas, and
 Mining State-Owned Enterprises, Governance Challenges and the Role of International Reporting
 Standards in Improving Performance, 2018



1588 Public policy and lobbying

- 1589 The oil and gas sector can exert significant influence on government policies and is among the sectors
- 1590 with the largest lobbying expenditure. Lobbying by the oil and gas sector can result in significant, long-
- lasting impacts on the economy, environment, and local communities.
- 1592 The sector has represented a strong force against ambitious climate policies through lobbying
- 1593 activities by individual organizations and industry bodies. These lobbying activities have often aimed to
- 1594 prevent meaningful carbon pricing, carbon budgets, or other actions to reduce GHG emissions that
- 1595 could leave oil and gas assets or resources stranded. These activities sometimes contradict publicly
- 1596 stated corporate strategies or positions that support policies addressing the climate crisis.
- 1597 Other lobbying activities by the sector include hindering environmental policies; blocking or amending
- 1598 legislation on environmental and social assessments of projects or fair participation of all stakeholders;
- overturning restrictions on resource development; acquiring permits for pipelines; and supporting the
- 1600 lowering of corporate taxes and resource royalties.
- 1601 Due to the large revenues distributed to their host-country governments, organization in the oil and
- gas sector might be given better access to and representation in meetings with government
- 1603 representatives, leading to undue influence over public policy discussions. Documented cases show
- 1604 how the sector has habitually donated to political parties whose policies favor corporate agendas or in
- 1605 order to gain special access to politicians.
- 1606 Lobbying can also be used to gain or retain government subsidies, which can result in commodity prices
- 1607 that do not reflect the full environmental costs of products. Subsidies for the oil and gas sector can
- 1608 inhibit sustainable development in numerous ways, including reducing or inefficiently allocating available
- 1609 national resources, increasing dependence on fossil fuels, and discouraging investment in renewable
- 1610 energy and energy efficiency, which impedes the transition to low-carbon economies (see also Climate
- 1611 resilience and transition).

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WHAT TO REPORT

- 1613 If an organization in the oil and gas sector has identified public policy and lobbying as a material topic,
- 1614 this section helps it determine what to report on this topic.
- 1615 1. The organization is required to report on this topic and how it is managed using *GRI 103: Material Topics*.
- 1617 2. The following disclosure from the GRI Topic Standards has been identified as appropriate to report on this topic:

GRI 415: Public Policy 2016

- When reporting clause 1.1 in *GRI 415*: Public Policy and Lobbying 2016, the organization should report:
 - significant issues that are the focus of its participation in public policy development and lobbying; and
 - its stance on these issues as well as any differences between lobbying positions and stated policies, goals, or other public positions.
- Disclosure 415-1 Political contributions
- In addition to disclosures listed above, when reporting RBC-7 Membership associations in GRI 102:
 About the Organization, the organization should also report its memberships or contributions to organizations that participate in public advocacy on climate change.



1630 Glossary

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- 1631 This glossary includes definitions for terms used in the GRI Sector Standard: Oil and Gas. The
- organization is required to apply these definitions when using this Sector Standard.
- Some definitions included in this glossary contain terms that are further defined in the complete GRI
- 1634 Standards Glossary. All defined terms are underlined. If a term is not defined in this glossary or the
- 1635 complete GRI Standards Glossary, definitions that are commonly used and understood apply.

Proposed additions to the GRI Glossary

- The GRI Standards Division proposes including to the GRI Glossary three new terms that are seen as applicable beyond the Oil and Gas Sector Standard. Comments on these additions are sought in the
- current public comment period for the draft Sector Standard: Oil and Gas.
- 1640 **free, prior, and informed consent (FPIC)** right recognized in the United Nations Declaration on
- 1641 the Rights of <u>Indigenous Peoples</u> that allows indigenous peoples to give or withhold consent to a
- 1642 project that may affect them or their territories as well as to negotiate project conditions
- **Note I**: This definition is based on Food and Agriculture Organization of the United Nations (FAO),
- Free Prior and Informed Consent Manual, 2016. fao.org/3/a-i6190e.pdf.
- **Note 2**: The free, prior and informed consent terminology aligns with the United Nations Human
- 1646 Rights Office of the High Commissioner for Human Rights (OHCHR), Free, Prior and Informed
- 1647 Consent of Indigenous Peoples, 2013.
- 1648 ohchr.org/Documents/Issues/ipeoples/freepriorandinformedconsent.pdf.
- **Note 3:** 'Free' implies no coercion, intimidation, or manipulation. 'Prior' implies consent sought
- sufficiently ahead of any activity authorization or commencement, with respect for time requirements
- of indigenous consultation and consensus processes. 'Informed' implies a range of information is
- provided, including any proposed project's or activity's nature, size, pace, reversibility, scope, purpose,
- 1653 duration, locality, and areas affected as well as a preliminary assessment of likely cultural, economic,
- l654 environmental, and social impacts and the personnel likely entailed in execution and procedures.

| 1655 | just transition

- 1656 | framework that encourages <u>sectors</u> and economies to become more environmentally sustainable
- 1657 while ensuring decent work, social inclusion, and poverty eradication. A just transition involves not
- 1658 only phasing out polluting sectors, but also implementing measures to reduce impacts of job and
- 1659 industry loss.
- **Note 1:** The Paris Agreement recognizes a just transition as an essential element of climate action.
- **Note 2**: This definition is based on the following sources:
- 1662 International Labour Organization (ILO), Guidelines for a just transition towards environmentally
- sustainable economies and societies for all, 2015, ilo.org/wcmsp5/groups/public/---ed emp/---
- emp ent/documents/publication/wcms 432859.pdf.
- S. Smith, Just Transition Centre, Just Transition: A Report for the OECD, 2017,
- 1666 oecd.org/environment/cc/g20-climate/collapsecontents/Just-Transition-Centre-report-just-
- 1667 transition.pdf.
- 1668 United Nations Framework Convention on Climate Change (UNFCC), Paris Agreement, 2015,
- unfccc.int/files/meetings/paris nov 2015/application/pdf/paris agreement english .pdf.



- United Nations Framework Convention on Climate Change (UNFCC), Just Transition of the Workforce, 1670 1671 and the Creation of Decent Work and Quality Jobs, technical paper, 2016, 1672 unfccc.int/sites/default/files/resource/Just%20transition.pdf. 1673 mitigation hierarchy 1674 sequence of actions providing a best-practice approach for the sustainable management of living 1675 natural resources in order to: 1676 avoid impacts on biodiversity and ecosystem services; 1677 where avoidance is not possible, minimize; 1678 when impacts occur, rehabilitate or restore; and 1679 where significant residual impacts remain, offset. 1680 Note: This definition is based on Cross Sector Biodiversity Initiative (CSBI), A cross sector guide for 1681 implementing the Mitigation Hierarchy, 2015. csbi.org.uk/wp-content/uploads/2017/10/Mitigation-Hierarchy-Executive-summary-and-Overview.pdf. 1682 1683 anti-competitive behavior action of the organization or employees that can result in collusion with potential competitors, with 1684 the purpose of limiting the effects of market competition 1685 Note: Examples of anti-competitive behavior actions can include fixing prices, coordinating bids, 1686 1687 creating market or output restrictions, imposing geographic quotas, or allocating customers, suppliers, 1688 geographic areas, and product lines. 1689 anti-trust and monopoly practice 1690 action of the organization that can result in collusion to erect barriers for entry to the sector, or 1691 another collusive action that prevents competition 1692 Note: Examples of collusive actions can include unfair business practices, abuse of market position, 1693 cartels, anti-competitive mergers, and price-fixing. 1694 area of high biodiversity value 1695 area not subject to legal protection, but recognized for important biodiversity features by a number of 1696 governmental and non-governmental organizations 1697 Note I: Areas of high biodiversity value include habitats that are a priority for conservation, which 1698 are often defined in National Biodiversity Strategies and Action Plans prepared under the United Nations (UN) Convention, 'Convention on Biological Diversity', 1992. 1699 1700 Note 2: Several international conservation organizations have identified particular areas of high 1701 biodiversity value. 1702 baseline
- 1703 starting point used for comparisons
- 1704 **Note**: In the context of energy and emissions reporting, the baseline is the projected energy
- 1705 consumption or emissions in the absence of any reduction activity.
- 1706 basic salary
- 1707 fixed, minimum amount paid to an employee for performing his or her duties, excluding any additional
- 1708 <u>remuneration</u>, such as payments for overtime working or bonuses



1709 benefit

- 1710 direct benefit provided in the form of financial contributions, care paid for by the organization, or the
- 1711 reimbursement of expenses borne by the employee
- 1712 **Note**: Redundancy payments over and above legal minimums, lay-off pay, extra employment injury
- 1713 benefit, survivors' benefits, and extra paid holiday entitlements can also be included as a benefit.

1714 business relationships [as proposed in the revised Universal Standards draft]

- 1715 entity with which the organization has some form of direct and formal engagement for the purpose of
- 1716 meeting its business objectives
- 1717 **Note 1:** Examples of business partners can include affiliates, business-to-business customers, clients,
- 1718 first-tier suppliers (such as a supplier that manufactures the organization's products), franchisees, joint
- 1719 venture partners, and investee companies in which the organization has a shareholding position.
- 1720 Business partners do not include subsidiaries and affiliates that the organization controls.
- Note 2: This definition comes from Shift and Mazars LLP, UN Guiding Principles Reporting Framework,
- 1722 2874 2015.
- 1723 **child**
- 1724 person under the age of 15 years, or under the age of completion of compulsory schooling, whichever
- 1725 is higher
- 1726 Note 1: Exceptions can occur in certain countries where economies and educational facilities are
- 1727 insufficiently developed and a minimum age of 14 years applies. These countries of exception are
- 1728 specified by the International Labour Organization (ILO) in response to a special application by the
- 1729 country concerned and in consultation with representative organizations of employers and workers.
- 1730 Note 2: The ILO Minimum Age Convention, 1973 (No. 138), refers to both child labor and young
- 1731 workers.

1732 collective bargaining [as proposed in the revised Universal Standards draft]

- 1733 negotiations between one or more employers or employers' organizations and one or more workers'
- 1734 organizations (trade unions), to determine working conditions and terms of employment or to
- 1735 regulate relations between employers and workers
- 1736 Note: This definition is based on the International Labour Organization (ILO), Collective Bargaining
- 1737 Convention, 1981 (No. 154).

1738 community development program

- 1739 plan that details actions to minimize, mitigate, or compensate for adverse social and/or economic
- 1740 impacts, and/or to identify opportunities or actions to enhance positive impacts of a project on the
- 1741 community

1742 conflict of interest

- 1743 situation where an individual is confronted with choosing between the requirements of his or her
- 1744 function and his or her own private interests
- 1745 corruption



1746	'abuse of entrusted power for private gain',21 which can be instigated by individuals or organizations
1747	Note: In the GRI Standards, corruption includes practices such as bribery, facilitation payments, fraud,
1748	extortion, collusion, and money laundering. It also includes an offer or receipt of any gift, loan, fee,
1749	reward, or other advantage to or from any person as an inducement to do something that is

- dishonest, illegal, or a breach of trust in the conduct of the enterprise's business.²² This can include cash or in-kind benefits, such as free goods, gifts, and holidays, or special personal services provided
- for the purpose of an improper advantage, or that can result in moral pressure to receive such an
- 1753 advantage.
- 1754 direct (Scope I) GHG emissions
- 1755 GHG emissions from sources that are owned or controlled by an organization
- 1756 Note I: A GHG source is any physical unit or process that releases GHG into the atmosphere.
- 1757 Note 2: Direct (Scope 1) GHG emissions can include the CO2 emissions from fuel consumption.
- 1758 discrimination
- 1759 act and result of treating persons unequally by imposing unequal burdens or denying benefits instead
- 1760 of treating each person fairly on the basis of individual merit
- 1761 Note: Discrimination can also include harassment, defined as a course of comments or actions that
- are unwelcome, or should reasonably be known to be unwelcome, to the person toward whom they
- 1763 are addressed.
- 1764 effluent
- 1765 treated or untreated wastewater that is discharged
- 1766 Note: This definition is based on the Alliance for Water Stewardship (AWS), AWS International
- 1767 Water Stewardship Standard, Version 1.0, 2014.
- 1768 employee
- 1769 individual who is in an employment relationship with the organization, according to national law or its
- 1770 application
- 1771 employee turnover
- 1772 employees who leave the organization voluntarily or due to dismissal, retirement, or death in service
- 1773 entry level wage
- 1774 full-time wage in the lowest employment category
- 1775 **Note**: Intern or apprentice wages are not considered entry level wages
- 1776 exposure

²¹ Transparency International

²² These definitions are based on Transparency International, 'Business Principles for Countering Bribery', 2011.



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- 1777 quantity of time spent at or the nature of contact with certain environments that possess various
- 1778 degrees and kinds of hazard, or proximity to a condition that might cause injury or ill health (e.g.,
- 1779 chemicals, radiation, high pressure, noise, fire, explosives)
- 1780 financial assistance
- 1781 direct or indirect financial benefits that do not represent a transaction of goods and services, but
- 1782 which are an incentive or compensation for actions taken, the cost of an asset, or expenses incurred
- 1783 Note: The provider of financial assistance does not expect a direct financial return from the
- 1784 assistance offered.
- 1785 forced or compulsory labor
- 1786 all work and service that is exacted from any person under the menace of any penalty and for which
- 1787 the said person has not offered herself or himself voluntarily
- 1788 Note 1: The most extreme examples of forced or compulsory labor are slave labor and bonded
- labor, but debts can also be used as a means of maintaining workers in a state of forced labor.
- Note 2: Indicators of forced labor include withholding identity papers, requiring compulsory deposits,
- 1791 and compelling workers, under threat of firing, to work extra hours to which they have not previously
- 1792 agreed.
- 1793 Note 3: This definition is based on International Labour Organization (ILO) Convention 29, 'Forced
- 1794 Labour Convention', 1930.
- 1795 freedom of association
- 1796 right of employers and workers to form, to join and to run their own organizations without prior
- authorization or interference by the state or any other entity
- 1798 freshwater
- 1799 water with concentration of total dissolved solids equal to or below 1,000 mg/L
- 1800 Note: This definition is based on ISO 14046:2014; the United States Geological Survey (USGS),
- 1801 Water Science Glossary of Terms, water.usgs.gov/edu/dictionary.html, accessed on 1 June 2018; and
- the World Health Organization (WHO), Guidelines for Drinking-water Quality, 2017.
- 1803 global warming potential (GWP)
- 1804 value describing the radiative forcing impact of one unit of a given GHG relative to one unit of CO2
- 1805 over a given period of time
- 1806 Note: GWP values convert GHG emissions data for non-CO2 gases into units of CO₂ equivalent.
- 1807 greenhouse gas (GHG)
- 1808 gas that contributes to the greenhouse effect by absorbing infrared radiation
- 1809 grievance mechanism [as proposed in the revised Universal Standards draft]
- 1810 routinized process through which grievances can be raised and remedy can be sought
- Note 1: Grievance mechanisms include routinized, State-based or non-State-based, judicial or non-
- 1812 judicial processes. They also include operational-level grievance mechanisms, which are administered
- 1813 by the organization either alone or in collaboration with other parties, and which are directly
- 1814 accessible by the organization's stakeholders.
- 1815 Note 2: According to UN Guiding Principle 31, effective grievance mechanisms are legitimate,
- 1816 accessible, predictable, equitable, transparent, rights-compatible, and a source of continuous learning.



- 1817 In addition to these criteria, effective operational-level grievance mechanisms are also based on
- 1818 engagement and dialogue.
- 1819 Note 3: This definition is based on the United Nations (UN), Guiding Principles on Business and
- 1820 Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework, 2011.
- 1821 groundwater

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- 1822 water that is being held in, and that can be recovered from, an underground formation
- 1823 **Note**: This definition comes from ISO 14046:2014.
- 1824 high-consequence work-related injury
- 1825 work-related injury that results in a fatality or in an injury from which the worker cannot, does not, or
- is not expected to recover fully to pre-injury health status within 6 months
- impact [as proposed in the revised Universal Standards draft]
- In the GRI Standards, unless otherwise stated, 'impact' refers to the effect the organization has on the
- 1829 economy, environment, and/or people, including on human rights, which in turn can indicate the
- 1830 organization's contribution (negative or positive) to sustainable development.
- **Note**: In the GRI Standards, the term 'impact' can refer to:
 - actual impacts (those that have already occurred) or potential impacts (those that could occur
 but have not yet occurred);
 - negative impacts or positive impacts;
 - short-term impacts or long-term impacts;
- intended impacts or unintended impacts;
- reversible impacts or irreversible impacts.
- 1838 See 'impact' in Section 2 of GRI 101: Using the GRI Standards.
- 1839 indigenous peoples
 - indigenous peoples are generally identified as:
 - tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations;
 - peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural, and political institutions.
- Note: This definition comes from the International Labour Organization (ILO), Indigenous and Tribal 3004 Peoples Convention, 1989 (No. 169).
- 1851 infrastructure
- 1852 facilities built primarily to provide a public service or good rather than a commercial purpose, and
- 1853 from which an organization does not seek to gain direct economic benefit
- 1854 Note: Examples of facilities can include water supply facilities, roads, schools, and hospitals, among
- 1855 others.
- 1856 local community [as proposed in the revised Universal Standards draft]



1857	individuals or groups of individuals living and/or working in areas that are, or could be, affected by the
1858	organization's activities and decisions

- 1859 **Note**: The local community can range from individuals living adjacent to the organization's operations
- 1860 to those living at a distance who are still likely to be affected by these operations.
- 1861 local minimum wage
- 1862 minimum compensation for employment per hour, or other unit of time, allowed under law
- **Note**: Some countries have numerous minimum wages, such as by state or province or by
- 1864 employment category.
- 1865 local supplier
- 1866 organization or person that provides a product or service to the reporting organization, and that is
- 1867 based in the same geographic market as the reporting organization (that is, no transnational payments
- 1868 are made to a local supplier)
- 1869 **Note**: The geographic definition of 'local' can include the community surrounding operations, a region
- 1870 within a country or a country.
- material topic [as proposed in the revised Universal Standards draft]
- 1872 topic that reflects the organization's most significant impacts on the economy, environment, and
- 1873 people, including impacts on human rights
- 1874 Note: See Section 2 of GRI 101: Using the GRI Standards and Section 2 of GRI 103: Material Topics for
- 1875 more information.
- 1876 mitigation [as proposed in the revised Universal Standards draft]
- 1877 action(s) taken to reduce the extent of a negative impact
- 1878 Note 1: The mitigation of an actual negative impact refers to actions taken to reduce the extent of
- the negative impact that has occurred, with any residual impact needing <u>remediation</u>. The mitigation of
- 1880 a potential negative impact refers to actions taken to reduce the likelihood of the negative impact
- 1881 occurring.
- 1882 Note 2: This definition is based on the United Nations (UN), The Corporate Responsibility to
- 1883 Respect Human Rights: An Interpretive Guide, 2012.
- 1884 occupational health and safety management system
- 1885 set of interrelated or interacting elements to establish an occupational health and safety policy and
- 1886 objectives, and to achieve those objectives
- 1887 Note: This definition comes from the International Labour Organization (ILO), Guidelines on
- 1888 Occupational Safety and Health Management Systems, ILO-OSH 2001, 2001.
- 1889 occupational health and safety risk
- 1890 combination of the likelihood of occurrence of a work-related hazardous situation or exposure and
- the severity of injury or ill health that can be caused by the situation or exposure
- 1892 **Note**: This definition is based on ISO 45001:2018.
- 1893 occupational health services
- 1894 services entrusted with essentially preventive functions, and responsible for advising the employer, the
- 1895 workers, and their representatives in the undertaking, on the requirements for establishing and
- 1896 maintaining a safe and healthy work environment, which will facilitate optimal physical and mental



- health in relation to work and the adaptation of work to the capabilities of workers in the light of their state of physical and mental health
- **Note I**: Functions of occupational health services include:
- surveillance of factors in the work environment, including any sanitary installations, canteens,
 and housing provided to workers, or in work practices, which might affect workers' health;
 - surveillance of workers' health in relation to work;
- advice on occupational health, safety, and hygiene;
 - advice on ergonomics and on individual and collective protective equipment;
- promotion of the adaptation of work to the worker;
- organization of first aid and emergency treatment.
- 1907 Note 2: This definition comes from the International Labour Organization (ILO) Convention 161,
- 1908 'Occupational Health Services Convention', 1985.
- 1909 operation with significant actual or potential negative impacts on local communities
- 1910 an operation, considered alone or in combination with the characteristics of local communities, that
- 1911 has a higher than average potential of negative impacts, or actual negative impacts, on the social,
- 1912 economic or environmental well-being of local communities
- 1913 Note: Examples of negative impacts on local communities can include impacts to local community
- 1914 health and safety.

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- 1915 other indirect (Scope 3) GHG emissions
- 1916 indirect GHG emissions not included in energy indirect (Scope 2) GHG emissions that occur outside
- 1917 of the organization, including both upstream and downstream emissions
- 1918 parental leave
- 1919 leave granted to men and women employees on the grounds of the birth of a child
- 1920 political contribution
- 1921 financial or in-kind support given directly or indirectly to political parties, their elected
- 1922 representatives, or persons seeking political office
- 1923 Note 1: Financial contributions can include donations, loans, sponsorships, retainers, or the purchase
- 1924 of tickets for fundraising events.
- 1925 Note 2: In-kind contributions can include advertising, use of facilities, design and printing, donation of
- 1926 equipment, or the provision of board membership, employment, or consultancy work for elected
- 1927 politicians or candidates for office.
- 1928 produced water
- 1929 water that enters an organization's boundary as a result of extraction (e.g., crude oil), processing (e.g.,
- 1930 sugar cane crushing), or use of any raw material, and has to consequently be managed by the
- 1931 organization
- 1932 **Note**: This definition is based on CDP, CDP Water Security Reporting Guidance, 2018.
- 1933 product
- 1934 article or substance that is offered for sale or is part of a <u>service</u> delivered by the organization
- 1935 protected area
- 1936 geographic area that is designated, regulated, or managed to achieve specific conservation objectives



937 reduction of greenhouse gas (GHG) emissio	937	reduction of	greenhouse	gas ((GHG)	emissio
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- 1938 decrease in GHG emissions or increase in removal or storage of GHG from the atmosphere, relative
- 1939 to baseline emissions
- 1940 Note: Primary effects will result in GHG reductions, as will some secondary effects. An initiative's
- 1941 total GHG reductions are quantified as the sum of its associated primary effect(s) and any significant
- 1942 secondary effects (which may involve decreases or countervailing increases in GHG emissions).



1943 remediation [as proposed in the revised Universal Standards draft]

- 1944 provision of remedy
- 1945 Note: This definition is based on the United Nations (UN), The Corporate Responsibility to Respect
- 1946 Human Rights: An Interpretive Guide, 2012.

1947 remedy [as proposed in the revised Universal Standards draft]

- 1948 means to counteract or make good a negative impact
- 1949 Note 1: Remedy can take a range of forms, such as apologies, restitution, restoration, rehabilitation,
- 1950 financial or non-financial compensation, and punitive sanctions (whether criminal or administrative,
- 1951 such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of
- 1952 non-repetition.
- 1953 Note 2: This definition is based on the United Nations (UN), The Corporate Responsibility to Respect
- 1954 Human Rights: An Interpretive Guide, 2012, ohchr.org/Documents/publications/hr.puB.12.2 en.pdf.
- 1955 remuneration
- 1956 <u>basic salary</u> plus additional amounts paid to a <u>worker</u>
- 1957 Note: Examples of additional amounts paid to a worker can include those based on years of service,
- 1958 bonuses including cash and equity such as stocks and shares, benefit payments, overtime, time owed,
- 1959 and any additional allowances, such as transportation, living and childcare allowances.

1960 renewable energy source

- 1961 energy source that is capable of being replenished in a short time through ecological cycles or
- 1962 agricultural processes
- 1963 Note: Renewable energy sources can include geothermal, wind, solar, hydro, and biomass.
- 1964 seawater
- 1965 water in a sea or in an ocean
- 1966 Note: This definition comes from ISO 14046:2014.
- 1967 sector [as proposed in the revised Universal Standards draft]
- 1968 subdivision of an economy, society, or sphere of activity, defined on the basis of some common
- 1969 characteristic such as similar or related products or services
- 1970 **Note**: Sector types can include classifications such as the public or private sector, as well as industry-
- specific categories such as the education, technology, or financial sectors.
- 1972 security personnel
- 1973 individuals employed for the purposes of guarding property of the organization; crowd control; loss
- 1974 prevention; and escorting persons, goods, and valuables



1975	service		
		=	
1976	action of	tne	organization to meet a demand or need

1977 services supported

- 1978 <u>services</u> that provide a public <u>benefit</u> either through direct payment of operating costs or through
- 1979 staffing the facility or service with an organization's own employees
- 1980 **Note**: Public benefit can also include public services.
- 1981 significant air emission
- 1982 air emission regulated under international conventions and/or national laws or regulations
- 1983 **Note**: Significant air emissions include those listed on environmental permits for an organization's
- 1984 operations.
- 1985 significant operational change
- 1986 alteration to the organization's pattern of operations that can potentially have significant positive or
- 1987 negative impacts on workers performing the organization's activities
- 1988 Note: Significant operational change can include restructuring, outsourcing of operations, closures,
- 1989 expansions, new openings, takeovers, sale of all or part of the organization, or mergers.
- 1990 significant spill
- 1991 spill that is included in the organization's financial statements, for example due to resulting liabilities,
- 1992 or is recorded as a spill by the organization
- 1993 **spil**
- 1994 accidental release of a hazardous substance that can affect human health, land, vegetation, water
- 1995 bodies, and ground water
- 1996 stakeholder [as proposed in the revised Universal Standards draft]
- 1997 individual or group that has an interest that is, or could be, affected by the organization's activities and
- 1998 decisions
- 1999 Note 1: Common categories of stakeholders for organizations include business partners, civil society
- 2000 organizations, consumers, customers, employees and other workers, governments, local communities,
- 2001 non-governmental organizations, shareholders, suppliers, trade unions, and vulnerable groups. See
- 'stakeholder' in Section 2 of GRI 101: Using the GRI Standards.
- 2003 Note 2: This definition is based on the Organisation for Economic Co-operation and Development
- 2004 (OECD), OECD Due Diligence Guidance for Responsible Business Conduct, 2018.
- supplier [as proposed in the revised Universal Standards draft]
- 2006 entity in the organization's <u>supply chain</u>, which provides a <u>product</u> or <u>service</u> that contributes to the
- 2007 organization's own products or services
- 2008 **Note I**: Examples of <u>suppliers</u> include brokers, consultants, contractors, distributors, franchisees,
- 2009 home workers, independent contractors, licensees, manufacturers, primary producers, sub-
- 2010 contractors, and wholesalers.
- 2011 Note 2: A supplier can have a direct business relationship with the organization (often referred to as
- 2012 first-tier supplier) or an indirect business relationship.
- supply chain [as proposed in the revised Universal Standards draft]



- range of activities carried out by entities upstream in the organization's value chain, which provide
- 2015 products or services that contribute to the organization's own products or services
- 2016 surface water
- water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs,
- 2018 ponds, lakes, rivers, and streams
- 2019 **Note**: This definition is based on CDP, CDP Water Security Reporting Guidance, 2018.
- sustainable development/sustainability [as proposed in the revised Universal Standards
- 2021 draft]
- development that meets the needs of the present without compromising the ability of future
- 2023 generations to meet their own needs
- Note 1: Sustainable development encompasses broader economic, environmental, and societal
- interests, rather than the individual interests of organizations.
- Note 2: In the GRI Standards, the terms 'sustainability' and 'sustainable development' are used
- interchangeably.
- 2028 Note 3: This definition comes from the World Commission on Environment and Development, Our
- 2029 Common Future, 1987.
- value chain [as proposed in the revised Universal Standards draft]
- range of activities carried out by the organization and other entities, which convert input into output
- 2032 by adding value throughout the life cycle of a product or service from conception to end use
- Note: The value chain includes the organization's own activities, as well as activities carried out by
- 2034 entities upstream and downstream from the organization in relation to the organization's products
- and services. The upstream entities (e.g., suppliers) provide products or services that contribute to
- the organization's own products or services. The downstream entities (e.g., distributors, customers)
- receive products or services from the organization.
- 2038 vulnerable group [as proposed in the revised Universal Standards draft]
- 2039 group of individuals with some specific economic, physical, political, or social condition or
- 2040 characteristic that could experience negative impacts as a result of the organization's activities and
- 2041 decisions more severely than others
- Note 1: Vulnerable groups can include children and youth, elderly persons, ethnic minorities, ex-
- 2043 combatants, HIV/AIDS-affected households, <u>indigenous peoples</u>, internally displaced persons, people
- with disabilities, and refugees or returning refugees.
- Note 2: Vulnerabilities and impacts can differ by gender.
- 2046 water consumption
- sum of all water that has been withdrawn and incorporated into products, used in the production of
- crops or generated as waste, has evaporated, transpired, or been consumed by humans or livestock,
- or is polluted to the point of being unusable by other users, and is therefore not released back to
- 2050 surface water, groundwater, seawater, or a third party over the course of the reporting period
- Note I: Water consumption includes water that has been stored during the reporting period for use
- or discharge in a subsequent reporting period.
- Note 2: This definition is based on CDP, CDP Water Security Reporting Guidance, 2018.
- 2054 water discharge



- sum of effluents, used water, and unused water released to surface water, groundwater, seawater, or
- a third party, for which the organization has no further use, over the course of the reporting period
- Note I: Water can be released into the receiving waterbody either at a defined discharge point
- 2058 (pointsource discharge) or dispersed over land in an undefined manner (non-point-source discharge).
- 2059 Note 2: Water discharge can be authorized (in accordance with discharge consent) or unauthorized
- 2060 (if discharge consent is exceeded).
- 2061 water stress
- ability, or lack thereof, to meet the human and ecological demand for water
- Note I: Water stress can refer to the availability, quality, or accessibility of water.
- 2064 Note 2: Water stress is based on subjective elements and is assessed differently depending on
- societal values, such as the suitability of water for drinking or the requirements to be afforded to
- 2066 ecosystems.
- 2067 Note 3: Water stress in an area may be measured at catchment level at a minimum.
- 2068 Note 4: This definition comes from the CEO Water Mandate, Corporate Water Disclosure
- 2069 Guidelines, 2014.
- 2070 water withdrawal
- sum of all water drawn from surface water, groundwater, seawater, or a third party for any use over
- the course of the reporting period
- 2073 worker [as proposed in the revised Universal Standards draft]
- 2074 person that performs work
- Note 1: Workers include, but are not limited to, employees. Further examples of workers include
- interns, apprentices, self-employed persons, and persons working for organizations other than the
- reporting organization (e.g., for <u>suppliers</u>).
- Note 2: In the context of the GRI Standards, in some cases it is specified whether a particular subset
- of workers is to be used.
- 2080 worker consultation
- 2081 seeking of workers' views before making a decision
- Note I: Worker consultation might be carried out through workers' representatives.
- Note 2: Consultation is a formal process, whereby management takes the views of workers into
- account when making a decision. Therefore, consultation needs to take place before the decision is
- 2085 made. It is essential to provide timely information to workers or their representatives in order for
- them to provide meaningful and effective input before decisions are made. Genuine consultation
- 2087 involves dialogue.
- 2088 Note 3: Worker participation and consultation are two distinct terms with specific meanings. See
- 2089 definition of 'worker participation'.
- 2090 worker participation
- 2091 workers' involvement in decision-making
- 2092 **Note I**: Worker participation might be carried out through workers' representatives.



- Note 2: Worker participation and consultation are two distinct terms with specific meanings. See definition of 'worker consultation'.
- 2095 work-related hazard
- source or situation with the potential to cause injury or ill health
- 2097 **Note I**: Hazards can be:

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- physical (e.g., radiation, temperature extremes, constant loud noise, spills on floors or tripping
- hazards, unguarded machinery, faulty electrical equipment);
- ergonomic (e.g., improperly adjusted workstations and chairs, awkward movements,
 vibration);
 - chemical (e.g., exposure to solvents, carbon monoxide, flammable materials, or pesticides);
 - biological (e.g., exposure to blood and bodily fluids, fungi, bacteria, viruses, or insect bites);
 - psychosocial (e.g., verbal abuse, harassment, bullying);
 - related to work-organization (e.g., excessive workload demands, shift work, long hours, night work, workplace violence).
- Note 2: This definition is based on International Labour Organization (ILO) Guidelines on Occupational Safety and Health Management Systems from 2001 and ISO 45001:2018.



Bibliography

2 Front matter

- 3 Organisation for Economic Co-operation and Development (OECD) and International Energy Agency (IEA),
- 4 OECD Green Growth Studies: Energy, 2011, oecd.org/greengrowth/greening-energy/49157219.pdf.
- 5 United Nations Environment Programme (UNEP), Emissions Gap Report 2019, 2019,
- 6 wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y.
- 7 United Nations Framework Convention on Climate Change (UNFCCC), Paris Agreement, 2015,
- 8 unfccc.int/files/essential background/convention/application/pdf/english paris agreement.pdf.
- 9 World Bank Group, Access to Electricity, data.worldbank.org/indicator/EG.ELC.ACCS.ZS, accessed on 31 May
- 10 2020.

ı

| | GHG emissions

- 12 Carbon Brief, Methane emissions from fossil fuels 'severely underestimated', 2020, carbonbrief.org/methane-
- 13 emissions-from-fossil-fuels-severely-underestimated.
- 14 Environmental Defense Fund (EDF), Taking Aim: Hitting the mark on oil and gas methane targets, 2018,
- edf.org/sites/default/files/documents/EDF TakingAim.pdf.
- 16 Ernst & Young (EY), Unconventional oil and gas in a carbon constrained world: A review of the environmental risks
- and future outlook for unconventional oil and gas, 2017,
- 18 klp.no/polopoly fs/1.38621.1509968953!/menu/standard/file/UnconventionalOilAndGasInaCarbonConstrained
- 19 World-September2017.pdf.
- P. Forster, V. Ramaswamy, et al., 'Changes in Atmospheric Constituents and in Radiative Forcing', Climate
- Change 2007: The Physical Science Basis, 2007, ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf.
- 22 Greenhouse Gas Protocol, Global Warming Potential Values, 2015, ghgprotocol.org/sites/default/files/Global-
- 23 Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf.
- 24 Intergovernmental Panel on Climate Change (IPCC), Climate Change 2014: Synthesis Report, 2014,
- 25 ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf.
- Intergovernmental Panel on Climate Change (IPCC), Climate Change 2007: The Physical Science Basis, 2007,
- ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf.
- 28 Intergovernmental Panel on Climate Change (IPCC), Good Practice Guidance and Uncertainty Management in
- 29 National Greenhouse Gas Inventories, 2001, ipcc-nggip.iges.or.jp/public/gp/english/2_Energy.pdf.
- 30 International Energy Agency (IEA), CO2 Emissions from Fuel Combustion Highlights, 2019, webstore.iea.org/co2-
- 31 emissions-from-fuel-combustion-2019-highlights.
- 32 International Energy Agency (IEA), Energy Efficiency 2018: Analysis and Outlooks to 2040, 2018,
- webstore.iea.org/market-report-series-energy-efficiency-2018.
- 34 International Energy Agency (IEA), Methane Tracker, iea.org/reports/methane-tracker, accessed on 31 May
- 35 2020.
- 36 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Mining, 2017,
- 37 ifc.org/wps/wcm/connect/8eb48de5-748e-4d62-bcfe-
- 38 40814dee7f0f/Onshore+Oil+and+Gas+Development+EHS+Guideline+-
- 39 +clean+draft+revised+version.pdf?MOD=AJPERES&CVID=IIWn.4z.
- 40 IPIECA, Saving energy in the oil and gas industry, 2013, world-
- 41 petroleum.org/docs/docs/socialres/saving_energy_6_feb_2013.pdf.
- 42 IPIECA, American Petroleum Institute (API), and International Association of Oil and Gas Producers (IOGP),
- 43 Oil and gas industry guidance on voluntary sustainability reporting, 3rd ed., 2015,
- 44 ipieca.org/media/2849/og industry guidance on voluntary sustainability reporting 3rd ed 2016.pdf.

Users can navigate to specific sections of the exposure draft by clicking the hyperlinked bookmarks that function in most browsers and in Adobe Acrobat Reader.

- The Energy Resources Institute (TERI), Towards an Energy Efficient Oil & Gas Sector,
- 46 sustainabledevelopment.un.org/content/documents/625468-
- 47 Parekh Towards%20an%20Energy%20Efficient%20Oil%20&%20Gas%20Sector.pdf.
- 48 The World Bank, Global Gas Flaring Reduction Partnership (GGFR),
- worldbank.org/en/programs/gasflaringreduction, accessed on 31 May 2020.
- The World Bank, 'Increased Shale Oil Production and Political Conflict Contribute to Increase in Global Gas
- 51 Flaring', 2019, worldbank.org/en/news/press-release/2019/06/12/increased-shale-oil-production-and-political-
- 52 conflict-contribute-to-increase-in-global-gas-flaring, accessed on 31 May 2020.
- The World Bank, Zero Routine Flaring by 2030, worldbank.org/en/programs/zero-routine-flaring-by-2030#7,
- accessed on 31 May 2020.
- 55 UN Climate Change (UNFCC), What do adaptation to climate change and climate resilience mean?, 2020,
- 56 unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-
- 57 resilience-mean, accessed on 31 May 2020.
- United States Energy Information Administration (EIA), Assumptions to the Annual Energy Outlook 2019: Industrial
- Demand Module, 2019, eia.gov/outlooks/aeo/assumptions/pdf/industrial.pdf.
- United States Energy Information Administration (EIA), Natural gas explained, eia.gov/energyexplained/natural-
- 61 gas, accessed on 31 May 2020.
- 62 United States Environmental Protection Agency (US EPA), Overview of Greenhouse Gases,
- 63 epa.gov/ghgemissions/overview-greenhouse-gases#methane, accessed on 31 May 2020.

64 Climate resilience and transition

- 65 T. Bruckner, I. Alexeyevich Bashmakov, et al., 'Energy Systems', Mitigation of Climate Change 2014, Mitigation of
- 66 Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on
- 67 Climate Change, 2014, ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter7.pdf, pp. 511-597.
- 68 Carbon Tracker Initiative, Balancing the Budget: Why deflating the carbon bubble requires oil & gas companies
- 69 to shrink, 2019, carbontracker.org/reports/balancing-the-budget, accessed on 31 May 2020.
- 70 Carbon Tracker Initiative, Carbon Budgets Explainer, 2018,
- 71 carbontracker.org/wp-content/uploads/2018/02/Carbon-Budgets Eplained 02022018.pdf.
- 72 Carbon Tracker, Unburnable Carbon: Are the World's Financial Markets Carrying a Carbon Bubble?, 2011,
- 73 banktrack.org/download/unburnable carbon/unburnablecarbonfullrev2.pdf.
- A. Dagnachew, A. Hof, et al., Insight into Energy Scenarios: A comparison of key transition indicators of 2°C scenarios,
- 75 2019, pbl.nl/sites/default/files/downloads/pbl-2019-insight-into-energy-scenarios 3686.pdf.
- 76 F. Denton, T. J. Wilbanks, et al., 'Climate-Resilient Pathways: Adaptation, Mitigation, and Sustainable
- 77 Development', Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects.
- 78 Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change,
- 79 2014
- ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap20_FINAL.pdf, pp. 1101-1131.
- 81 L. Fletcher, T. Crocker, et al., Beyond the cycle: Which oil and gas companies are ready for the low-carbon transition?
- 82 Executive summary, 2018,
- 83 6fefcbb86e61af1b2fc4-
- c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/003/858/original/CDP
- 85 Oil and Gas Executive Summary 2018.pdf?1541783367.
- 86 R. Hutt, 'Which economies are most reliant on oil?', weforum.org/agenda/2016/05/which-economies-are-most-
- reliant-on-oil, accessed on 31 May 2020.
- 88 Intergovernmental Panel on Climate Change (IPCC), Global Warming of 1.5°C. An IPCC Special Report on the
- 89 impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in



- 90 the context of strengthening the global response to the threat of climate change, sustainable development, and efforts
- 91 to eradicate poverty, 2018, ipcc.ch/sr15/download.
 - International Energy Agency (IEA), The Oil and Gas Industry in Energy Transitions: World Energy Outlook special report, 2020, iea.org/reports/the-oil-and-gas-industry-in-energy-transitions.
- 92 IPIECA, Addressing adaptation in the oil and gas industry, 2013, ipieca.org/news/addressing-adaptation-in-the-oil-
- 93 and-gas-industry.
- 94 [. G.]. Olivier and J. A. H. W. Peters, Trends in global CO₂ and total greenhouse gas emissions: 2019 Report, 2020,
- 95 pbl.nl/sites/default/files/downloads/pbl-2020-trends-in-global-co2-and-total-greenhouse-gas-emissions-2019-
- 96 report 4068.pdf, p. 12.
- 97 Organisation for Economic Co-operation and Development (OECD) and International Energy Agency (IEA),
- 98 OECD Green Growth Studies: Energy, 2011, oecd.org/greengrowth/greening-energy/49157219.pdf.
- 99 Organisation for Economic Co-operation and Development (OECD), Monitoring the transition to a low-carbon
- economy: a strategic approach to local development, 2015, oecd.org/regional/Monitoring-Green-Transition-
- 101 Final2.pdf.
- 102 M. F. Rahman, M. Mostofa, and S. Huq, 'Low-Carbon Futures in Least-Developed Countries',
- 103 wri.org/climate/expert-perspective/low-carbon-futures-least-developed-countries, accessed on 31 May 2020.
- 104 E. Stuart, 'Leaving No One Behind in Sustainable Development Pathways', wri.org/climate/expert-
- perspective/leaving-no-one-behind-sustainable-development-pathways, accessed on 31 May 2020.
- 106 C. Symon, Climate change: Action, trends and implications for business: The IPCC's Fifth Assessment Report, Working
- 107 Group 1, cisl.cam.ac.uk/business-action/low-carbon-transformation/ipcc-climate-science-business-
- 108 briefings/pdfs/briefings/science-report-briefing-print-en.pdf.
- Task Force on Climate-Related Financial Disclosure (TCFD), Recommendations of the Task Force on Climate-
- 110 related Financial Disclosure, 2017, fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-
- 111 11052018.pdf.
- Task Force on Climate-Related Financial Disclosure (TCFD), The Use of Scenario Analysis in Disclosure of Climate-
- 113 Related Risks and Opportunities, 2017, fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Technical-
- 114 Supplement-062917.pdf.
- 115 Air emissions
- International Energy Agency (IEA), Energy and Air Pollution: World Energy Outlook Special Report, 2016,
- pure.iiasa.ac.at/id/eprint/13467/1/WorldEnergyOutlookSpecialReport2016EnergyandAirPollution.pdf.
- 118 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Crude Oil and Petroleum
- 119 Product Terminals, 2007, ifc.org/wps/wcm/connect/83036b30-f957-4e0e-a662-2df991dcdfa0/Final%2B-
- 120 %2BCrude%2BOil%2Band%2BPetroleum%2BProduct%2BTerminals.pdf?MOD=AJPERES&CVID=jqevC2Q&id=1
- 121 323162170625.
- 122 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Gas Distribution Systems,
- 123 2007, ifc.org/wps/wcm/connect/88f41d8f-bd85-4535-a689-066d41b7ee29/Final%2B-
- 124 %2BGas%2BDistribution%2BSystems.pdf?MOD=AJPERES&CVID=jqezuZM&id=1323162128496.
- 125 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Liquefied Natural Gas
- 126 Facilities, 2017, ifc.org/wps/wcm/connect/ab72db72-736a-43e7-8c81-f2d749ec3ad1/20170406-
- 127 FINAL+LNG+EHS+Guideline_April+2017.pdf?MOD=AJPERES&CVID=IJuCgVs.
- 128 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Natural Gas Processing,
- 129 2017, ifc.org/wps/wcm/connect/ab72db72-736a-43e7-8c81-f2d749ec3ad1/20170406-
- 130 FINAL+LNG+EHS+Guideline_April+2017.pdf?MOD=AJPERES&CVID=IJuCgVs.
- 131 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Offshore Oil and Gas
- Development, 2015, ifc.org/wps/wcm/connect/e2a72e1b-4427-4155-aa8f-



- 133 c660ce3f2cd5/FINAL_Jun+2015_Offshore+Oil+and+Gas_EHS+Guideline.pdf?MOD=AJPERES&CVID=kU7RMJ
- 134 6
- 135 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Onshore Oil and Gas
- Development, 2017, ifc.org/wps/wcm/connect/8eb48de5-748e-4d62-bcfe-
- 137 40814dee7f0f/Onshore+Oil+and+Gas+Development+EHS+Guideline+-
- +clean+draft+revised+version.pdf?MOD=AJPERES&CVID=IIWn.4z.
- 139 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Petroleum Refining, 2016,
- 140 ifc.org/wps/wcm/connect/bde2da1d-3a09-400b-be24-3f6a60353ddc/2016-
- 141 EHS+Guidelines+for+Petroleum+Refining+FINAL.pdf?MOD=AJPERES&CVID=IxPS7Bu.
- 142 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Retail Petroleum
- 143 Networks, 2007, ifc.org/wps/wcm/connect/80003f2b-2c37-45ea-93c5-0bb6032d8f6f/Final%2B-
- 144 %2BRetail%2BPetroleum%2BNetworks.pdf?MOD=AJPERES&CVID=jqevKsA&id=1323152536731.
- The United Nations Economic Commission for Europe (UNECE), Air pollution, ecosystems and biodiversity,
- 146 unece.org/environmental-policy/conventions/envlrtapwelcome/cross-sectoral-linkages/air-pollution-
- 147 ecosystems-and-biodiversity.html, accessed on 31 May 2020.
- World Health Organization (WHO), Air pollution, who.int/health-topics/air-pollution, accessed on 31 May
- 149 2020.
- 150 World Health Organization (WHO), Air pollution and child health: Prescribing clean air, advance copy, 2018,
- 151 who.int/ceh/publications/Advance-copy-Oct24_18150 Air-Pollution-and-Child-Health-merged-
- 152 compressed.pdf?ua=1.

153 **Biodiversity**

- N. Butt, H. L. Beyer, et al., Biodiversity Risks from Fossil Fuel Extraction, Science, 2013,
- researchgate.net/publication/258044612 Biodiversity Risks from Fossil Fuel Extraction.
- 156 Convention on Biological Diversity, Mainstreaming of Biodiversity into the Energy and Mining Sectors, 2018,
- 157 cbd.int/doc/c/278a/e222/7deeb28863d046c875885315/sbi-02-04-add3-en.pdf.
- 158 M. B. J. Harfoot, D. P. Tittensor, et al., Present and future biodiversity risks from fossil fuel exploitation,
- Conservation Letters, 2018, conbio.onlinelibrary.wiley.com/doi/full/10.1111/conl.12448.
- 160 Intergovernmental Panel on Climate Change (IPCC), Climate Change and Biodiversity, 2002,
- archive.ipcc.ch/pdf/technical-papers/climate-changes-biodiversity-en.pdf.
- 162 Intergovernmental Panel on Climate Change (IPCC), Climate Change and Land An IPCC Special Report on
- 163 climate change, desertification, land degradation, sustainable land management, food security, and greenhouse
- gas fluxes in terrestrial ecosystems: Summary for Policymakers, 2019, ipcc.ch/site/assets/uploads/2019/08/4.-
- 165 SPM Approved Microsite FINAL.pdf.
- 166 K. Leach, S. E. Brooks, and S. Blyth, Potential threat to areas of biodiversity importance from current and emerging oil
- and gas activities in Africa, 2016, unep-
- 168 wcmc.org/system/dataset_file_fields/files/000/000/394/original/African_threat_mapping_270716.pdf?147004614
- 169 0
- 170 The Energy & Biodiversity Initiative (EBI), Integrating Biodiversity Conservation into Oil & Gas Development, 2003,
- 171 portals.iucn.org/library/efiles/documents/2003-037.pdf.
- 172 Waste
- 173 Alberta Energy Regulator, Tailings, aer.ca/providing-information/by-topic/tailings.html, accessed on 31 May
- 174 2020.
- 175 Alberta Government, Lower Athabasca Region: Tailings Management Framework for the Mineable Athabasca Oil
- 176 Sands, 2015,



- 177 open.alberta.ca/dataset/962bc8f4-3924-46ce-baf8-d6b7a26467ae/resource/7c49eb63-751b-49fd-b746-
- 178 87d5edee3131/download/2015-larp-tailingsmgtathabascaoilsands.pdf.
- 179 P. D. Cameron and M. C. Stanley, Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries,
- 180 2017, documents.worldbank.org/curated/en/222451496911224999/pdf/115792-PUB-PUBLIC-PUBDATE-6-6-
- 181 17.pdf.
- 182 Canada's Oil Sands, Tailings Ponds, capp.ca/explore/tailings-ponds, accessed on 31 May 2020.
- 183 Circle Economy, The Circularity Gap Report, 2019,
- 184 assets.website-files.com/5e185aa4d27bcf348400ed82/5e26ead616b6d1d157ff4293 20200120%20-
- 185 %20CGR%20Global%20-%20Report%20web%20single%20page%20-%20210x297mm%20-%20compressed.pdf.
- 186 European Commission, Extractive Waste, ec.europa.eu/environment/waste/mining, accessed on 31 May 2020.
- 187 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Crude Oil and Petroleum
- 188 Product Terminals, 2007, ifc.org/wps/wcm/connect/83036b30-f957-4e0e-a662-2df991dcdfa0/Final%2B-
- 189 %2BCrude%2BOil%2Band%2BPetroleum%2BProduct%2BTerminals.pdf?MOD=AJPERES&CVID=jqevC2Q&id=1
- 190 323162170625.
- 191 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Gas Distribution Systems,
- 192 2007, ifc.org/wps/wcm/connect/88f41d8f-bd85-4535-a689-066d41b7ee29/Final%2B-
- 193 %2BGas%2BDistribution%2BSystems.pdf?MOD=AJPERES&CVID=jqezuZM&id=1323162128496.
- 194 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Liquefied Natural Gas
- 195 Facilities, 2017, ifc.org/wps/wcm/connect/ab72db72-736a-43e7-8c81-f2d749ec3ad1/20170406-
- 196 FINAL+LNG+EHS+Guideline April+2017.pdf?MOD=A|PERES&CVID=I|uCgVs.
- 197 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Mining, 2007,
- 198 ifc.org/wps/wcm/connect/595149ed-8bef-4241-8d7c-50e91d8e459d/Final%2B-
- 199 %2BMining.pdf?MOD=AJPERES&CVID=jqezAit&id=1323153264157.
- 200 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Natural Gas Processing,
- 201 2017, ifc.org/wps/wcm/connect/ab72db72-736a-43e7-8c81-f2d749ec3ad1/20170406-
- 202 FINAL+LNG+EHS+Guideline April+2017.pdf?MOD=AJPERES&CVID=IJuCgVs.
- 203 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Offshore Oil and Gas
- 204 Development, 2015, ifc.org/wps/wcm/connect/e2a72e1b-4427-4155-aa8f-
- 205 c660ce3f2cd5/FINAL_Jun+2015_Offshore+Oil+and+Gas_EHS+Guideline.pdf?MOD=AJPERES&CVID=kU7RMJ
- 206 6.
- 207 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Onshore Oil and Gas
- Development, 2017, ifc.org/wps/wcm/connect/8eb48de5-748e-4d62-bcfe-
- 209 40814dee7f0f/Onshore+Oil+and+Gas+Development+EHS+Guideline+-
- 210 +clean+draft+revised+version.pdf?MOD=AJPERES&CVID=IIWn.4z.
- 211 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Petroleum Refining, 2016,
- 212 ifc.org/wps/wcm/connect/bde2da1d-3a09-400b-be24-3f6a60353ddc/2016-
- 213 EHS+Guidelines+for+Petroleum+Refining+FINAL.pdf?MOD=AJPERES&CVID=IxPS7Bu.
- 214 International Finance Corporation (IFC), Environmental, Health, and Safety Guidelines for Retail Petroleum
- 215 Networks, 2007, ifc.org/wps/wcm/connect/80003f2b-2c37-45ea-93c5-0bb6032d8f6f/Final%2B-
- 216 %2BRetail%2BPetroleum%2BNetworks.pdf?MOD=AJPERES&CVID=jqevKsA&id=1323152536731.
- International Association of Oil and Gas Producers (IOGP), Drilling Waste Management Technology Review, 2016,
- 218 iogp.org/bookstore/product/drilling-waste-management-technology-review.
- 219 International Association of Oil and Gas Producers (IOGP), Environmental management in Arctic oil & gas
- operations: Good practice guide, 2013, iogp.org/bookstore/product/environmental-management-in-arctic-oil-gas-
- 221 operations-good-practice-guide.



- 222 UNEP Industry and Environment, Environmental management in oil and gas exploration and production: An overview
- of issues and management approaches, 1997, wedocs.unep.org/bitstream/handle/20.500.11822/8275/-
- 224 Environmental%20Management%20in%20Oil%20%26%20Gas%20Exploration%20%26%20Production-
- 225 19972123.pdf?sequence=2&isAllowed=y.
- Union of Concerned Scientists, 'The Hidden Cost of Fossil Fuels', 2008,
- 227 ucsusa.org/resources/hidden-costs-fossil-fuels, accessed on 31 May 2020.
- 228 United Nations Development Programme (UNDP), Circular Economy Principles for NDCs and Long-term
- 229 Strategies, 2019,
- 230 ndcs.undp.org/content/dam/LECB/events/2019/20190625-circular-economy/undp-ndcsp-1.5Degree-circular-
- 231 economy-I4C-2019-Workshop-Summary.pdf.
- United Nations Environment Programme (UNEP), Towards a Pollution-Free Planet, 2017,
- 233 wedocs.unep.org/bitstream/handle/20.500.11822/21800/UNEA_towardspollution_long%20version_Web.pdf?se
- quence=1&isAllowed=y.

Water and effluents

- 236 L. Allen, M. Cohen, et al., 'Fossil Fuels and Water Quality', The World's Water Volume 7: The Biennial Report on
- Freshwater Resources, chapter 4, 2011, worldwater.org/wp-
- content/uploads/2013/07/chapter_4_fossil_fuel_and_water_quality.pdf.
- 239 P. D. Cameron and M. C. Stanley, Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries,
- 240 2017, documents.worldbank.org/curated/en/222451496911224999/pdf/115792-PUB-PUBLIC-PUBDATE-6-6-
- 241 17.pdf.
- 242 International Energy Agency (IEA), Water Energy Nexus: Excerpt from the World Energy Outlook 2016, 2016,
- 243 bt-projects.com/wp-content/uploads/documents-public/Environment/IEA-2017-Water-Energy-Nexus.pdf.
- International Energy Agency (IEA), 'Water for Energy', World Energy Outlook 2012, chapter 17, 2012.
- 245 webstore.iea.org/world-energy-outlook-2012-2.
- S. Osborn, A. Vengosh, et al., Methane contamination of drinking water accompanying gas-well drilling and hydraulic
- fracturing, Proceedings of the National Academy of Sciences, 2011, pnas.org/content/108/20/8172.
- 248 United Nations Conference on Trade and Development (UNCTAD), Commodities at a Glance: Special Issue on
- Shale Gas, 2017, unctad.org/en/PublicationsLibrary/suc2017d10_en.pdf.
- United Nations Environment Programme (UNEP), Towards a Pollution-Free Planet, 2017,
- 251 wedocs.unep.org/bitstream/handle/20.500.11822/21800/UNEA_towardspollution_long%20version_Web.pdf?se
- 252 quence=I&isAllowed=y.
- United States Environmental Protection Agency (US EPA), Hydraulic Fracturing for Oil and Gas: Impacts from the
- 254 Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States, 2016, epa.gov/hfstudy.
- 255 United States Environmental Protection Agency (US EPA), Profile of the Fossil Fuel Electric Power Generation
- 256 Industry, 1997,
- 257 web.archive.org/web/20101223225135/http:/www.epa.gov/compliance/resources/publications/assistance/sector
- 258 s/notebooks/fossilsn.pdf.
- United States Environmental Protection Agency (US EPA), Study of Oil and Gas Extraction Wastewater
- 260 Management Under the Clean Water Act, EPA-821-R19-001, draft May 2019,
- 261 epa.gov/sites/production/files/2019-05/documents/oil-and-gas-study draft 05-2019.pdf.
- World Bank Group, Thirsty Energy (II): The Importance of Water for Oil and Gas Extraction, 2016,
- 263 openknowledge.worldbank.org/bitstream/handle/10986/23635/Thirsty0energy0l0and0gas0extraction.pdf?seque
- 264 nce=1.
- 265 Closure and decommissioning



- 266 P. D. Cameron and M. C. Stanley, Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries,
- 267 2017, documents.worldbank.org/curated/en/222451496911224999/pdf/115792-PUB-PUBLIC-PUBDATE-6-6-
- 268 17.pdf.
- 269 Environmental Protection Authority (EPA), Environmental Factor Guideline: Benthic Communities and Habitats,
- 270 2016, epa.wa.gov.au/sites/default/files/Policies and Guidance/Guideline-Benthic-Communities-Habitats-
- 271 131216_2.pdf.
- 272 IPIECA, Oil and gas industry guidance on voluntary sustainability reporting, 3rd ed., 2015,
- 273 ipieca.org/media/2849/og industry guidance on voluntary sustainability reportnig 3rd ed 2016.pdf.
- 274 UNEP Industry and Environment, Environmental management in oil and gas exploration and production: An overview
- of issues and management approaches, 1997, wedocs.unep.org/bitstream/handle/20.500.11822/8275/-
- 276 Environmental%20Management%20in%20Oil%20%26%20Gas%20Exploration%20%26%20Production-
- 277 19972123.pdf?sequence=2&isAllowed=y.
- 278 United Nations, Guidance Note on the Tax Treatment of Decommissioning for the Extractive Industries, 2016,
- un.org/esa/ffd/wp-content/uploads/2016/10/12STM_CRP3_AttachmentA_Decommissioning.pdf.
- World Bank, Towards Sustainable Decommissioning and Closure of Oil Fields and Mines: A Toolkit to Assist
- 281 Government Agencies, 2010, siteresources.worldbank.org/EXTOGMC/Resources/336929-
- 282 1258667423902/decommission toolkit3 full.pdf

283 Asset integrity and process safety

- 284 American Petroleum Institute (API), American Petroleum Institute Guide to Reporting Process Safety Events Version
- 3.1, api.org/~/media/Files/Oil-and-Natural-Gas/Refining/Process%20Safety/API_Guide_to_Report_PSEs.pdf.
- 286 Australian National University (ANU) and Investor Group on Climate Change (IGCC), Assessing Climate
- 287 Change Risks and Opportunities, Oil and Gas Sector, igcc.org.au/wp-content/uploads/2016/04/Oil-and-Gas.pdf.
- 288 M. Christou and M. Konstantinidou, Safety of offshore oil and gas operations: Lessons from past accident analysis,
- 289 2012, publications.jrc.ec.europa.eu/repository/bitstream/JRC77767/offshore-accident-analysis-draft-final-report-
- dec-2012-rev6-online.pdf.
- 291 Environmental Defense Fund (EDF), Why are natural gas leaks a problem?, edf.org/climate/methanemaps/leaks-
- problem, accessed on 31 May 2020.
- 293 International Association of Oil and Gas Producers (IOGP), Process safety: Recommended practice on Key
- 294 Performance Indicators, 2018, iogp.org/bookstore/checkout/order-
- received/113880/?key=wc_order_iCl59yFYt5dHZ.
- 296 IPIECA, Oil and gas industry guidance on voluntary sustainability reporting, 3rd ed., 2015,
- ipieca.org/media/2849/og_industry_guidance_on_voluntary_sustainability_reportnig_3rd_ed_2016.pdf.
- 298 Pipeline and Hazardous Materials Safety Administration (PHMSA), Pipeline Incident 20 Year Trends,
- phmsa.dot.gov/data-and-statistics/pipeline/pipeline-incident-20-year-trends, accessed on 31 May 2020.
- 300 R. Sullivan, D. Russell, et al., Managing the Unavoidable: investment implications of a changing climate, 2009,
- $301 \quad acclimatise.uk.com/wp-content/uploads/2018/01/Managing_the_Unavoidable_FINAL_Nov2009.pdf.$
- 302 UNEP Industry and Environment, Environmental management in oil and gas exploration and production: An overview
- of issues and management approaches, 1997,
- 304 wedocs.unep.org/bitstream/handle/20.500.11822/8275/-
- 305 Environmental%20Management%20in%20Oil%20%26%20Gas%20Exploration%20%26%20Production-
- 306 19972123.pdf?sequence=2&isAllowed=y.
- 307 United States Environmental Protection Agency (US EPA), Oil and Natural Gas Sector Leaks, 2014,
- 308 ourenergypolicy.org/wp-content/uploads/2014/04/epa-leaks.pdf.
- 309 T. Williams, Pipelines: Environmental Considerations, Ottawa, Canada, Library of Parliament, 2012,
- 310 lop.parl.ca/staticfiles/PublicWebsite/Home/ResearchPublications/InBriefs/PDF/2012-37-e.pdf.



311 Occupational health and safety

- 312 Canadian Centre for Occupational Health and Safety (CCOHS), Cold Environments: Working in the Cold,
- 313 ccohs.ca/oshanswers/phys_agents/cold_working.html, accessed on 31 May 2020.
- Health and Safety Executive (HSE), Biological hazards, hse.gov.uk/offshore/biological-hazards.htm, accessed on
- 315 31 May 2020.
- Health and Safety Executive (HSE), Heat stress, hse.gov.uk/temperature/heatstress, accessed on 31 May 2020.
- 317 International Association of Oil and Gas Producers (IOGP), Safety performance indicators 2018 data Fatal
- 318 incident reports, 2018, iogp.org/bookstore/product/safety-performance-indicators-2018-data-fatal-incident-
- 319 reports.
- 320 International Labour Organization (ILO), Current and future skills, human resources development and safety training
- for contractors in the oil and gas industry, 2012, ilo.org/wcmsp5/groups/public/---ed_dialogue/---
- 322 sector/documents/meetingdocument/wcms 190707.pdf.
- International Labour Organization (ILO), Oil and gas production and oil refining sector,
- 324 ilo.org/global/industries-and-sectors/oil-and-gas-production-oil-refining/lang--en/index.htm, accessed on 31 May
- 325 2020.
- International Labour Organization (ILO), Social dialogue and industrial relations issues in the oil industry, 2009,
- 327 ilo.org/wcmsp5/groups/public/---ed dialogue/---sector/documents/meetingdocument/wcms 161662.pdf.
- 328 International Labour Organization (ILO), Working Paper No. 276: Working conditions of contract workers in the oil
- and gas industries, 2010, ilo.org/wcmsp5/groups/public/---ed_dialogue/---
- 330 sector/documents/publication/wcms 161194.pdf.
- 331 International Labour Organization (ILO), Working towards sustainable development: Opportunities for decent work
- and social inclusion in a green economy, 2012, ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---
- publ/documents/publication/wcms_181836.pdf.
- 334 IPIECA, Human Rights Training Tool, 3rd ed., 2014, ipieca.org/resources/good-practice/human-rights-training-
- 335 tool-3rd-edition.
- 336 IPIECA and International Association of Oil and Gas Producers (IOGP), Managing psychosocial risks on
- expatriation in the oil and gas industry, 2013, ipieca.org/resources/good-practice/managing-psychosocial-risks-on-
- 338 expatriation-in-the-oil-and-gas-industry.
- 339 IPIECA, Oil and gas industry guidance on voluntary sustainability reporting, 3rd ed., 2015,
- ipieca.org/media/2849/og_industry_guidance_on_voluntary_sustainability_reportnig_3rd_ed_2016.pdf.
- 341 Occupational Safety and Health Administration (OSHA), Health and Safety Risks for Workers Involved in Manual
- Tank Gauging and Sampling at Oil and Gas Extraction Sites, 2016, osha.gov/Publications/OSHA3843.pdf.
- Occupational Safety and Health Administration (OSHA) US Department of Labor, Silica, Crystalline: Health
- Effects, osha.gov/dsg/topics/silicacrystalline/health effects silica.html, accessed on 31 May 2020.
- Occupational Safety and Health Administration (OSHA) US Department of Labor, Hydrogen Sulfide: Hazards,
- osha.gov/SLTC/hydrogensulfide/hazards.html, accessed on 31 May 2020.
- 347 The Advocates for Human Rights, Promoting Gender Diversity and Inclusion in the Oil, Gas and Mining Extractive
- 348 Industries: A Women's Human Rights Report, 2019,
- 349 unece.org/fileadmin/DAM/energy/images/CMM/CMM CE/AHR gender diversity report FINAL.pdf.
- Wipro, Safety and Health Management in Oil and Gas Industry, wipro.com/oil-and-gas/safety-and-health-
- 351 management-system-in-oil-and-gas-industry, accessed on 31 May 2020.
- World Health Organization (WHO), Preventing Disease Through Healthy Environments: Exposure to Benzene A
- 353 Major Public Health Concern, 2010, who.int/ipcs/features/benzene.pdf.



354

- World Nuclear Association, Naturally-Occurring Radioactive Materials, 2019, world-nuclear.org/information-
- 356 library/safety-and-security/radiation-and-health/naturally-occurring-radioactive-materials-norm.aspx, accessed
- 357 on 31 May 2020.

358 Employment practices

- 359 C. Forde, R. MacKenzie, et al., Good industrial relations in the oil industry in the United Kingdom, 2005,
- 360 ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_161188.pdf.
- 361 C. Hidalgo, K. Peterson, et al, Extracting with Purpose: Creating Shared Value in the Oil and Gas and Mining Sectors'
- Companies and Communities, 2015, fsg.org/publications/extracting-purpose.
- 363 International Finance Corporation (IFC), IPIECA, and United Nations Development Programme (UNDSP),
- Mapping the oil and gas industry to the Sustainable Development Goals: An Atlas, 2017,
- 365 undp.org/content/undp/en/home/librarypage/poverty-reduction/mapping-the-oil-and-gas-industry-to-the-sdgs--
- 366 an-atlas.html.
- Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on Implementing the UN
- 368 Guiding Principles on Business and Human Rights, 2017, ihrb.org/pdf/eu-sector-guidance/EC-Guides/O&G/EC-
- 369 Guide_O&G.pdf.
- 370 International Labour Organization (ILO), Mining (coal; other mining) sector, ilo.org/global/industries-and-
- 371 sectors/mining/lang--en/index.htm, accessed on 31 May 2020.
- 372 International Labour Organization (ILO), Social dialogue and industrial relations issues in the oil industry: Report for
- 373 discussion at the Tripartite Meeting on Promoting Social Dialogue and Good Industrial Relations from Oil and Gas
- 374 Exploration and Production to Oil and Gas Distribution, 2009, ilo.org/wcmsp5/groups/public/---ed_dialogue/---
- 375 sector/documents/meetingdocument/wcms_161662.pdf.
- 376 IndustriaAll Global Union, 'Nigerian oil and gas unions fight against precarious work', 2017, industriall-
- 377 union.org/nigerian-oil-and-gas-unions-fight-against-precarious-work, accessed on 31 May 2020.
- IndiustriAll Global Union, 'Norwegian oil company DNO targeted by unions', 2017, industriall-
- union.org/norwegian-oil-company-dno-targeted-by-unions, accessed on 31 May 2020.
- IndustriAll Global Union, 'Shell's hidden shame: Contract workers on the poverty line in Nigeria', 2018,
- 381 accessed on 31 May 2020.
- 382 Industri Energi, 'The strike is necessary to level out differences in the oil industry', 2016,
- industrienergi.no/nyhet/the-strike-is-necessary-to-level-out-differences-in-the-oil-industry, accessed on 31 May
- 384 2020.

395

- 385 Organisation for Economic Co-operation and Development (OECD), Due Diligence Guidance for Meaningful
- 386 Stakeholder Engagement in the Extractives Sector, 2015, oecd-ilibrary.org/docserver/9789264252462-
- 387 en.pdf?expires=1582289252&id=id&accname=guest&checksum=2CBB833A4481670870D12EEB71007A32.
- 388 F. Todd, 'What are the pros and cons of automation in the oil and gas industry?', 2019,
- nsenergybusiness.com/features/oil-and-gas-automation, accessed on 31 May 2020.
- 390 S. Tordo, M. Warner, et al., Local Content Policies in the Oil and Gas Sector, 2013,
- 391 documents.worldbank.org/curated/en/549241468326687019/pdf/Local-content-in-the-oil-and-gas-sector.pdf.
- 392 United Steelworkers, 'National Oil Bargaining Talks Break Down: USW Calls for Work Stoppage at Nine Oil
- Refineries, Plants', 2015, usw.org/news/media-center/releases/2015/national-oil-bargaining-talks-break-down-
- usw-calls-for-work-stoppage-at-nine-oil-refineries-plants, accessed on 31 May 2020.

Forced labor and modern slavery

- 396 EarthRights International, Total Impact: The Human Rights, Environmental, and Financial Impacts of Total and
- 397 Chevron's Yadana Gas Project in Military-Ruled Burma (Myanmar), 2009, earthrights.org/wp-
- 398 content/uploads/publications/total-impact.pdf.



- 399 Global Slavery Index, 'Global Findings', Global Slavery Index 2018, chapter 3,
- 400 globalslaveryindex.org/resources/downloads.
- 401 GRI, Responsible Labor Initiative, Advancing modern slavery reporting to meet stakeholder expectations, 2019,
- 402 globalreporting.org/resourcelibrary/RLI-GRI_Advancing-Modern-Slavery-Reporting-to-Meet-Stakeholder-
- 403 Expectations.pdf.
- 404 Fédération Internationale pour les Droits Humains (FIDH), Info Birmanie, La Ligue Des Droits de l'Homme et La
- 405 FIDH Dénoncent l'accord Intervenu Entre Total et Sherpa, 2005, fidh.org/fr/regions/asie/birmanie/Total-en-
- 406 Birmanie/Info-Birmanie-la-Ligue-des-droits.
- 407 International Labour Organization (ILO), Labour Migration in the Arab States,
- 408 ilo.org/beirut/areasofwork/labour-migration/WCMS_514910/lang--en/index.htm, accessed on 31 May 2020.
- 409 International Labour Organization (ILO) and Walk Free Foundation, Global estimates of modern slavery: forced
- 410 labour and forced marriage, 2017, ilo.org/wcmsp5/groups/public/---dgreports/---
- 411 dcomm/documents/publication/wcms 575479.pdf.
- International Transport Workers' Federation (ITF), 'ITF and Malaviya Seven crew dismayed by delay', 2017,
- 413 itfglobal.org/en/news/itf-and-malaviya-seven-crew-dismayed-delay, accessed on 31 May 2020.
- National Union of Rail, Maritime and Transport Workers (RMT), 'Modern day slavery charge made by RMT',
- 415 2016, rmt.org.uk/news/modern-day-slavery-charge-made-by-rmt, accessed on 31 May 2020.
- 416 UNICEF, Oil and Gas Scoping Paper, 2015, unicef.org/csr/files/Oil and Gas Scoping Paper 19012015.pdf.

417 Diversity and non-discrimination

- 418 A. Alook, I. Hussey, and N. Hill, 'How gender and race shape experiences of work in Alberta's oil industry',
- 419 2017, parklandinstitute.ca/how gender and race shape experiences of work in albertas oil industry,
- 420 accessed on 31 May 2020.
- Business & Human Rights Resource Centre (BHRRC), 'Azerbaijan: Abuses by oil companies include workplace
- 422 discrimination, illegal termination of contracts, health & safety violations, sexual harassment, environmental
- 423 pollution, say NGO reports; includes company comments', 2018, business-humanrights.org/en/azerbaijan-
- 424 abuses-by-oil-companies-include-workplace-discrimination-illegal-termination-of-contracts-health-safety-
- violations-sexual-harassment-environmental-pollution-say-ngo, accessed on 31 May 2020.
- 426 Digby Brown Solicitors, Oil and Gas contract restrictions removed after discrimination employment advice,
- digbybrown.co.uk/clients-we-have-helped/oil-and-gas-contract-restrictions-removed-after-discrimination-
- 428 employment, accessed on 31 May 2020.
- 429 International Labour Organization (ILO), Current and future skills, human resources development and safety training
- for contractors in the oil and gas industry, 2012, ilo.org/wcmsp5/groups/public/---ed dialogue/---
- 431 sector/documents/meetingdocument/wcms 190707.pdf.
- 432 International Labour Organization (ILO), Social dialogue and industrial relations issues in the oil industry, 2009,
- $433 ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_161662.pdf.$
- 434 Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on Implementing the UN
- 435 Guiding Principles on Business and Human Rights, 2017, ihrb.org/pdf/eu-sector-guidance/EC-Guides/O&G/EC-
- 436 Guide O&G.pdf.
- 437 Iraqi Center for Policy Analysis & Research (ICPAR), Institutional Discrimination in Iraq's Oil and Gas Sector,
- 438 iraqcr.com/details.aspx?=hewal&jmare=2072&Jor=1&Jor2=15, accessed on 31 May 2020.
- 439 J. Soper, 'Ghanaian Workers Fight Pay Discrimination', 2015, pulitzercenter.org/reporting/ghanaian-workers-
- fight-pay-discrimination, accessed on 31 May 2020.
- The Advocates for Human Rights, Promoting Gender Diversity and Inclusion in the Oil, Gas and Mining Extractive
- 442 Industries: A Women's Human Rights Report, 2019,
- unece.org/fileadmin/DAM/energy/images/CMM/CMM_CE/AHR_gender_diversity_report_FINAL.pdf.



- The Boston Consulting Group (BCG) and World Petroleum Council, Untapped Reserves: Promoting Gender
- Balance in Oil and Gas, 2017, world-petroleum.org/docs/docs/Gender/WPC_BCG-Untapped-Reserves-July-
- 446 2017.pdf.
- 447 United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance Tool for the
- 448 Financial Sector, Mining and Metals, unepfi.org/humanrightstoolkit/mining.php, accessed on 31 May 2020.

449 Freedom of association and collective bargaining

- 450 M. Carpenter, 'Restrictions on freedom of association potential powder keg for oil companies', 2017,
- 451 maplecroft.com/insights/analysis/restrictions-on-freedom-of-association-potential-powder-keg-for-oil-
- 452 companies, accessed on 31 May 2020.
- 453 I. Graham, International Labour Organization (ILO), Working conditions of contract workers in the oil and gas
- 454 industries, 2010, ilo.org/wcmsp5/groups/public/---ed_dialogue/---
- 455 sector/documents/publication/wcms_161194.pdf.
- 456 IndustriAll, 'Nigerian oil and gas unions fight against precarious work', 2017, industriall-union.org/nigerian-oil-
- and-gas-unions-fight-against-precarious-work, accessed on 31 May 2020.
- 458 International Labour Organization (ILO), 386th Report of the Committee on Freedom of Association, 2018,
- 459 ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_631904.pdf.
- 460 International Trade Union Confederation (ITUC), 2016 ITUC Global Rights Index: The World's Worst Countries for
- Workers, 2016, ituc-csi.org/IMG/pdf/survey ra 2016 eng.pdf.
- International Trade Union Confederation (ITUC), Saudi Arabia bans trade unions and violates all international
- 463 labour standards, 2012, ituc-csi.org/saudi-arabia-bans-trade-unions-and, accessed on 31 May 2020.
- 464 United States Central Intelligence Agency, Country comparison: Crude oil: Exports, 2015,
- 465 cia.gov/library/publications/resources/the-world-factbook/fields/262rank.html, accessed on 31 May 2020.

466 Economic impacts

- 467 Bill & Melinda Gates Foundation, Paper 7: Leveraging extractive industries for skills development to maximize
- sustainable growth and employment, 2015,
- 469 afdb.org/fileadmin/uploads/afdb/Documents/Publications/Leveraging extractive industries for skills developm
- 470 ent to maximize sustainable growth and employment.pdf.
- 471 Extractive Industries Transparency Initiative (EITI), Social and economic spending: The impact of the extractive
- 472 industries on economic growth and social development, eiti.org/social-economic-spending, accessed on 31 May
- 473 2020.
- 474 IPIECA, Local content: A guidance document for the oil and gas industry, 2nd ed., 2016, ipieca.org/resources/good-
- 475 practice/local-content-a-guidance-document-for-the-oil-and-gas-industry-2nd-edition.
- 476 J.-F. Mercure, H. Pollitt, et al., 'Macroeconomic impacts of stranded fossil fuels assets', Nature Climate Change,
- 477 vol. 8, pp. 588-593, 2018, nature.com/articles/s41558-018-0182-1, accessed on 31 May 2020.
- 478 Organisation for Economic Co-operation and Development (OECD), OECD Principles for Private Sector
- Participation in Infrastructure; 2007, oecd.org/daf/inv/investment-policy/38309896.pdf, p. 9.
- 480 C. Sigam and L. Garcia, Extractive industries: Optimizing the value retention in host countries, 2012,
- 481 unctad.org/en/PublicationsLibrary/suc2012d1_en.pdf.
- 482 K. Storey, 'Fly-in/Fly-out: Implications for Community Sustainability', Sustainability, vol. 2, pp. 1161-1181, 2010,
- 483 pdfs.semanticscholar.org/2fcf/9f3e837d5593f57b1c3ed523618e02e343fd.pdf.
- 484 United Nations Office for Disaster Risk Reduction (UNISDR), Words into Action Guidelines: National Disaster Risk
- 485 Assessment, Special Topics, D. Direct and Indirect Economic Impact, 2017,
- preventionweb.net/files/52828 deconomicimpact%5b1%5d.pdf.

487 Local community impacts



- 488 Cordaid, Informing Local Communities, Civil Society and Local Government about Oil & Gas: A Practical Guide on
- 489 Technical Aspects, 2016, commdev.org/pdf/publications/P_2016-Oil-Gas-Practical-Guidebook-on-Technical-
- 490 Aspects-2.pdf.
- 491 Cordaid, When Oil, Gas or Mining Arrives in Your Area: Practical Guide for Communities, Civil Society and Local
- 492 Government on the Social Aspects of Oil, Gas and Mining, 2016, cordaid.org/en/wp-
- 493 content/uploads/sites/11/2016/10/161017-Cordaid-Social-Aspects-Guide-final.pdf.
- 494 Institute for Human Rights and Business (IHRB) and Shift, Oil and Gas Sector Guide on Implementing the UN
- 495 Guiding Principles on Business and Human Rights, 2017, https://www.ihrb.org/pdf/eu-sector-guidance/EC-
- 496 Guides/O&G/EC-Guide O&G.pdf.
- 497 International Finance Corporation (IFC), Unlocking Opportunities for Women and Business: A Toolkit of
- 498 Actions and Strategies for Oil, Gas, and Mining Companies, 2018,
- 499 ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/gender+at+ifc/resources/unlocking-
- opportunities-for-women-and-business, accessed on 31 May 2020.
- 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,
- undp.org/content/undp/en/home/librarypage/poverty-reduction/mapping-the-oil-and-gas-industry-to-the-sdgs--
- an-atlas.html.
- Oil and Gas Accountability Project (OGAP), Oil and Gas At Your Door? A Landowner's Guide to Oil and Gas
- 506 Development, 2nd ed., 2005,
- 507 earthworks.org/cms/assets/uploads/archive/files/publications/LOguide2005book.pdf.
- 508 Organisation for Economic Co-operation and Development (OECD), Due Diligence Guidance for Meaningful
- 509 Stakeholder Engagement in the Extractives Sector, 2015, oecd-ilibrary.org/docserver/9789264252462-
- 510 en.pdf?expires=1582289252&id=id&accname=guest&checksum=2CBB833A4481670870D12EEB71007A32.UN
- 511 EP Industry and Environment, Environmental management in oil and gas exploration and production: An overview of
- 512 issues and management approaches, 1997, wedocs.unep.org/bitstream/handle/20.500.11822/8275/-
- 513 Environmental%20Management%20in%20Oil%20%26%20Gas%20Exploration%20%26%20Production-
- 514 19972123.pdf?sequence=2&isAllowed=y.
- United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance Tool for the
- Financial Sector, Mining and Metals, unepfi.org/humanrightstoolkit/mining.php, accessed on 31 May 2020.
- 517 Land use and resettlement
- 518 Avocats Sans Frontières, Human Rights Implications of Extractive Industry Activities in Uganda: A Study of the Mineral
- 519 Sector in Karamoja and the Oil Refinery in Bunyoro, 2014, asf.be/wp-
- 520 content/uploads/2014/09/ASF UG ExtractiveSectorHRImplications.pdf.
- 521 P. D. Cameron and M. C. Stanley, Oil, Gas, and Mining: A Sourcebook for Understanding the Extractive Industries,
- 522 2017, documents.worldbank.org/curated/en/222451496911224999/pdf/115792-PUB-PUBLIC-PUBDATE-6-6-
- 523 17.pdf.
- Daily Monitor, 'Are oil activities hurting Bunyoro heritage?', 2019, monitor.co.ug/News/National/oil-activities-
- 525 Bunyoro-heritage-Kasande-Buliisa-Byakutaga/688334-5181142-d67547/index.html, accessed on 1 June 2020.
- 526 European Union and UN Interagency Framework Team for Preventive Action, Toolkit and Guidance for
- 527 Preventing and Managing Land and Natural Resources Conflict: Land and Conflict, 2012, un.org/en/land-natural-
- resources-conflict/pdfs/GN Land%20and%20Conflict.pdf.
- 529 GRI, Land Tenure Rights: The need for greater transparency among companies worldwide, 2016,
- 530 globalreporting.org/Documents/ResourceArchives/GRI-G4-Land-Tenure-Rights.pdf.
- 531 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,.ihrb.org/pdf/eu-sector-guidance/EC-Guides/O&G/EC-
- 533 Guide_O&G.pdf.



- 534
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Report of the Plenary
- of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on the work of its seventh
- 537 session, 2019, ipbes.net/sites/default/files/ipbes_7_10_add.1_en_1.pdf?file=1&id=35329&type=node.
- International Council on Mining & Metals (ICMM), Land Acquisition and Resettlement, 2015,
- icmm.com/website/publications/pdfs/social-and-economic-development/9714.pdf.
- 540 IPIECA and International Association of Oil & Gas Producers (IOGP), Key questions in managing social issues in
- oil & gas projects, 2002, iogp.org/bookstore/product/key-questions-in-managing-social-issues-in-oil-gas-projects.
- 542 Organisation for Economic Co-operation and Development (OECD), Due Diligence Guidance for Meaningful
- 543 Stakeholder Engagement in the Extractives Sector, 2015, oecd-ilibrary.org/docserver/9789264252462-
- 544 en.pdf?expires=1582289252&id=id&accname=guest&checksum=2CBB833A4481670870D12EEB71007A32.
- 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, pas.org.co/hatillo-despojo-
- extractivista, accessed on 1 June 2020.
- 548 United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance Tool for the
- 549 Financial Sector, Mining and Metals, unepfi.org/humanrightstoolkit/mining.php, accessed on 31 May 2020.
- 550 United Nations Human Rights Office of the High Commissioner website, Land and Human Rights,
- 551 ohchr.org/EN/Issues/LandAndHR/Pages/LandandHumanRightsIndex.aspx, accessed on 31 May 2020.
- 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:
- 554 10.1080/14615517.2017.1278671.

Rights of indigenous peoples

- 556 A. Alook, I. Hussey, and N. Hill, Indigenous gendered experiences of work in an oil-dependent, rural Alberta
- 557 *community*, 2019,

555

- 558 assets.nationbuilder.com/parklandinstitute/pages/1681/attachments/original/1550688239/indigenousexperiences
- 559 .pdf?1550688239.
- Amnesty International, 'Inter-American Court ruling marks key victory for indigenous peoples', 2012,
- amnesty.org/en/press-releases/2012/07/ecuador-inter-american-court-ruling-marks-key-victory-indigenous-
- peoples-20, accessed on 31 May 2020.
- Amnesty International, Out of sight, out of mind: Gender, indigenous rights, and energy development, 2016,
- amnesty.ca/sites/amnesty/files/Out%20of%20Sight%20Out%20of%20Mind%20EN%20FINAL%20web.pdf.
- A. Anongos, D. Berezhkov, et al., Pitfalls and pipelines: Indigenous peoples and extractive industries, 2012,
- iwgia.org/images/publications/0596_Pitfalls_and_Pipelines_-
- __Indigenous_Peoples_and_Extractive_Industries.pdf.
- J. Burger, Indigenous peoples, extractive industries and human rights, 2014,
- 569 europarl.europa.eu/RegData/etudes/STUD/2014/534980/EXPO STU(2014)534980 EN.pdf.
- 570 European Parliament, Committee on Foreign Affairs, Report on Violation of the Rights of Indigenous Peoples in the
- World, Including Land Grabbing, 2018, europarl.europa.eu/doceo/document/A-8-2018-0194 EN.html, accessed
- 572 31 May 2020.
- 573 G. Gibson, K. Yung, et al. with Lake Babine Nation and Nak'azdii Whut'en, Indigenous communities and industrial
- 574 camps: Promoting healthy communities in settings of industrial change, 2017, firelight.ca/wp-
- 575 content/uploads/2016/03/Firelight-work-camps-Feb-8-2017_FINAL.pdf.
- 576 Global Witness, Defenders of the earth: Global killings of land and environmental defenders in 2016, 2017,
- 577 globalwitness.org/en/campaigns/environmental-activists/defenders-earth.



- 578 K. Herbertson, 'Momentum Builds for Gaining the Consent of Indigenous Peoples', 2010,
- 579 wri.org/blog/2010/05/momentum-builds-gaining-consent-indigenous-peoples, accessed on 31 May 2020.
- Indigenous Environmental Network, 'Native Leaders Bring Attention to Impact of Fossil Fuel Industry on
- Missing and Murdered Indigenous Women and Girls', 2018, ienearth.org/native-leaders-bring-attention-to-
- 582 impact-of-fossil-fuel-industry-on-missing-and-murdered-indigenous-women-and-girls, accessed on 31 May 2020.
- International Finance Corporation (IFC), Projects and People: A Handbook for Addressing Project Induced In-
- Migration, 2009, ifc.org/wps/wcm/connect/topics ext content/ifc external corporate site/sustainability-at-
- ifc/publications/publications handbook inmigration.
- International Labour Organization (ILO), Observation (CEACR) adopted 2018, published 108th ILC session
- 587 (2019) Indigenous and Tribal Peoples Convention, 1989 (No. 169) Venezuela, Bolivarian Republic of (Ratification:
- 588 2002), 2019,
- ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:13100:0::NO::P13100 COMMENT ID,P11110 COUNTRY ID,P1
- 590 III0_COUNTRY_NAME,PIIII0_COMMENT_YEAR:3962283,102880,Venezuela,%20Bolivarian%20Republic
- 591 %20of,2018.
- 592 B. McIvor, First Peoples Law: Essays in Canadian Law and Decolonization, 2018, firstpeopleslaw.com/public-
- education/publications.php.
- T. Perreault, Natural Gas, Indigenous Mobilization and the Bolivian State, 2008,
- 595 unrisd.org/80256B3C005BCCF9/httpNetlTFramePDF?ReadForm&parentunid=D96F71885FB60F74C12575120
- 596 02F471E&parentdoctype=paper&netitpath=80256B3C005BCCF9/(httpAuxPages)/D96F71885FB60F74C125751
- 597 2002F471E/\$file/Perr-paper.pdf.
- 598 UN Permanent Forum on Indigenous Issues (UNPFII), 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, undocs.org/E/C.19/2012/6.
- 601 UN Permanent Forum on Indigenous Issues (UNPFII), Report of the international expert group meeting on
- extractive industries, Indigenous Peoples' rights and corporate social responsibility, 2009,
- un.org/development/desa/indigenouspeoples/meetings-and-workshops/7136-2.html.
- United Nations Department of Economic and Social Affairs (UN DESA), Indigenous Peoples, Climate Change,
- un.org/development/desa/indigenouspeoples/climate-change.html, accessed on 1 June 2020.
- United Nations Human Rights Council (HRC), Report of the Special Rapporteur on the rights of indigenous peoples,
- 607 James Anaya Extractive industries and indigenous peoples, 2013,
- 608 ohchr.org/EN/HRBodies/HRC/RegularSessions/Session24/Documents/A-HRC-24-41 en.pdf.
- 609 Conflict and security
- 610 European Union and UN Interagency Framework Team for Preventive Action, Toolkit and Guidance for
- 611 Preventing and Managing Land and Natural Resources Conflict: Extractive Industries and Conflict, 2012,
- un.org/en/land-natural-resources-conflict/pdfs/GN Extractive.pdf.
- 613 Institute for Human Rights and Business (IHRB), From Red to Green Flags: The Corporate Responsibility to Respect
- Human Rights in High-Risk Countries, 2011, ihrb.org/uploads/reports/complete_report.pdf.
- 615 IPIECA, Guide to Operating in Areas of Conflict, 2008, ipieca.org/resources/good-practice/guide-to-operating-in-
- 616 areas-of-conflict-for-the-oil-and-gas-industry.
- K. Neu, and D., Avant, Overview of the relationship between PMSCs and extractive industry companies from
- the Private Security Events Database, 2019,
- 619 ohchr.org/Documents/Issues/Mercenaries/WG/PrivateMilitarySecurity/DenverUni.pdf.
- Office of the High Commissioner for Human Rights (OHCR), Basic Principles on the Use of Force and Firearms by
- 621 Law Enforcement Officials, 1990, ohchr.org/Documents/ProfessionalInterest/firearms.pdf.
- 622 Office of the High Commissioner for Human Rights (OHCHR), 'Call for submissions: the relationship between
- 623 private military and security companies and extractive industry companies from a human rights perspective in



- 624 law and practice',
- 625 ohchr.org/EN/Issues/Mercenaries/WGMercenaries/Pages/CallforsubmissionesPrivateMilitarySecurity.aspx,
- 626 accessed on 31 May 2020.
- Office of the High Commissioner for Human Rights (OHCR), Code of Conduct for Law Enforcement Officials,
- 628 1979, ohchr.org/Documents/ProfessionalInterest/codeofconduct.pdf.
- Office of the High Commissioner for Human Rights (OHCR), Private military and security companies in extractive
- industries impact on human rights, 2017,
- 63 I ohchr.org/Documents/Issues/Mercenaries/WG/ConceptNoteExpertConsultationPMSC20July0217.pdf.
- United Nations Environmental Programme (UNEP), From Conflict to Peacebuilding: The Role of Natural Resources
- and the Environment, 2009, postconflict.unep.ch/publications/pcdmb_policy_01.pdf.
- United Nations Environment Programme Financial Initiative (UNEP FI), Human Rights Guidance Tool for the
- 635 Financial Sector, Oil and Gas, unepfi.org/humanrightstoolkit/oil.php, accessed on 31 May 2020.
- Voluntary Principles on Security and Human Rights, The Voluntary Principles on Security and Human Rights, 2000,
- docs.wixstatic.com/ugd/f623ce 808340b074b041e8b5ec7d441f768012.pdf.

638 Anti-competitive behavior

- European Commission, Case AT.39816: Upstream Gas Supplies in Central and Eastern Europe, 2018,
- ec.europa.eu/competition/antitrust/cases/dec_docs/39816/39816_10148_3.pdf.
- European Commission, The economic impact of enforcement of competition policies on the functioning of EU energy
- markets: Non-technical Summary and Technical report, 2016,
- ec.europa.eu/competition/publications/reports/kd0216007enn.pdf.
- Extractive Industries Transparency Initiative (EITI), Discussion paper: The EITI's Role in Fighting Corruption, 2019,
- eiti.org/files/documents/eiti_global_conference_discussion_paper_-_eitis_role_in_fighting_corruption_1.pdf.
- 646 International Trade Center (ITC), Combating Anti-Competitive Practices: A Guide for Developing Economy Exporters,
- 647 2012, intracen.org/Combating-Anti-Competitive-Practices.
- Organisation for Economic Co-operation and Development (OECD), Cartels and anti-competitive agreements,
- oecd.org/competition/cartels, accessed on 31 May 2020.
- 650 Organisation for Economic Co-operation and Development (OECD), Competition in Road Fuel, 2013,
- oecd.org/competition/CompetitionInRoadFuel.pdf, accessed on 31 May 2020.
- 652 United Nations Conference on Trade and Development (UNCTAD), The role of competition policy in promoting
- sustainable and inclusive growth, 2015, unctad.org/meetings/en/SessionalDocuments/tdrbpconf8d6_en.pdf.
- 654 H. Qaqaya and G. Lipimile, eds., The effects of anti-competitive business practices on developing countries and their
- development prospects, 2008, unctad.org/en/Docs/ditcclp20082_en.pdf.
- Vinsion & Elkins, 2018 Energy and Chemicals Antitrust Report, 2019, velaw.com/insights/2018-energy-and-
- 657 chemicals-antitrust-report.

658 Anti-corruption

- 659 Ernst & Young (EY), Managing bribery and corruption risks in the oil and gas industry, 2014,
- 660 ey.com/Publication/vwLUAssets/EY-Managing-bribery-and-corruption-risk-in-the-oil-and-gas-industry/\$FILE/EY-
- Managing-bribery-and-corruption-risk-in-the-oil-and-gas-industry.pdf.
- 662
- FATF, FATF guidance: Politically exposed persons (recommendations 12 and 22), 2013, fatf-
- gafi.org/media/fatf/documents/recommendations/Guidance-PEP-Rec12-22.pdf.
- 665 Global Witness, 'Shell knew: Emails show senior executives at UK's biggest company knew it was party to a
- vast bribery scheme', 2017, globalwitness.org/en/campaigns/oil-gas-and-mining/shell-knew, accessed on 31 May
- 667 2020.



- M. Martini and Transparency International, Local content policies and corruption in the oil and gas industry, 2014,
- transparency.org/files/content/corruptionqas/2014-15.pdf.
- 670 Organisation for Economic Co-operation and Development (OECD), Convention on Combating Bribery of Foreign
- Public Officials in International Business Transactions and Related Documents, 1997, oecd.org/daf/anti-
- 672 bribery/ConvCombatBribery ENG.pdf.
- Organisation for Economic Co-operation and Development (OECD), Corruption in the Extractive Value Chain:
- Typology of Risks, Mitigation Measures and Incentives, 2016, oecd-ilibrary.org/development/corruption-in-the-
- extractive-value-chain 9789264256569-en.
- A. Sayne, A. Gillies, and A. Watkins, Twelve Red Flags: Corruption Risks in the Award of Extractive Sector Licenses
- and Contracts, 2017, resourcegovernance.org/sites/default/files/documents/corruption-risks-in-the-award-of-
- 678 extractive-sector-licenses-and-contracts.pdf.
- Transparency International, Corruption Perceptions Index 2018, 2018,
- transparency.org/files/content/pages/CPI_2018_Executive_Summary_EN.pdf.
- 681 E. Westenberg and A. Sayne, Beneficial Ownership Screening: Practical Measures to Reduce Corruption Risks in
- 682 Extractives Licensing, 2018, resourcegovernance.org/sites/default/files/documents/beneficial-ownership-
- 683 screening 0.pdf.
- A. Williams and K. Dupuy, Deciding over nature: Corruption and environmental impact assessments, 2016,
- cmi.no/publications/file/5986-deciding-over-nature.pdf.

686 Payments to governments

- 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,
- 690 eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013L0034&from=EN.
- 691 Extractive Industries Transparency Initiative (EITI), Nigeria EITI: Making transparency count, uncovering billions,
- 692 2012, eiti.org/files/documents/Case%20Study%20-%20EITI%20in%20Nigeria.pdf.
- Extractive Industries Transparency Initiative (EITI), Project-level reporting in the extractive industries, 2018,
- eiti.org/document/projectlevel-reporting-in-extractive-industries, accessed on 31 May 2020.
- 695 Global Witness, 'Shell knew: Emails show senior executives at UK's biggest company knew it was party to a
- vast bribery scheme', 2017, globalwitness.org/en/campaigns/oil-gas-and-mining/shell-knew, accessed on 31 May
- 697 2020.
- 698 Organisation for Economic Co-operation and Development (OECD), Inclusive Framework on Base Erosion
- and Profit Shifting, Action 13 Country-by-Country Reporting, oecd.org/tax/beps/beps-actions/action13,
- 700 accessed on I June 2020.
- 701 P. Poretti, Transparency in the First Trade, 2019,
- 702 eiti.org/files/documents/eiti_commodity_trading_transparency_may2019_web_0.pdf.
- 703 PricewaterhouseCoopers (PwC), Financial reporting in the oil and gas industry: International Financial Reporting
- 704 Standards, 2017, pwc.com/gx/en/services/audit-assurance/assets/pwc-financial-reporting-in-the-oil-and-gas-
- 705 industry-2017.pdf.
- 706 A. Sayne, A. Gillies, and A. Watkins, Twelve Red Flags: Corruption Risks in the Award of Extractive Sector Licenses
- and Contracts, 2017, resourcegovernance.org/sites/default/files/documents/corruption-risks-in-the-award-of-
- 708 extractive-sector-licenses-and-contracts.pdf.
- Transparency International, Under the Surface: Looking into Payments by Oil, Gas and Mining Companies to
- 710 Governments, 2018, transparency.eu/wp-content/uploads/2018/10/Under-the-Surface Summary.pdf.

711 Public policy and lobbying

Australasian Centre for Corporate Responsibility (ACCR), Politics – BHP, 2017, accr.org.au/politics/bhp.



- D. Coady, I. Parry, et al., Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates,
- 714 2019, imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-
- 715 Based-on-Country-Level-Estimates-46509.
- 716 N. Graham, S. Daub, and B. Carroll, Mapping Political Influence: Political donations and lobbying by the fossil fuel
- 717 industry in BC, 2017, policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2017/03/ccpa-
- 718 bc_mapping_influence_final.pdf.
- 719 S. Hayer, Fossil Fuel Subsidies, 2017,
- 720 europarl.europa.eu/RegData/etudes/IDAN/2017/595372/IPOL IDA(2017)595372 EN.pdf.
- 721 InfluenceMap, Big Oil's Real Agenda on Climate Change, 2019, influencemap.org/report/How-Big-Oil-
- 722 Continues-to-Oppose-the-Paris-Agreement-38212275958aa21196dae3b76220bddc, accessed on 31 May 2020.
- 723 InfluenceMap, Climate Lobbying: How Companies Really Impact Progress on Climate, 2018,
- influencemap.org/climate-lobbying, accessed on 31 May 2020.
- 725 InfluenceMap, Trade association and climate: Shareholders make themselves heard, 2018,
- 726 influencemap.org/report/Trade-associations-and-climate-shareholders-make-themselves-heard-
- 727 cf9db75c0a4e25555fafb0d84a152c23, accessed on 31 May 2020.
- 728 D. Koplow, C. Lin, et al., Mapping the Characteristics of Producer Subsidies: A review of pilot country studies, 2010,
- 729 iisd.org/gsi/sites/default/files/mapping_ffs.pdf.
- 730 J. Levin, 'We stopped the oil and gas industry from gutting Canada's environmental laws!', 2019,
- 731 environmental defence.ca/2019/06/27/we-stopped-the-oil-gas-industry-from-gutting-canadas-environmental-
- 732 laws, accessed on 31 May 2020.
- 733 Organisation for Economic Co-operation and Development (OECD) Anti-corruption & Integrity Hub,
- 734 Lobbying, oecd.org/corruption-integrity/explore/topics/lobbying.html.
- 735 J. B. Skjærseth and T. Skodvin, Climate change and the oil industry: Common problem, varying strategies, 2003,
- 736 books.google.nl/books/about/Climate_Change_and_the_Oil_Industry.html?id=8pDSgfw6v9MC&printsec=front
- 737 cover&source=kp_read_button&redir_esc=y#v=onepage&q&f=false.

