GRI STANDARDS

GRI 11: Oil and Gas Sector 2021

11

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SECTOR STANDARD

GRI 11: Oil and Gas Sector 2021

Sector Standard

Effective date
This Standard is effective for reports or other materials published on or after 1 January 2023.

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Introduction

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

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

The Standard is structured as follows:

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

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

Sector this Standard applies to

GRI 11 applies to organizations undertaking any of the following:

- Exploration and production of onshore and offshore oil and gas.
- Supply of equipment and services to oil fields and offshore platforms, such as drilling, exploration, seismic information services and platform construction.
- Transportation and storage of oil and gas, such as oil and gas pipeline operators.
- Refining of oil into petroleum products for use as fuels and as feedstocks for chemicals.

This Standard can be used by any organization in the oil and gas sector, regardless of size, type, geographic location, or reporting experience.

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

Sector classifications

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

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

CLASSIFICATION SYSTEM	CLASSIFICATION NUMBER	CLASSIFICATION NAME
GICS®	10101010	Oil & Gas Drilling
	10101020	Oil & Gas Equipment & Services
	10102010	Integrated Oil & Gas
	10102020	Oil & Gas Exploration & Production
	10102030	Oil & Gas Refining and Marketing
	10102040	Oil & Gas Storage & Transportation
ICB	60101000	Integrated Oil & Gas
	60101010	Oil: Crude Producers
	60101015	Offshore Drilling & Other Services
	60101020	Oil Refining and Marketing
	60101030	Oil Equipment & Services
	60101035	Pipelines
ISIC	B6	Extraction of crude petroleum and natural gas
	B91	Support activities for petroleum and natural gas extraction
	C192	Manufacture of refined petroleum products
SICS®	EM-EP	Oil & Gas - Exploration & Production
	EM-MD	Oil & Gas - Midstream
	EM-RM	Oil & Gas - Refining & Marketing
	EM-SV	Oil & Gas - Services

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

System of GRI Standards

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

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

Universal Standards: GRI 1, GRI 2 and GRI 3
GRI 1: Foundation 2021 specifies the requirements that the organization must comply with to report in accordance with the GRI Standards. The organization begins using the GRI Standards by consulting *GRI 1*.

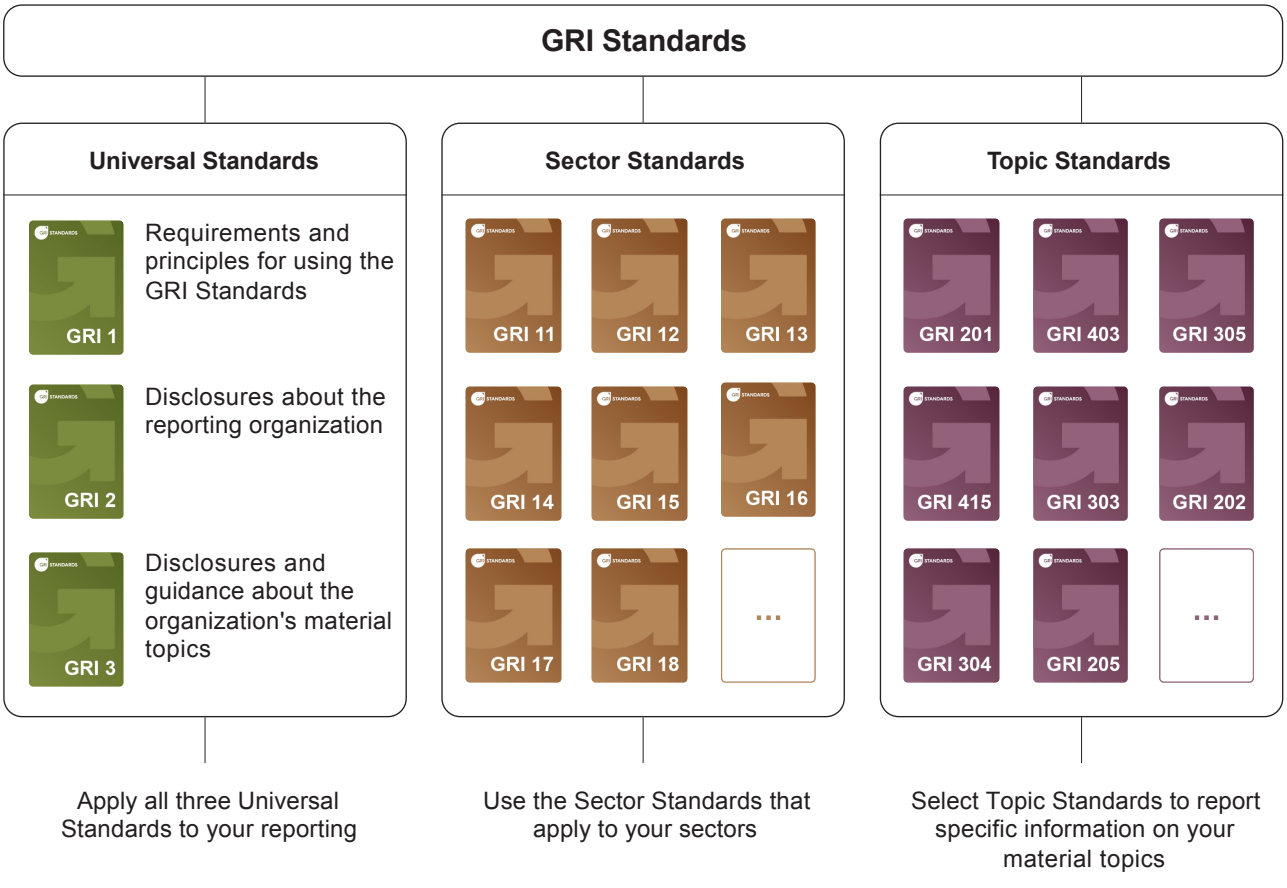
GRI 2: General Disclosures 2021 contains disclosures that the organization uses to provide information about its reporting practices and other organizational details, such as its activities, governance, and policies.

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

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

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

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



Using this Standard

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

Determining material topics

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

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

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

The organization needs to use this Standard when determining its material topics. However, circumstances for each organization vary, and the organization needs to determine its material topics according to its specific circumstances, such as its business model; geographic, cultural, and legal operating context; ownership structure; and the nature of its impacts. Because of this, not all topics listed in this Standard may be material for all organizations in the oil and gas sector. See *GRI 3: Material Topics 2021* for step-by-step guidance on how to determine material topics.

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

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

Determining what to report

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

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

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

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

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

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

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

If the organization intends to publish a standalone sustainability report, it does not need to repeat information that it

has already reported publicly elsewhere, such as on web pages or in its annual report. In such a case, the organization can report on a required disclosure by providing a reference in the GRI content index as to where this information can be found (e.g., by providing a link to the web page or citing the page in the annual report where the information has been published).

See Requirement 5 in *GRI 1: Foundation 2021* for more information on using Sector Standards to report disclosures.

GRI Sector Standard reference numbers

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

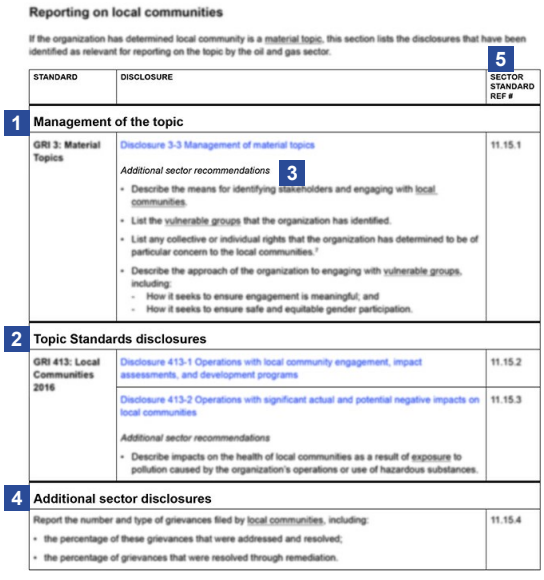
Defined terms

Defined terms are underlined in the text of the GRI Standards and linked to their definitions in the Glossary. The organization is required to apply the definitions in the Glossary.

References and resources

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

Figure 2. Structure of reporting included in each Topic



Reporting on local communities

If the organization has determined local community is a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the oil and gas sector.

STANDARD	DISCLOSURE	5 SECTOR STANDARD REF #
1 Management of the topic		
GRI 3: Material Topics	Disclosure 3-3 Management of material topics *Additional sector recommendations* 3 • Describe the means for identifying stakeholders and engaging with local communities. • List the vulnerable groups that the organization has identified. • List any collective or individual rights that the organization has determined to be of particular concern to the local communities.[7] • Describe the approach of the organization to engaging with vulnerable groups, including: - How it seeks to ensure engagement is meaningful; and - How it seeks to ensure safe and equitable gender participation.	11.15.1
2 Topic Standards disclosures		
GRI 413: Local Communities 2016	Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs	11.15.2
	Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities *Additional sector recommendations* • Describe impacts on the health of local communities as a result of exposure to pollution caused by the organization's operations or use of hazardous substances.	11.15.3
4 Additional sector disclosures		
Report the number and type of grievances filed by local communities, including: • the percentage of these grievances that were addressed and resolved; • the percentage of grievances that were resolved through remediation.		11.15.4

1 Management of the topic

The organization is required to report how it manages each material topic using Disclosure 3-3 in *GRI 3: Material Topics 2021*.

2 Topic Standards disclosures

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

3 Additional sector recommendations

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

4 Additional sector disclosures

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

5 Sector Standard reference numbers

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

1. Sector profile

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

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

Sector activities and business relationships

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

Activities

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

Exploration: Surveying of resources, including aerial surveys, seismic testing, and exploratory drilling.

Development: Design, planning, and construction of oil and gas fields, including processing and worker facilities.

Production: Extraction of oil and gas from onshore or offshore reserves, and separation of oil, gas and water.

Oil sands mining: Extraction of bitumen from oil sands using surface mining or *in situ* techniques.

Closure and rehabilitation: Closure, decommissioning, dismantling, removal, disposal, or modification of assets, facilities and sites.

Refining: Refining of oil into petroleum products for use as fuels and as feedstocks for chemicals.

Processing: Processing gas into pipe-quality natural gas and natural gas liquids, including removing hydrocarbons and fluids.

Transportation: Marine and land transportation of oil and gas.

Storage and pipelines: Distribution and storage of oil and gas in tanks and marine vessels and distribution via marine and land-based pipelines.

Sales and marketing: Selling of oil and gas products for the purpose of, for example, fuels, gas for retail use, and inputs in the production of specialty chemicals, petrochemicals, and polymers.

Business relationships

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

Joint ventures are arrangements in which organizations share the costs, benefits, and liabilities of oil and gas activities. An organization in the oil and gas sector can be involved with negative impacts as a result of a joint venture, even if it is a non-operating partner.

State-owned enterprises (SOEs) are often the largest oil and gas producers and hold ownership of the majority of

global reserves. They may also serve as joint venture partners to publicly traded oil and gas organizations. SOEs have specific challenges relating to transparency and governance, which are addressed in some of the likely material topics in this Standard.

Suppliers and contractors are used in large numbers in the oil and gas sector to perform certain activities, such as drilling and construction, or to provide other services and products. Some of the significant impacts covered in this Standard concern the supply chain.

Customers use oil and gas to produce energy, heat, and materials. When combusting oil and gas, they generate greenhouse gases (GHGs) and other air emissions. While the primary responsibility for reducing and managing their emissions lies with customers, organizations extracting and producing oil and gas are also expected to take actions to reduce emissions from the combustion of their products and to disclose the related GHG emissions (Scope 3 GHG emissions). As such, this Standard includes not only direct (Scope 1) and indirect (Scope 2) GHG emissions, but also other indirect (Scope 3) GHG emissions**.**

The sector and sustainable development

Energy is a key driver of economic growth and sustainable development. Oil and gas have been fundamental sources of the world's energy, contributing to economic growth and poverty reduction.

Currently, oil and gas are the world's most actively traded commodities. Together, they represent the most important resources for electricity production, providing over 50% of the total supply [13]. In 2020, 90% of the transportation sector's energy needs were met by oil products [12]. The oil and gas sector today also meets much of society's needs for raw materials used in the production of specialty chemicals, petrochemicals, and polymers.

At present, oil and gas are considered strategic assets in regions or countries where they generate critical revenue streams or support energy independence. For example, the percentage of gross domestic product attributable to oil revenues has reached 45% in some resource-rich countries [20]. Revenues from this sector can contribute to local and national economic development, together with job creation, investments, and infrastructure, business, and skills development.

The majority of the world's countries have committed to combating climate change, as outlined in the Paris Agreement [7]. The International Panel on Climate Change (IPCC) warns that continuing to emit greenhouse gas (GHG) at the current rate could result in dangerous global temperature increases leading to magnified risks of extreme weather and climate events [15]. Other reports show that with current policy commitments the world is heading toward a dangerous 3.2°C rise in temperature by 2100 [18].

These projections underline the need to transition to a low-carbon economy based on affordable, reliable, and sustainable energy. Achieving net-zero GHG emissions by 2050 is required to limit global warming to 1.5°C above pre-industrial levels, a level predicted to pose significantly lower risks to natural and human systems than that of 2°C [15]. Combined, the GHGs released by extracting, refining, and burning oil and gas represent 55% of all energy-related GHG emissions and constitute the largest contribution to anthropogenic climate change [36]. Action taken by the oil and gas sector is essential to the transition to a low-carbon economy.

The number of oil and gas operations closing will increase in the context of transition to a low-carbon economy, and impacts of these closures on workers and communities will consequently rise. A just transition is a fair and equitable pathway through industrial transformation to a sustainable future, where governments and organizations work in collaboration. Such a transition integrates worker-centric public policies and programs with employer policies and programs to provide a secure and decent future for all workers, their families, and the communities that rely on them. The path for transitioning to a low-carbon economy will vary for different countries according to factors such as their economic conditions and capability to respond to and mitigate impacts of climate change [9].

Besides contributing to climate change, the activities of the oil and gas sector generate further negative impacts on the environment and people, including impacts on their human rights. These impacts include loss of biodiversity; soil, water and air pollution; conflict and social disruption, and threats to human health. Vulnerable groups such as indigenous peoples or women may be disproportionally affected, and oil and gas operations may continue to generate negative impacts after their closure.

Negative impacts can be intensified by inadequate governance of natural resources. The large revenues derived from the oil and gas sector can lead to corruption and mismanagement of resources. Economies dependent on oil and gas can also be vulnerable to commodity price and production fluctuations.

Sustainable Development Goals

The Sustainable Development Goals (SDGs), part of the 2030 Agenda for Sustainable Development adopted by the 193 United Nations (UN) member states, comprise the world's comprehensive plan of action to achieving sustainable development [8].

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

The oil and gas sector is particularly relevant to achieving Goal 13: Climate Action and, given the potential impact of climate change on the development agenda, this will influence the achievement of every goal, while contributing to the transition to a low-carbon economy.

The oil and gas sector also plays a fundamental role in achieving Goal 7: Affordable and Clean Energy. Ensuring access to energy for all while transitioning toward a low-carbon economy is one of the challenges faced by the sector. Millions of people still lack access to energy. This limitation hinders access to basic services such as those recognized in Goal 3: Good Health and Wellbeing and Goal 4: Quality Education as well as their income-generating opportunities, which are crucial to achieving Goal 1: No Poverty. More broadly, affordable and reliable energy is a fundamental input for the world economy and instrumental for achieving Goal 8: Decent Work and Economic Growth.

In countries that produce oil and gas, the sector generates high revenues and attracts significant investment. However, the large revenues derived from the sector carry a risk of corruption and conflict over resources, which have a bearing on Goal 16: Peace and Justice Strong Institutions.

Table 2 presents connections between the likely material topics for the oil and gas sector and the SDGs. These links were identified based on an assessment of the impacts described in each likely material topic, the targets associated with each SDG, and existing mapping undertaken for the sector (see references [14] and [16] in the Bibliography).

Table 2 is not a reporting tool but presents connections between the oil and gas sector's significant impacts and the goals of the 2030 Agenda for Sustainable Development. See references [21] and [22] in the Bibliography for information on reporting progress towards the SDGs using the GRI Standards.

Table 2. Links between the likely material topics for the oil and gas sector and the SDGs

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Topic 11.1 GHG Emissions													●	●			
Topic 11.2 Climate adaptation, resilience, and transition	●						●	●	●			●	●				
Topic 11.3 Air emissions			●								●				●		
Topic 11.4 Biodiversity						●						●		●	●		
Topic 11.5 Waste			●			●						●		●	●		
Topic 11.6 Water and effluents						●						●		●	●		
Topic 11.7 Closure and rehabilitation				●				●			●			●	●		
Topic 11.8 Asset integrity and critical incident management											●			●			
Topic 11.9 Occupational health and safety			●					●									
Topic 11.10 Employment practices	●			●	●			●		●							
Topic 11.11 Non-discrimination and equal opportunity				●	●			●		●						●	
Topic 11.12 Forced labor and modern slavery								●								●	
Topic 11.13 Freedom of association and collective bargaining								●								●	
Topic 11.14 Economic impacts	●				●			●	●	●							
Topic 11.15 Local communities	●		●		●	●										●	
Topic 11.16 Land and resource rights	●	●									●					●	
Topic 11.17 Rights of indigenous peoples	●		●		●						●					●	
Topic 11.18 Conflict and security																●	
Topic 11.19 Anti-competitive behavior																●	
Topic 11.20 Anti-corruption												●				●	
Topic 11.21 Payments to governments	●															●	●
Topic 11.22 Public policy																●	

2. Likely material topics

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

Topic 11.1 GHG emissions

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

GHG emissions are the single biggest contributor to climate change. The oil and gas sector's activities and the use of oil and gas products are responsible for a large portion of two major GHGs: carbon dioxide (CO_2) and methane (CH_4). Globally, it is estimated that the sector is responsible for a quarter of all anthropogenic emissions of CH_4, which has a notably higher global warming potential than CO_2. Recent measurements indicate that available figures on CH_4 emissions from the sector could be underestimates. Other GHGs from oil and gas activities include ethane (C_2H_6), nitrous oxide (N_2O), hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

GHG emissions from oil and gas activities are classified as direct (Scope 1) GHG emissions in the case of activities owned or controlled by the organization or energy indirect (Scope 2) GHG emissions in the case of purchased or acquired electricity, heating, cooling, and steam consumed by the organization. Currently, 15% of the world's energy-related GHG emissions come from the process of producing and distributing oil and gas [36].

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

Box 1. Flaring and venting

When gas needs to be disposed of, it may be flared (burned off), or vented (released without being burned). Flaring converts gas to CO_2, while venting releases CH_4 directly to the atmosphere. Given that CH_4 has a higher global warming potential than CO_2, routing associated gases to an efficient flare system instead of venting is considered best practice and there is wide agreement that routine venting should be eliminated.

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

The amount of natural gas flared in 2018 resulted in emissions of approximately 275 megatons of CO_2, as well as other GHGs such as methane, black carbon and N_2O.

See references [34], [46] and [48] in the Bibliography.

Energy indirect (Scope 2) GHG emissions originate from stationary and mobile sources (e.g., transportation of materials, products, or waste); and the activities of extraction; oil refining; liquefaction and regasification of natural gas; and operation of facilities and equipment. The depletion of traditional oil and gas resources has led the sector to move production to more difficult settings, which may involve more complex extraction methods such as offshore deep-water drilling or oil sands mining. Despite the sector's ongoing improvements in production efficiency, these

conditions are likely to increase the amount of energy used during production and transportation and, as such, GHG emissions associated with from these activities.

GHG emissions resulting from the end use of products are classified as other indirect (Scope 3) GHG emissions. For the oil and gas sector, these constitute the most significant GHG emissions and over half of global CO_2 emissions [33]. The majority of Scope 3 GHG emissions originate from combustion processes related to construction, electricity and heat generation, manufacturing, and transportation. Volumes of these emissions have increased together with higher energy demands.

Reporting on GHG emissions

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe actions taken to manage flaring and venting and the effectiveness of actions taken.	11.1.1
Topic Standard Disclosures		
GRI 302: Energy 2016	Disclosure 302-1 Energy consumption within the organization	11.1.2
	Disclosure 302-2 Energy consumption outside of the organization	11.1.3
	Disclosure 302-3 Energy intensity	11.1.4
GRI 305: Emissions 2016	Disclosure 305-1 Direct (Scope 1) GHG emissions *Additional sector recommendations* • Report the percentage of gross direct (Scope 1) GHG emissions from CH_4. • Report the breakdown of gross direct (Scope 1) GHG emissions by type of source (stationary, combustion, process, fugitive).[2]	11.1.5
	Disclosure 305-2 Energy indirect (Scope 2) GHG emissions	11.1.6
	Disclosure 305-3 Other indirect (Scope 3) GHG emissions	11.1.7
	Disclosure 305-4 GHG emissions intensity	11.1.8

References and resources

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

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

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

Topic 11.2 Climate adaptation, resilience, and transition

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

Signatories of the Paris Agreement have committed to keeping global warming 'well below 2°C' [58], yet fossil fuel reserves that are currently available globally far exceed the maximum amount that can be consumed while remaining within this limit [78]. This means organizations in the oil and gas sector need to establish targets for carbon emissions; modify their business models; and invest in renewable energy, technologies to remove CO_2 from the atmosphere [68], and nature-based solutions to mitigate climate change, such as reforestation, afforestation, coastal and wetland restoration.

Transitioning to a low-carbon economy requires organizations to set emissions targets that are consistent with the goal of limiting global warming to well below 2°C under the Paris Agreement. Actions to reduce emissions linked to the process of extracting and distributing oil and gas, which are direct (Scope 1) and energy indirect (Scope 2) GHG emissions, offer important and immediate opportunities for the sector to contribute to reducing global GHG emissions. The sector also faces expectations to address indirect Scope 3 emissions related to the use of oil and gas products. Actions to reduce these emissions can include, for example, diversification into lower carbon businesses.

Transitioning to a low-carbon economy also creates uncertainty about the future demand for oil and gas. The International Energy Agency (IEA) estimates that based on current policies, demand for oil will level off around 2030 while, in some regions, demand for gas will begin decreasing by 2040 [68]. In a scenario that sees the energy transition accelerate to achieve net-zero GHG emissions by 2050, demand for oil could drop by almost 75% between 2020 and 2050 and demand for gas could peak before 2030[3] [67]. A decrease in the demand for oil and gas will translate into lower utilization of existing production facilities and decreased development of reserves. Depending on the speed of this process, some fields and facilities may need to be re-evaluated or even written-off prematurely, becoming stranded assets. This will affect oil and gas organizations financially and generate significant impacts for workers, governments and other stakeholders.

The transition may affect employment, government revenues, and economic development in regions where the sector operates. More frequent closures are less likely to be counterbalanced by openings, as has been the case in the past. Workers may face other potential impacts related to employability, reskilling, and desirable re-employment opportunities. Closure of operations without adequate provisions for decommissioning and rehabilitation may also result in an economic burden for governments and local communities (see also topic 11.7 Closure and rehabilitation), particularly in countries where oil and gas production provides a large percentage of revenues.

To achieve a just transition to a low-carbon economy, the different dependency levels of workers, local communities, and national economies on the oil and gas sector needs to be recognized, and quality jobs for those affected created [79]. Examples of actions that organizations may take to contribute to a just transition include providing adequate advance notice of closures; collaborating with governments and unions; advocating for climate consistent policy (see also topic 11.22 Public policy); retraining, reskilling, and redeploying workers; and making alternative investments in the affected communities. Meaningful, early consultations with stakeholders and local communities have also been identified as crucial to achieving a just transition (see also topic 11.7 Closure and rehabilitation).

3 IEA's *Net-zero by 2050* scenario is designed to show what is needed by various actors by when, for the world to achieve net-zero energy-related and industrial process CO2 emissions by 2050, however it is just one possible pathway to achieve net-zero emissions by 2050 [67].

Box 2. Scenario analysis for climate transition

Scenario analysis is a process that considers alternative situations to assess future outcomes. Organizations can use it to gauge the potential outcomes of their strategies in uncertain circumstances or conditions. Scenario analysis can employ various methodologies, qualitative and quantitative. The Task Force on Climate-related Financial Disclosures (TCFD) recommendations suggest scenario analysis as a way to help organizations understand climate change-related risks and opportunities [82].

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

Reporting on climate adaptation, resilience, and transition

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe policies, commitments, and actions of the organization to prevent or mitigate the impacts of the transition to a low-carbon economy on workers and local communities. • Report the level and function within the organization that has been assigned responsibility for managing risks and opportunities due to climate change. • Describe the board's oversight in managing risks and opportunities due to climate change. • Report whether responsibility to manage climate change-related impacts is linked to performance assessments or incentive mechanisms, including in the remuneration policies for highest governance body members and senior executives. • Describe the climate change-related scenarios used to assess the resilience of the organization's strategy, including a 2°C or lower scenario.	11.2.1
Topic Standard Disclosures		

GRI 201: Economic Performance 2016	Disclosure 201-2 Financial implications and other risks and opportunities due to climate change
	
	Additional sector recommendations
	• Report the emissions potential for proven and probable reserves[4].
	• Report the internal carbon-pricing and oil and gas pricing assumptions that have informed the identification of risks and opportunities due to climate change.
	• Describe how climate change-related risks and opportunities affect or could affect the organization's operations or revenue, including:
	  - development of currently proven and probable reserves;
	  - potential write-offs and early closure of existing assets;
	  - oil and gas production volumes for the current reporting period and projected volumes for the next five years.
	• Report the percentage of capital expenditure (CapEx) that is allocated to investments in:
	  - prospection, exploration and development of new reserves;
	  - energy from renewable sources (by type of source);
	  - technologies to remove CO_2 from the atmosphere and nature-based solutions to mitigate climate change;
	  - other research and development initiatives that can address the organization's risks related to climate change.
	• Net mass of CO_2 in metric tons captured and removed from the atmosphere (CO_2 stored less the GHG emitted in the process)[5].
		11.2.2

GRI 305: Emissions 2016	Disclosure 305-5 Reduction of GHG emissions *Additional sector recommendations* • Report how the goals and targets for GHG emissions are set, specify whether they are informed by scientific consensus and list any authoritative	11.2.3

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
	intergovernmental instruments or mandatory legislation the goals and targets are aligned with. • Report the scopes (1, 2, 3) of GHG emissions, activities, and business relationships to which the goals and targets apply. • Report the baseline for the goals and targets and the timeline for achieving them.	
Additional Sector Disclosures		
Describe the organization's approach to public policy development and lobbying on climate change, including: • the organization's stance on significant issues related to climate change that are the focus of its participation in public policy development and lobbying, and any differences between these positions and its stated policies, goals, or other public positions; • whether it is a member of, or contributes to, any representative associations or committees that participate in public policy development and lobbying on climate change, including: - the nature of this contribution; - any differences between the organization's stated policies, goals, or other public positions on significant issues related to climate change; and the positions of the representative associations or committees.[6]		11.2.4

References and resources

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

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

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

5 The mass of the CO_2 captured using carbon capture and storage less the mass of CO_2 emitted as a result of or during the process, is sometimes known as 'net reduction of emissions' [69].

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

Topic 11.3 Air emissions

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

The activities of the oil and gas sector and the combustion of oil and gas are anthropogenic sources of other air emissions besides greenhouse gases (GHGs). These include SO_x, NO_x, PM, VOCs, hazardous air pollutants (HAP), such as benzene (C_6H_6) and hydrogen sulfide (H_2S), and ozone (O_3).[7]

These air emissions can be released during production and processing; refining, distribution, and storage. They can result from activities such as flaring and venting; fuel combustion for powering machinery; and transportation of supplies and products. Air emissions can also result from evaporation losses, fugitive emissions from equipment leaks and failures, and process-safety incidents and events. A significant number of air emissions also result from fuel combustion by end-users.

Globally, air pollution causes acute health problems and millions of deaths annually by contributing to heart and lung diseases, strokes, respiratory infections, and neurological damage [93]. Children, the elderly, and the poor are disproportionately affected by these emissions, as are local communities adjacent to operational sites.

Air emissions may lead to widespread and diverse impacts on ecosystems, while affecting other economic activities that depend on these ecosystems. For example, NO_x emissions that enter oceans, lakes, or other water bodies can alter their chemistry, negatively impacting land and aquatic life. NO_x and SO_x emissions can lead to acid rain and increase ocean acidification. These emissions can also cause damage to plant life by, for example, impairing photosynthesis and reducing growth.

7 The scope of this topic does not include carbon dioxide CO_2 and methane CH_4, which are reported under GHG emissions.

Reporting on air emissions

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.3.1
Topic Standard Disclosures		
GRI 305: Emissions 2016	Disclosure 305-7 Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions	11.3.2
GRI 416: Customer Health and Safety 2016	Disclosure 416-1 Assessment of the health and safety impacts of product and service categories *Additional sector recommendations* • Describe actions taken to improve product quality to reduce air emissions	11.3.3

References and resources

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

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

Topic 11.4 Biodiversity

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

Oil and gas activities can be the source of pressures on the environments in which they occur, and have direct, indirect, and cumulative impacts on biodiversity in the short and long term. Biodiversity impacts from oil and gas activities include contamination of air, soil and water, soil erosion, and sedimentation of waterways. Other impacts can include animal mortality or increased vulnerability to predators, habitat fragmentation and conversion, and the introduction of invasive species and pathogens. Impacts on biodiversity can result in limitations in the availability, accessibility, or quality of natural resources, which in turn may impact the well-being and livelihoods of local communities (topic 11.15) and indigenous peoples (topic 11.17). Impacts can be exacerbated when activities occur in protected areas or areas of high biodiversity value and may extend well beyond the closure and rehabilitation (topic 11.7) of operational sites or geographic boundaries of activities.

Impacts can result from both onshore and offshore activities, such as land clearance; seismic testing and drilling of exploration wells; construction of assets and facilities, infrastructure, and pipelines; road development and transportation; water discharge; disposal of drilling waste; spills and leaks. Threats to biodiversity will increase as easily accessible oil and gas resources are depleted and oil and gas activities move into more remote areas.

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

To limit and manage its impacts on biodiversity, the oil and gas sector has been developing and, in some cases already using, a mitigation hierarchy tool that helps inform its actions. The mitigation hierarchy consists of four sequential steps to reduce the negative impacts of activities on the environment. Priority is given to preventive measures starting with avoidance of negative impacts and, where avoidance is not possible, to minimization of those impacts. When negative impacts cannot be avoided or minimized, remediation measures may be used, such as rehabilitation or restoration of biodiversity. Offsetting measures may also be applied to residual impacts after all other measures have been applied (see reference [118] in the Bibliography).

Reporting on biodiversity

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe policies and commitments to achieving no net loss or a net gain to biodiversity on operational sites; and whether these commitments apply to existing and future operations and to operations beyond areas of high biodiversity value. • Report whether application of the mitigation hierarchy has informed actions to manage biodiversity related impacts.	11.4.1
Topic Standard Disclosures		
GRI 304: Biodiversity 2016	Disclosure 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	11.4.2
	Disclosure 304-2 Significant impacts of activities, products, and services on biodiversity *Additional sector recommendations* • Report significant impacts on biodiversity with reference to affected habitats and ecosystems.	11.4.3
	Disclosure 304-3 Habitats protected or restored *Additional sector recommendations* • Describe how the application of the mitigation hierarchy, if applicable, has resulted in: - areas protected through avoidance measures or offset measures; - areas restored through on-site restoration measures or offset measures.	11.4.4
	Disclosure 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	11.4.5

References and resources

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

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

Topic 11.5 Waste

Waste refers to anything that a holder discards, intends to discard, or is required to discard. When inadequately managed, waste can have negative impacts on the environment and human health, which can extend beyond the locations where waste is generated and discarded. This topic covers impacts from waste, including as a result of construction and rehabilitation activities.

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

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

In oil sands mining, the largest waste stream is tailings, a hazardous waste stream produced during the process of separating oil from sand (see topic 11.8 Asset integrity and critical incident management). Some tailings ponds have been found to leach chemicals, causing health risks for local communities and wildlife.

When operations end, closure and rehabilitation activities usually involve the final disposal of hazardous chemicals and managing substantial quantities of materials from disused structures or equipment (see topic 11.7 Closure and rehabilitation). Other typical wastes from oil and gas activities include waste oils, construction waste, and domestic and office waste.

Box 3. Use of materials

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

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

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

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

Reporting on waste

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.5.1
Topic Standard Disclosures		
GRI 306: Waste 2020	Disclosure 306-1 Waste generation and significant waste-related impacts	11.5.2
	Disclosure 306-2 Management of significant waste-related impacts	11.5.3
	Disclosure 306-3 Waste generated *Additional sector recommendations* • When reporting the composition of the waste generated, include a breakdown of the following waste streams, if applicable: - drilling waste (muds and cuttings); - scale and sludges; - tailings.	11.5.4
	Disclosure 306-4 Waste diverted from disposal *Additional sector recommendations* • When reporting the composition of the waste generated, include a breakdown of the following waste streams, if applicable: - drilling waste (muds and cuttings); - scale and sludges; - tailings.	11.5.5
	Disclosure 306-5 Waste directed to disposal *Additional sector recommendations* • When reporting the composition of the waste generated, include a breakdown of the following waste streams, if applicable: - drilling waste (muds and cuttings); - scale and sludges; - tailings.	11.5.6

References and resources

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

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

Topic 11.6 Water and effluents

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

Oil and gas activities can reduce water availability for local communities and other sectors that also rely on the resource. They can have impacts on the quality of surface water, groundwater and seawater, which can translate into long-term impacts on ecosystems and biodiversity (topic 11.4), cause health and development problems for humans, and impair food security.

Extraction and processing are the oil and gas sector activities that use the largest volumes of water. The quantity of water required for these activities vary according to the oil and gas extraction method, local geology, and the degree of processing required. Some extraction or processing methods, including hydraulic fracturing and oil sands mining are particularly water intensive. The amount of water withdrawn for certain activities also varies according to an organization's ability to substitute the use of freshwater, the quality of water required, recycling infrastructure and the characteristics of local water resources.

Oil and gas organizations may also need to manage large quantities of produced water or process wastewater, which typically contain hydrocarbons, chemicals, or other hazardous substances. To minimize water impacts, produced water and process wastewater may be reinjected for well stimulation or reused in other processes. If not, they may be discharged to surface water, groundwater, seawater, or a third party; dispersed over land; or stored in evaporation ponds. When discharged, the impacts to water vary according to the sensitivity of the receiving waterbody and the quality of the water discharged.

Contamination can also result from the injection of drilling fluids into wells and flowback from hydraulic fracturing. This can cause underground contaminants to seep and pollute groundwater resources. Inefficient treatment of water discharges, oil spills from transportation accidents, ruptured pipelines or seepage, or failure of an oil sands tailings dam can also have similar impacts on water quality (see topic 11.8 Asset integrity and critical incident management).

The oil and gas sector's impacts on water additionally depend on the quantity of local water resources; where water is scarce, the sector has a greater impact. A large proportion of the world's oil and gas resources are found in areas that are arid or experience water stress. In such areas, the sector's activities are likely to increase competition for water in demand for other uses – such as for household use and fishing, aquaculture, or agricultural activities. This may exacerbate tensions between, as well as within, sectors or local communities. Droughts, floods, and other extreme weather events related to climate change will likely pose more frequent challenges related to water availability and quality in the future.

Reporting on water and effluents

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.6.1
Topic Standard Disclosures		
GRI 303: Water and Effluents 2018	Disclosure 303-1 Interactions with water as a shared resource	11.6.2
	Disclosure 303-2 Management of water discharge-related impacts	11.6.3
	Disclosure 303-3 Water withdrawal	11.6.4
	Disclosure 303-4 Water discharge *Additional sector recommendations* • Report volume in megaliters of produced water and process wastewater discharged. • Report the concentration (mg/L) of hydrocarbons discharged in produced water and process wastewater.	11.6.5
	Disclosure 303-5 Water consumption	11.6.6

References and resources

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

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

Topic 11.7 Closure and rehabilitation

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

Oil and gas facilities can continue to generate environmental impacts after closure, including soil and water contamination, changes to landforms, and disturbance of biodiversity and wildlife. Closure can also lead to lasting impacts on local communities. Failure to close facilities and rehabilitate sites effectively can render land unusable for other productive purposes and can result in health and safety hazards due to contamination or to the presence of hazardous materials.

Closure and rehabilitation of oil and gas fields can include removal and final disposal of hazardous substances and chemicals; capping or plugging abandoned wells; dismantling structures and reusing, recycling or disposing materials. It can also include the management of waste; surface water and groundwater quality issues resulting from spills and leaks; and restoration of lands to a condition or economic value equivalent to the pre-development state. Closing oil sands mining sites also involves managing tailings ponds (see also topic 11.8 Asset integrity and critical incident management).

Several international conventions (see references [168], [169] and [170] in the Bibliography) require decommissioning and removing all offshore structures at the end of field life. However, these requirements may be subject to different interpretations across countries, where national regulations or regional conventions can take precedence over international conventions. As a result, organizations in the oil and gas sector may lack clear rules for filing decommissioning plans with local governments and taking action on them once offshore structures become disused.

Decommissioning and dismantling offshore structures can be costly and complex due to their size, weight, and location. There may be additional complexities and environmental considerations when, for example, structures that should be removed become part of benthic[8] communities and habitats. In some cases, decommissioning can occur *in situ* and structures may be left in place. When this happens, impacts can include marine pollution from corrosion, ecosystem changes, damage to fishing equipment, and navigational hazards to shipping.

The closure and rehabilitation phase may offer additional employment opportunities to local communities. However, once this phase is completed, workers may be retrenched and local communities may face economic downturn and social disruption if they have come to depend on the oil and gas sector's activities for employment as well as for income, taxes and other payments to governments, community development, and other benefits.

To anticipate potential impacts, planning for closure often requires planning in the early phases of a project. Impacts from closure can be exacerbated if there is insufficient notice or lack of adequate planning for economic revitalization, social protection, and labor transition. Without clearly assigned responsible parties or allocated funds, closed oil and gas facilities can leave a legacy of environmental issues and financial burdens for communities and governments. The need to reduce GHG emissions and to transition to a low-carbon economy (see topic 11.2 Climate adaptation, resilience and transition) is expected to lead to more frequent closures. These are less likely to be counterbalanced by openings, as has been the case in the past. Collaboration between local and national governments and organizations, as well as with workers and unions, is necessary to mitigate significant impacts and ensure a just transition.

Technological solutions that would allow repurposing or extending the life of assets after production ceases (e.g., using pipelines for CO_2 storage or transport of low-carbon fuels) are being tested, but have yet to be proven effective and economically viable.

8 Benthic is defined by the Merriam-Webster as "of, relating to, or occurring at the bottom of a body of water, or, of, relating to, or occurring in the depths of the ocean" [171].

Reporting on closure and rehabilitation

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.7.1
Topic Standard Disclosures		
GRI 402: Labor/Management Relations 2016	Disclosure 402-1 Minimum notice periods regarding operational changes *Additional sector recommendations* • Describe the approach to engaging workers in advance of significant operational changes.	11.7.2
GRI 404: Training and Education 2016	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	11.7.3
Additional Sector Disclosures		
List the operational sites that: • Have closure and rehabilitation plans in place; • have been closed; • are in the process of being closed.		11.7.4
List the decommissioned structures left in place and describe the rationale for leaving them in place.		11.7.5
Report the total monetary value of financial provisions for closure and rehabilitation made by the organization, including post-closure monitoring and aftercare for operational sites.		11.7.6

References and resources

GRI 402: Labor/Management Relations 2016 and *GRI 404: Training and Education 2016* list authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

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

Topic 11.8 Asset integrity and critical incident management

Asset integrity and critical incident management deal with the prevention and control of incidents that can lead to fatalities, injuries or ill health, environmental impacts, and damage to local communities and infrastructure. This topic covers impacts from such incidents and an organization's approach to managing them.

Critical incidents in the oil and gas sector can have catastrophic consequences for workers, local communities (see topic 11.9 Occupational health and safety and topic 11.15 Local communities), the environment and cause damage to organizations' assets. In addition to fatalities and injuries, these incidents can cause air, soil, and water contamination. These impacts have the potential to disrupt other economic activities that depend on these natural resources, such as fishing and agriculture, affecting livelihoods, and compromising food safety and security. They can also lead to ecosystem and habitat degradation and animal mortality.

Critical incidents related to the oil and gas sector include loss of control or containment of hydrocarbons, well blowout, explosions, fires, unplanned plant disruption and shutdown, and tailings dam failures from operations related to oil sands. Oil and gas spills and leaks, for example due to undetected failures in equipment or which occur during distribution of oil and gas by marine, road, or rail transport or pipelines, may pollute the soil and water as well as harm species (see also topic 11.6 Water and effluents and topic 11.4 Biodiversity). Events or incidents involving methane and other GHG emissions also contribute to climate change (see topic 11.1 GHG emissions).

Organizations in the oil and gas sector can prevent critical incidents with an effective process safety management system. Process safety refers to the systematic application of good design, construction, and operating principles to ensure the safe containment of hazardous materials; it also addresses the sources or factors that lead to potential incidents. A process safety management system can also limit impacts associated with critical incidents related to extreme weather events, which are likely to increase in frequency and intensity due to the effects of climate change.

Box 4. Oil sands tailings

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

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

Reporting on asset integrity and critical incident management

If the organization has determined asset integrity and critical incident management to be a material topic, this sub-section lists the disclosures identified as relevant for reporting on the topic by the oil and gas sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.8.1
Topic Standard Disclosures		
GRI 306: Effluents and Waste 2016	Disclosure 306-3 Significant spills[9] *Additional sector recommendations* • For each significant spill, report the cause of the spill and the volume of spill recovered.	11.8.2
Additional Sector Disclosures		
Report the total number of Tier 1 and Tier 2 process safety events, and a breakdown of this total by business activity (e.g., exploration, development, production, closure and rehabilitation, refining, processing, transportation, storage).[10]		11.8.3

The following additional sector disclosures are for organizations with oil sands mining operations.
• List the organization's tailings facilities.
• For each tailings facility:
  - describe the tailings facility;
  - report whether the facility is active, inactive or closed;
  - report the date and main findings of the most recent risk assessment.
• Describe actions taken to:
  - manage impacts from tailings facilities, including during closure and post-closure;
  - prevent catastrophic failures of tailings facilities.[11]
		11.8.4

References and resources

GRI 306: Effluents and Waste 2016 lists authoritative intergovernmental instruments and additional resources relevant to reporting on this topic.

The additional authoritative instruments and references used in developing this topic, as well as resources that may be helpful for reporting on asset integrity and critical incident management by the oil and gas sector are listed in the Bibliography.

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

10 Definitions for Tier 1 and Tier 2 process safety events can be found in the API *Recommended Practice 754, Process Safety Performance Indicators for the Refining and Petrochemical Industries* [179]. API RP 754 focuses on refining and petrochemical operations but can be applied more widely.

11 Definitions for tailings facility and catastrophic failure can be found in the *Global Industry Standard on Tailings Management* (GISTM) [186].

Topic 11.9 Occupational health and safety

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

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

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

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

Hazards related to common employment practices (topic 11.10) in the oil and gas sector can increase the risk of fatigue, strain, or stress and impact physical, psychological, and social health. These practices include fly-in fly-out (FIFO) work arrangements, working and living in different locations, rotational work, long shifts, long travel times, living in the workplace, interrupted rest, irregular working hours, and solitary work. Workers may also experience psychological reactions, such as post-traumatic stress disorder following a major incident. In addition, workplaces characterized by gender imbalance can contribute to increased stress, discrimination, or sexual harassment (see also topic 11.11 Diversity and non-discrimination).

The oil and gas sector makes extensive use of suppliers, some of which may undertake activities considered among the most dangerous. Occupational health and safety management systems may not cover suppliers' workers in the same way employees are covered. Suppliers' workers operating on the premises of organizations in the sector may be less familiar with the workplace and the organization's health and safety practices or less committed to those practices. Other workers in the organization's supply chain may be subject to lower occupational health and safety standards.

Reporting on occupational health and safety

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.9.1
Topic Standard Disclosures		
GRI 403: Occupational Health and Safety 2018	Disclosure 403-1 Occupational health and safety management system	11.9.2
	Disclosure 403-2 Hazard identification, risk assessment, and incident investigation	11.9.3
	Disclosure 403-3 Occupational health services	11.9.4
	Disclosure 403-4 Worker participation, consultation, and communication on occupational health and safety	11.9.5
	Disclosure 403-5 Worker training on occupational health and safety	11.9.6
	Disclosure 403-6 Promotion of worker health	11.9.7
	Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	11.9.8
	Disclosure 403-8 Workers covered by an occupational health and safety management system	11.9.9
	Disclosure 403-9 Work-related injuries	11.9.10
	Disclosure 403-10 Work-related ill health	11.9.11

References and resources

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

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

Topic 11.10 Employment practices

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

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

Many jobs in the oil and gas sector have complex shift patterns, involving long shifts and night shifts, to ensure continuity of operations around the clock. This can cause high levels of fatigue and augment risks related to health and safety (see topic 11.9 Occupational health and safety) if organizations do not provide for sufficient rest time. Organizations in the oil and gas sector may also use fly-in fly-out (FIFO) work arrangements, in which workers are flown to operational sites for several weeks at a time and often required to work extended shifts. Workers on marine vessels can also be at risk of remaining at sea for extended periods of time. Irregular work shifts and schedules, time spent away from families, and potentially limited communication facilities can further impact workers' physical, psychological, and/or social health.

Various activities in the oil and gas sector are outsourced to suppliers. This is common during peak periods, such as during construction or maintenance works, or for specific activities, such as catering, drilling, security, and transportation. Outsourcing activities and using workers employed by suppliers could allow organizations in the oil and gas sector to reduce their labor costs or to bypass collective agreements that are in place for employees (see also topic 11.13 Freedom of association and collective bargaining).

Compared to employees, workers employed by suppliers commonly have less favorable employment conditions, lower remuneration, less training, higher accident rates, and less job security. They often lack social protection and access to grievance mechanisms. Workers beyond the first tiers of business relationships in organizations' supply chains may also be subject to low standards for working conditions, exposing organizations in the oil and gas sector to human rights violations through their business relationships (see also topic 11.12 Forced labor and modern slavery).

Employment terms can vary between local workers, migrant workers, and contract workers. Remuneration for these groups of workers may be unequal, while benefits, such as bonuses, housing allowances, and private insurance plans, may only be offered to some migrant workers. Lack of relevant skills, knowledge, or accessible training programs can also restrict local communities from accessing employment opportunities created by the oil and gas sector (see also topic 11.14 Economic impacts).

Job security is also a concern in the oil and gas sector. Closure (topic 11.7) 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 business models, such as changes triggered by the transition to a low-carbon economy. Organizations in the sector can support workers by planning for a just transition, including implementing timely measures that aim to develop their skills and improve their employability in other sectors.

Reporting on employment practices

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.10.1
Topic Standard Disclosures		
GRI 401: Employment 2016	Disclosure 401-1 New employee hires and employee turnover	11.10.2
	Disclosure 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	11.10.3
	Disclosure 401-3 Parental leave	11.10.4
GRI 402: Labor/Management Relations 2016	Disclosure 402-1 Minimum notice periods regarding operational changes	11.10.5
GRI 404: Training and Education 2016	Disclosure 404-1 Average hours of training per year per employee	11.10.6
	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	11.10.7
GRI 414: Supplier Social Assessment 2016	Disclosure 414-1 New suppliers that were screened using social criteria	11.10.8
	Disclosure 414-2 Negative social impacts in the supply chain and actions taken	11.10.9

References and resources

GRI 401: Employment 2016, *GRI 402: Labor/Management Relations 2016*, *GRI 404: Training and Education 2016*, and *GRI 414: Supplier Social Assessment 2016* list authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

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

Topic 11.11 Non-discrimination and equal opportunity

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

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

Documented cases of discrimination in the oil and gas sector concern race, color, sex, gender, disability, religion, national extraction, and worker status. for example, jobseekers from local communities may be excluded from the hiring process because of a recruitment system bias that favors a dominant ethnic group or utilizes migrant workers. Compared to some migrant workers, local workers may receive significantly lower pay for equal work. The sector's widespread use of contract workers, often with differing terms of employment, can also be conducive to discrimination.

The oil and gas sector is characterized by a significant gender imbalance. In many countries, the percentage of women working in this sector is significantly lower than the percentage of women working overall nationwide. Women are also significantly underrepresented in senior management positions. One cause of this imbalance may be that fewer women graduate with degrees pertinent to the sector, such as in science, technology, engineering, and mathematics. Other barriers for women and primary caregivers include fly-in fly-out (FIFO) work arrangements, long hours, and limited parental leave. Social or cultural customs, beliefs, and biases can also limit women’s access to jobs in this sector or prevent them from taking on specific roles. In addition, some resource-rich countries have laws that prevent women from working in hazardous or arduous occupations.

Understanding how specific groups may be subject to discrimination across different locations where organizations in the oil and gas sector operate can help organizations effectively address discriminatory practices. Other measures, such as providing specific training to workers on preventing discrimination can help address impacts related to discrimination and create a respectful workplace.

Reporting on non-discrimination and equal opportunity

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.11.1
Topic Standard Disclosures		
GRI 202: Market Presence 2016	Disclosure 202-2 Proportion of senior management hired from the local community	11.11.2
GRI 401: Employment 2016	Disclosure 401-3 Parental leave	11.11.3
GRI 404: Training and Education 2016	Disclosure 404-1 Average hours of training per year per employee	11.11.4
GRI 405: Diversity and Equal Opportunity 2016	Disclosure 405-1 Diversity of governance bodies and employees	11.11.5
	Disclosure 405-2 Ratio of basic salary and remuneration	11.11.6
GRI 406: Non-discrimination 2016	Disclosure 406-1 Incidents of discrimination and corrective actions taken	11.11.7

References and resources

GRI 401: Employment 2016, *GRI 404: Training and Education 2016*, *GRI 405: Diversity and Equal Opportunity 2016*, and *GRI 406: Non-discrimination 2016* list authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

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

Topic 11.12 Forced labor and modern slavery

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

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

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

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

Box 5. Impacts on children's rights

The risk of child labor in the oil and gas sector arises mainly through an organization's business relationships and complex supply chains. Child labor may occur in activities that service the oil and gas sector or its workers (e.g., child labor in hospitality services or in specific sector activities, such as the manufacturing). Suppliers may operate in countries with minimum working ages that are below the minimum age set by the International Labour Organization.

Other impacts on children's rights and well-being can result from the proximity of an oil or gas project to local communities (topic 11.15). These impacts can include sexual violence, environmental impacts, or impacts resulting from land use and resettlement. Parents' working conditions, including irregular working hours, long shifts, and fly-in fly-out (FIFO) arrangements, can also have impacts on children (see also topic 11.10 Employment practices).

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

Reporting on forced labor and modern slavery

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.12.1
Topic Standard Disclosures		
GRI 409: Forced or Compulsory Labor 2016	Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	11.12.2
GRI 414: Supplier Social Assessment 2016	Disclosure 414-1 New suppliers that were screened using social criteria	11.12.3

References and resources

GRI 409: Forced or Compulsory labor 2016 and *GRI 414: Supplier Social Assessment 2016* list authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

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

Topic 11.13 Freedom of association and collective bargaining

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

Workers' rights to organize and to take collective action are critical for supporting and improving working conditions in the oil and gas sector, including conditions relating to occupational health and safety (topic 11.9), wages, and job security. These rights can also enable public debate about the sector's governance and practices as well as aid in reducing social inequality.

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

Documented cases of interference with freedom of association and collective bargaining in the sector include detention of managers and other employees, invasion of privacy, not adhering to collective agreements, and preventing trade union access to workplaces to assist workers. Other documented cases include refusal to bargain in good faith with workers' chosen trade unions, unfair dismissal of trade union members and leaders, and unilateral cancellation of collective bargaining agreements.

Widely used in the oil and gas sector, contract workers are often excluded from the scope of collective bargaining agreements. As a result, contract workers commonly have less favorable employment conditions and lower remuneration compared to employees (see also topic 11.10 Employment practices).

Box 6. Freedom of association and civic space

Freedom of association and peaceful assembly are fundamental human rights. These rights give workers, through their trade unions, and citizens, through independent civil society, the freedom to speak about the oil and gas sector's policies and organizations' practices without interference.

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

Reporting on freedom of association and collective bargaining

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.13.1
Topic Standard Disclosures		
GRI 407: Freedom of Association and Collective Bargaining 2016	Disclosure 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	11.13.2

References and resources

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

The additional authoritative instruments and references used in developing this topic, as well as resources that may be helpful for reporting on freedom of association and collective bargaining by the oil and gas sector are listed in the Bibliography.

Topic 11.14 Economic impacts

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

Oil and gas activities can be an important source of investment and income for local communities, countries, and regions. Impacts can vary according to the scale of operations and the importance of the activity in the economic context. In some resource-rich countries, revenues from the oil and gas sector are a significant source of income. However, mismanagement of these revenues can also be harmful to economic performance and lead to macroeconomic instability and distortions (see topic 11.21 Payments to governments and topic 11.20 Anti-corruption). Economies dependent on oil and gas can also be vulnerable to commodity price and production fluctuations.

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

The extent to which local communities stand to benefit from the presence of oil and gas activities depends on the existing development and industrialization levels of the communities, the communities' capacity to offer qualified workers for the new employment opportunities, and the commitment of organizations in the oil and gas sector to train local workers. The net employment impacts also depend on how employment by the oil and gas sector affects existing employment in other sectors and organizations' employment practices (topic 11.10). For example, a fly-in fly-out (FIFO) work arrangement can offset pressures associated with influxes of people to small communities while still supplying the necessary workers (see also topic 11.15 Local communities). However, this arrangement reduces the employment opportunities available to local communities, detracting from the potential economic benefits.

The introduction of new oil and gas activities can generate negative impacts on local communities, such as economic disparity, with vulnerable groups often being disproportionately affected (see also topic 11.17 Rights of indigenous peoples). Small local suppliers that depend on larger oil and gas organizations for their income generation may face challenges in cases of extended payment delays or pressures to deliver services and products at decreased rates. An influx of external workers can increase pressure on housing, infrastructure, and public services. Local communities may also have to deal with environmental legacy costs or ineffective rehabilitation after closure (see also topic 11.8 Asset integrity and critical incident management and topic 11.7 Closure and rehabilitation).

The transition to a low-carbon economy is expected to lead to decreased activity in the oil and gas sector (see also topic 11.2 Climate adaptation, resilience, and transition), making communities and countries that depend on the sector for revenues or employment more vulnerable to the resulting economic downturn. In these cases, collaboration between local and national governments and organizations in the sector is essential to ensure a just transition.

Reporting on economic impacts

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe the community development programs in place that are intended to enhance positive impacts for local communities, including the approach to providing employment, procurement, and training opportunities.	11.14.1
Topic Standard Disclosures		
GRI 201: Economic Performance 2016	Disclosure 201-1 Direct economic value generated and distributed *Additional sector recommendations* • Report direct economic value generated and distributed (EVG&D) by project.	11.14.2
GRI 202: Market Presence 2016	Disclosure 202-2 Proportion of senior management hired from the local community	11.14.3
GRI 203: Indirect Economic Impacts 2016	Disclosure 203-1 Infrastructure investments and services supported	11.14.4
	Disclosure 203-2 Significant indirect economic impacts	11.14.5
GRI 204: Procurement Practices 2016	Disclosure 204-1 Proportion of spending on local suppliers	11.14.6

References and resources

GRI 201: Economic Performance 2016 and *GRI 202: Market Presence 2016* list authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

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

Topic 11.15 Local communities

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

Organizations in the oil and gas sector can have positive economic impacts on local communities through employment and local procurement, taxes, or other payments to local governments, as well as through community development programs and investments in infrastructure or public services (see also topic 11.14 Economic impacts, topic 11.10 Employment practices, and topic 11.21 Payments to governments).

Activities of the oil and gas sector can also lead to negative impacts on local communities. Negative impacts can result from, for example, land use requirements for the sector's activities, an influx of people seeking employment and economic opportunities, environmental degradation, exposure to hazardous substances, and use of natural resources. When operating in areas of pre-existing conflict or where negative impacts from oil and gas activities are not addressed, conflicts can arise or become exacerbated (see also topic 11.18 Conflict and security). Vulnerable groups, including women and indigenous peoples, may be disproportionally affected by these impacts.

The oil and gas sector's land use can compete with other land use demands, such as for farming, fishing, or recreation. In addition, it can disrupt traditional livelihoods and increase the risk of impoverishment. It can eventually lead to displacement, which results in additional impacts such as restrictions on access to essential services, and impacts on human rights (see topic 11.16 Land and resource rights). The activities of the sector can also result in damage to cultural heritage sites, potentially leading to loss of tradition, culture, or cultural identity, especially among indigenous peoples (see also topic 11.17 Rights of indigenous peoples).

The influx of workers from the surrounding areas or as a result of use of fly-in fly-out (FIFO) arrangements, particularly during the construction, maintenance, and closure and rehabilitation phases of oil and gas projects might lead to greater economic inequality within the local community. A large-scale influx of workers can place local services and resources under pressure, induce inflation, and introduce new communicable diseases. Higher housing costs may lead to an increase in homelessness, especially among vulnerable groups. There may be an increase in activities that compromise social order, such as substance abuse, gambling, and prostitution, especially affecting vulnerable groups. The influx of predominantly male workers can change the gender balance of local communities. This can impact women in particular, as it can lead to a rise in sexual violence and trafficking. Documented cases have also shown domestic and gender-based violence, both on operational sites and in local communities.

Oil and gas activities can generate air, soil, and water pollution; increased levels of traffic, noise, light, and odors; waste streams and leaks; and dust. Activities may also cause incidents such as explosions, fires, spills, and tailings dam or pipeline failures (see also topic 11.8 Asset integrity and critical incident management). Documented cases have also shown that seismic activity induced by hydraulic fracturing can affect local communities.

Effective local community engagement, grievance mechanisms, and other remediation processes can help organizations in the oil and gas sector prevent and mitigate the impacts of their activities. In their absence, the concerns of the community might not be understood or addressed, which can create negative impacts or exacerbate existing problems, such as gender inequality. Establishing or participating in grievance mechanisms and other remediation processes that are tailored to the specific needs of local communities can also help organizations address actual or potential negative impacts.

Reporting on local communities

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe the approach to identifying stakeholders within local communities and to engaging with them. • List the vulnerable groups that the organization has identified within local communities. • List any collective or individual rights that the organization has identified that are of particular concern for local communities.[12] • Describe the approach to engaging with vulnerable groups, including: - how it seeks to ensure meaningful engagement; and - how it seeks to ensure safe and equitable gender participations.	11.15.1
Topic Standard Disclosures		
GRI 413: Local Communities 2016	Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs	11.15.2
	Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities *Additional sector recommendations* • Describe impacts on the health of local communities as a result of exposure to pollution caused by operations or use of hazardous substances.	11.15.3
Additional Sector Disclosures		
Report the number and type of grievances from local communities identified, including: • percentage of the grievances that were addressed and resolved; • percentage of the grievances that were resolved through remediation.		11.15.4

References and resources

GRI 413: Local Communities 2016 lists authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

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

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

Topic 11.16 Land and resource rights

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

Oil and gas activities require access to land for prospecting, exploration, extraction, construction, waste storage and disposal, processing, transportation, and distribution of products. This can sometimes lead to displacement of other land users, restricted access to resources, and involuntary resettlement of local communities. Impacts from land use vary according to methods of extraction, resource location, the processing required, and transportation methods. For example, onshore oil and gas pipelines can have a large footprint due to their length and safety buffer zones.

Unclear rules regarding tenure rights to access, use, and control land, often lead to disputes, economic and social tensions, and conflict. Insufficient consultation with, and inadequate compensation to affected communities can also exacerbate tensions and conflict. For example, the relationship between mineral rights and land rights might be unclear; formal statutory tenure rules might overlap or conflict with traditional customary rules; legitimate rights may not be recognized or enforced; or people may lack formal documentation of their rights to land.

Involuntary resettlement of local communities can involve physical displacement (e.g., relocation or shelter loss) and economic displacement (e.g., loss or access to assets), having impacts on people's livelihoods and human rights. In such cases, organizations in the oil and gas sector may provide local communities with monetary compensation or land that is equivalent to the lost assets. However, determining the value of local communities' access to the natural environment is complex. It includes consideration of income-generating activities, human health, and non-material aspects of quality of life, such as the loss of cultural or recreational opportunities. The amount of compensation provided may therefore not be equivalent to the loss borne. In some cases, customary titleholders to the land may not be compensated at all or only for crops that they were cultivating on the land but not for the land itself.

Community members resisting resettlement may also face threats and intimidation, violent, repressive, or life-threatening removal from lands (see also topic 11.18 Conflict and security).

Addressing impacts on land and resource rights typically requires extensive and meaningful engagement between organizations in the oil and gas sector and local communities, including vulnerable groups. In cases of ineffective community consultation or in the absence of free, prior, and informed consent (FPIC), impacts on resettling communities or existing problems within a community can be exacerbated by an inadequate resettlement process or lack of transparency (see also topic 11.15 Local communities and topic 11.17 Rights of indigenous peoples). Community consultations may also fail to include all affected members. Women, for example, are often excluded from decision-making processes related to the development a new project.

Reporting on land and resource rights

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe the approach to engaging with affected vulnerable groups, including: - how the organization seeks to ensure engagement is meaningful; - how the organization seeks to ensure safe and equitable gender participation. • Describe the approach to providing remediation to local communities or individuals subject to involuntary resettlement, such as the process for establishing compensation for loss of assets or other assistance to improve or restore standards of living or livelihoods.	11.16.1
Additional Sector Disclosures		
List the locations of operations that caused or contributed to involuntary resettlement or where such resettlement is ongoing. For each location, describe how peoples' livelihoods and human rights were affected and restored.		11.16.2

References and resources

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

Topic 11.17 Rights of indigenous peoples

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

The presence of the oil and gas sector in proximity to indigenous communities can present economic opportunities and benefits for indigenous peoples through employment, training, and community development programs (see also topic 11.14 Economic impacts). However, it can also 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 topic 11.16 Land and resource rights). It can also have an impact on the availability of and access to water, which is a key concern for many indigenous communities.

The collective and individual rights of indigenous peoples are recognized in authoritative international instruments. Indigenous peoples also often have a special legal status in national legislation and can be customary or legal owners of lands to which organizations in the oil and gas sector are granted use rights by governments. Before initiating development or other activities that could have potential impacts on lands or resources that indigenous peoples use or own, organizations are expected to seek free, prior, and informed consent (FPIC) from indigenous peoples. This right is recognized in the United Nations Declaration on the Rights of Indigenous Peoples and allows indigenous peoples to give or withhold consent to a project that may affect them or their territories and to negotiate project conditions [314]. However, some national governments may not recognize or enforce indigenous land rights or indigenous peoples' rights to consent. Documented cases show an absence of good faith consultations and undue pressure on indigenous peoples to accept projects, with opposition to such projects sometimes leading to violence or death (see also topic 11.18 Conflict and security). Organizations in the sector and indigenous peoples regularly have disputes and conflicts over land ownership and rights.

An influx of workers from other areas can result in discrimination toward indigenous peoples regarding access to jobs and opportunities. It can further undermine their social cohesion, well-being, and safety. Impacts that may affect indigenous women more severely than men include risks of prostitution, forced labor, violence, and increased exposure to communicable diseases (see also topic 11.15 Local communities).

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

Reporting on rights of indigenous peoples

If the organization has determined rights of indigenous peoples to be a material topic, this sub-section lists the disclosures identified as relevant for reporting on the topic by the oil and gas sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe the community development programs that are intended to enhance positive impacts for indigenous peoples, including the approach to providing employment, procurement, and training opportunities. • Describe the approach of engaging with indigenous peoples, including: - how the organization seeks to ensure engagement is meaningful; - how the organization seeks to ensure indigenous women can participate safely and equitably.	11.17.1
Topic Standard Disclosures		
GRI 411: Rights of Indigenous Peoples 2016	Disclosure 411-1 Incidents of violations involving rights of indigenous peoples *Additional sector recommendations* • Describe the identified incidents of violations involving the rights of indigenous peoples.	11.17.2
Additional Sector Disclosures		
List the locations of operations where indigenous peoples are present or affected by activities of the organization.		11.17.3
Report if the organization has been involved in a process of seeking free, prior and informed consent (FPIC) from indigenous peoples for any of the organization's activities, including, in each case: • whether the process has been mutually accepted by the organization and the affected indigenous peoples; • whether an agreement has been reached, and if so, if the agreement is publicly available.		11.17.4

References and resources

GRI 411: Rights of Indigenous Peoples 2016 lists authoritative intergovernmental instruments and additional references relevant to reporting on this topic.

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

Topic 11.18 Conflict and security

An organization's activities may trigger conflict or, in cases of existing conflict, intensify it. The use of security personnel to manage conflict can play an essential role in allowing an organization to operate safely and productively but also has the potential to impact on people's human rights. This topic covers the organization's security practices and its approach to operating in areas of conflict.

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

Conflict can also be caused by the presence of oil and gas activities. It can be triggered by negative environmental impacts; inadequate engagement of stakeholders and indigenous peoples in decision-making processes; uneven distribution of economic benefits or provision of benefits deemed disproportionate to impacts created; and disputes over the use of land and natural resources (see also topic 11.16 Land and resource rights). The perceived mismanagement of funds at the expense of local interests can also trigger conflict (see also topic 11.20 Anti-corruption). Such conflict can heighten the need to use security personnel, thereby increasing the potential for violations of human rights.

Security personnel engaged by organizations in the oil and gas sector or public security directed by the host government may be present to protect organizations' assets or ensure workers' safety and security. Actions taken by security personnel against local community members, including during protest activities against development of oil and gas resources or to protect land and resources, can violate human rights, such as the rights to freedom of association and freedom of speech, as well as lead to violence, injuries, or deaths.

When oil and gas activities are endorsed by the government but remain disagreeable to local communities, the presence of public security forces can increase tensions between communities, government, and organizations in the sector. This can in turn exacerbate local power imbalances and, potentially, use of force.

In cases where public or other third-party security forces, such as paramilitary groups, are active, organizations in the oil and gas sector still have a responsibility to take steps to ensure security practices are consistent with the protection of human rights. This involves assessing security-related risks, identifying situations in which impacts on human rights are likely to occur, and working with security providers to ensure human rights are respected.

Organizations in the oil and gas sector may also contribute more broadly to the safety and security of local communities, for example, by facilitating communication between communities and public security forces or supporting efforts to address other sources of conflict.

Reporting on conflict and security

If the organization has determined conflict and security to be a material topic, this sub-section lists the disclosures identified as relevant for reporting on the topic by the oil and gas sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • List the locations of operations in areas of conflict. • Describe the approach to ensuring respect for human rights by public and private security providers.	11.18.1
Topic Standard Disclosures		
GRI 410: Security Practices 2016	Disclosure 410-1 Security personnel trained in human rights policies or procedures	11.18.2

References and resources

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

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

Topic 11.19 Anti-competitive behavior

Anti-competitive behavior refers to actions by an organization that can result in collusion with potential competitors, abuse of dominant market position or exclusion of potential competitors, thereby limiting the effects of market competition. This can include fixing prices or coordinating bids, creating market or output restrictions, imposing geographic quotas, and allocating customers, suppliers, geographic areas, or product lines. This topic covers impacts as a result of anti-competitive behavior.

The oil and gas sector faces high barriers to entry due to the sizable investments needed. Consequently, established organizations in the sector are often large and can dominate national or local markets. Mergers and acquisitions can intensify this concentration. Some segments of the sector depend on extensive infrastructure investments, such as investments in pipelines and liquefied natural gas (LNG) terminals, usually operated by a single organization or a small number of them.

The global market for oil and gas is large and well-integrated, making it secure against collusion or market dominance from individual producers. However, specific segments of the oil and gas sector can be subject to anti-competitive behavior. Instances of cartels, monopolistic practices, and related abuse of such positions have been documented in some jurisdictions in which oil and gas organizations are active. Agreements between producers and energy distributors, as well as mergers between organizations in the sector, can diminish competition by affecting output volume, and can create monopolies over transportation, distribution and supply to consumers. Collusion can also take place when submitting bids for the rights to extract oil and gas. Organizations may coordinate their bids in connivance with competitors so as to obtain lower prices, depriving resource owners of fair compensation.

Anti-competitive behavior can result in higher prices for oil, gas and raw materials derived from oil and gas extraction. Given the key role of oil and gas in the world economy, even a small increase in price can have sizeable negative impacts.

Reporting on anti-competitive behavior

If the organization has determined anti-competitive behavior to be a material topic, this sub-section lists the disclosures identified as relevant for reporting on the topic by the oil and gas sector.

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.19.1
Topic Standard Disclosures		
GRI 206: Anti-competitive Behavior 2016	Disclosure 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	11.19.2

References and resources

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

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

Topic 11.20 Anti-corruption

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

Corruption in the oil and gas sector can occur throughout the value chain and has been linked to various negative impacts, such as misallocation of resources revenues, damage to the environment, abuse of democracy and human rights, and political instability. Corruption can lead to diversion of public revenues to private beneficiaries, at the expense of, for example, investments in infrastructure or services. This can be particularly critical in countries with high poverty levels, leading to increased inequalities and conflicts over oil and gas resources (see topic 11.18 Conflict and security).

The oil and gas sector faces higher risks of corruption in comparison with other sectors. Characteristics of the sector that contribute to the potential for corruption include frequent interaction between oil and gas organizations and politically exposed persons[13] , such as government officials for licenses and other regulatory approvals. Other relevant sector characteristics include the complex financial transactions and the international reach of the sector.

State-owned enterprises (SOEs) face specific challenges in relation to corruption because they may have less effective internal controls and be subject to partial independent oversight. In addition to driving profit, SOEs may also pursue broader objectives such as community development. However, without adequate oversight, measures for community development may be abused for corrupt purposes. Organizations in the oil and gas sector partnering with SOEs in joint ventures may face additional risks related to corruption as a result of this business relationship.

Cases of corruption during bidding processes for exploration and production licenses have been documented in the oil and gas sector. Organizations in the sector have used corrupt practices to obtain confidential information, influence decision-making, and avoid environmental or other requirements. Such cases may result in licenses being awarded to less qualified organizations, jeopardize public investments, or negatively impact the environment and local communities. Opaque licensing procedures may also obstruct public scrutiny of oil and gas investments and transactions that could result in reduced public revenue.

In other cases, corrupt practices have aimed to block or shape policies and regulations or to influence their enforcement. This might include regulations concerning land and resource rights, taxes and other government levies, or environmental protection.

Across the value chain, a lack of transparency in procurement procedures in the oil and gas sector can also create a risk of corruption or fraud. Examples of this can include paying bribes to get regulations or quality requirements waived, receiving kickbacks for securing contracts at inflated prices, or profiting from inflated prices charged by an entity established as a front organization.

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

13 Politically exposed person is defined by the Financial Action Taskforce as "an individual who is or has been entrusted with a prominent public function" [367].

Box 7. Transparency about contracts and ownership structures

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

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

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

See references [365] and [369] in the Bibliography.

Reporting on anti-corruption

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe how potential impacts of corruption or risks of corruption are managed in the organization's supply chain. • Describe the whistleblowing and other mechanisms in place for individuals to raise concerns about corruption.	11.20.1
Topic Standard Disclosures		
GRI 205: Anti-corruption 2016	Disclosure 205-1 Operations assessed for risks related to corruption	11.20.2
	Disclosure 205-2 Communication and training about anti-corruption policies and procedures	11.20.3
	Disclosure 205-3 Confirmed incidents of corruption and actions taken	11.20.4
Additional Sector Disclosures		
Describe the approach to contract transparency, including: • whether contracts and licenses are made publicly and, if so, where they are published; • if contracts or licenses are not publicly available, the reason for this and actions taken to make them public in the future.[14]		11.20.5
List the organization's beneficial owners and explain how the organization identifies the beneficial owners of business partners, including joint ventures and suppliers.[15]		11.20.6

References and resources

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

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

14 This additional sector disclosure is based on Requirement 2.4. Contracts in the *EITI Standard 2019*. Definitions for contracts and licenses can be found in the *EITI Standard 2019* [366].

15 This additional sector disclosure is based on Requirement 2.5. Beneficial ownership c., d., and f. in the *EITI Standard 2019* [366].

Topic 11.21 Payments to governments

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

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

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

Taxes, royalties, and other payments from organizations in the oil and gas sector are an important source of investment and revenue for local communities, countries, and regions (see topic 11.14 Economic impacts). However, aggressive tax practices or tax non-compliance can lead to diminished tax revenues in countries where the organizations operate. This can be particularly damaging for developing countries that may lack or have high needs for public revenue. The sector also receives substantial subsidies from governments in many countries, which are of great interest to stakeholders, such as investors or civil society.

When disclosing information on payments to governments, organizations in the oil and gas sector often report aggregate payments at an organizational level. However, this can provide limited insight into payments made in each country or related to a project. Reporting country-level and project-level payments enables comparison of the payments made to those stipulated in fiscal, legal, and contractual terms, as well as to assess the financial contribution of oil and gas activities to host countries and communities. It can also enable governments to address tax avoidance and evasion, correct information asymmetry and level the playing field for governments when negotiating contracts.

Box 8. State-owned enterprises

A state-owned enterprise (SOE) is, according to the Extractives Industries Transparency Initiative (EITI), 'a wholly or majority government-owned company that is engaged in extractive activities on behalf of the government' (see reference [386] in the Bibliography). SOEs often have special status, which can involve financial advantages and preferential treatment.

SOEs often sell shares of the produced resource to buyers, including commodity trading companies. This first trade[16] is 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 of exports or over-invoicing of imports to obtain financial gain. Other risks may result from selecting 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 topic 11.20 Anti-corruption).

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

16 First trade is defined by the Extractive Industries Transparency Initiative as "the sale of the state's share of production by government and state-owned enterprises" [384].

Reporting on payments to governments

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics	11.21.1
Topic Standard Disclosures		
GRI 201: Economic Performance 2016	Disclosure 201-1 Direct economic value generated and distributed	11.21.2
	Disclosure 201-4 Financial assistance received from government *Additional sector recommendations* For state-owned organizations (SOE): • Report the financial relationship between the government and the SOE.[17]	11.21.3
GRI 207: Tax 2019	Disclosure 207-1 Approach to tax	11.21.4
	Disclosure 207-2 Tax governance, control, and risk management	11.21.5
	Disclosure 207-3 Stakeholder engagement and management of concerns related to tax	11.21.6
	Disclosure 207-4 Country-by-country reporting *Additional sector recommendations* • Report a breakdown of the payments to governments levied at the project-level, by project and the following revenue streams, if applicable: - The host government's production entitlement; - National state-owned company production; - Royalties; - Dividends; - Bonuses (e.g., signature, discovery, and production bonuses); - License fees, rental fees, entry fees; and other considerations for licenses or concessions; - Any other significant payments and material benefits to government.[18] • Report the value of any thresholds[19] that have been applied and any other contextual information necessary to understand how the project-level payments to governments reported have been compiled.	11.21.7
Additional Sector Disclosures		
For oil and gas purchased from the state, or from third parties appointed by the state to sell on their behalf, report: • volumes and types of oil and gas purchased; • full names of the buying entity and the recipient of the payment; • payments made for the purchase.[20]		11.21.8

17 This additional sector recommendation is based on Requirement 2.6 State participation in the *EITI Standard 2019* [387].

18 This additional sector recommendation is based on Requirement 4.1 Comprehensive disclosure of taxes and revenues and Requirement 4.7. Level of disaggregation in the *EITI Standard 2019.* A definition for project can be found in the *EITI Standard 2019* [387].

19 The *EITI Standard 2019* specifies that in countries implementing the EITI, the multi-stakeholder group for the country agree which payments and revenues are material, including appropriate thresholds [387]. The organization can use the relevant threshold set by the EITI multi-stakeholder group. If there is no relevant threshold set, the organization can use a threshold equivalent to that established for the European Union, which specifies that 'Payments, whether a single payment or a series of related payments, below EUR 100,000 within the reporting period can be excluded' [380].

20 This additional sector disclosure is based on Requirement 4.2 Sale of the state's share of production or other revenues collected in kind in the *EITI Standard 2019* [387] and *EITI Reporting Guidelines for companies buying oil, gas and minerals from governments* [385].

References and resources

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

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

Topic 11.22 Public policy

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

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

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

The oil and gas sector has actively advocated against ambitious climate policies as well as for ensuring continued subsidies to the sector, through individual organizations in the sector and industry bodies. These activities have often been targeted against enforcing meaningful carbon pricing, carbon budgets, or other measures to reduce GHG emissions that could leave oil and gas assets and resources stranded. Sometimes, efforts have contradicted publicly stated corporate strategies and positions that support policies addressing climate change. Excessive subsidies for the sector can impede the transition to a low-carbon economy, and consequently hinder sustainable development, in numerous ways, including by reducing or inefficiently allocating available national resources, increasing dependence on fossil fuels, and discouraging investment in renewable energy and energy efficiency (see topic 11.2 Climate adaptation, resilience, and transition).

Reporting on public policy

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

STANDARD	DISCLOSURE	SECTOR STANDARD REF #
Management of the Topic		
GRI 3: Material Topics 2021	Disclosure 3-3 Management of material topics *Additional sector recommendations* • Describe the organization's stance on significant issues that are the focus of its participation in public policy development and lobbying; and any differences between these positions and its stated policies, goals, or other public positions. • Report whether the organization is a member of, or contributes to, any representative associations or committees that participate in public policy development and lobbying, including: - the nature of this contribution; - any differences between the organization's stated policies, goals, or other public positions on significant issues related to climate change, and the positions of the representative associations or committees.[21]	11.22.1
Topic Standard Disclosures		
GRI 415: Public Policy 2016	Disclosure 415-1 Political contributions	11.22.2

References and resources

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

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

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

Glossary

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

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

A

anti-competitive behavior
action of the organization or employees that can result in collusion with potential competitors, with the purpose of limiting the effects of market competition

Examples: allocating customers, suppliers, geographic areas, and product lines; coordinating bids; creating market or output restrictions; fixing prices; imposing geographic quotas

area of high biodiversity value
area not subject to legal protection, but recognized for important biodiversity features by a number of governmental and non-governmental organizations

Note 1: Areas of high biodiversity value include habitats that are a priority for conservation, which are often defined in National Biodiversity Strategies and Action Plans prepared under the United Nations (UN) Convention, 'Convention on Biological Diversity', 1992.

Note 2: Several international conservation organizations have identified particular areas of high biodiversity value.

B

baseline
starting point used for comparisons

Note: In the context of energy and emissions reporting, the baseline is the projected energy consumption or emissions in the absence of any reduction activity.

basic salary
fixed, minimum amount paid to an employee for performing his or her duties

Note: Basic salary excludes any additional remuneration, such as payments for overtime working or bonuses.

benefit
direct benefit provided in the form of financial contributions, care paid for by the organization, or the reimbursement of expenses borne by the employee

Note: Redundancy payments over and above legal minimums, lay-off pay, extra employment injury benefit, survivors' benefits, and extra paid holiday entitlements can also be included as a benefit.

business partner
entity with which the organization has some form of direct and formal engagement for the purpose of meeting its business objectives

Source: Shift and Mazars LLP, *UN Guiding Principles Reporting Framework*, 2015; modified

Examples: affiliates, business-to-business customers, clients, first-tier suppliers, franchisees, joint venture partners, investee companies in which the organization has a shareholding position

Note: Business partners do not include subsidiaries and affiliates that the organization controls.

business relationships
relationships that the organization has with business partners, with entities in its value chain

including those beyond the first tier, and with any other entities directly linked to its operations, products, or services

Source: United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

Note: Examples of other entities directly linked to the organization's operations, products, or services are a non-governmental organization with which the organization delivers support to a local community or state security forces that protect the organization's facilities.

C

carbon dioxide (CO2) equivalent
measure used to compare the emissions from various types of greenhouse gas (GHG) based on their global warming potential (GWP)

Note: The CO_2 equivalent for a gas is determined by multiplying the metric tons of the gas by the associated GWP.

catchment
area of land from which all surface runoff and subsurface water flows through a sequence of streams, rivers, aquifers, and lakes into the sea or another outlet at a single river mouth, estuary, or delta

Source: Alliance for Water Stewardship (AWS), *AWS International Water Stewardship Standard, Version 1.0*, 2014; modified

Note: Catchments include associated groundwater areas and might include portions of waterbodies (such as lakes or rivers). In different parts of the world, catchments are also referred to as 'watersheds' or 'basins' (or sub-basins).

child
person under the age of 15 years, or under the age of completion of compulsory schooling, whichever is higher

Note 1: Exceptions can occur in certain countries where economies and educational facilities are insufficiently developed, and a minimum age of 14 years applies. These countries of exception are specified by the International Labour Organization (ILO) in response to a special application by the country concerned and in consultation with representative organizations of employers and workers.

Note 2: The ILO *Minimum Age Convention,* 1973, (No. 138), refers to both child labor and young workers.

circularity measures
measures taken to retain the value of products, materials, and resources and redirect them back to use for as long as possible with the lowest carbon and resource footprint possible, such that fewer raw materials and resources are extracted and waste generation is prevented

collective bargaining
all negotiations that take place between one or more employers or employers' organizations, on the one hand, and one or more workers' organizations (e.g., trade unions), on the other, for determining working conditions and terms of employment or for regulating relations between employers and workers

Source: International Labour Organization (ILO), *Collective Bargaining Convention*, 1981 (No. 154); modified

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

conflict of interest
situation where an individual is confronted with choosing between the requirements of their

function in the organization and their other personal or professional interests or responsibilities

corruption
'abuse of entrusted power for private gain', which can be instigated by individuals or organizations

Source: Transparency International, *Business Principles for Countering Bribery*, 2011

Note: Corruption includes practices such as bribery, facilitation payments, fraud, extortion, collusion, and money laundering. It also includes an offer or receipt of any gift, loan, fee, 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. 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 advantage.

D

direct (Scope 1) GHG emissions
greenhouse gas (GHG) emissions from sources that are owned or controlled by the organization

Example: CO_2 emissions from fuel consumption

Note: A GHG source is any physical unit or process that releases GHG into the atmosphere.

discrimination
act and result of treating persons unequally by imposing unequal burdens or denying benefits instead of treating each person fairly on the basis of individual merit

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 towards whom they are addressed.

disposal
any operation which is not recovery, even where the operation has as a secondary consequence the recovery of energy

Source: European Union (EU), *Waste Framework Directive*, 2008 (Directive 2008/98/EC)

Note: Disposal is the end-of-life management of discarded products, materials, and resources in a sink or through a chemical or thermal transformation that makes these products, materials, and resources unavailable for further use.

due diligence
process to identify, prevent, mitigate, and account for how the organization addresses its actual and potential negative impacts

Source: Organisation for Economic Co-operation and Development (OECD), *OECD Guidelines for Multinational Enterprises*, 2011; modified
United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

Note: See section 2.3 in *GRI 1: Foundation 2021* for more information on 'due diligence'.

E

effluent
treated or untreated wastewater that is discharged

Source: Alliance for Water Stewardship (AWS), *AWS International Water Stewardship Standard, Version 1.0*, 2014

employee
individual who is in an employment relationship with the organization according to national law or practice

employee turnover
employees who leave the organization voluntarily or due to dismissal, retirement, or death in service

energy indirect (Scope 2) GHG emissions
greenhouse gas (GHG) emissions that result from the generation of purchased or acquired electricity, heating, cooling, and steam consumed by the organization

entry level wage
full-time wage in the lowest employment category

Note: Intern or apprentice wages are not considered entry level wages.

exposure
quantity of time spent at or the nature of contact with certain environments that possess various degrees and kinds of hazard, or proximity to a condition that might cause injury or ill health (e.g., chemicals, radiation, high pressure, noise, fire, explosives)

F

financial assistance
direct or indirect financial benefits that do not represent a transaction of goods and services, but which are an incentive or compensation for actions taken, the cost of an asset, or expenses incurred

Note: The provider of financial assistance does not expect a direct financial return from the assistance offered.

forced or compulsory labor
all work and service that is exacted from any person under the menace of any penalty and for which the said person has not offered herself or himself voluntarily

Source: International Labour Organization (ILO), *Forced Labour Convention*, 1930 (No. 29); modified

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, and compelling workers, under threat of firing, to work extra hours to which they have not previously agreed.

freedom of association
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

freshwater
water with concentration of total dissolved solids equal to or below 1,000 mg/L

Source: Environmental management — Water footprint — Principles, requirements and guidelines. Geneva: ISO, 2014; modified
United States Geological Survey (USGS), Water Science Glossary of Terms, *water.usgs.gov/edu/dictionary.html,* accessed on 1 June 2018; modified
World Health Organization (WHO), *Guidelines for Drinking-water Quality*, 2017; modified

G

global warming potential (GWP)
value describing the radiative forcing impact of one unit of a given greenhouse gas (GHG) relative to one unit of CO_2 over a given period of time

Note: GWP values convert GHG emissions data for non-CO_2 gases into units of CO_2 equivalent.

governance body
formalized group of individuals responsible for the strategic guidance of the organization, the effective monitoring of management, and the accountability of management to the broader

organization and its stakeholders

greenhouse gas (GHG)
gas that contributes to the greenhouse effect by absorbing infrared radiation

grievance
perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities

Source: United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011

grievance mechanism
routinized process through which grievances can be raised and remedy can be sought

Source: United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

Note: See Guidance to Disclosure 2-25 in *GRI 2: General Disclosures 2021* for more information on 'grievance mechanism'.

groundwater
water that is being held in, and that can be recovered from, an underground formation

Source: International Organization for Standardization. ISO 14046:2014. *Environmental management — Water footprint — Principles, requirements and guidelines*. Geneva: ISO, 2014; modified

H

hazardous waste
waste that possesses any of the characteristics contained in Annex III of the Basel Convention, or that is considered to be hazardous by national legislation

Source: United Nations Environment Programme (UNEP), *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 1989

high-consequence work-related injury
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 six months

highest governance body
governance body with the highest authority in the organization

Note: In some jurisdictions, governance systems consist of two tiers, where supervision and management are separated or where local law provides for a supervisory board drawn from non-executives to oversee an executive management board. In such cases, both tiers are included under the definition of highest governance body.

human rights
rights inherent to all human beings, which include, at a minimum, the rights set out in the *United Nations (UN) International Bill of Human Rights* and the principles concerning fundamental rights set out in the *International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work*

Source: United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

Note: See Guidance to 2-23-b-i in *GRI 2: General Disclosures 2021* for more information on 'human rights'.

I

impact
effect the organization has or could have on the economy, environment, and people, including on

their human rights, which in turn can indicate its contribution (negative or positive) to sustainable development

Note 1: Impacts can be actual or potential, negative or positive, short-term or long-term, intended or unintended, and reversible or irreversible.

Note 2: See section 2.1 in *GRI 1: Foundation 2021* for more information on 'impact'.

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.

Source: International Labour Organization (ILO), *Indigenous and Tribal Peoples Convention*, 1989 (No. 169)

infrastructure
facilities built primarily to provide a public service or good rather than a commercial purpose, and from which the organization does not seek to gain direct economic benefit

Examples: hospitals, roads, schools, water supply facilities

L

local community
individuals or groups of individuals living or working in areas that are affected or that could be affected by the organization's activities

Note: The local community can range from those living adjacent to the organization's operations to those living at a distance.

local supplier
organization or person that provides a product or service to the reporting organization, and that is based in the same geographic market as the reporting organization (that is, no transnational payments are made to a local supplier)

Note: The geographic definition of 'local' can include the community surrounding operations, a region within a country or a country.

M

material topics
topics that represent the organization's most significant impacts on the economy, environment, and people, including impacts on their human rights

Note: See section 2.2 in *GRI 1: Foundation 2021* and section 1 in *GRI 3: Material Topics 2021* for more information on 'material topics'.

mitigation
action(s) taken to reduce the extent of a negative impact

Source United Nations (UN), *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*, 2012; modified

Note: The mitigation of an actual negative impact refers to actions taken to reduce the severity of the negative impact that has occurred, with any residual impact needing remediation. The mitigation of a potential negative impact refers to actions taken to reduce the likelihood of the negative impact occurring.

O

occupational health and safety management system
set of interrelated or interacting elements to establish an occupational health and safety policy and objectives, and to achieve those objectives

Source: International Labour Organization (ILO), *Guidelines on Occupational Safety and Health Management Systems, ILO-OSH 2001*, 2001

occupational health services
services entrusted with essentially preventive functions, and responsible for advising the employer, the workers, and their representatives in the undertaking, on the requirements for establishing and 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

Source: International Labour Organization (ILO), *Occupational Health Services Convention*, 1985 (No. 161)

Examples: advice on ergonomics, and on individual and collective protective equipment; advice on occupational health, safety, and hygiene; organization of first aid and emergency treatment; promotion of the adaptation of work to the worker; 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

other indirect (Scope 3) GHG emissions
indirect greenhouse gas (GHG) emissions not included in energy indirect (Scope 2) GHG emissions that occur outside of the organization, including both upstream and downstream emissions

P

parental leave
leave granted to men and women employees on the grounds of the birth of a child

political contribution
financial or in-kind support given directly or indirectly to political parties, their elected representatives, or persons seeking political office

Note 1: Financial contributions can include donations, loans, sponsorships, retainers, or the purchase of tickets for fundraising events.

Note 2: In-kind contributions can include advertising, use of facilities, design and printing, donation of equipment, or the provision of board membership, employment or consultancy work for elected politicians or candidates for office.

preparation for reuse
checking, cleaning, or repairing operations, by which products or components of products that have become waste are prepared to be put to use for the same purpose for which they were conceived

Source: European Union (EU), *Waste Framework Directive*, 2008 (Directive 2008/98/EC); modified

produced water
water that enters the organization's boundary as a result of extraction (e.g., crude oil), processing (e.g., sugar cane crushing), or use of any raw material, and has to consequently be managed by the organization

Source: CDP, *CDP Water Security Reporting Guidance*, 2018; modified

protected area
geographic area that is designated, regulated, or managed to achieve specific conservation objectives

R

recovery
operation wherein products, components of products, or materials that have become waste are prepared to fulfill a purpose in place of new products, components, or materials that would otherwise have been used for that purpose

Source: United Nations Environment Programme (UNEP), *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 1989; modified

Examples: preparation for reuse, recycling

Note: In the context of waste reporting, recovery operations do not include energy recovery.

recycling
reprocessing of sector or components of products that have become waste, to make new materials

Source: United Nations Environment Programme (UNEP), *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 1989; modified

remedy / remediation
means to counteract or make good a negative impact or provision of remedy

Source: United Nations (UN), *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*, 2012; modified

Examples: apologies, financial or non-financial compensation, prevention of harm through injunctions or guarantees of non-repetition, punitive sanctions (whether criminal or administrative, such as fines), restitution, restoration, rehabilitation

remuneration
basic salary plus additional amounts paid to a worker

Note: Examples of additional amounts paid to a worker can include those based on years of service, bonuses including cash and equity such as stocks and shares, benefit payments, overtime, time owed, and any additional allowances, such as transportation, living and childcare allowances.

renewable energy source
energy source that is capable of being replenished in a short time through ecological cycles or agricultural processes

Examples: biomass, geothermal, hydro, solar, wind

reporting period
specific time period covered by the reported information

Examples: fiscal year, calendar year

S

Scope of GHG emissions
classification of the operational boundaries where greenhouse gas (GHG) emissions occur

Note 1: Scope classifies whether GHG emissions are created by the organization itself, or are created by other related organizations, for example electricity suppliers or logistics companies.

Note 2: There are three classifications of Scope: Scope 1, Scope 2 and Scope 3.

Note 3: The classification of Scope derives from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD), *GHG Protocol Corporate Accounting and Reporting Standard,* Revised Edition, 2004.

seawater
water in a sea or in an ocean

Source: International Organization for Standardization. ISO 14046:2014. *Environmental management — Water footprint — Principles, requirements and guidelines*. Geneva: ISO, 2014; modified

security personnel

individuals employed for the purposes of guarding property of the organization; crowd control; loss prevention; and escorting persons, goods, and valuables

senior executive
high-ranking member of the management of the organization, such as the Chief Executive Officer (CEO) or an individual reporting directly to the CEO or the highest governance body

services supported
services that provide a public benefit either through direct payment of operating costs or through staffing the facility or service with an organization's own employees

Note: Public benefit can also include public services.

severity (of an impact)
The severity of an actual or potential negative impact is determined by its scale (i.e., how grave the impact is), scope (i.e., how widespread the impact is), and irremediable character (how hard it is to counteract or make good the resulting harm).

Source: Organisation for Economic Co-operation and Development (OECD), *OECD Due Diligence Guidance for Responsible Business Conduct*, 2018; modified
United Nations (UN), *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*, 2012; modified

Note: See section 1 in *GRI 3: Material Topics 2021* for more information on 'severity'.

significant air emission
air emission regulated under international conventions and/or national laws or regulations

Note: Significant air emissions include those listed on environmental permits for the organization's operations.

significant operational change
alteration to the organization's pattern of operations that can potentially have significant positive or negative impacts on workers performing the organization's activities

Examples: closures, expansions, mergers, new openings, outsourcing of operations, restructuring, sale of all or part of the organization, takeovers

significant spill
spill that is included in the organization's financial statements, for example due to resulting liabilities, or is recorded as a spill by the organization

spill
accidental release of a hazardous substance that can affect human health, land, vegetation, water bodies, and ground water

stakeholder
individual or group that has an interest that is affected or could be affected by the organization's activities

Source: Organisation for Economic Co-operation and Development (OECD), *OECD Due Diligence Guidance for Responsible Business Conduct*, 2018; modified

Examples: business partners, civil society organizations, consumers, customers, employees and other workers, governments, local communities, non-governmental organizations, shareholders and other investors, suppliers, trade unions, vulnerable groups

Note: See section 2.4 in *GRI 1: Foundation 2021* for more information on 'stakeholder'.

supplier
entity upstream from the organization (i.e., in the organization's supply chain), which provides a product or service that is used in the development of the organization's own products or services

Examples brokers, consultants, contractors, distributors, franchisees, home workers, independent contractors, licensees, manufacturers, primary producers, sub-contractors, wholesalers

Note: A supplier can have a direct business relationship with the organization (often referred to as a first-tier supplier) or an indirect business relationship.

supply chain
range of activities carried out by entities upstream from the organization, which provide products or services that are used in the development of the organization's own products or services

surface water
water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers, and streams

Source: CDP, *CDP Water Security Reporting Guidance*, 2018; modified

sustainable development / sustainability
development that meets the needs of the present without compromising the ability of future generations to meet their own needs

Source: World Commission on Environment and Development, *Our Common Future*, 1987

Note: The terms 'sustainability' and 'sustainable development' are used interchangeably in the GRI Standards.

T

third-party water
municipal water suppliers and municipal wastewater treatment plants, public or private utilities, and other organizations involved in the provision, transport, treatment, disposal, or use of water and effluent

V

value chain
range of activities carried out by the organization, and by entities upstream and downstream from the organization, to bring the organization's products or services from their conception to their end use

Note 1: Entities upstream from the organization (e.g., suppliers) provide products or services that are used in the development of the organization's own products or services. Entities downstream from the organization (e.g., distributors, customers) receive products or services from the organization.

Note 2: The value chain includes the supply chain.

vulnerable group
group of individuals with a specific condition or characteristic (e.g., economic, physical, political, social) that could experience negative impacts as a result of the organization's activities more severely than the general population

Examples: children and youth; elderly persons; ex-combatants; HIV/AIDS-affected households; human rights defenders; indigenous peoples; internally displaced persons; migrant workers and their families; national or ethnic, religious and linguistic minorities; persons who might be discriminated against based on their sexual orientation, gender identity, gender expression, or sex characteristics (e.g., lesbian, gay, bisexual, transgender, intersex); persons with disabilities; refugees or returning refugees; women

Note: Vulnerabilities and impacts can differ by gender.

W

waste
anything that the holder discards, intends to discard, or is required to discard

Source: United Nations Environment Programme (UNEP), *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 1989

Note 1: Waste can be defined according to the national legislation at the point of generation.

Note 2: A holder can be the reporting organization, an entity in the organization's value chain upstream or downstream (e.g., supplier or consumer), or a waste management organization, among others.

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 surface water, groundwater, seawater, or a third party over the course of the reporting period

Source: CDP, *CDP Water Security Reporting Guidance*, 2018; modified

Note: Water consumption includes water that has been stored during the reporting period for use or discharge in a subsequent reporting period.

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 1: Water can be released into the receiving waterbody either at a defined discharge point (point-source discharge) or dispersed over land in an undefined manner (non-point-source discharge).

Note 2: Water discharge can be authorized (in accordance with discharge consent) or unauthorized (if discharge consent is exceeded).

water stress
ability, or lack thereof, to meet the human and ecological demand for water

Source: CEO Water Mandate, *Corporate Water Disclosure Guidelines*, 2014

Note 1: Water stress can refer to the availability, quality, or accessibility of water.

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 ecosystems.

Note 3: Water stress in an area may be measured at catchment level at a minimum.

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

worker
person that performs work for the organization

Examples: employees, agency workers, apprentices, contractors, home workers, interns, self-employed persons, sub-contractors, volunteers, and persons working for organizations other than the reporting organization, such as for suppliers

Note: In the GRI Standards, in some cases, it is specified whether a particular subset of workers is required to be used.

work-related hazard
source or situation with the potential to cause injury or ill health

Source: International Labour Organization (ILO) *Guidelines on Occupational Safety and Health Management Systems,* 2001; modified
International Organization for Standardization. ISO 45001:2018. *Occupational health and safety management systems — Requirements with guidance for use*. Geneva: ISO, 2018; modified
Definitions that are based on or come from the ISO 14046:2014 and ISO 45001:2018 standards are reproduced with the permission of the International Organization for Standardization, ISO. Copyright remains with ISO.

Note: Hazards can be:

- 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).

work-related injury or ill health
negative impacts on health arising from exposure to hazards at work

Source: International Labour Organization (ILO), *Guidelines on Occupational Safety and Health Management Systems, ILO-OSH 2001*, 2001; modified

Note 1: 'Ill health' indicates damage to health and includes diseases, illnesses, and disorders. The terms 'disease', 'illness', and 'disorder' are often used interchangeably and refer to conditions with specific symptoms and diagnoses.

Note 2: Work-related injuries and ill health are those that arise from exposure to hazards at work. Other types of incident can occur that are not connected with the work itself. For example, the following incidents are not considered to be work related:

- a worker suffers a heart attack while at work that is unconnected with work;
- a worker driving to or from work is injured in a car accident (where driving is not part of the work, and where the transport has not been organized by the employer);
- a worker with epilepsy has a seizure at work that is unconnected with work.

Note 3: *Traveling for work:* Injuries and ill health that occur while a worker is traveling are work related if, at the time of the injury or ill health, the worker was engaged in work activities 'in the interest of the employer'. Examples of such activities include traveling to and from customer contacts; conducting job tasks; and entertaining or being entertained to transact, discuss, or promote business (at the direction of the employer).

Working at home: Injuries and ill health that occur when working at home are work related if the injury or ill health occurs while the worker is performing work at home, and the injury or ill health is directly related to the performance of work rather than the general home environment or setting.

Mental illness: A mental illness is considered to be work related if it has been notified voluntarily by the worker and is supported by an opinion from a licensed healthcare professional with appropriate training and experience stating that the illness is work related.

For more guidance on determining 'work-relatedness', see the United States Occupational Safety and Health Administration, *Determination of work-relatedness 1904.5*, https://www.osha.gov/pls/ oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9636, accessed on 1 June 2018.

Note 4: The terms ‘occupational’ and ‘work-related’ are often used interchangeably.

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The Netherlands

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