Item 03 – GRI Sector Standards Project for Agriculture and Fishing – Exposure draft for agriculture, aquaculture, and fishing

For GSSB approval

<table>
<thead>
<tr>
<th>Date</th>
<th>15 April 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting</td>
<td>29 April 2021</td>
</tr>
<tr>
<td>Project</td>
<td>GRI Sector Standards Project for Agriculture and Fishing</td>
</tr>
<tr>
<td>Description</td>
<td>This document sets the GRI Agriculture, Aquaculture and Fishing exposure draft, including the explanatory memorandum. These are submitted for GSSB approval for public exposure. It also includes a background section for GSSB information, which provides more detail on the content development process. As per the project proposal, this Standard was intended to apply to the agriculture, aquaculture, and fishing sectors. The Agriculture and Fishing Working Group recommended the title of the Standard be changed to reflect this and ensure recognition by the aquaculture sector. This change is proposed to take effect in the exposure draft, subject to GSSB approval. <strong>Please note:</strong> This Standard makes references to the GRI Universal Standards. As the Universal Standards are currently under revision, the references in this draft use the names of the Universal Standards as they were at the time of exposure. The names and other references, along with several figures in the introduction and the glossary terms will be updated to align with the version of the Universal Standards submitted to the GSSB for approval in May. This content will be update in this Standard prior to release for public exposure.</td>
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</table>
Background

The GRI Sector Standards Project for Agriculture and Fishing commenced in December 2019. The Agriculture and Fishing Working Group, which was appointed in April 2020, consists of 19 members representing 14 countries across 6 regions, as well as a broad set of commodities and products across agriculture, aquaculture, and fishing.

To date, the Working Group has been highly engaged, participating in a scoping survey, six full working group meetings, as well as numerous structured sub-group discussions. As the second pilot project for the Sector Program, a number of key learnings have been integrated into the approach to developing the exposure draft for agriculture, aquaculture, and fishing. For example, one change was an increased focus on scoping the likely material topics for the sectors with the Working Group prior to drafting content.

In addition to the Working Group, in November 2020, an external peer review was undertaken to test the proposed list of likely material topics, as well as the accuracy and detail of descriptions and disclosures for select topics, with external experts and stakeholders.

The peer reviewers were primarily selected from shortlisted candidates that applied to the Working Group. Additional participants were also recommended by members of the Working Group and Global Sustainability Standards Board.

29 participants attended a dedicated peer review session, with 16 written formal responses received from peer reviewers. Peer reviewers validated the list of topics and did not flag any critical flaws.

Preliminary findings on topic and disclosure gaps

It was anticipated that projects for Sector Standards would generate insight on the feasibility of developing reporting requirements, recommendations, and/or guidance for the sector. The work on agriculture, aquaculture, and fishing to date has surfaced some reporting expectations that might result in recommendations to develop new GRI Topic Standards. Seven likely material topics included in the exposure draft include no Topic Standards disclosures, namely:

- Natural ecosystem conversion
- Soil health
- Pesticides use
- Food security
- Animal health and welfare
- Land and resource rights
- Living income

Some of these topics, such as animal health and welfare, living income, and land and resource rights feature in multiple sector-specific and sector-agnostic global standards and frameworks and might result in recommendations to revise existing Topic Standards or develop new ones at the completion of the project.

Name of the Sector Standard

As per the project proposal, this Standard was intended to apply to the agriculture, aquaculture, and fishing sectors, however it was initially proposed that name would be Sector Standard: Agriculture and Fishing.

The Working Group recommends the title of the Standard be changed to reflect the inclusion of all three sectors in order to ensure recognition by the aquaculture sector. As such, it is proposed that the Standard be known as GRI Sector Standard: Agriculture, Aquaculture and Fishing and that this takes effect in the exposure draft.
Public comment

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

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

- Whether the topics that have been identified as likely material for organizations in the agriculture, aquaculture, and fishing sectors, and the way they are described, accurately reflect the sectors’ most significant impacts on the economy, environment, and people, including impacts on their human rights; and

- That the list of disclosures from the GRI Topic Standards and other sources included for each likely material topics are relevant for organizations in the sectors to report information about their impacts and approach.

The public comment will engage stakeholders globally across GRI's key constituencies. All engagement will be undertaken remotely.
Explanatory memorandum

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

Objectives for the project

The GRI Sector Standards Project for Agriculture, Aquaculture, and Fishing commenced in December 2019. This is a pilot project for the GRI Sector Program.

This project aims to identify and describe the significant impacts and stakeholder concerns for the agriculture, aquaculture, and fishing sectors from a sustainable development perspective, and provide evidence and authoritative references for these. This will serve as a foundation for increased transparency and more consistent reporting from organizations in the sectors.

As outlined in the GSSB’s Due Process Protocol, a multi-stakeholder working group was established in April 2020 to contribute to the development of a Sector Standard.

The GRI Sector Standards Project for Agriculture, Aquaculture, and Fishing applies to agriculture, aquaculture, and fishing organizations. These three sectors are considered to have common characteristics as producers of an essential societal need – food, as well as to share similar impacts on people and economy, and in part on environment. The working group recommended that the name of the Standard reflect all three sectors it covers – agriculture, aquaculture, and fishing.

For more information on the project, consult the project proposal and terms of reference of the PWG.

The GRI Universal Standards have simultaneously been under revision. The implementation model of the Sector Standards will be incorporated into these revised Universal Standards. The final Universal Standards are expected to be approved Q2 2021. For the purposes of this exposure draft, draft versions of the Universal Standards are used.

Significant proposals

An exposure draft for agriculture, aquaculture, and fishing has been developed in line with the project objectives set out above. Notable inclusions in this exposure draft are summarized below:

- **26 topics were identified as likely material** for organizations in the agriculture, aquaculture and fishing sectors (see Table 1). For each likely material topic, the sectors’ most significant impacts are described and disclosures to report information about the organization’s impacts and approach in relation to the topic are listed.

- Out of 26 likely material topics included in the exposure, **17 topics include disclosures from Topic Standards**. In addition, two topics Employment practices and Supply chain traceability include reporting recommendations from the GRI Topic Standards, but do not include any disclosures from Topic Standards.

- **7 topics do not include any disclosures nor recommendations from Topic Standards**, these are: Natural ecosystem conversion, Soil health, Pesticides use, Food security, Animal health and welfare, Land and resource rights, Living income. Sector-specific reporting has been included for these topics.

- **Some topics list disclosures for only one sector**, for example Water and Effluents and Waste include reporting on waste and effluents by MARPOL categories is for the fishing sector only.

- While not all organization in the agriculture, aquaculture, and fishing sectors produce food for human consumption, the sectors’ central role in food production has been recognized across topics and has resulted in inclusion of topics Food security and Food safety as well as expanded scope of the topic Waste and food loss.
The Sector Profile section further outlines the sector’s activities, business relationships, and its interactions with the global sustainable development agenda, including linkages to the UN Sustainable Development Goals. A mapping between the likely material topics and the relevant SDGs is included as part of the larger context in the section 1.2 The sectors and sustainable development, providing a starting point for organizations that seek to integrate the SDGs into their reporting.

Table 1: Likely material topics included in the draft Sector Standard: Agriculture, Aquaculture, and Fishing

<table>
<thead>
<tr>
<th>Likely material topic</th>
<th>Disclosures from these GRI Topic Standards are included for reporting on the topic</th>
<th>Whether additional sector recommendations or disclosures are listed for the topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emissions</td>
<td>GRI 305: Emissions 2016</td>
<td>Additional sector recommendations included for:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disclosure 305-1 Direct (Scope 1) GHG emissions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disclosure 305-3 Other indirect (Scope 3) GHG emissions</td>
</tr>
<tr>
<td>2. Climate adaptation and resilience</td>
<td>GRI 201: Economic Performance 2016</td>
<td>Additional sector recommendations included for:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disclosure 201-2 Financial implications and other risks and opportunities due to climate change</td>
</tr>
<tr>
<td>4. Natural ecosystem conversion</td>
<td>-</td>
<td>Additional sector recommendations included for Disclosure MT-3 Management of material topics</td>
</tr>
<tr>
<td>5. Soil health</td>
<td>-</td>
<td>Additional sector recommendations included for:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disclosure MT-3 Management of material topics</td>
</tr>
<tr>
<td>6. Pesticides use</td>
<td>-</td>
<td>• Additional sector recommendations included for Disclosure MT-3 Management of material topics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Additional sector disclosure</td>
</tr>
<tr>
<td>7. Water and effluents</td>
<td>GRI 303: Water and Effluents 2018</td>
<td>Additional sector recommendations included for:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disclosure 303-4 Water discharge</td>
</tr>
<tr>
<td>8. Waste and food loss</td>
<td>GRI 306: Waste 2020</td>
<td>Additional sector recommendations included for:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disclosure MT-3 Management of material topics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disclosure 306-3 Waste generated</td>
</tr>
<tr>
<td>9. Food security</td>
<td>-</td>
<td>Additional sector recommendations included for Disclosure MT-3 Management of material topics</td>
</tr>
<tr>
<td>10. Food safety</td>
<td>GRI 416: Customer Health and Safety 2016</td>
<td>• Additional sector recommendations included for</td>
</tr>
</tbody>
</table>
| 11. Animal health and welfare | - | Disclosure MT-3 Management of material topics  
| | | • Additional sector recommendations included for Disclosure MT-3 Management of material topics  
| | | • Additional sector disclosures. |
| 12. Local communities | GRI 413: Local Communities 2016 | - |
| | | • Additional sector disclosures. |
GRI 406: Non-discrimination 2016 | - |
| 16. Forced labor | GRI 409: Forced or Compulsory Labor 2016 | - |
| 17. Child labor | GRI 408: Child Labor 2016 | - |
| 19. Occupational health and safety | GRI 403: Occupational Health and Safety 2018 | - |
| 20. Employment practices | GRI 401 Employment 2016* | Additional sector recommendations included for Disclosure MT-3 Management of material topics |
| 21. Living income | - | • Additional sector recommendations included for Disclosure MT-3 Management of material topics  
| | | • Additional sector disclosures. |
| 22. Economic inclusion | GRI 203: Indirect Economic Impacts  
GRI 204: Procurement Practices 2016* | Additional sector recommendations included for Disclosure MT-3 Management of material topics |
| 23. Supply chain traceability | GRI 204: Procurement Practices 2016* | • Additional sector recommendations included for Disclosure MT-3 Management of material topics  
| | | • Additional sector disclosures. |
| 24. Public policy and lobbying | GRI 415: Public Policy 2016 | - |
| 25. Anti-competitive behavior | GRI 206: Anti-competitive Behavior 2016 | - |
| 26. Anti-corruption | GRI 205: Anti-corruption 2016 | - |
GSSB involvement and views on the development of this draft

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

The GSSB confirmed its support for content of the exposure draft for agriculture, aquaculture, and fishing when it voted to approve the draft for public exposure at its meeting on 29 April 2021. The recording of the meetings can be accessed on the GSSB website.
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Introduction

GRI Sector Standard: Agriculture, Aquaculture, and Fishing provides information for organizations in the agriculture, aquaculture, and fishing sectors about their most likely material topics. These topics have been identified as likely material for organizations in the agriculture, aquaculture, and fishing sectors on the basis of the sectors' most significant impacts on the economy, environment, and people, including impacts on their human rights.

Sector Standard: Agriculture, Aquaculture, and Fishing also contains a list of disclosures from the GRI Topic Standards and other sources for organizations in the agriculture, aquaculture, and fishing sectors to report information about their impacts and approach in relation to each likely material topic.

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

This Standard is structured as follows:

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

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

Sectors this Standard applies to

GRI Sector Standard: Agriculture, Aquaculture, and Fishing applies to organizations undertaking the following:

- Crop production
- Animal production
- Aquaculture
- Fishing

This Standard can be used by agriculture, aquaculture and fishing organizations of any size or type in any geographic location.

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

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

Sector classifications

Table 1 lists industry groupings relevant to the agriculture, aquaculture, and fishing sectors in the Global Industry Classification System (GICS®), Industry Classification Benchmark (ICB), International Standard Industrial Classification of All Economic Activities (ISIC), and Sustainable Industry...
Classification System (SICS®). The table is intended to assist an organization in identifying whether
the Sector Standard: Agriculture, Aquaculture and Fishing applies to it and is for reference only.

Table 1. Industry groupings relevant to the agriculture, aquaculture, and fishing sectors in other classification
systems

<table>
<thead>
<tr>
<th>Classification system</th>
<th>Classification number</th>
<th>Classification name</th>
</tr>
</thead>
<tbody>
<tr>
<td>GICS®</td>
<td>30202010</td>
<td>Agricultural products</td>
</tr>
<tr>
<td>ICB</td>
<td>3573</td>
<td>Farming, fishing and plantations</td>
</tr>
<tr>
<td>ISIC</td>
<td>A1</td>
<td>Crop and animal production (excluding hunting)</td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>Fishing and aquaculture</td>
</tr>
<tr>
<td>SICS®</td>
<td>FB-AG</td>
<td>Agricultural products</td>
</tr>
<tr>
<td></td>
<td>FB-MP</td>
<td>Meat, poultry and dairy</td>
</tr>
</tbody>
</table>

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 on 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

**Universal Standards: GRI 101, 102, and 103**

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

**GRI 101: Using the GRI Standards** sets out 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 101**.

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

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

**Sector Standards**

The Sector Standards provide information for organizations in a given sector about their most 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 on its
impacts and approach in relation to particular topics. The organization uses the Topic Standards
according to the list of material topics it has determined using **GRI 103**.
Using this Standard

An organization in the agriculture, aquaculture, and fishing sectors reporting in accordance with the GRI Standards is required to use this Standard when determining its material topics and when determining what information to report for the material topics.

Determining material topics

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

An organization in the agriculture, aquaculture, and fishing sectors is required to use this Standard when determining its material topics. The organization needs to review each topic described in Section 2 of this Standard and determine whether it is a material topic for the organization.

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

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

See Requirement 3 in Section 3 of GRI 101: Using the GRI Standards and Box 1 in GRI 103: Material Topics for more information on using Sector Standards when determining material topics.
Determining what to report

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

A what to report section is included for each topic in Section 2 of this Standard. What to report sections list disclosures from the GRI Topic Standards. They may also list additional sector recommendations and disclosures for the organization to report on, in cases where the Topic Standards do not provide sufficient information about an organization’s impacts and approach in relation to a topic.

Additional sector disclosures may be based on other sources.

Figure 2 illustrates how what to report sections are structured.

Figure 2. Structure of what to report sections

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

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

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

See Requirement 5 in Section 3 of GRI 101: Using the GRI Standards for more information on using Sector Standards when identifying disclosures to report on.
Defined terms

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

References and resources

Each GRI Topic Standard includes a list of authoritative intergovernmental instruments and other sources used in developing the Topic Standard, as well as additional resources that can be consulted by organizations on the topic. Additional authoritative instruments and sources used to develop the topics in this Standard, as well as further resources that may be helpful for understanding and reporting on the topic by organizations in the agriculture, aquaculture, and fishing sectors are listed at the end of the Standard.
1. Sector profile

The agriculture, aquaculture, and fishing sectors involve the cultivation, production, and capture of organisms that can be used as food for human consumption or animal feed, fibers, fuels, and other products. Agriculture consists of crop and animal production; aquaculture encompasses the cultivation of live aquatic organisms; fishing entails capturing fish and other wild aquatic organisms. Agriculture, aquaculture, and fishing operations can be formally or informally organized as large-scale or small-scale business enterprises, government institutions, or other organizations, including households and cooperatives. These organizations can own or operate farms, mills, and hatcheries. Vertically integrated organizations can directly own or manage production, storage, processing, and distribution.

1.1 Sector activities and business relationships

When determining its material topics, the organization should consider both the impacts of its activities and its business relationships. See GRI 103: Material Topics for more information on how to determine material topics.

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 agriculture, aquaculture, and fishing sectors. This list is not exhaustive.

Crop production

Production: growing and harvesting seeds, trees for rubber and latex, and all crops, such as cereals, vegetables, fruits, fibers, and other types; gathering berries, nuts, mushrooms, and sap.

Primary processing: cleaning, grading, hulling, pounding, and milling grains; soaking, heating, and drying leaves; extracting and filtering oils.

Aggregation: amassing crop produce from multiple sources at farm level for sale to downstream markets, which can involve transaction by intermediary organizations or single actors.

Storage: keeping crops in a way that preserves their quality and keeps them safe from, for example, molds, yeasts, and rodents.

Transportation: using traditional or mechanized transportation to move crops.

Trading: buying and selling crops.

Animal production

Production: breeding and rearing livestock and poultry; collecting live animal products, such as milk, eggs, honey, and wool; raising animals in captivity; operating animal farms.

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1 Based on United Nations (UN) International Standard Industrial Classification of All Economic Activities.

2 Primary processing is processing in order to prepare agriculture, aquaculture, and fishing products for primary markets, as defined by the Food and Agriculture Organization (FAO). Post-harvest processing, accessed 9 February 2021.
**Primary processing:** cleaning and washing animal products; processing of milk; candling eggs; slaughtering animals for meat; deboning, cutting, smoking, and freezing meat; separating fur, skins, feathers, and down.

**Aggregation:** gathering live animals and animal products from multiple farms for sale to downstream markets, which can involve transaction via intermediary organizations or single actors.

**Storage:** keeping animal products in a way that preserves their quality and keeps them safe from, for example, harmful bacteria.

**Transportation:** using traditional or mechanized transportation to move live animals and animal products.

**Trading:** buying and selling live animals and animal products.

### Aquaculture

**Production:** culturing or farming of aquatic organisms, such as fish, mollusks, and crustaceans, in captive conditions that involve regular stocking, feeding, and protecting against predators; this includes both capture-based aquaculture (CBA) and hatchery-based aquaculture (HBA) systems. It also includes growing of laver and other seaweeds.

**Primary processing:** slaughtering fish, mollusks, and crustaceans; deshelling crustaceans; undertaking service activities incidental to the operation of fish hatcheries and fish farms.

**Aggregation:** amassing fish, mollusks, and crustaceans from multiple sources for sale to downstream markets, which can involve transaction via intermediaries or single actors.

**Storage:** keeping aquaculture products in a way that preserves their quality and keeps them safe from, for example, harmful bacteria.

**Transportation:** using traditional or mechanized transportation to move aquaculture products.

**Trading:** buying and selling aquaculture products.

### Fishing

**Fishing:** capturing aquatic organisms, such as fish, mollusks, and crustaceans, by hand or fishing gear, which can be conducted on the intertidal shoreline via shore-based netting, or by commercial fishing vessels in inshore, coastal waters, or offshore waters.

**Primary processing:** onboard handling of live wild aquatic organisms after capture and through to point of landing.

**Aggregation:** amassing fish, mollusks, and crustaceans from multiple sources to downstream markets, which can involve intermediary organizations or single actors.

**Storage:** keeping fish and fish products in a way that preserves their quality and keeps them safe from, for example, harmful bacteria.

**Transportation:** using traditional or mechanized transportation to move fish and fish products.

**Trading:** buying and selling fish and fish products.

### Business relationships

An organization’s business relationships include relationships with business partners, entities in its value chain, (including entities those beyond the first tier), and any other entities directly linked to its operations, products, or services. The following types of business relationships are of particular relevance when identifying the impacts of organizations in the agriculture, aquaculture, and fishing sectors.

**Primary producers:** Agriculture, aquaculture, and fishing organizations can often buy their products from primary producers who actively farm or fish. Primary producers can be other organizations or persons, such as farmers and fishers, categorized as self-employed workers.
Aggregators: intermediary organizations or actors who bring products from multiple sources at farm, hatchery, or mill level for sale to downstream markets.

Animal or fish feed suppliers: organizations or persons that provide feed for animal production or aquaculture.

1.2 The sectors and sustainable development

Agriculture, aquaculture, and fishing sectors are fundamental to supporting food systems and ensuring the right to food is enjoyed by all. The sectors also provide non-food products, such as fibers, fuels, and rubber.

In the context of sustainable development, significant impacts associated with these sectors’ activities are linked to intensive use of natural resources, the location of operations in rural areas, the labor needed for production, as well as the need to meet food demands for the world’s growing population while staying within the planetary environmental limits. Human rights impacts are associated with both the use of land and natural resources and the vulnerability of rural workers and communities.

Over 2.5 billion people living in rural areas depend on the agriculture, aquaculture, and fishing sectors for jobs and income. At the same time, agriculture, aquaculture, and fishing are among the sectors with the highest informality rates in employment contracts, commercial transactions, and land tenure, posing challenges to upholding labor and human rights. Many rural workers, including farmers and fishers, live below the poverty line, needing better economic opportunities, access to technology and training. In addition, organizations’ purchasing practices and prices offered for products are the major source of impact on small producers.

Agriculture, aquaculture, and fishing organizations rely on land, water, and fishery resources for production, and have a substantial environmental footprint. For example, agriculture accounts for an estimated 70% of freshwater withdrawals globally. Estimate show that the agriculture sector is the second-largest source of greenhouse gas (GHG) emissions after the energy sector, while fishing accounts for at least 1.2% of the global oil consumption. Animal production is also associated with impacts on animal health and welfare and on human health through antimicrobial resistance and zoonotic disease.

The agriculture sector has been responsible for 70% of losses in terrestrial biodiversity as a result of land conversion, deforestation, and impacts of pesticides. Fishing has had significant impacts on global ocean biodiversity, with one third of fish stocks being overfished and about 60% fished at their maximum sustainable levels. Agriculture, aquaculture, and fishing production relies on natural resources and hence on biodiversity. Implementing sustainable practices across the sectors is a fundamental condition for food security and nutrition.

Climate change poses major challenges for the agriculture, aquaculture, and fishing sectors. It can affect yields, disrupt production, and supply chains, jeopardizing food security. Impacts of climate change can also deepen poverty levels, displace people from their lands, and thus increase migration.

Agriculture, aquaculture, and fishing organizations can contribute to food security through facilitating adaptation and resilience, reducing food loss, and providing income and livelihoods.

Sustainable Development Goals

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

Since the Sustainable Development Goals and the targets associated with them are integrated and indivisible, and so agriculture, aquaculture, and fishing organizations have the potential to impact all SDGs by either enhancing their positive contributions or avoiding and mitigating negative impacts.

Agriculture, aquaculture, and fishing are central to the 2030 Agenda. Providing food and helping reduce poverty, the sectors are best positioned to contribute to the Goal 2: Zero Hunger. Agriculture, aquaculture, and fishing sectors are also the world’s biggest employer and the largest economic sectors
for many countries, impacting directly on **Goal 1: No Poverty** and **Goal 8: Decent Work and Economic Growth**.

By sustainably managing and efficiently using natural resources (**Goal 12: Responsible Consumption and Production**), agriculture has the potential to revitalize rural landscapes, contributing to **Goal 15: Life on land**. Aquaculture and fishing sectors can contribute to healthy marine and aquatic ecosystems covered under the **Goal 14: Life Below Water**. By implementing resilient fishing and farming practices, agriculture, aquaculture, and fishing sectors can help increase productivity, and build the adaptive capacity to respond to climate change (**Goal 13: Climate Action**).

Table 2 highlights connections between the likely material topics for the agriculture, aquaculture, and fishing sectors and the SDGs. These linkages 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 sectors. It is a starting point for organizations that seek to integrate the SDGs into their reporting.

Table 2: Linkages between the likely material topics for the Agriculture, aquaculture, and fishing sectors and the SDGs.

<table>
<thead>
<tr>
<th>Likely material topics</th>
<th>Corresponding SDGs</th>
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</thead>
<tbody>
<tr>
<td>1. Emissions</td>
<td>Goal 3: Good Health and Well-being</td>
</tr>
<tr>
<td></td>
<td>Goal 12: Responsible Consumption and Production</td>
</tr>
<tr>
<td></td>
<td>Goal 13: Climate Action</td>
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<tr>
<td></td>
<td>Goal 14: Life Below Water</td>
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<tr>
<td></td>
<td>Goal 15: Life on Land</td>
</tr>
<tr>
<td>2. Climate adaptation and resilience</td>
<td>Goal 1: No poverty</td>
</tr>
<tr>
<td></td>
<td>Goal 2: Zero Hunger</td>
</tr>
<tr>
<td></td>
<td>Goal 13: Climate Action</td>
</tr>
<tr>
<td>3. Biodiversity</td>
<td>Goal 6: Clean Water and Sanitation</td>
</tr>
<tr>
<td></td>
<td>Goal 12: Responsible Consumption and Production</td>
</tr>
<tr>
<td></td>
<td>Goal 14: Life Below Water</td>
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<tr>
<td></td>
<td>Goal 15: Life on Land</td>
</tr>
<tr>
<td>4. Natural ecosystem conversion</td>
<td>Goal 15: Life on Land</td>
</tr>
<tr>
<td></td>
<td>Goal 13: Climate Action</td>
</tr>
<tr>
<td></td>
<td>Goal 14: Life Below Water</td>
</tr>
<tr>
<td>5. Soil health</td>
<td>Goal 15: Life on Land</td>
</tr>
<tr>
<td>6. Pesticides use</td>
<td>Goal 3: Good Health and Well-being</td>
</tr>
<tr>
<td></td>
<td>Goal 6: Clean Water and Sanitation</td>
</tr>
<tr>
<td></td>
<td>Goal 8: Decent Work and Economic Growth</td>
</tr>
<tr>
<td></td>
<td>Goal 12: Responsible Consumption and Production</td>
</tr>
<tr>
<td></td>
<td>Goal 15: Life on Land</td>
</tr>
<tr>
<td>7. Water and effluents</td>
<td>Goal 6: Clean Water and Sanitation</td>
</tr>
<tr>
<td></td>
<td>Goal 12: Responsible Consumption and Production</td>
</tr>
<tr>
<td></td>
<td>Goal 14: Life Below Water</td>
</tr>
</tbody>
</table>
| 8. Waste and food loss             | Goal 2: Zero Hunger  
|                                   | Goal 12: Responsible Consumption and Production |
|                                   | Goal 14: Life Below Water  
|                                   | Goal 13: Climate Action  
|                                   | Goal 15: Life on Land  
|                                   | Goal 17: Partnerships for the Goals |
| 10. Food safety                   | Goal 2: Zero Hunger  
|                                   | Goal 3: Good Health and Well-being |
| 11. Animal health and welfare     | Goal 15: Life on Land |
| 12. Local communities             | Goal 1: No poverty  
|                                   | Goal 2: Zero Hunger  
|                                   | Goal 5: Gender Equality  
|                                   | Goal 6: Clean Water and Sanitation  
|                                   | Goal 13: Climate Action  
|                                   | Goal 15: Life on Land  
|                                   | Goal 16: Peace and Justice Strong Institutions |
| 13. Land and resource rights      | Goal 1: No Poverty  
|                                   | Goal 2: Zero Hunger  
|                                   | Goal 12: Responsible Consumption and Production  
|                                   | Goal 15: Life on Land  
|                                   | Goal 16: Peace and Justice Strong Institutions |
| 14. Rights of indigenous peoples | Goal 1: No Poverty  
|                                   | Goal 2: Zero Hunger  
|                                   | Goal 11: Sustainable Cities and Communities  
|                                   | Goal 13: Climate Action  
|                                   | Goal 15: Life on Land  
|                                   | Goal 16: Peace and Justice Strong Institutions |
| 15. Non-discrimination and equal opportunity | Goal 5: Gender Equality  
|                                   | Goal 8: Decent Work and Economic Growth  
|                                   | Goal 10: Reduced Inequalities  
|                                   | Goal 14: Life Below Water  
|                                   | Goal 16: Peace and Justice Strong Institutions |
| 16. Forced labor                  | Goal 5: Gender Equality  
|                                   | Goal 8: Decent Work and Economic Growth  
|                                   | Goal 16: Peace and Justice Strong Institutions |
| 17. Child labor                   | Goal 1: No Poverty |
| 18. Freedom of association and collective bargaining | Goal 8: Decent Work and Economic Growth  
Goal 16: Peace and Justice Strong Institutions |
|--------------------------------------------------|--------------------------------------------------------------------------------|
| 19. Occupational health and safety                | Goal 3: Good Health and Well-being  
Goal 8: Decent Work and Economic Growth |
| 20. Employment practices                          | Goal 1: No Poverty  
Goal 8: Decent Work and Economic Growth  
Goal 10: Reduced Inequalities |
| 21. Living income                                 | Goal 1: No Poverty  
Goal 2: Zero Hunger  
Goal 8: Decent Work and Economic Growth  
Goal 10: Reduced Inequalities |
| 22. Economic inclusion                            | Goal 1: No Poverty  
Goal 2: Zero Hunger  
Goal 8: Decent Work and Economic Growth  
Goal 9: Industry, Innovation and Infrastructure  
Goal 11: Sustainable Cities and Communities  
Goal 14: Life Below Water |
| 23. Supply chain traceability                     | Goal 12: Responsible Consumption and Production  
Goal 14: Life Below Water  
Goal 16: Peace, Justice and Strong Institutions |
Goal 14: Life Below Water  
Goal 15: Life on Land  
Goal 16: Peace and Justice Strong Institutions |
| 25. Anti-competitive behavior                     | Goal 16: Peace and Justice Strong Institutions |
| 26. Anti-corruption                               | Goal 16: Peace and Justice Strong Institutions |
2. Likely material topics

The following section outlines the likely material topics for the Agriculture, Aquaculture, and Fishing sectors. Each topic describes the most significant impacts related to the topic and lists disclosure that have been identified as relevant for reporting on the topics by the sectors. The organization needs to review each topic in this section and determine whether it is material for it to report on.

2.1 Emissions

This topic addresses emissions into air, including greenhouse gas (GHG), ozone-depleting substances (ODS), and nitrogen oxides (NOX) and sulfur oxides (SOX), among other significant air emissions. Emissions can have negative impacts on air quality, ecosystems, and human and animal health. GHG emissions are a major contributor to climate change.

Agriculture is responsible for large portions of two of the most significant sources of greenhouse gas (GHG) emissions: carbon dioxide (CO₂) and methane (CH₄). From 2007 to 2016, activities in the sector accounted for approximately 13% of CO₂, 44% of CH₄, and 82% of nitrous oxide (N₂O) emissions from human activities globally; these figures totaled 23% of total net anthropogenic emissions of GHGs.

Crop production primarily produces GHG emissions through soil cultivation, with the largest discharges coming from soil tillage, soil decomposition, and burning vegetation and crop residues (see Soil health). Fertilizers, pesticides, and fossil fuels used to power machinery and vehicles also release GHG emissions. Crop residue decomposition and burning plant biomass are other direct sources of emissions, including CO₂, N₂O, and particulate matter.

Ruminant livestock produce GHG emissions during their respiration and digestion processes. Animal manure also emits gases, such as CH₄, N₂O, and CO₂. In 2014, livestock on managed pastures and rangelands accounted for over half of total anthropogenic N₂O emissions from agriculture. GHGs can also be emitted from the use of fossil fuel to power machinery and vehicles in animal production.

Impacts associated with crop and animal production also include emissions arising from land use change, including the conversion of land from a natural ecosystem to use for agriculture or aquaculture (see Natural ecosystem conversion). Land use changes can contribute to the release of large amounts of CO₂, especially when mature forests or grasslands are cleared.

Land conversion for crops used as animal and fish feed is an additional source of emissions in animal production and aquaculture; in aquaculture, it is the leading cause of other indirect (Scope 3) emissions. Emissions are also associated with production, processing, and transportation of feed.

Land-based aquaculture farms can require high energy levels to regulate water temperature and circulation, contributing to GHG emissions through combustion of fuel.

In fishing, emissions can be associated with burning diesel fuel, marine fuel oils, and intermediate fuel oils. Such fuel is used to power vessels, process fish on board, and freeze or refrigerate fish. Besides contributing to GHG emissions, combustion of fuels produces localized air pollution. Use of refrigerants to store fish products can result in emissions of ozone-depleting substances.

Oceans have a high capacity to store anthropogenic carbon, and the largest storage pools are found in marine sediments. Trawls are one of the most commonly used types of fishing gear, with about a quarter of marine fish caught by bottom trawls worldwide. Trawls that get dragged along the seabed cause the release of CO₂ stored in sediments of the ocean floor. It is estimated that bottom trawling causes one gigaton of emissions a year.
What to report

If the organization has identified emissions as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tbody>
<tr>
<td><strong>Management of the topic</strong></td>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td></td>
</tr>
<tr>
<td><strong>Topic Standards disclosures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRI 305: Emissions 2016</strong></td>
<td>Disclosure 305-1 Direct (Scope 1) GHG emissions</td>
<td>When reporting on gross direct (Scope 1) GHG emissions in metric tons of CO$_2$ equivalent, include emissions associated with natural ecosystem conversion.</td>
</tr>
<tr>
<td></td>
<td>Disclosure 305-2 Energy indirect (Scope 2) GHG emissions</td>
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</tr>
<tr>
<td></td>
<td>Disclosure 305-3 Other indirect (Scope 3) GHG emissions</td>
<td>When reporting on gross other indirect (Scope 3) GHG emissions in metric tons of CO$_2$ equivalent, include emissions associated with natural ecosystem conversion.</td>
</tr>
<tr>
<td></td>
<td>Disclosure 305-4 GHG emissions intensity</td>
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<td></td>
<td>Disclosure 305-5 Reduction of GHG emissions</td>
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<tr>
<td></td>
<td>Disclosure 305-6 Emissions of ozone-depleting substances (ODS)</td>
<td></td>
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<tr>
<td></td>
<td>Disclosure 305-7 Nitrogen oxides (NO$_x$), sulfur oxides (SO$_x$), and other significant air emissions</td>
<td></td>
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</tbody>
</table>

Resources and references

GRI 305: Emissions 2016 lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 74.
2.2 Climate adaptation and resilience

Organizations contribute to climate change and are simultaneously affected by it. Climate adaptation and resilience refers to how organizations are adjusting to current and anticipated climate-related risks, as well as contributing to the ability of societies and economies to withstand impacts from climate change.

For organizations in the agriculture, aquaculture and fishing sectors, impacts related to climate change include physical environmental impacts driven by acute events and long-term shifts in climate patterns. Climate change has resulted in increased frequency, intensity, and duration of heat-related events, including more volatile weather systems in most world regions. Impacts of climate change cut across environmental and socioeconomic systems.

In recent decades, climate change has caused a negative impact on crop yields and suitability. The warmer winters related to climate change pose a risk to harvests, specifically affecting fruits and vegetables that need a period of colder weather to produce viable harvests. According to the Intergovernmental Panel on Climate Change (IPCC), between 34 and 600 million more people could suffer from hunger by 2080, depending on how climate change scenarios unfold.

A major concern for the agriculture sector is the exacerbation of land degradation caused by global warming. This can lead to increased rainfall intensity, flooding, drought frequency and severity, pest prevalence, diseases, heat stress, dry spells, wind, sea-level rise, wave action, and permafrost thaw. Aquaculture and fishing operations are likely to be affected by negative impacts such as water temperature increase, oxygen deficit, sea-level rise, decreased pH levels, and changes in productivity patterns. Small-scale fishers in tropical, less developed, and poor regions are particularly vulnerable to climate change impacts. Aquaculture and inland fishing are threatened by changes in precipitation and water management, increased stress on freshwater resources, and frequency and intensity of extreme climate events.

An organization's failure to adapt to climate change-related impacts can lead to disruptions in operations, loss of livelihood for people, and increased occupational health and safety impacts. This can affect an organization's workers, suppliers, customers, and shareholders as well as smallholder farmers, indigenous people, and local communities. Disruptions in operations can leave demands for agriculture, aquaculture, and fishing products unfulfilled, in turn causing negative impacts on food security.

In addition to their key role in climate change mitigation (see Emissions), organizations can take action to adapt to climate change and build resilience. One broadly identified adaptation option for the agriculture, aquaculture, and fishing sectors is diversification in production, including reliance on wider genetic base and genetic improvements for tolerance to heat and drought. Mitigating food loss is also a form of climate adaptation as less lost food means less land is needed for the same output. Preservation of indigenous and local knowledge of biodiversity is also recognized as a contributing factor to enhancing climate resilience, as it focuses on preserving ecosystems and offers adaptive strategies to cope with unfavorable climatic conditions in local areas.

What to report

If the organization has identified climate adaptation and resilience as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tr>
<td>Management of the topic</td>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
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</table>

Topic Standards disclosures
| GRI 201: Economic Performance 2016 | Disclosure 201-2 Financial implications and other risks and opportunities due to climate change | Describe the climate change-related scenarios used for identifying the risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue, or expenditure. |

### Resources and references

*GRI 201: Economic Performance 2016* lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 75.
2.3 Biodiversity

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

Biodiversity is essential for food production and the supply of a wide range of ecosystem services. 80% of terrestrial biodiversity is found in indigenous peoples’ lands and forests. Respecting indigenous peoples’ rights to land and natural resources is key to biodiversity conservation.

According to the International Union for Conservation of Nature (IUCN), major threats to biodiversity include habitat loss and degradation, overexploitation of biological resources, pollution, climate change, and introduced invasive species.

Impacts from agriculture, aquaculture, and fishing on biodiversity include air, soil, and water contamination, deforestation, soil erosion, and sedimentation of waterways. Other impacts involving species include increased mortality rates, habitat fragmentation, and the introduction of invasive species and pathogens leading to species loss or extinction.

Biodiversity generally declines as agriculture, aquaculture, or fishing activities intensify. This is driven by natural ecosystem conversion and a change of habitat (see Natural ecosystem conversion). Biodiversity can be further impacted by monoculture, also known as monocropping, whereby the same crops or animal species are grown or bred year after year. While this practice may increase production or reduce emissions, it decreases agrobiodiversity on farms and plantations and biodiversity in adjacent environments.

Continuous monocropping in agriculture can result in a buildup of pests and diseases. Monocultures usually require high pesticides use, which can be toxic to many non-target species, including pollinators – insects or animals that carry pollen from one plant or plant part to another. Pollination is a crucial ecosystem service, especially within agriculture, as 75% of global food crops rely on it.

Agriculture and aquaculture operations can also impact species that exist in natural ecosystems’ surrounding areas. For example, animal production can be a major source of surplus nitrogen and phosphorous pollution, which can lead to eutrophication in adjacent lakes and rivers, rendering them uninhabitable for aquatic biodiversity (see Water and effluents). This can impact the right to food and other human rights of local communities. A similar impact can be caused by aquaculture activities due to a buildup of fish excrement in waterbodies. Aquaculture can also result in impacts on local biodiversity through escapes from aquaculture farms, which in turn can establish themselves to compete with the area’s native biodiversity.

Fishing is one of the most significant drivers of declining ocean biodiversity, due to overfishing, by-catch, illegal, unreported, and unregulated fishing (IUU), and introduction of non-locally adapted species. Overfishing leads to impacts on the biodiversity of marine ecosystems by altering the population size and body-size composition of targeted species as well as non-targeted species. These alterations result in impacts on predator-prey relationships and cause shifts in trophic structures (see Natural ecosystem conversion). Overfishing can also be driven by capture-based aquaculture, which relies on wild fish stocks for feed. In 2017, 34.2% of the world’s marine fish stocks were classified as overfished, and the proportion of world marine fish stocks within biologically sustainable levels had declined to 65.8% from 90% in 1974.

In addition, in fishing lost or discarded fishing gear, known as ghost gear, continues to trap species, a phenomenon known as ghost fishing. This can pose a threat to both target and non-target species, potentially killing endangered and protected species and damaging underwater habitats. Ghost gear contributes to marine pollution (see Waste and food loss).
What to report

If the organization has identified biodiversity as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tbody>
<tr>
<td><strong>Management of the topic</strong></td>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
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<tr>
<td><strong>Topic Standards disclosures</strong></td>
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<tr>
<td>GRI 304: Biodiversity 2016</td>
<td>Disclosure 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas</td>
<td></td>
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<tr>
<td></td>
<td>Disclosure 304-2 Significant impacts of activities, products, and services on biodiversity</td>
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<tr>
<td></td>
<td>Disclosure 304-3 Habitats protected or restored</td>
<td></td>
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<tr>
<td></td>
<td>Disclosure 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations</td>
<td></td>
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<tr>
<td><strong>Additional sector disclosures</strong></td>
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<tr>
<td></td>
<td>The following additional sector disclosures are for organizations in the aquaculture and fishing sectors:</td>
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<tr>
<td></td>
<td>Report the volume in metric tons of aquatic organisms caught or harvested by species scientific name, fishing or farming method, and location of origin.</td>
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</tbody>
</table>

Resources and references

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

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 75.
2.4 Natural ecosystem conversion

Natural ecosystem conversion refers to the changing of a natural ecosystem to another use or the profound change in a natural ecosystem’s species composition, structure, or function. This topic covers impacts related to natural ecosystem conversion, including impacts related to discrete incidents of land clearance as well as severe degradation or introduction of management practices that result in substantial and sustained change in natural ecosystems.

Natural ecosystems perform important services, including absorbing and storing vast quantities of carbon dioxide (CO₂). When natural ecosystems are converted to other uses, stored carbon can be released into the atmosphere, contributing to greenhouse gas (GHG) emissions and climate change (see Emissions and Climate adaptation and resilience). Estimates show that the loss of primary tropical forest in 2019 resulted in the release of more than 2 billion tons of CO₂.

In the agriculture and aquaculture sectors, natural ecosystem conversion can be the result of using land and aquatic environments for animal breeding, grazing, crop production, aquaculture production, and ancillary activities. This can occur rapidly, with a large change taking place in a short time, or gradually, with incremental changes over a long time.

Terrestrial ecosystem conversion, in particular, can occur as crop or animal production expands. It can include deforestation as well as conversion of other ecosystems, such as grasslands, woodlands, or savannas. Deforestation occurs when primary and secondary forests are cleared, often by burning.

Aquatic ecosystem conversion happens as the result of reclamation of coastal, lake, river, wetland, peatland, or benthic ecosystems. Conversion of aquatic environments by aquaculture operations can include the clearing of arable land, mangroves, salt marshes, and wetlands or sustained changes to lake and river ecosystems to make them fit for aquatic farming sites. Aquaculture also relies heavily on crops for fish feed and can contribute to the conversion of terrestrial ecosystems.

In fishing, bottom trawling causes impacts on the seabed's physical structure, affecting bottom plants, corals, sponges, fish, and other animals. This can profoundly change how natural benthic ecosystems function or lead to their destruction, causing impacts on biodiversity and CO₂ emissions (see Emissions).

Conversion of natural ecosystems can also lead to other environmental impacts, such as loss of biodiversity (see Biodiversity), acceleration of soil erosion (see Soil health), and increased run-off and effluent pollution (see Water and effluents).

People can be displaced due to physical changes to the landscapes surrounding their communities or degradation or depletion of natural resources or ecosystem services that the community relies on (see Local communities and Land and resource rights). Loss of natural ecosystems and resources can cause food insecurity. For indigenous peoples, it can result in loss of cultural and spiritual heritage and livelihoods. Natural ecosystem conversion also causes impacts on the rights of indigenous people and local communities to self-determination and self-governance (see Rights of indigenous peoples).

What to report

If the organization has identified natural ecosystem conversion as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td>– Describe policies or commitments to reduce or eliminate natural ecosystem conversion from production in the</td>
</tr>
<tr>
<td>Additional sector disclosures</td>
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<tr>
<td>Report the percentage of the total production from own activities and suppliers that has not caused or contributed to natural ecosystem conversion and methods for determining that, for example, certification, sourcing from low-risk jurisdictions, or sourcing from verified suppliers.</td>
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<tr>
<td>Report the percentage of the total production from own activities and suppliers, for which it is unknown whether it has caused or contributed to natural ecosystem conversion, and actions being taken to improve traceability.</td>
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<tr>
<td>Report the size in hectares, location, and type of the natural ecosystem on the land owned, leased, or managed by the organization, which has been converted since the appropriate cut-off date. <em>Note: Natural ecosystem type can be characterized by biome, vegetation type, and/or high conservation value status as relevant to region and regulatory context.</em></td>
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<tr>
<td>Size in hectares, location, and type of the natural ecosystem converted by suppliers or in sourcing areas since the appropriate cut-off date.</td>
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</table>

### Resources and references

The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 76.

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3 A cut-off date is the past starting date of the period for which the organization reports on conversion, conversion after the cut-off date renders a product non-compliant with commitments and policies on natural ecosystem conversion. *Note: Appropriate cut-off dates may be selected based on cut-off dates of organization’s policies, certification programs, sectoral/regional cut-off dates, legislation, and/or on availability of monitoring data. If an organization has not identified an appropriate cut-off date, then one should be calculated for the past five years.*
2.5 Soil health

Soil health is the capacity of soil to function as a living ecosystem and to sustain plant and animal productivity, maintain or enhance water and air quality, and promote plant and animal health. This topic covers impacts on soil health, including soil erosion, reduction in soil fertility, salinization, and waterlogging.

Recent estimates suggest that 80% of land used for agriculture suffers from moderate to severe erosion. Although a naturally occurring process, soil erosion can accelerate greatly through agricultural activities, including removal of vegetation cover, tillage, soil compaction, and overgrazing by livestock, particularly when these practices are conducted on steep slopes in areas subjected to intense rainstorms or wind events.

In agriculture, original vegetation cover is removed to make land available for crop production or animal grazing. Agricultural crops rarely hold onto the topsoil as well as the original vegetation cover, increasing soil erosion and potentially reducing soil fertility over time. Estimates show that half of the topsoil globally has been lost in the last 150 years.

Soil erosion can also be accelerated by tillage. Conventional tillage inverts and breaks up the soil, destroys the soil structure, and buries crop residues. Minimum till or no-till methods reduce tillage area and/or tillage depth, as practiced in regenerative agriculture. Rates of soil erosion from agricultural fields exceed rates of soil formation at an estimate currently ranging between 10 to 20 times higher when there is no tillage to over 100 times higher when conventional tillage is used.

Tillage can also increase the soil’s sensitivity to compaction, which can lead to impacts on soil biodiversity. Tilled soils have less capacity to support loads applied to the ground and are consequently more sensitive to compaction caused by agricultural machinery. A reduction in soil carrying capacity can also come from overgrazing. Grazing livestock can cause impacts on soil structure through excessive defoliation, defecation, and trampling.

Fertilizers, both organic and inorganic, as well as pesticides have an impact on soil health (see Pesticides use). Excessive use of fertilizer can increase soil acidity levels. Pesticides use can impact soil communities by influencing the performance of soil biota or modifying it. This can affect the entire soil food web in terms of abundance and composition. Incorrect fertilizer and pesticide application results in runoff to water, which can affect local communities, including indigenous peoples, and their human rights to health, food, clean water, and livelihoods.

What to report

If the organization has identified soil health as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard Disclosure</th>
<th>Additional sector recommendations</th>
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</thead>
<tbody>
<tr>
<td><strong>Management of the topic</strong></td>
<td></td>
</tr>
<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
</tr>
<tr>
<td>Describe the soil management plan of the organization, including the approach to fertilizer application.</td>
<td></td>
</tr>
</tbody>
</table>

Resources and references

The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 75.
### 2.6 Pesticides use

**Pesticides are chemical or biological substances intended for repelling, destroying, or controlling any pest or regulating plant growth.** Pesticides include herbicides, insecticides, fungicides, nematicides, and rodenticides. This topic covers the impacts of pesticides use, including major impact of toxicity to target and non-target organisms.

Pesticides can be used in crop, animal, and aquaculture production. Because pesticides are toxic, inadequately applying or managing them can induce health effects in humans, including on reproduction, immune, and nervous systems, as well as threaten food security and livelihoods. Toxicity depends on the pesticide’s function and other factors, such as how it is used and disposed.

Pesticides, usually with high toxicity, can be unregistered or banned in some countries but available in others. Pesticides with high toxicity can stay in soil and water for years, with long-term impacts on local communities, including indigenous peoples, and the local environment. (see Waste and food loss).

Pesticides can have negative impacts on biodiversity, for example, those targeting insects or weeds can be toxic to birds, fish, and non-targeted plants and insects (see Biodiversity). Pesticides also have the potential to contribute to greenhouse gas (GHG) emissions (see Emissions).

People at risk of being most affected are workers applying pesticides and others in the immediate area during or right after pesticides are spread. Exposure to pesticides of certain vulnerable groups, such as women and children, can be particularly dangerous. In some world regions, pregnant and breastfeeding women may themselves be tasked with applying pesticides (see Occupational health and safety and Local communities). General populations can be exposed to pesticide residue through food and water (see Water and effluents and Food safety).

In crop production, pesticides are widely used to protect or increase yields and the number of times per year a crop can be grown on the same land. The Food and Agriculture Organization (FAO) estimates that in developing countries, 80% of the projected increase in food production needed to keep pace with population growth are projected to come from greater crop yields. This could trigger further intensification of pesticides use in an attempt to generate higher yields.

In animal production, pesticides are used to control weeds and various pests, such as parasites. In aquaculture, pesticides are used to treat pests, such as lice, that can cause infections in fish. Pesticides are usually administered via fish feed and water, which can have impacts on non-targeted species, such as crustaceans, resulting in biodiversity loss. Water contamination and accumulation of chemicals in fish targeted for human consumption can result in public health impacts. Even low levels of pesticide residue in water can cause chronic disease in humans.

### What to report

If the organization has identified pesticides use as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tbody>
<tr>
<td>Management of the topic</td>
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</tbody>
</table>
- Describe the pest management plan of the organization, including the rationale for the selection of chemicals and any other techniques of pest control.
- Describe the training provided to workers on pest management and the application of pesticides.

Additional sector disclosures

Report the volume and intensity of pesticides used, by type.

Resources and references

The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 77.
2.7 Water and effluents

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

The agriculture sector accounts for an estimated 70% of total water withdrawn globally. Withdrawn water is primarily used to irrigate land for crops. Water is also used for pesticide and fertilizer application, crop cooling, and frost control. In animal production, water is used for animal hydration and to clean animal housing and machinery, including milking equipment.

Water has critical importance to agricultural productivity – irrigated agriculture land is, on average, twice as productive per unit as non-irrigated land. Irrigation can be achieved through different methods, including surface irrigation, using gravity flow, sprinkler application, or subsurface irrigation. Water can be withdrawn from groundwater or surface water, such as lakes and reservoirs, or be in the form of treated wastewater or desalinated water. Intensive water withdrawal can decrease aquifer levels, which reduces the long-term sustainability of water resources and increases access cost for all users (see Local communities).

Pesticide residues are frequently found in water bodies. Animal effluents, together with agricultural fertilizer and pesticide effluents, can contribute to pollution of surface and groundwater as well as lead to eutrophication and acidification of water, causing negative impacts on biodiversity. Water contamination can have impacts on the right to water and other human rights of people, including those of local communities and indigenous people, affecting their access to natural resources, health, and livelihoods.

Impacts from aquaculture production include nutrient buildup in water bodies surrounding fish farms as a result of discharges. In high-density farms, high quantities of fish waste are discharged to water, potentially depleting oxygen levels and creating algal blooms that can lead to eutrophication.

In fishing operations, wastewater can be discharged to sea from fishing vessels. This includes water used to store fish aboard the vessel, which can contain fish waste from fish gutting and bleeding as well as materials and coating from the hold itself and onboard refrigeration systems. Wastewater could also come from cleaning holds and machinery, containing detergents, and disinfectants.

What to report

If the organization has identified water and effluents as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tbody>
<tr>
<td><strong>Management of the topic</strong></td>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td></td>
</tr>
<tr>
<td><strong>Topic Standards disclosures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 303: Water and Effluents 2018</td>
<td>Disclosure 303-1 Interactions with water as a shared resource</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disclosure 303-2 Management of water discharge-related impacts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disclosure 303-3 Water withdrawal</td>
<td></td>
</tr>
<tr>
<td>Disclosure 303-4 Water discharge</td>
<td>The following additional sector recommendation is for organizations in the fishing sector: Report total volume of water and effluents discharged by MARPOL categories and describe how these are disposed.</td>
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<tr>
<td>Disclosure 303-5 Water consumption</td>
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</tbody>
</table>

**Resources and references**

GRI 303: Water and Effluents 2018 lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic. The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 77.
2.8 Waste and food loss

Waste refers to anything a holder discards, intends to discard, or is required to discard. When inadequately managed, waste can have significant negative impacts on the environment and human health, extending beyond locations where waste is generated and discarded. This topic covers impacts from waste, including products originally intended for human consumption as food.

Waste from organizations in the agriculture, aquaculture, and fishing sectors can include organic by-products, such as crop waste, animal waste and manure, animal carcasses, fish feces; and inorganic waste such as plastics; hazardous waste, and toxic waste, including pesticides and their containers; and materials from animal health products.

Organic by-products, including animal manure, have potential to be used as an energy source as biomass or for animal feed, contributing to circularity measures. For example, by-products of aquaculture and fishing operations can be turned into fishmeal and oil. Manure can be used as an organic fertilizer, improving soil health. However, intensive animal production can often result in output of more manure than a local area can absorb. If incinerated without energy recovery or directed to landfill, organic by-products can turn into waste and cause significant environmental impacts, including greenhouse gas (GHG) emissions, water pollution, and – for terrestrial animals – impacts on soil health (see Water and effluents, Emissions and Soil health).

Organic waste from animals may contain microorganisms and parasite eggs. These pathogens can spread in receiving environments and cause ill health and disease in humans. In aquaculture operations, fish feed and feces can long settle at the bottom of ponds or in inactive zones of raceways as liquid or solid organic waste. Antimicrobial compounds can also be found in manure. Fish feces may reach water bodies. A key way to minimize pollution and waste impacts from fish feces and settleable solids is through water management (see Water and effluents).

FOOD LOSS

In agriculture, aquaculture, and fishing production, organic waste streams that contain products originally intended as food for human consumption are categorized as food loss. The Food and Agriculture Organization (FAO) of the United Nations estimates that 13.8% of food, from harvest to retail, was lost globally in 2016.

Food loss can be caused by inefficiencies at different stages of the supply chain. At the farm level, they can be due to inadequate harvesting time, climatic conditions, harvest and handling practices, and challenges related to selling products. Losses during post-harvest activities and losses of by-product can also be considered food loss, which can be accompanied by loss of resources – including water, land, energy, labor, and capital – and can contribute to greenhouse gas (GHG) emissions.

Measures to prevent food loss include adequate storage temperatures and conditions; sound infrastructure; and efficient transportation and logistics. Primary processing conditions and packaging can play a role in preserving agriculture, aquaculture, and fishing products.

Aquaculture activities generate considerable amounts of plastic waste. Plastics are widely used for equipment, including disposable gloves, and packaging various inputs, such as feed sacks and wrapped consumables. Plastic can also be used in pond liners, harvest nets, pipework, buoys, ropes, incubation jars, and containers. Discarded or abandoned plastic waste can contaminate the surrounding environments and get into the ocean.

In fishing, plastics are used to make various marine tools, including floats, fishing nets and lines, strapping bands, wire ropes, sails, and other manufactured items. Fish and marine animals sometimes mistake plastic waste for food and get trapped in items, such as ropes, nets, and bags. Lost or discarded fishing gear, known as ghost gear, can continue capturing species, contributing to overfishing and damaging benthic ecosystems. (see Biodiversity).

Incorrectly disposed inorganic materials, such as plastic waste, used bottles, and packages can have lasting impacts on receiving environments. For example, chemical residue in packaging may leak into soil and water, causing long-term contamination. Contamination of agricultural land and natural
resources causes negative impacts on the health and safety of local communities and can impact the safety of food produced (see Local communities, Rights of indigenous peoples, and Food safety).

What to report

If the organization has identified waste and food loss as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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</thead>
<tbody>
<tr>
<td><strong>Management of the topic</strong></td>
<td></td>
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</tr>
<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td>Describe the policies and commitments to address food loss in the supply chain.</td>
</tr>
</tbody>
</table>

**Topic Standards disclosures**

<table>
<thead>
<tr>
<th>GRI 306: Waste 2020</th>
<th>Disclosure 306-1 Waste generation and significant waste-related impacts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disclosure 306-2 Management of significant waste-related impacts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disclosure 306-3 Waste generated</td>
<td>The following additional sector recommendation is for organizations in the fishing sector:</td>
</tr>
<tr>
<td></td>
<td>Disclosure 306-4 Waste diverted from disposal</td>
<td>- Report total volume of waste by MARPOL categories and how these are disposed.</td>
</tr>
<tr>
<td></td>
<td>Disclosure 306-5 Waste directed to disposal</td>
<td></td>
</tr>
</tbody>
</table>

**Additional sector disclosures**

Report the total weight of food loss in metric tons and food loss percentage by product, and describe the methodology used for this calculation.⁴

Resources and references

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

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⁴ Further details and guidance on food loss percentage are available in Food and Agriculture Organization (FAO), SDG 12.3.1: Global Food Loss Index, 2018.
The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 78.
2.9 Food security

Food security means that people have physical and economic access to sufficient, safe, and nutritious food that is acceptable within a given culture, meets people’s dietary needs, and food preferences for an active and healthy life. The right to adequate food is a human right and is crucial to the enjoyment of all rights. This topic covers impacts on the key dimensions of food security.

People around the world face moderate to severe food insecurity, being unable to afford food or forced to consume insufficient or low-quality food. More than 820 million people already face hunger, and with population growth will come the growth of global food needs. Since 2014, undernourishment and food insecurity have increased worldwide, risking the achievement of SDG 2: Zero Hunger.

The Food and Agriculture Organization (FAO) identifies multiple dimensions to food security: food availability, access, use, and stability; agency, understood as the capacity of individuals or groups to make their own decisions about what food they eat and how that food is produced; and sustainability. Organizations in the agriculture, aquaculture, and fishing sectors can have impacts on all of these dimensions, thus contributing to or undermining food security.

Governments are moving to regulate food production with the objective of having a lower environmental footprint and providing for more balanced, nutritious diets. This includes making essential and nutritious foods more accessible and affordable, especially in low-income countries. Agriculture, aquaculture, and fishing organizations can make decisions that ensure efficient use of resources while providing more food to people. Achieving food security is likely to involve trade-offs related to land use and choices concerning diets being provided for. Organizations are more and more expected to engage with governments and other stakeholders, including consumers about their food production concerns.

Globally, the amount of land used for agriculture is estimated at 38% of the total land surface. Some regions have constraints associated with using more land to expand food production (see Natural ecosystem conversion). To lessen the need to convert more land for agriculture use, organizations can improve management of cropland and grazing lands already in use.

Maize, rice, and wheat serve as a basis of human diets globally, providing almost half of the world’s calorie supply. However, competing demands for land, cultivation costs, and low margins could push out these essential crops. Climate change and adverse weather events can also cause impacts on yields, potentially increasing food losses and prices of critical crops (see Climate adaptation and resilience). Agriculture, aquaculture, and fishing organizations can have a role in ensuring stability of supply of essential foods.

Many crops and fish products are used for animal and fish feed, though most of the time, these products are suitable for human consumption as food. The quarter of wild catch fish that the aquaculture sector uses as feed is deemed suitable for humans. Much of world’s crops are used as feed for animal production, especially livestock.

Compared with livestock products, aquaculture and fishing products are more efficient in terms of edible yields, proportion of an animal that can be used for human consumption, and feed conversion rates, measure of feed converted into animal weight gain, which in turn determines the use of natural

5 The World Food Summit Plan of Action of 1996 was adopted by 112 heads or deputy heads of state and government who committed to “implement policies aimed at eradicating poverty and inequality and improving physical and economic access by all, at all times, to sufficient, nutritionally adequate and safe food and its effective utilisation; and pursue participatory and sustainable food, agriculture, fisheries, forestry and rural development policies and practices in high and low potential areas, which are essential to adequate and reliable food supplies at the household, national, regional and global levels.”
resources, and the volume of food produced. About 70% of Earth is covered by ocean, providing space for operations involving aquaculture and fishing products, both of which are a source of protein and essential micronutrients. However, only about 2% of global food supply comes from the sea, indicating the potential to fill gaps in nutrition and food security.

Quantity, quality, and accessibility of food also depend on farming and fishing practices. While intensive crop and animal production can result in increased availability of food in the short term, it is associated with negative impacts on the environment and has a potential impact on the availability of food in the longer term. In many agricultural systems in the world, soil nutrients are currently depleting more quickly than they are formed, undermining the sustainability dimension of food security (see Soil health).

Regenerative and organic practices, such as rotating crops, planting at optimal times, and applying manure instead of nonorganic fertilizers, are considered to have a potential to contribute to greater soil health and productivity and resilience of food production.

**What to report**

If the organization has identified food security as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td>Describe commitments to ensure that the organization’s operations contribute to food security or nutrition; - Describe the actions and programs of the organization on food security and nutrition, including an explanation of their relevance to local, regional, national, or global food security and the effectiveness of these actions and programs; - Report partnerships which the organization is part of that address food security or nutrition, including engagement with governments.</td>
</tr>
</tbody>
</table>

**Resources and references**

The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 78.
2.10 Food safety

Food safety concerns the production, primary processing, storage and transportation of food and feed products in a way that prevents food-borne illness. This topic addresses an organization’s efforts to prevent contamination and ensure safety of food, including through adherence to food safety regulations and voluntary codes.

According to the World Health Organization (WHO), an estimated 600 million people worldwide fall ill after eating contaminated food each year, resulting in 420,000 deaths. Besides threatening public health and wellbeing, food safety impacts can have consequences on local communities (see Local communities). These, in turn, can have impacts on the economy, the environment, or people, including outcomes on local and global scales through loss of economic activity.

Environmental contamination is a driver of food safety impacts. Main sources of contamination from agriculture, aquaculture, and fishing activities include pollution in water, soil, or air used by crops or animals. Contamination can also be caused by inadequate management of crops or animals during their growth, harvest, catch, or products’ primary processing and storage. Contamination can lead to food containing harmful bacteria, such as salmonella, listeriosis, and campylobacter, viruses, parasites, or chemical substances, which can cause ill health in humans.

Substances used in agriculture and aquaculture that can impact food safety are antimicrobials, pesticides, heavy metals, microplastics, and other micropollutants (see Pesticides use and Animal health and welfare). Globally, antimicrobials, such as chemicals and antibiotics, are widely used in terrestrial and aquatic animal production to address animal health and animal welfare, sometimes to enhance animal growth rates and productivity. Demands on global food systems has led into an increase in the use of antimicrobials to improve food production. These high volumes can contribute to the development of antimicrobial-resistant bacteria, particularly in settings of intensive animal production. The WHO identifies antimicrobial resistance as one of today’s biggest threats to global health, food safety, and human development. Addressing antimicrobial resistance requires adequate animal health and welfare standards and biosecurity controls.

Because food and feed products grown or caught in one world region can supply customers in another, impacts on food safety can emerge as local issues but then evolve into global issues, such as contamination or an outbreak of foodborne illness. This highlights the importance of effective and compelling food safety requirements and standards (see Supply chain traceability).

What to report

If the organization has identified food safety as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tbody>
<tr>
<td><strong>Management of the topic</strong></td>
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</table>
| GRI 103: Material Topics | Disclosure MT-3 Management of material topics | - Describe the use and commitments to use of food certification and assurance schemes that define standards for food safety.  
- Report compliance with national and international standards in relation to food safety. |
<p>| <strong>Topic Standards disclosures</strong> | | |
| GRI 416: Customer Health and Safety 2016 | Disclosure 416-1 Assessment of the health and safety impacts of product and service categories | |</p>
<table>
<thead>
<tr>
<th>Disclosure 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services</th>
</tr>
</thead>
</table>

**Additional sector disclosures**
- Report the percentage of products sourced from **suppliers** certified by Global Food Safety Initiative (GFSI) or a recognized food safety certification programs.
- Report the number of GFSI audits passed.
- Report the number of recalls issued for food safety reasons and total volume of product recalled.

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**Resources and references**

**GRI 416: Customer Health and Safety 2016** lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 79.
### 2.11 Animal health and welfare

Animal health and welfare refers to the physical and mental state of an animal in relation to the conditions in which it lives and dies. The ‘Five Freedoms’ of animal welfare are freedom from hunger and thirst; freedom from discomfort; freedom from pain, freedom injury, and disease; freedom to express normal behavior; and freedom from fear and distress.

Each year over 60 billion terrestrial animals are reared worldwide. That figure is set to double by 2050 due to potential increases in consumption of animal protein. Aquaculture farms produce 52 million tons of aquatic animals, which now represent half of all seafood consumed by humans worldwide.

Animal health and welfare is crucial for agriculture, aquaculture, and fishing not only to ensure productivity. Activities that have significant impacts on animal health and welfare include breeding, rearing or catching, feeding, and grazing; harvesting eggs, milking; transporting; and slaughtering.

Animal health management focuses on controlling potential impacts on health and preventing disease. This can include use of antibiotics, anti-inflammatory and hormone treatments. To avoid negative impacts on animal and human health, these substances should be applied with prudence and only when necessary.

On-farm husbandry practices such as dehorning, hot-iron branding, castration, tail docking, and debeaking have been associated with pain and distress. Slaughter practices can also be major sources of pain, discomfort, and stress. Many countries require pre-slaughter stunning to render an animal unconscious. Slaughter methods can also vary according to cultural, social, and religious influences.

Negative impacts on animal health and welfare can be caused by conditions animals are kept in. For example, terrestrial animals can be confined to small spaces, cages, and crates, or left untreated for disease or injuries, preventing movement, and making them unable to express normal behavior.

In aquaculture, water quality, stock density, and rearing environment can have impacts on fish health and welfare. In both aquaculture and fishing, the most prevalent slaughter methods are asphyxiation, carbon dioxide stunning, and ice chilling. According to the World Organisation for Animal Health (OIE), these methods lead to poor fish welfare, failing to meet standards set out in its terrestrial and aquatic animal health codes.

Genetic modification can be performed on terrestrial and aquatic animals to ensure their fast growth and greater productivity. However, genetic modification must be undertaken in a manner that prevents negative impacts on animal health and welfare.

Inadequate animal health and welfare practices can increase spread of zoonotic diseases, such as salmonellosis, swine flu, and bird flu. This can occur through, for example, movement and trade of animals and animal products without proper controls. Animal health issues can cause impacts on food safety through the presence of infected animal products or residues of substances used on animals, including antimicrobials and pesticides (See Pesticides use and Food safety).

#### What to report

If the organization has identified animal health and welfare as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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</thead>
<tbody>
<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td>When reporting on the management of animal health and welfare, the organization should report:</td>
</tr>
</tbody>
</table>
- Describe the policies regarding processing of animal products, animal transportation, handling, and slaughter;
- Describe the approach to animal health planning and involvement of veterinarians, including the approach to using anesthetic, antibiotic, anti-inflammatory hormone, and growth-promotion treatments for each species and breed produced by the organization.
- List the animal health and welfare certifications or schemes implemented.
- Describe the assessments and audits of animal health and welfare.

**Additional sector disclosures**

Report the veterinary care record outlining the total volume of anesthetic, antibiotic, anti-inflammatory, hormone, and/or growth-promotion treatments administered, by species and breed.

**Resources and references**

The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 79.
2.12 Local communities

Local communities can comprise individuals or groups of 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.

Agriculture, aquaculture, and fishing organization can have various actual and potential impacts on local communities. Among significant impact sources is non-recognition of their land and resource rights (see Land and resource rights). Land use by organizations in the agriculture, aquaculture, and fishing sectors can restrict communities’ access to land and natural resources, and cause displacement. Communities can be resettled to other areas, which are not always equivalent in terms of soil quality, suitability for agriculture, access to services, or cultural and social significance. In cases of lost access to areas for cultural, economic, or leisure purposes, compensation may be provided but it is not always adequate.

Local communities can also experience significant economic and environmental impacts from the extensive use of groundwater for irrigation in agriculture operations. Groundwater depletion can create a need for deepening wells, which in turn increases the energy that adjacent areas need to pump water to the surface for irrigating crops and individual purposes. Communities might then face depleted water sources or need to import water (see Water and effluents).

Inadequate management or disposal of hazardous substances, such as pesticides, can impact the environment, food safety, and health of communities living in proximity to operations, such as plantations. Cases of acute pesticide poisoning (APP) account for significant mortality worldwide, especially in developing countries (see Pesticides use). Gases released from manure and organic waste contribute to air pollution and odors, causing negative impacts on local communities near agriculture and aquaculture operations (see Emissions and Waste and food loss). Related unpleasant odors and poor air quality can induce higher stress levels and negative health effects in people.

Although organizations in these sectors are often major employers in rural areas, creating jobs and providing income for communities, the majority of those who suffer from food insecurity and poverty live in these rural areas. Lack of income and negative impacts on land, water, and biodiversity can cause vulnerability or compel rural communities to migrate to urban areas (see Economic inclusion and Living income).

Within local communities, vulnerable groups such as women, children, migrant workers, and their families can be disproportionately affected by agriculture, aquaculture, and fishing operations. Such groups often lack a voice as they can be regularly discriminated against and be a minority in decision-making and planning, with can increase the likelihood of negative impacts on their rights.

To minimize negative impacts on human rights, agriculture, aquaculture, and fishing organizations are expected to account for the heterogeneity of local communities and take specific action to identify and engage with vulnerable groups (see Rights of indigenous peoples and Non-discrimination and equal opportunity). Community engagement, consultations, and grievance mechanisms can play important roles in mitigating negative impacts.

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6 WHO estimates that worldwide exposure to pesticides causes an annual 20,000 deaths and at least 3 million cases of acute poisoning. World Health Organization, Acute pesticide poisoning: a proposed classification tool, 2008.
What to report

If the organization has identified local communities as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<td><strong>Management of the topic</strong></td>
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<tr>
<td>GRI 103: Material Topics</td>
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<td><strong>Topic Standards disclosures</strong></td>
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<tr>
<td>GRI 413: Local Communities 2016</td>
<td>Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs</td>
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<tr>
<td></td>
<td>Disclosure 413-2 Operations with significant actual and potential negative impacts on local communities</td>
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</tbody>
</table>

Resources and references

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

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 80.
### 2.13 Land and resource rights

Land and resource rights encompass the rights to use, manage and control land, fisheries, forests, and other natural resources. Organizations can have impacts on the availability and accessibility of these to 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.

The process by which individuals, communities, and organizations acquire rights and associated duties to use and control lands, fisheries, forests, and other natural resources varies according to national jurisdictions’ governance of land tenure and natural resources. Forms of tenure can include public, private, communal, collective, indigenous, and customary tenure. In some countries, informal tenure can amount to 80 to 90% of total land, which means those living on this land might lack formal rights and legal protection.

According to the Committee on World Food Security’s Voluntary Guidelines on Tenure of Land, Fisheries and Forests (VGGT), human rights – including people’s civil, political, economic, social and cultural rights – are associated with access to and use of land, fisheries, and forests. Agriculture, aquaculture, and fishing organizations can be granted land concessions over territories; if they accept them without undertaking impact assessment and prior consultation, organizations may infringe on human rights. Restrictions and physical barriers imposed on access to land and resources through fencing, landscape engineering, roads, and drainage works that block or divert routes also can cause negative impacts on people’s rights.

Lack of recognition of customary claim to lands, territories, and fishing resources – whether or not they are formally titled or legally registered – is a common cause of land and natural resource conflicts. Rights holders who are most commonly affected by these conflicts include farmers and fishers and their organizations, forest users, pastoralists, indigenous peoples, local communities, and civil society representatives defending land rights (see Rights of indigenous people and Local communities).

#### HUMAN RIGHTS OF LAND RIGHTS DEFENDERS

Situations of conflict can jeopardize the rights of those who defend the rights related to land and fisheries, including those of indigenous peoples. More and more land rights defenders, smallholder farmers, indigenous community leaders, media, and civil society representative active on these issues have become victims of violence or prosecution. United Nations bodies – including special rapporteurs on human rights defenders, on the right to food, and on indigenous peoples – have reported on violations of defenders’ rights. In some cases, these violations are related to disputed land acquisitions through commercial agriculture.

Unlike in aquaculture, fish captured in the wild is usually a common property resource. Fishery resource rights concern access to ports, waters, high seas, and catch quotas; coastal fishing rights concern access to fish and other aquatic animals in coastal areas where they are captured, the quantity of catch, and how long these rights are applicable. Commercial fishing vessels, illegally accessing fishing zones that are reserved for small-scale fishers, can displace small boats or destroy fish breeding habitats, forcing the fish to migrate.

Fishers and fishing communities are legitimate rights holders when it comes to the use of fishery resources and entire ecosystem. Fishing organizations are expected to duly engage fishers in fishery management.

Agriculture, aquaculture, and fishing organizations are expected to identify legitimate rights holders through their own assessments and ensure independent verification of assessment results. These organizations can also have a positive impact when it comes to securing land tenure and access to natural resources by requiring their suppliers to respect such rights.

#### What to report

If the organization has identified land and resource rights as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.
### Standard | Disclosure | Additional sector recommendations
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**Management of the topic**
GRI 103: Material Topics | Disclosure MT-3 Management of material topics | - Describe the commitments of the organization to respect communities’ and indigenous peoples’ land rights, including traditional, customary, and use rights, and report the extent to which the commitments apply to the organization’s activities and to its business relationships.
- Describe whether and how the organization’s commitments to respect communities’ and indigenous peoples’ land rights are implemented with suppliers.

The following additional sector recommendation is for organizations in the fishing sector:
- Describe the consultation process on fishery management with legitimate representatives of fishing communities concerned with the use of fishery resources.

### Additional sector disclosures
Describe the criteria used to determine operations where land tenure and access to natural resources cannot be assured or are at risk and the countries identified that meet the criteria.

List the operations and suppliers whose rights associated with land tenure and access to natural resource cannot be assured or are at risk.

List affected and potentially affected rights holders due to the organization’s use of land and natural resources (e.g., indigenous peoples, local communities, and types of workers in or around the organization’s locations of operation).

Report the number, size, and percentage of operational sites owned, leased, and managed where violations of any tenure rights, including customary, collective, and informal tenure rights, occurred.

### Resources and references
1024 The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 81.
2.14 Rights of indigenous peoples

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

Fundamental rights of self-determination and non-discrimination mandate equal respect for indigenous peoples’ collective rights, including those concerning property, as well as their individual rights. Indigenous peoples find deep cultural and spiritual value in their lands and territories, and often depend on natural resources for subsistence. These communities frequently lack formal collective ownership rights over the land and resources they customarily own, occupy, or use. Their customary land, territory, and resource rights are communal and collective, meaning they independently govern their lands, fisheries, and forests through collective communal participation. Customary rights – a cornerstone of the rights of indigenous peoples under international law – are frequently not recognized in practice, leading to rights violations.

Many indigenous fishing communities also face challenges because their rights to use fishery resources are of a customary or traditional nature. These communities consume several times more fish than average because they rely on it as their main source of food. Fish also has a central role in their cultures and traditional practices. Degradation of local aquatic and coastal natural ecosystems, overfishing, stocks depletion, competition for catch, and impacts on access to fish associated with commercial fishing operations can threaten indigenous peoples’ livelihoods and traditional fishing practices.

When agriculture, aquaculture, and fishing operations expand into indigenous peoples’ territories without obtaining free, prior, and informed consent, their rights to land and natural resources and their human rights are violated. Indigenous communities may be forcibly removed from their homes, farms, and forests to clear space for sectors’ activities. Conflicts involving indigenous peoples and organizations in the agriculture, aquaculture, and fishing sectors are on the rise, leading to discrimination, displacement, loss of livelihood, income insecurity. In extreme cases, such conflicts have led to threats, intimidation, violence, and loss of life.

When disputes take place, indigenous communities regularly lack legal support and access to remedy. This can lead to unfair compensation for lost land access and natural resources, income insecurity, marginalization of indigenous communities, and other severe impacts on human rights.

Natural ecosystem conversion can irreversibly damage traditional activities, such as hunting, fishing, and farming, thus threatening indigenous peoples’ livelihoods and survival. Water impacts caused by agriculture and aquaculture organizations can jeopardize their ability to practice traditional agriculture and limit indigenous people’s water access and use. Impacts from waste, including hazardous waste from pesticides, can lead to pollution and contamination of indigenous land and natural resources, negatively affecting the right to health and food security.

Because of the close relationship with environment and dependence on natural resources, indigenous peoples are particularly affected by climate change. They are forced adapt their farming and fishing practices and lifestyles to extreme weather events, change in availability of traditional food sources, and decreased crop yields. Climate change can further exacerbate the vulnerability of indigenous communities and impacts on their human rights (see Biodiversity and Climate adaptation and resilience).
What to report

If the organization has identified rights of indigenous peoples as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
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<tr>
<th>Standard</th>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td>Describe the approach to free, prior, and informed consent and the other rights as set out in the UN Declaration on the Rights of Indigenous Peoples and the International Labour Organization Convention 169 'Indigenous and Tribal Peoples'.</td>
</tr>
<tr>
<td><strong>Topic Standards disclosures</strong></td>
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<tr>
<td>GRI 411: Rights of Indigenous People 2016</td>
<td>Disclosure 411-1 Incidents of violations involving rights of indigenous peoples</td>
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Resources and references

GRI 411: Rights of Indigenous People 2016 lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 81.
2.15 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 them opportunities instead of treating them fairly and on the basis of individual merit. Discrimination can occur on the grounds of race, color, sex, religion, political opinion, national extraction, social origin, age, disability, migrant status, and/or gender. This topic covers impacts from discrimination and an organization's practices related to equal opportunity.

Many agriculture, aquaculture, and fishing workers are self-employed, informally employed, and do not have job security. These categories of workers often lack adequate labor standards and face discrimination. For example, seasonal and casual workers might not enjoy the same rights or treatment when it comes to equal value, benefits, and paid leave.

The agriculture, aquaculture, and fishing sectors commonly use migrant labor, including temporary migrant labor. Because of their migrant status, migrant workers and their families may face discriminatory practices when it comes to remuneration, provision of healthcare, and employment protection. In fishing, vessel crews are typically subject to discriminatory pay based on nationality.

Undocumented migrant workers can be even more vulnerable to labor abuses (see Forced labor and Employment practices).

For indigenous workers, characteristics that deviate from the majority group’s social practices, such as what languages they speak or what clothing they wear, can lead to employment discrimination in the sectors. Indigenous women can face discrimination on the grounds of both ethnicity and gender.

In many countries, people living in rural areas – including smallholder farmers, landless workers, and communities living from traditional agriculture, aquaculture, and fishing activities – can experience discriminatory treatment. For example, they may inherit historic inequality in accessing land or be pushed to remote and less fertile lands, thus lacking opportunities to provide for themselves. As a consequence, people form these groups can be more vulnerable to labor exploitation and human rights violations.

Gender discrimination often disadvantages women working in agriculture, aquaculture, and fishing. Discrimination may be reflected in women’s poorer working conditions, unequal opportunities, and lower wages than those of men. Women are more frequently involved in lower-paid or less secure forms of employment, such as seasonal, casual, or part-time. Women are also likelier to perform what sectors may characterize as ‘light work’, such as spraying pesticides in agriculture, which is deemed work of lower value. In fishing, women play crucial roles throughout the value chain, working for both commercial and small-scale fisheries, though in most of the world, women are less involved in offshore and long-distance capture fishing, which usually pays more.

Women rarely get to be involved in cooperatives and farmer organizations. This means that their access to processing facilities, improved technologies, and agricultural inputs, such as seeds, fertilizers, and machinery, can be much more limited than that of men. Women may then receive lower earnings and have smaller yields despite working more hours per year than men.

Discrimination against women in the agriculture, aquaculture, and fishing sectors can also include gender-based violence and harassment. Seasonal work and informal work arrangements can render women even more vulnerable to sexual violence and other abuses.

WOMEN’S RIGHTS

The majority of economically active women in low-income countries work in agriculture. In many countries, women do not have the same rights as men or, even if they do legally, the rights go unrecognized. These include rights to buy, sell, or inherit land; to open a savings account or borrow money; to sign a contract; and to sell their produce.

Traditional gender roles can restrict women’s freedom of movement and prevent them from bringing their produce to market or leaving their villages without the permission of male relatives. Social conventions and gender norms often regard women’s work activities and output as part of their traditional caretaking role rather than as participation in the market economy, thus underestimating their economic contribution. Women in these situations do not enjoy the right to the same decent standard of living as men.
Women can also be denied their rights when it comes to maternity protection. Benefits such as maternity leave and childcare allowance might be inaccessible for women in the agriculture, aquaculture, and fishing sectors. As a result, they might be pressed to hide or terminate their pregnancies.

**What to report**

If the organization has identified non-discrimination and equal opportunity as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
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<tr>
<td><strong>Management of the topic</strong></td>
<td>Disclosure MT-3 Management of material topics</td>
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</tr>
<tr>
<td><strong>Topic Standards disclosures</strong></td>
<td>Disclosure 405-1 Diversity of governance bodies and employees</td>
<td>Report the ratio of basic salary and remuneration of women to men for workers (excluding employees).</td>
</tr>
<tr>
<td>GRI 406: Non-discrimination 2016</td>
<td>Disclosure 405-2 Ratio of basic salary and remuneration of women to men</td>
<td></td>
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<tr>
<td>GRI 406: Non-discrimination 2016</td>
<td>Disclosure 406-1 Incidents of discrimination and corrective actions taken</td>
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</tbody>
</table>

**Resources and references**

GRI 405: Diversity and Equal Opportunity 2016 and GRI 406: Non-discrimination 2016 list authoritative intergovernmental instruments and other sources relevant to reporting on this topic. The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 82.
Forced labor is work or service which is exacted under the menace of penalty and for which a person has not offered themselves voluntarily. Freedom from forced labor is a fundamental right at work.

The International Labour Organization (ILO) has identified the agriculture, aquaculture, and fishing sectors as highly susceptible to forced labor. Forced labor has been documented in the supply chains of most agricultural products. The sector is labor-intensive and has increased demand for seasonal workers, often filled by recruitment agencies.

Agriculture, aquaculture, and fishing workers are unlikely to be unionized, often earn less, and have fewer skills than workers in other sectors. National labor laws do not always extend labor protections to smallholder agricultural workers, small-scale fishers, or the seasonal and casual workers commonly employed in the sector, leaving them vulnerable to forced labor (see Employment practices). These workers can face abusive labor practices, non-payment or late payment of wages, restrictions on the freedom of movement, violence, threats, and human trafficking.

Forced labor in crop and animal production can take place on plantations and farms, which are often located in low-income rural areas, exacerbating the likelihood of forced labor. Agriculture, aquaculture, and fishing workers can become indebted to their employers due to fees owed for job access or getting accommodations; additionally, employers can use debt bondage to prevent workers from leaving.

Migrant workers, who often fill the need for labor in the sectors, are likelier to work under conditions of coercion and involuntariness. They may have their passports or identification documents taken away from them. Undocumented migrant workers can also be forced or coerced into illegal farming or fishing operations, carrying high risks for their health and safety.

Eliminating forced labor and enforcing workers’ rights can require additional effort in the fishing sector, because fishing vessels regularly operate offshore or under the flag of a country far removed from where they are fishing. Fishing workers may be migrants from lower-income countries and can often be working without an employment contract. The fishing sector also regularly relies on recruitment agencies to procure workers, often operating with little oversight from regulatory bodies.

Fishing operations increasingly serve the global market. The pressure to deliver higher volumes of product while keeping labor costs low can contribute to the likelihood of abusive labor practices and forced labor.

What to report

If the organization has identified forced labor as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

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<tr>
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<th>Disclosure</th>
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<tbody>
<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td></td>
</tr>
<tr>
<td>GRI 409: Forced or Compulsory Labor 2016</td>
<td>Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor</td>
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</tbody>
</table>
Resources and references

GRI 409: Forced or Compulsory Labor 2016 lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 82.
2.17 Child labor

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

Across all sectors, agriculture, aquaculture, and fishing have the highest share of child labor. More than two thirds of the world’s child workers are in the agriculture, aquaculture, and fishing sectors; among those aged five to 11, this share is even higher. Most children work unpaid in family farming, less than one third are paid workers. In some parts of the world, child labor may be socially acceptable or expected, contributing to the propagation of the practice.

In low-income countries families might rely on the income of a working child. Families can also involve their children in work when they cannot afford the cost of hiring additional labor. This does little to lift a family out of poverty and can have negative impacts on the child’s potential to grow and develop.

The nature of seasonal work in agriculture, particularly harvesting, raises the likelihood of children being removed from school in order to work, which threatens their right to education. If schooling is interrupted or even if children have access to schooling at their destination, it can be difficult for them to rejoin their formal education system upon return from work. Education is an important means to keep children out of child labor, especially in rural areas.

Children working in agriculture, aquaculture, and fishing frequently perform tasks suited only for adults. These tasks and other forms of hazardous work are likely to put their health or development at risk. In the agriculture sector, for example, child workers can be tasked with applying pesticides. Pesticides can be extremely dangerous for children, as their bodies are highly vulnerable to toxins; chronic exposure to pesticides can lead to childhood cancers, poor cognitive processes, and development issues. Children may also have to operate dangerous tools, for example, when working as sugarcane cutters.

In animal production, children may be designated to take care of animals and perform labor-intensive tasks. Because animal production activities are ongoing – involving cleaning animals and their housing, collecting water, feeding, and milking – children can rarely combine this type of work with schooling.

In aquaculture and fishing, children are engaged to work throughout the supply chain, catching fish and sea products, processing, and selling. Fishing communities often have few sources of income, leading them to bring their children with them to work. The nature of seasonal work in agriculture, particularly harvesting, raises the likelihood of children being removed from school in order to work, which threatens their right to education. If schooling is interrupted or even if children have access to schooling at their destination, it can be difficult for them to rejoin their formal education system upon return from work. Education is an important means to keep children out of child labor, especially in rural areas.

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7 U.S. Department of Labor. A 2018 List of Goods Produced by Child Labor or Forced Labor. 2018, p.11-14: Child labor in crop production has been documented in cases involving bananas in Belize, Brazil, Ecuador, Nicaragua, and the Philippines; beans in Mexico and Paraguay; citrus in Belize and Turkey; cocoa in Brazil, Cameroon, Ghana, Guinea, and Sierra Leone; coffee in Brazil, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Guinea, Honduras, Kenya, Mexico, Nicaragua, Panama, Sierra Leone, Tanzania, Uganda, and Vietnam; rice in Brazil, Dominican Republic, Kenya, the Philippines, Uganda, and Vietnam. Child labor in animal production has been documented in cases involving beef in Brazil; cattle in Chad, Costa Rica, El Salvador, Ethiopia, Lesotho, Mauritania, Namibia, Uganda, and Zambia. Child labor in aquaculture has been documented in cases involving fish in Brazil, Cambodia, Kenya, Paraguay, Peru, Philippines, Uganda, Vietnam, and Yemen; and shellfish in El Salvador and Nicaragua; and shrimp in Bangladesh and Cambodia.
and child labor is frequently used to provide subsistence. Children might be subjected to the common hazardous working conditions in these sector, including working long hours and nightshifts.

A quarter of child workers fall victim to forced labor (see Forced labor). This can happen when, for example, labor brokers recruit and force them to travel far from home. In cases of debt bondage to an employer, parents might have their children work alongside themselves. The International Labour Organization (ILO) identifies hazardous child labor and forced child labor as worst forms of child labor.

**What to report**

If the organization has identified child labor as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

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<td><strong>Topic Standards disclosures</strong></td>
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<tr>
<td>GRI 408: Child Labor 2016</td>
<td>Disclosure 408-1 Operations and suppliers at significant risk for incidents of child labor</td>
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**Resources and references**

*GRI 408: Child Labor 2016* lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 83.
2.18 Freedom of association and collective bargaining

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

Many agriculture, aquaculture, and fishing workers’ rights to freedom of association and collective bargaining remain at risk. In many countries, workers in these sectors are still denied their rights to organize and bargain collectively.

Low income, informal employment, family labor, migrant, seasonal, and casual work as well as asymmetric power of employees – all of which are common in the agriculture, aquaculture, and fishing sectors – create barriers to exercising the right to freedom of association and collective bargaining. This can exacerbate impacts on workers who already face increased work-related vulnerabilities and isolation (see Employment practices).

While it is more common for workers in large commercial agriculture, aquaculture, and fishing operations to be represented by trade unions and covered by collective agreements, still only a small percentage of workers in these sectors are organized. Trade unions have reported restrictions being placed on temporary workers or workers employed by their suppliers to effectively access the same rights as employees. Organizations preventing unionization of workers in the sectors is a recurring issue. Other negative impacts on unions include their members’ exposure to intimidation, violence, and assassination of leaders.

Seasonal workers might find it hard to join unions due to their short-term employment. In some cases, trade union leaders have reported that organizations purposely hire workers on short-term contracts or outsource jobs so the workers are unable to join trade unions. Migrant workers can be even more vulnerable in this regard, as they can be explicitly banned from joining national unions of countries where they work.

According to the International Labour Organization (ILO), all workers – including self-employed persons, smallholder farmers, small-scale fishers, and those working in the informal economy – should enjoy the right to freedom of association and collective bargaining.

What to report

If the organization has identified freedom of association and collective bargaining as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

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<tr>
<td>Management of the topic</td>
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<tr>
<td>Topic Standards disclosures</td>
<td>Disclosure 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk</td>
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</tbody>
</table>

Resources and references

GRI 407: Freedom of Association and Collective Bargaining 2016 lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.
The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 84.
2.19 Occupational health and safety

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

Agriculture, aquaculture, and fishing are considered two of the most hazardous sectors, with high numbers of work-related accidents and ill health each year. Aquaculture workers also regularly contend with hazardous working conditions. Work-related hazards associated with agriculture, aquaculture, and fishing include:

- handling dangerous machinery, tools, and vehicles;
- working in close proximity to people and/or animals, which can heighten risk of exposure to infectious diseases;
- exposure to excessive noise and vibration causing hearing and other sensory problems;
- slips, trips, and falls from heights;
- working with animals considerably heavier than the worker; lifting heavy weights; and other work giving rise to musculoskeletal disorders;
- exposure to dust and potentially harmful organic substances, chemicals, and infectious agents;
- exposure to extreme temperatures and inclement weather, which can cause hypothermia;
- falls overboard, drowning;
- attacks by wild animals.

Because workers in agriculture, aquaculture, and fishing often live where they work, occupational health and safety impacts can also be associated with workers' living conditions. Adequate working and living conditions in the context of agriculture, aquaculture, and fishing concern access to potable drinking water, quantity and quality of food provision, hygiene, sanitation, and appropriate accommodations and sleeping quarters. The right to sanitation entitles workers to have safe, hygienic, and socially acceptable access to sanitation.

In the agriculture sector, farmers may work long hours and many consecutive days, especially when harvesting crops. Workers may lack personal protection equipment, which is not always available in all countries. Lack of access to sanitation and hygiene facilities can increase the risk of contracting infectious diseases for workers and their children who often accompany them.

Workers and their families can be exposed to pesticides and other chemical substances used in agriculture (see Local communities). Exposure to pesticides by children living on farms and plantations can be more dangerous than for adults. If children work alongside their families, they can also be exposed to pesticides directly (see Child labor and Pesticides use).

In many countries, injury and fatality rates in the fishing sector are much higher than average. Fishing, particularly far offshore, is considered one of the most dangerous occupations. Vessel disasters and falls overboard pose the greatest safety risks and are the sector's leading causes of fatalities.

Vessel safety risks vary, and can be linked to weather, lack of weather warning systems, or loss of power due to engine failure or inadequate maintenance levels. In some cases, fishing management can involve strategies, such as putting limits on fishing time and area, that could lead to fishers taking more risks. Most fishing vessels fall outside of size parameters prescribed by international safety regulations. Small-scale fishers operate millions of fishing vessels that vary in degree of sophistication. Frequently, small-scale fishing vessels prove unsuitable for the conditions in which they are used, such as for carrying considerable amounts of fish, or for sailing far offshore.

Vessel safety standards address risks related to general safety, such as fire safety, lighting, and ventilation as well as personal safety, vessel stability, and survival at sea. Safety training specific to vessel safety can help prevent vessel disasters, while compliance with safety standards can help prevent loss of life. Insurance schemes can be used to protect fishers, considering the high level and many types of risks associated with fishing, such as death, work-related accidents, and ill health.

Catching, sorting, and storing fish also often require manipulation of dangerous tools, such as knives and hooks. When fish are manually beheaded, gutted, skinned, or filleted, it is common for workers to
experience cuts and loss of fingers. Bites, stings, and tail kicks by fish and other marine animals can also lead to injuries. In the case of illness or injury offshore, professional medical care might be unavailable or difficult to access or medical evacuation may not be an option.

Fishing can involve long hours at sea, far offshore. Workers on fishing vessels can also be subjected to lack of rest due to understaffing onboard, which can pose additional health and safety risks. Because workers can reside aboard fishing vessels for long periods of time, any living condition issues can also have impacts on them when they are off shift. Levels of crewing and daily and weekly rest can also affect their health and safety. Sometimes fishers can face difficulties in taking shore leave, being unable to get off their vessels at foreign ports.

Fishers as a category of seafarers can be at risk of being abandoned without pay or repatriation by vessel owners (see Employment practices). Abandoned fishers may remain aboard vessels without pay, regular food supplies, and medical care. Documented cases show some abandonment lasting for many months. Abandonment can have health and safety impacts, including harm to mental health caused by keeping people in a state of high uncertainty.

Illegal fishing operations can also impact worker health and safety due to lack of safety norms and inspection. Operating in contested waters can pose additional risks. Addressing illegal, unreported, and unregulated (IUU) fishing in supply chains can help eliminate factors leading to compromised health and safety standards (see Supply chain traceability).

What to report
If the organization has identified occupational health and safety as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
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</table>

Topic Standards disclosures

GRI 403: Occupational Health and Safety 2018

- Disclosure 403-1 Occupational health and safety management system
- Disclosure 403-2 Hazard identification, risk assessment, and incident investigation
- Disclosure 403-3 Occupational health services
- Disclosure 403-4 Worker participation, consultation, and communication on occupational health and safety
- Disclosure 403-5 Worker training on occupational health and safety
- Disclosure 403-6 Promotion of worker health
- Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships
- Disclosure 403-8 Workers covered by an occupational health and safety management system
Resources and references

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

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 84.
2.20 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.

An employment relationship is a legal relationship between a worker and an organization that confers rights and obligations to both parties. In the agriculture, aquaculture, and fishing sectors, informal employment, when work is performed without a signed agreement, is a common practice. Many workers do not have an employment contract, and their working time and other terms of employment are not defined, leading to work going undeclared. Undeclared work is an illegitimate labor practice, which violates labor and tax laws and may leave workers without legal protection and employment benefits.

Where formal arrangements exist, a lack of transparency can still surround daily hours, pay rates, and working conditions. For example, workers in the fishing sector can face unspecified, unjustified, or nontransparent deductions from their pay; employers might withhold a portion of pay to cover various costs, such as for recruitment fees, food supplies and water, accommodations, taking leave to rest, or transferring pay to workers’ families. Workers can also be employed via temporary or daily contracts on an ongoing basis, which denies their due benefits.

Employment arrangements in these sectors and related supply chains can be complex and involve a wide range of actors. Agriculture, aquaculture, and fishing organizations may rely on workers who are engaged directly, through recruitment agencies, and/or by suppliers. While recruitment agencies fulfill the sectors’ demands, documented cases show that fundamental principles and rights at work are regularly violated. Workers can face unjustified recruitment fees, unlawful employment conditions, and restrictions on terminating their engagement. Unethical employment and recruitment practices in the sectors can also increase worker vulnerability and lead to exploitation.

Fair or ethical recruitment means hiring workers lawfully and in a fair, transparent manner that respects their dignity and human rights. Ethical recruitment is characterized by:

- recruitment fees being borne by the employer;
- respect for freedom of movement;
- transparent employment terms and conditions;
- confidentiality and data protection;
- access to remedy.

Migrant workers often fill the need for labor in agriculture, aquaculture, and fishing. Migrant workers can be in a full-time, seasonal, or temporary employment relationship. Migrant status, language, and communication barriers commonly leave migrant workers disadvantaged in terms of remuneration, housing, and social and medical protection.

MIGRANT WORKERS

Migrant workers can be particularly vulnerable to unethical practices and abuse. They are likelier to face pay discrimination and worse employment terms because they depend on employers or recruitment agencies for job and work permits.

Migrant workers can be made to pay a fee to access jobs in the agriculture, aquaculture, and fishing sectors and to hand over identity documents, which prevents them from leaving employers. Such practices make migrant workers fall victim to bonded or forced labor, labor exploitation as well as human trafficking (see Forced labor).

Ethical recruitment practices imply a fee-free model of recruitment and reimbursement of fees to migrant workers if not employed directly. Transparent employment terms and conditions for migrant workers also provide for the accessibility of an employment contract, for example, by translating it into a local language understood by workers.

International labor standards expect workers in the agriculture, aquaculture, and fishing sectors to have decent conditions of work, including accommodations, food, transportation to and from workplace, and accident insurance, where applicable. For fishers, international labor and maritime
standards specify the right to repatriation in case of abandonment, including an insurance that should be part of employment terms.

What to report

If the organization has identified employment practices as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
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<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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</table>
| GRI 103: Material Topics        | Disclosure MT-3 Management of material topics | - Describe the policies on ethical recruitment, including if these policies require that no fees or other charges for recruitment or placement be borne directly or indirectly, in whole or in part, by the worker.  
- Report the recommendations included in clause 1.2 in *GRI 401: Employment 2016.* |

Resources and references

*GRI 401: Employment 2016* lists authoritative intergovernmental instruments and other sources relevant to reporting on this topic.

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 85.
2.21 Living income

Living income refers to an income sufficient to afford a decent standard of living for all household members, including a nutritious diet, clean water, decent housing, education, healthcare, among other essential needs, plus extra funds for emergencies and saving. This topic covers the organization’s approaches to worker compensation in the context of whether it provides for living income.

As recognized by the Universal Declaration of Human Rights, all workers have a right to just and favorable remuneration that ensures, for themselves and their families, an existence worthy of human dignity. Lack of living income can lead to poverty, malnutrition, limited access to basic services, and marginalization. Ensuring living income for workers includes paying self-employed farmers and fishers a fair price for their produce so they can afford a decent standard of living and/or paying a living wage to workers employed directly.

Workers in agriculture, aquaculture, and fishing are more than four times likelier to be in poverty than those in other sectors. For wage workers, a legally set minimum wage can sometimes be used as a proxy for living income, however living income is calculated based on requirements for a decent standard of living and can be higher than the minimum wage. In many countries, workers in the agriculture, aquaculture, and fishing sectors fall outside of national minimum wage regulations or are subject to sector-specific minimum wage rates, lower than those applied to other categories of workers. A high spread of informal employment in these sectors also poses a major barrier for the enforcement of wage norms.

Workers in agriculture, aquaculture, and fishing can be compensated in various ways – for example, in-kind payment of a share of their catch or harvest or through bonuses and piece rates – which can make them more vulnerable to under-compensation. While international labor standards do not set a specific threshold for in-kind payments, many national jurisdictions prohibit them above a certain threshold. The International Labour Organization (ILO) has also questioned the value and fairness of in-kind payments exceeding 50% of wages, considering this practice to limit workers’ financial income.

Many fishers and farmers are categorized as self-employed workers because they receive wages but are compensated according to their supply of production. Protections specifically for this type of worker might not exist. Their incomes can be contingent on the individuals’ negotiating power, production levels, and prices, which may be subject to volatile or unfavorable market forces. These prices can be set without accounting for possible losses in produce due to weather events, plant and animal diseases, or any other unforeseen circumstances that reduce production. Organizations can also cause impacts on their suppliers through procurement practices, including the lead times they specify, which may be overly restrictive.

Lack of living income can lead to numerous environmental and social impacts. For example, farmers facing economic pressures may apply high levels of fertilizers or pesticides in an attempt to increase yields. Farmers and fishers can also be pressed to cut production costs by lowering their workers’ wages or relying on poor labor practices such as exploitation, illegal migrant labor, or child labor. Lack of living income also limits the ability of producers to invest in more efficient or sustainable production methods, which can further impact their access to markets, income, and livelihoods. In some cases, this can be conducive to illegal clearing of forests or illicit farming or fishing activities.

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8 ‘While no conventions or recommendations fix a specific threshold for payments in kind, the ILO Committee of Experts has expressed doubt concerning payment in kind that exceeds 50% of the wage’, Chapter 1: What is a minimum wage: 1.6 Payment in kind - ILO, see also International Labour Conference, 91st Session, 2003, Protection of Wages, 2003.
What to report

If the organization has identified living income as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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</table>
| GRI 103: Material Topics | Disclosure MT-3 Management of material topics | - Describe the commitments of the organization related to providing a living income or paying a living wage.  
- Describe the methodology used for defining living income or living wage at significant locations of operation and if this has involved a consultation with and participation of local stakeholders, including trade unions and employer organizations.  
- Describe the approach to in-kind payments, including the maximum percentage of remuneration paid in kind per location of operation.  
- Describe how sourcing, pricing, and remuneration policies take living income or living wage into account, including how living income is considered when commodity prices are set by the organization. |

Additional sector disclosures

Report the percentage of employees and other workers covered by collective bargaining agreements in place that have terms related to wage levels and frequency of wage payments at significant locations of operation.

Report the percentage of employees and other workers paid above living wage, with a breakdown by gender.

Describe the tools and systems used to monitor wages paid by suppliers.

Resources and references

The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 86.
2.22 Economic inclusion

Economic inclusion concerns an organization’s impacts on the productive potential of workers and suppliers. By supporting rural workers and suppliers, an organization can contribute to economic development in rural areas. This topic covers ways that organizations can contribute to economic inclusion, which can include supporting small or medium-sized suppliers, their productivity and access to markets.

The agriculture sector includes 500 million smallholder farmers, producing up to 80% of all agricultural products in some regions. Small fishing vessels represent over 80% of the world’s total fishing fleet and provide employment to nearly two thirds of the total workforce of the sector in some countries. At the same time, as much as 80% of the world’s poor live and work in rural areas because of poor infrastructure, lack of knowledge and technology, limited capacity to produce, or limited access to markets and financial services.

Agriculture, aquaculture, and fishing organizations can improve the economic inclusion of small producers from whom they source their products through creating sustained demand, providing capital, building skills and knowledge, and strengthening access to markets. For example, contract farming – when an organization enters into forward agreements with farmers to purchase their products – can enhance the productive capacity and market access of small producers. In such agreements, organizations can commit to providing inputs, such as seeds, fertilizers, capital, and knowhow. Contract farming agreements need to be executed in a way that avoids leaving producers in debt or dependency.

Agriculture, aquaculture, and fishing organizations can contribute to enabling farmers and fishers to access financial services or provide support to rural financial institutions. Organizations can facilitate formalizing enterprises by farmers and fishers through arrangements that encourage collective benefits, such as developing cooperatives.

Agriculture, aquaculture, and fishing organizations can also contribute to economic inclusion through developing infrastructure, building roads, ports, or canals in areas otherwise unserved. The impacts of infrastructure investment can extend beyond the organization’s scope and facilitate access to transportation, energy, sanitation, and other services for people living and working in rural areas.

What to report

If the organization has identified economic inclusion as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

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<th>Standard</th>
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<th>Additional sector recommendations</th>
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<td>Management of the topic</td>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
<td>Describe the actions taken to identify and adjust the procurement practices of the organization that cause or contribute to negative impacts in the supply chain including:</td>
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<td>- how engagement with suppliers is used to identify procurement practices that cause or contribute to negative impacts in the supply chain;</td>
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<td>- actions taken to adjust payment policies and procedures.</td>
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<td>Describe policies and practices used to promote economic inclusion when</td>
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selecting and engaging with workers and suppliers.

Note: These recommendations are based on the guidance to clause 1.1 in GRI 204: Procurement Practices 2016.

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<tr>
<th><strong>Topic Standards disclosures</strong></th>
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<tr>
<td><strong>GRI 203: Indirect Economic Impacts</strong></td>
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1502 **Resources and references**

1503 The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 87.
2.23 Supply chain traceability

Traceability is the ability to trace the source, origin, or production conditions of raw materials and production inputs purchased. Traceability provides a way to identify and avoid potential negative impacts associated with an organization’s products as well as to demonstrate adherence to organizations’ sustainability commitments.

Agriculture, aquaculture, and fishing organizations may source their products and procure animal feed from multiple farms, mills, plantations, waters, or hatcheries. The sectors’ supply chains can be complex, crossing international borders. Production conditions can differ highly across countries, causing diverse impacts on the economy, environment, and people, including impacts on their human rights. Production in the sectors can also involve informal operations, where impacts often go undocumented. Supply chain mapping allows to identify the actors in an organization’s supply chain and the relationships among them, offering a basis for traceability.

Traceability mechanisms enable organizations to know the origins of their products and identify impacts they may be involved with via their business relationships. These mechanisms serve to protect public health and ensure compliance with food safety policies by, for example, mitigating negative impacts in cases of urgent product recalls over food safety concerns and outbreaks of disease in animals.

Organizations in animal production and aquaculture can have significant impacts associated with animal and fish feed they source and are thus expected to trace feed ingredients. Feed in aquaculture can come from fish caught in the wild, contributing to overfishing. Plant-based feed includes wheat, rice, and soy; almost 80% of the world’s soybean crop is used as animal feed, and in many areas, it is associated with deforestation and conversion. Eliminating or reducing deforestation or other forms of natural ecosystem conversion in the value chain requires tracing the origin of products to farms, plantations, or smallholder organizations, notably in jurisdictions with deforestation or conversion risks and in the absence of other supply chain control mechanisms, such as audits or certification. In the fishing sector, traceability is required to ensure sustainability of fishery resources and legality of fishing operations.

ILLEGAL, UNREPORTED, AND UNREGULATED FISHING

Some estimates indicate that up to 30% of fish sourced globally comes from illegal, unreported, and unregulated (IUU) fishing. IUU fishing includes fishing without a license, exceeding fishing quotas, capturing undersized fish or endangered species, using unauthorized fishing gear, fishing in restricted protected marine areas or inshore waters reserved for local artisanal fishers, and unauthorized transfer of catch from one vessel to another.

IUU fishing is a threat to marine ecosystems and biodiversity because of its potential impacts on the sustainability of fishing stocks. Traceability is a fundamental tool against IUU fishing. Certified fisheries, fisheries improvement projects, or robust monitoring, control, and surveillance (MCS) measures can also provide some level of assurance against IUU fishing.

Traceability also facilitates transparency of value created at each stage of the value chain and how the value is distributed among producers. Knowing this information is relevant for establishing purchasing prices for agriculture, aquaculture, and fishing products that provide for living income to workers, farmers, and fishers (see Living income).

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9 The definition is based on the GRI 204: Procurement practices 2016.

10 To illustrate, only 19% of the soy consumed in the European Union can be traced to producers who do not increase deforestation; IDH The Sustainable Trade Initiative, European Soy Monitor, 2020.
Tracing the origins of products can be challenging, and traceability across the agriculture, fishing, and aquaculture sectors is unevenly implemented. Organizations that source agriculture, aquaculture, or fishing products might, depending on the product, be able to trace each to its original source or a certain geographic area. Suppliers may also have certifications and assurance schemes that link products to production sites with known environmental, economic, and social performance records, known as low-risk jurisdictions. While some certification mechanisms might support traceability, traceability remains the responsibility of the organization.

**What to report**

If the organization has identified supply chain traceability as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disclosure</th>
<th>Additional sector recommendations</th>
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<tr>
<td><strong>Management of the topic</strong></td>
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</table>
| GRI 103: Material Topics | Disclosure MT-3 Management of material topics | Describe the rationale and methodology for tracing the source, origin, or production conditions of raw materials and production inputs purchased.  
*Note: These recommendations are based on the guidance to clause 1.1 in GRI 204: Procurement Practices 2016.*  
The following additional sector recommendations are for organizations in the fishing sector:  
- Describe the policies, assurance, and risk assessment processes of the organization related to risks of illegal, unreported, and unregulated (IUU) fishing;  
- List collaborations intended to help address illegal, unreported, and unregulated (IUU) fishing that the organization participates in. |
| **Additional sector disclosures** | | |
| | Describe the level of traceability in place for each product the organization sources, for example, if the product can be traced to the national, regional, or local level or a specific point of origin. | |
| | Report the percentage of suppliers in the organization’s supply chain that are certified or undergoing improvement projects or assessment. | |
| | Report the percentage of products verified as being in accordance with credible internationally recognized responsible production standards, according to standard or product.  
- For organizations in the fishing sector, describe whether this includes chain of custody certification and complies with the Global Sustainable Seafood Initiative (GSSI);  
- For organizations in the agriculture and aquaculture sectors, describe whether certification includes farms, hatcheries, and feed mill levels. | |
Resources and references

The intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 87.
2.24 Public policy and lobbying

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

Agriculture, aquaculture, and fishing organizations can be involved in public policy development – concerning environmental regulations, access to natural resources, labor laws, food safety, public health, and animal welfare on local, national, or international scales – and, in doing so, potentially exert significant influence. Transparency around lobbying activities and political contributions is crucial for understanding agriculture, aquaculture, and fishing organizations’ impacts related to public policy and lobbying.

Agriculture, aquaculture, and fishing products can be subject to government price setting and subsidies or be affected by mandatory quotas, which can prompt organizations to lobby. In agriculture, documented cases show how large agricultural organizations may lobby to postpone legal requirements for rotating crops and to prevent penalties for inadequate use of land. Agriculture lobby activities can also target approvals of genetically modified organisms (GMOs) and pesticides.

Lobbying activities can have an impact on farmers’ access to technology and genetic resources, such as seeds from genetically heterogeneous varieties, including traditional crops.

In animal production, lobbying can inhibit public policy development that deals with livestock’s negative impacts on the environment. In many countries, livestock products – particularly dairy and beef – are heavily subsidized due to the influence that livestock organizations exert. These subsidies can facilitate supply of animal products at prices that do not cover costs to the environment but are enabled expressly through lobbying. Lobbying can also prevent stricter standards of animal welfare.

In fishing, organizations can influence allowable catch and quota regulations, including international trade negotiations and inter-country agreements on fishing quotas. Locally, lobbying can sway attempts to limit catch in order to preserve fishing stocks (see Anti-corruption).

What to report

If the organization has identified public policy and lobbying as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

<table>
<thead>
<tr>
<th>Standard</th>
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<td><strong>Management of the topic</strong></td>
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<tr>
<td>GRI 103: Material Topics</td>
<td>Disclosure MT-3 Management of material topics</td>
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<td><strong>Topic Standards disclosures</strong></td>
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<tr>
<td>GRI 415: Public Policy 2016</td>
<td>Disclosure 415-1 Political contributions.</td>
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</table>

Resources and references

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

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 88.
2.25 Anti-competitive behavior

Anti-competitive behavior refers to actions that can result in collusion with potential competitors, with the purpose of 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.

Many agriculture, aquaculture, and fishing products are purchased from producers and traded by only a limited number of organizations. In situations of limited market options, traders and buyers can exert significant market power.

Anti-competitive agreements between agriculture, aquaculture, and fishing organizations can lead to setting purchasing prices for products below those in a competitive market as well as restrictions on the product volumes. Many producers in agriculture, aquaculture, and fishing sectors are smallholder farmers and small-scale fishers, often working in the informal sector and facing substantial barriers to access markets (see Economic inclusion). Large organizations that source supplies from small producers can take advantage of information asymmetry and market fragmentation to limit their choices of whom to supply.

Anti-competitive practices may render small producers in these sectors unable to cover their costs, achieve living income, or pay wages to their workers, resulting in economic exclusion and risk to livelihoods. Other actions that purposely limit effects of market competition can also cause small producers to lose their independence and be pressured into becoming subsidiaries of large multinational organizations. In some parts of the sectors, cartels have caused exclusion of small producers from international markets.

Cooperatives or organizations with mandatory membership can affect market competition by requiring farmers and fishers to sell their products exclusively through them. While such arrangements can benefit producers, they can also pose anti-competitive concerns as limiting consumer’s choices, if cooperatives represent a major share of the sector’s productive capacity.

What to report

If the organization has identified anti-competitive behavior as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

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<td><strong>Management of the topic</strong></td>
<td>GRI 103: Material Topics Disclosure MT-3 Management of material topics</td>
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<tr>
<td><strong>Additional sector disclosures</strong></td>
<td>GRI 206: Anti-competitive Behavior 2016 Disclosure 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices</td>
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</table>

Resources and references

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

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 88.
2.26 Anti-corruption

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

Corruption in the agriculture, aquaculture, and fishing sectors can erode the capacity of governments to limit practices, such as deforestation and overfishing, increase the potential for impacts on workers and communities, and reduce government revenues. Organizations that engage in corruption can have an unfair advantage in competitive markets.

Corruption in the agriculture, aquaculture, and fishing sector may be related to the use of land and other natural resources regulated by government agencies. It can take the form of, for example, bribes paid to officials to register land, acquire land information, or obtain permits to establish an operation (see Land and resource rights). This can affect rights holders and lead to the displacement of communities, particularly in areas without secure land tenure.

Corruption can also involve unduly benefiting from political reforms and land transactions, such as privatization of state-owned land, approval of zoning plans, and land expropriation, while ignoring legal mechanisms and causing impacts on people and ecosystems.

Other examples of corruption in the sectors may include inducing officials to ignore illegal farming or fishing operations. Illegal farming operations can lead to loss of natural ecosystems when land is cleared. Corrupt practices in fishing can facilitate access agreements between organizations and officials of countries rich in fishery resources.

Corrupt practices can also make illegal, unreported, and unregulated fishing (IUU) and exceeding quotas possible, which undermines sustainability of stocks. Fishers themselves might be involved in corruption in an attempt to get more catch. Records of type or volume of catch may be falsified or authorities may be bribed to ignore or certify false records.

Operating fishing vessels under flag of convenience or an unknown flag can also be associated with corruption when it is done with a view to bypass countries’ legal restrictions.

What to report

If the organization has identified anti-corruption as a material topic, this section lists the disclosures that have been identified as relevant for reporting on the topic by the agriculture, aquaculture, and fishing sectors.

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<th>Topic Standards disclosures</th>
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<tr>
<td>GRI 205: Anti-corruption 2016</td>
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</table>
Resources and references

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

The additional intergovernmental instruments and references used to develop this topic description, as well as further resources that may be helpful for understanding and reporting on the topic by the agriculture, aquaculture and fishing sectors are listed in the Bibliography on page 89.
Note to the GSSB: A number of defined terms are being revised as part of the review of the GRI Universal Standards. To facilitate consistency, this glossary section will be completed prior to public exposure based on the drafts of Universal Standards submitted to the GSSB for approval. No new defined terms are proposed to be added as a result of the development of this Standard.

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