



Food and Agriculture  
Organization of the  
United Nations

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# Guidance on core indicators for agrifood systems

Measuring the private sector's  
contribution to the Sustainable  
Development Goals

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## Foreword

The 2030 Agenda for Sustainable Development is unprecedented in its scope and ambition – namely to “leave no one behind”. This ambition means that all stakeholders, everywhere, have a valuable role to play in ensuring that the Agenda succeeds. In particular, private sector entities play an unparalleled role in agrifood systems, from the very smallest family farms to multinational corporations. A broad array of private sector actors will be central to achieving the Sustainable Development Goals (SDGs) – including farmers, foresters, livestock herders, fishers, and their associations; large and multinational companies and their industry consortia; as well as microenterprises, small and medium enterprises, financial institutions, investors and philanthropic organisations. Despite the integral role of the private sector in achieving the SDGs, it has been difficult to capture and quantify its contribution.


The High-Level Political Forum (HLPF) acknowledged that the world is off-track to meet the SDGs. Today, the COVID-19 pandemic deepens the challenge. It is time to renew commitments and accelerate delivery on the SDGs, which means that there is a need for “all hands on deck”. FAO counts on the private sector as a key strategic partner. Given FAO’s role as custodian agency for 21 SDG indicators (almost 10% of the global SDG indicator framework), it was important to identify how FAO could support the private sector, alongside national governments, in improving the data available on the private sector’s contribution to the SDGs.

At the same time, it is often brought to FAO’s attention that current sustainability reporting standards for agrifood entities present significant gaps in assessing impacts on the SDGs, and that greater guidance is needed on what to report and how to ensure that this is captured in national SDG monitoring and reporting. In addition, international analysis of the areas requiring further attention is necessary. In light of the impacts of COVID-19, it is even more urgent that all parties work together to attain progress towards each of the SDG indicators and targets.

The first step is to set out how existing corporate reporting frameworks can better align with the SDGs to more adequately measure progress and fill gaps in data. By developing a set of core food and agricultural indicators to measure the private sector’s contribution to the SDGs, FAO aims to assist both its Members, in capturing the private sector’s contribution; and private sector entities, in providing clear guidance on what and how to report. This work reflects some of the key areas of engagement with the private sector included in the new FAO Strategy for Private Sector Engagement (2021–2025) (FAO, 2021a), which recognises the fundamental role of the private sector in accelerating the achievement of the SDGs.

This is only one of the many stages on the journey towards attaining the SDGs, and FAO is eager to work closely with the private sector, national governments and sustainability reporting organizations on its implementation.

Pietro Gennari, Chief Statistician



Elizabeth Bechdol, Deputy Director-General





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## Acknowledgements

The indicators have been developed based on the extensive work conducted by the United Nations Conference on Trade and Development (UNCTAD), in particular the *Guidance on core indicators for entity reporting on the contribution towards the implementation of the Sustainable Development Goals* (GCI). The Office of Chief Statistician, FAO has aimed to build on this work and is grateful for the collaboration and sharing of lessons learned from the International Standards for Accounting and Reporting (ISAR) members and the UNCTAD GCI team, in particular Tatiana Krylova and Elena Botvina.

The indicators have also been developed with the aim of promoting alignment with existing reporting frameworks, and have benefitted from insights shared and feedback received from the teams at the Global Reporting Initiative, the World Benchmarking Alliance, the United Nations Global Compact, the Carbon Disclosure Protocol (CDP), the Sustainability Accounting Standards Board (SASB), the Organisation for Economic Cooperation and Development (OECD), the Columbia Center on Sustainable Investment, and the United Nations Sustainable Development Solutions Network (UNSDSN) of FAO. The openness and collaborative spirit of each of these organizations has helped to ensure that the indicators are aligned to existing standards and contribute to the efforts to harmonize sustainability reporting standards, tools and metrics globally.

The project has been led by Valérie Bizier, Senior Statistician, Office of Chief Statistician, FAO with support from Pietro Gennari, the Chief Statistician. The indicators' development has also been supported by Yue Li, Associated Professional programme and junior statistician, seconded from the Ministry of Agriculture of China, as well as Elizabeth Beall, international specialist in private-sector reporting.

FAO would like to express its appreciation to the Swedish International Development Cooperation Agency for its financial contribution to this work through the Flexible Multi-Partner Mechanism (FMM) sub-programme "Sustainable Productivity in agriculture (in the context of CSA and Agroecology) (FMM/GLO/139/MUL)".

Special thanks are extended to the technical experts within and outside FAO who provided their feedback at various stages, including through the Global Forum on Food Security and Nutrition (FSN Forum). The many constructive comments and inputs received from them have greatly contributed to improve the quality of the final document.

The indicators have benefitted from initial pilot testing by private companies representing various sizes, sectors, and geographies. Special thanks go to Paradise Foods in Papua New Guinea, EcorNaturaSi in Italy, Euglena in Japan, the Pasona Group of Japan, Unilever, and JR Farms in Rwanda.

Sophie Ditlecadet has coordinated the design and communications aspects.

The document has been edited by Sarah Pasetto.

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## Abbreviations and acronyms

<b>BFA</b>	Biodiversity for Food and Agriculture
<b>CDP</b>	Carbon Disclosure Protocol
<b>COGS</b>	cost of goods sold
<b>EVG&amp;D</b>	Economic Value Generated and Distributed
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FLP</b>	Food Loss Percentage
<b>FWP</b>	Food Waste Percentage
<b>FTE</b>	Full-Time Equivalent
<b>GCI</b>	Guidance on core indicators for entity reporting on the contribution towards the implementation of the Sustainable Development Goals
<b>GCI-agrifood</b>	Guidance on core indicators for agrifood systems – Measuring the private sector’s contribution to the Sustainable Development Goals
<b>GHG</b>	greenhouse gas
<b>GRI</b>	Global Reporting Initiative
<b>IFRS</b>	International Financial Reporting Standards
<b>ILO</b>	International Labour Organization
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IPM</b>	Integrated Pest Management
<b>ISCO</b>	International Standard Classification of Occupations
<b>ISFM</b>	Integrated Soil Fertility Management
<b>ISIC</b>	International Standard Industrial Classification
<b>NGO</b>	Non-governmental organization
<b>ODS</b>	Ozone-depleting substance(s)
<b>SAFA</b>	Sustainability Assessment of Food and Agriculture systems
<b>SASB</b>	Sustainability Accounting Standards Board
<b>SDG</b>	Sustainable Development Goals
<b>SME</b>	Small and medium-sized enterprise
<b>UN</b>	United Nations
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>WBA</b>	World Benchmarking Alliance

## Units of measurement

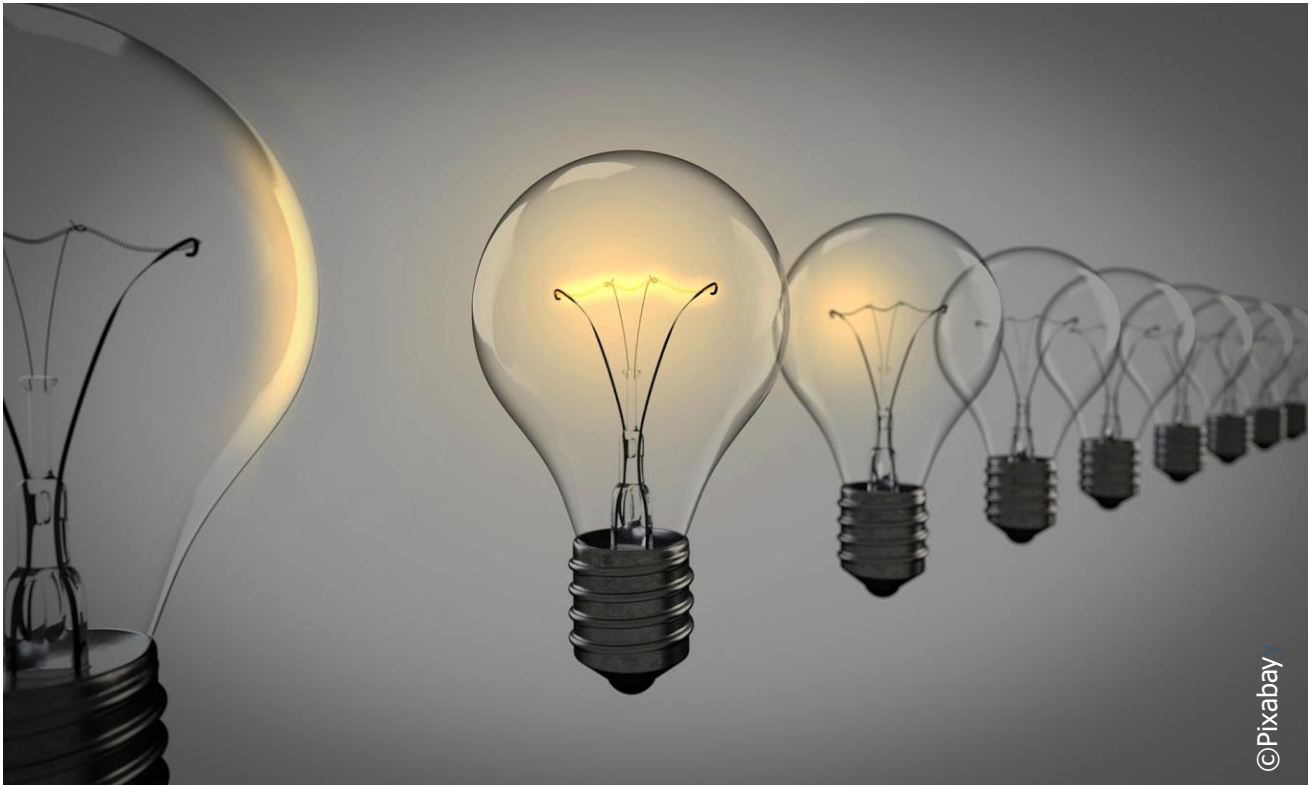
<b>ha</b>	hectare
<b>kg</b>	kilogram
<b>m</b>	metre
<b>m<sup>3</sup></b>	cubic metre





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## 1. Introduction



### How to use this document

The document provides a set of indicators for use in measuring the contribution, to the Sustainable Development Goals (SDGs), of the private sector involved in food and agriculture. It is intended as a reference and is structured to facilitate ease of access to the specific information that is most relevant for each user.

In this sense, the document begins with a **quick guide** that provides a brief overview of the indicators, the audience, scope and data collection. This section contains the high-level information needed to begin using the indicators.

The quick guide is followed by **methodological guidance**, which provides in-depth detail on the methodology behind each indicator and useful resources for capturing, measuring and reporting on data for each indicator.

Finally, in the **annexes** there is a mapping of how the indicators align with various standards and guidance.

## Indicators: quick guide

### Rationale and objective

FAO is the designated United Nations (UN) custodian agency for 21 SDG indicators and a contributing agency for another five – covering almost 10 percent of the entire SDG global indicator framework. This expanded role reflects FAO's significant involvement in supporting countries' efforts to monitor SDG targets. One of the key gaps in country monitoring and reporting on progress towards the SDGs arises when seeking to capture the significant contribution of the private sector. While many private-sector organizations – both large and small – are now collecting a significant amount of data related to their environmental, social and governance impact, these data are often: (i) not in a form that can be easily merged with government data; (ii) not aligned specifically with SDG targets and indicators; or (iii) not communicated to the relevant national authorities. This means that countries are not able to report on the full picture of progress and private companies are not given the credit they deserve for their contribution to the SDGs.

FAO is aiming to address these gaps through the development of a set of indicators that can be used by the private sector in the food and agricultural sector and feed into national-level reporting on the SDGs. Similar to the *Guidance on core indicators for entity reporting on the contribution towards the implementation of the Sustainable Development Goals* (GCI) of the United Nations Conference on Trade and Development (UNCTAD), the objective of these indicators is to provide practical information on how food and agriculture companies' contribution to the SDGs can be measured in a consistent manner and in alignment with countries' needs relating to monitoring the attainment of Agenda 2030. The indicators are further intended to assist governments in:

- improving private sector's accountability mechanisms and assessing their contribution to SDG implementation, in particular on key transformative actions needed to achieve the SDGs;
- setting standards and policies for corporate sustainability reporting, establishing national private sector reporting mechanisms and enabling the reporting on SDG Indicator 12.6.1 (Number of companies publishing sustainability reports); and
- potentially reusing the data reported by private entities to improve SDG monitoring at the national level.

## GUIDING PRINCIPLES

In keeping with the overall rationale and objective, the indicators and associated guidance were developed following the guiding principles stated below.



### **Alignment with the SDGs, the 20 recommended actions to transform food and agriculture in order to achieve the SDGs and related international commitments.**

The SDGs are the anchor for the indicators and have been the deciding factor on whether to include various indicators. Each of the indicators included herein is linked to one of the SDG targets or indicators and, wherever possible, follows as close a formulation/methodology to the SDG indicator as feasible. Whereas the SDGs align with other international commitments to which the private sector is expected to contribute (for example, the implementation of the Paris Agreement, the post-2020 Global Biodiversity Framework), these were also considered in setting the reporting expectations.



### **Consistency with existing frameworks, standards and methods**

With the objective of enhancing consistency and harmonization, the indicators have been drawn from existing standards and guidance wherever possible, keeping in mind the first principle of alignment with the SDGs.



### **Minimum set with broad coverage**

Given the variety of entities engaged in the food and agriculture sector operating in diverse contexts, it was accepted that it would not be possible to capture this level of diversity or specificity. Instead, it was decided to focus on a minimum set of indicators that could apply to a majority of entities and represent the most important issues for the sector as a whole.



### **Preference for quantitative indicators**

Quantitative data are much easier to compare and harmonize than qualitative data, and, as a result, was the priority in developing the indicators. At the same time, a quantitative indicator may be overly reductive and not capture the full impact of what it is sought to assess. In these cases, qualitative indicators, made up of a list of practices related to the impact being assessed, have been included.

## AUDIENCE

The primary audience for the indicators is the private sector – both large and small companies – that can use the indicators in their corporate reporting to illustrate alignment with the SDGs. Along these lines, national governments can also use the indicators in formulating regulatory requirements and guidance for the private sector on corporate sustainability reporting, in order to better integrate corporate sustainability data into national-level accountability and reporting framework, including national SDG progress reports. Similarly, existing standard-setting organizations, investors, voluntary frameworks and

benchmarks can integrate the indicators into their own systems to facilitate greater harmonization of the data requested from the private sector.

The indicators are intended to be used as a tool by various stakeholders and can be adapted (to the extent that data comparability is not impacted) to suit the needs of each stakeholder. For example, countries may have varying approaches or systems in place for data collection, or a priority focus on some sustainability dimensions or indicators more than others.

## ALIGNMENT

**Building on existing standards and indicators:** The indicators build on UNCTAD's sector-agnostic GCI. They provide additional guidance on how to measure the 32 selected GCI indicators in the context of agrifood entities and include an additional core set of 25 indicators that are relevant to measuring the specific impact of the food and agriculture sector, from farm to fork, on the SDGs.

The FAO indicators aim to incorporate and align with these efforts and have only diverged where standards did not previously exist or where existing standards were not aligned directly with the SDGs.

A lack of harmonization, consistency (comparability) and agreed standards characterizes existing reporting frameworks for the private sector. With the increasing global interest in Environmental, Social, and Governance (ESG) accountability, there is a move to harmonize ESG reporting frameworks, and while there has yet to be an agreed global framework developed there is increasing convergence among institutions working on standards, benchmarks and indicators, particularly at the sector level.

Among many, the reporting standards and indicators considered and incorporated include those of UNCTAD, Global Reporting Initiative, Sustainability Accounting Standards Board, World Benchmarking Alliance and CDP.

**SDG alignment:** While the focus of the indicators is on SDG alignment, some areas not explicitly covered in the SDGs are covered, instead, in the indicators, given their importance for the sector specifically and evolving thinking about what constitutes “sustainable” agriculture and food. Therefore, in some cases, the indicators were considered as measuring alignment with “SDGs+”.

## SCOPE

The indicators aim to cover the agrifood system at a broad level to provide a universal set of “core” indicators as a starting point for any actor in the agrifood system. As illustrated in Figure 1, the indicators aim to cover all stages of the agrifood system from farm to plate – agricultural production (including fisheries, aquaculture, and forestry), food processing, food wholesale, food retail, and food service/restaurants. As a result, although several indicators may apply for a specific subsector (e.g. food service or fisheries), these have not been included here because they are not widely applicable across the agrifood system.

producers organizations and social enterprises) to large firms, domestic and multinational companies, financial institutions, investors, and private standard-setting or benchmarking organizations.

For the purpose of these indicators, FAO considers the private sector to encompass a broad array of entities, ranging from farmers, fishers, foresters, livestock herders, and micro, small and medium enterprises (including cooperatives, farmers, fishers, foresters, livestock

The indicators apply to all sizes of companies. While larger companies are likely to have more advanced SDG reporting frameworks and data collection systems in place, small and medium enterprises make up the bulk of food systems worldwide and play an integral role in achieving the SDGs, particularly in developing countries. Larger companies can and should be encouraged to share lessons learned and offer support to smaller and medium enterprises in their network and/or supply chain on how to implement these indicators and establish data collection and reporting systems.

Figure 1. Stages of the agrifood system

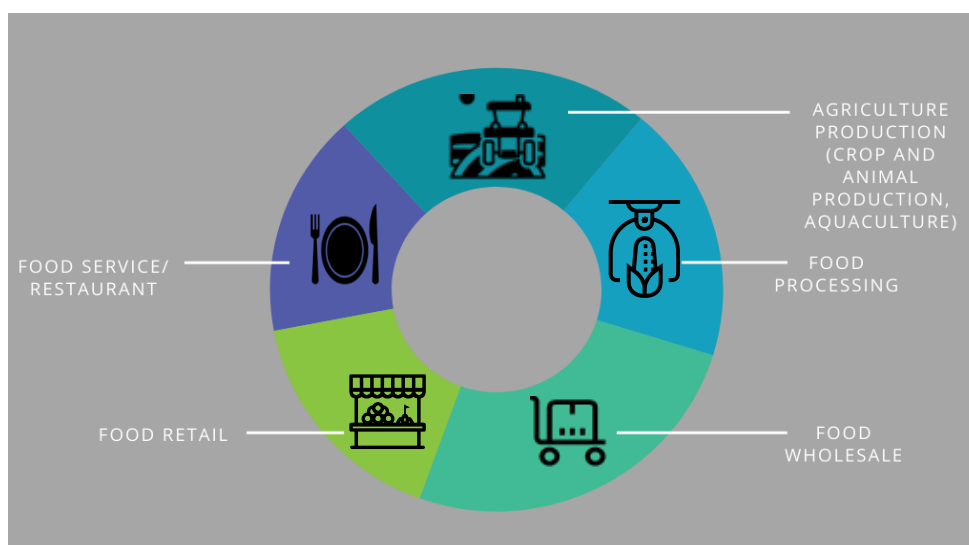












Table 1. List of indicators

ECONOMIC	ENVIRONMENTAL	SOCIAL	INSTITUTIONAL
A.1.1 Revenue	B.1.1 Water recycling and reuse	C.1.1 Employee wages and benefits as a proportion of revenue	D.1.1 Number of board meetings and attendance rate
A.1.2 Value added	B.1.2 Water use efficiency	C.1.2 Percentage of employees and other workers paid above living wage	D.1.2 Proportion of women in managerial positions and among board members
A.1.3 Net value added	B.1.3 Water stress	C.2.1 Average hours of training per year per employee	D.1.3 Board members by age group
A.2.1 Taxes and other payments to the government	B.1.4 Water management practices	C.2.2 Expenditures on employee training per year per employee	D.1.4 Number of meetings of audit committee and attendance rate
A.3.1 Green investment	B.2.1 Reduction of waste generation	C.3.1 Expenditures on employee health and safety as a proportion of revenue	D.1.5 Compensation per board member
A.3.2 Community investment	B.2.2 Waste reused, remanufactured and recycled	C.3.2 Frequency/incident rates of occupational injuries	D.2.1 Amount of fines paid or payable due to corruption-related settlements
A.3.3 Total expenditure on research and development	B.2.3 Hazardous waste	C.4.1 Percentage of employees and workers covered by collective agreements	D.2.2 Average number of hours of training on anti-corruption issues per year per employee
A.4.1 Percentage of local procurement	B.3.1 Greenhouse gas emissions (scope 1)	C.4.2 Incidents of child labour	D.3.1 Management of economic, environmental, social, and institutional risks through due diligence
A.4.2 Fair pricing and transparent contract practices	B.3.2 Greenhouse gas emissions (scope 2)	C.4.3 Incidents of forced labour	
A.5.1 Gross profit margin	B.3.3 Greenhouse gas emissions (scope 3)	C.5.1 Food labelling practices	
A.5.2 Product diversification by revenue	B.3.4 Greenhouse gas emissions management practices	C.5.2 Percentage of sales of nutritious food	
A.5.3 Financial risk management practices	B.4.1 Ozone-depleting substances and chemicals	C.5.3 Percentage of facilities or operations in compliance with food safety standards	
	B.5.1 Renewable energy	C.6.1 Incidents of tenure rights violation	
	B.5.2 Energy efficiency		
	B.6.1 Natural ecosystem conversion		
	B.6.2 Habitat area protected, created or restored		
	B.6.3 Sustainable use, conservation and restoration of biodiversity practices		
	B.7.1 Soil degradation		
	B.8.1 Fertilizer use		
	B.8.2 Fertilizer management practices		
	B.8.3 Pesticide use		
	B.8.4 Pesticide management practices		
	B.9.1 Food loss		
	B.9.2 Food waste		



Table 2. Sector-specific exclusion lists

	Agricultural production 					Food processing 	Food wholesale 	Food retail 	Food service 
	Crop/livestock 	Non-food agriculture 	Non-wood forest product 	Forest product 	Fisheries/aquaculture 				
<b>Economic</b>	No exclusions								
<b>Environmental</b>	B.9.2	B.9.1 B.9.2	B.9.2	B.9.1 B.9.2	B.7.1 B.8.1 B.8.2 B.8.3 B.8.4 B.9.2	B.7.1 B.8.1 B.8.2 B.8.3 B.8.4	B.7.1 B.8.1 B.8.2 B.8.3 B.8.4 B.9.1	B.7.1 B.8.1 B.8.2 B.8.3 B.8.4 B.9.1	B.7.1 B.8.1 B.8.2 B.8.3 B.8.4 B.9.1
<b>Social</b>	C.5.1 C.5.2	C.5.1 C.5.2 C.5.3	C.5.1 C.5.2	C.5.1 C.5.2 C.5.3	C.5.1 C.5.2				
<b>Institutional</b>	No exclusions								

## Exclusions

Some agricultural activities have been specifically omitted due to their known negative impacts on the SDGs, e.g. tobacco growing. Other business activities related to agrifood systems (e.g. agricultural input or machinery providers) were not included, as a majority of the indicators would not apply or be relevant. For these types of actors, it is recommended to at least report with reference to the UNCTAD *Guidance on core indicators for entity reporting on the contribution towards the implementation of the Sustainable Development Goals* (UNCTAD, 2019).

## Suppliers

Suppliers include the organizations or persons that provide a product or service used in the supply chain of the reporting entity (Global Reporting Initiative (GRI), 2020).<sup>1</sup> For the purpose of reporting, priority should be on Tier 1 or critical suppliers.<sup>2</sup>

The indicators aim to address the importance of suppliers in food and agriculture systems in a number of ways, chiefly by including specific indicators that: (i) assess a company’s relationship with its suppliers; and (ii) assess the impact that suppliers have on a downstream companies’ environmental and social performance. Downstream companies are closer to consumers and, as a result, often subject to greater scrutiny on sustainability. While downstream companies may not be directly responsible for issues further upstream, they

<sup>1</sup> Suppliers can be the following. Brokers are persons or organizations that buy and sell products, services or assets for others, including contracting agencies that supply labour. Consultants are persons or organizations that provide expert advice and services on a legally recognized professional and commercial basis. Consultants are legally recognized as self-employed or as employees and workers of another organization. Contractors are persons or organizations working on-site or off-site on behalf of an organization. A contractor can contract their own workers directly, or contract subcontractors or independent contractors. Distributors are persons or organizations that supply products to others. Franchisees or licensees are persons or organizations that are granted a franchise or license by the reporting organization. Franchises and licenses permit specified commercial activities, such as the production and sale of a product. Home workers are persons at home or in other premises of their choice, other than the workplace of the employer, who perform work for remuneration and which results in a product or service as specified by the employer, irrespective of who provides the equipment, materials or other inputs used. Independent contractors are persons or organizations working for an organization, a contractor or a subcontractor. Manufacturers are persons or organizations that make products for sale. Primary producers are persons or organizations that grow, harvest or extract raw materials. Subcontractors are persons or organizations working on-site or off-site on behalf of an organization that have a direct contractual relationship with a contractor or subcontractor, but not necessarily with the organization. A subcontractor can contract their own workers directly or contract independent contractors.

<sup>2</sup> Tier 1 suppliers are companies that directly supply goods or services to the company (in contrast to Tier 2 suppliers, which supply Tier 1). Critical suppliers are defined by RobecoSAM and EcoVadis as “high-volume suppliers, suppliers of critical components, and non-substitutable suppliers”.

are able to influence these activities through their relationship with suppliers, whether through a “code of conduct” or establishing supplier requirements in tendering. Depending on where a company sits in the food system, their influence and engagement with suppliers will differ.

The indicators can be applied in relation to suppliers in several ways:

**1. To assess a company’s relationship with its suppliers**

- A.4.1 Percentage of local procurement
- A.4.2 Fair pricing and transparent contract practices
- A.5.3 Financial risk management
- D.3.1 Management of economic, environmental, social and institutional risks through due diligence practices

**2. To assess key environmental and social impact of suppliers**

- B.1.4 Water management practices
- B.3.3 Greenhouse gas emissions (scope 3)
- B.3.4 Greenhouse gas emissions management practices
- B.6.1 Natural ecosystem conversion
- B.6.3 Sustainable use, conservation and restoration of biodiversity practices
- C.3.2 Frequency/incident rates of occupational injuries
- C.4.2 Incidents of child labour
- C.4.3 Incidents of forced labour
- C.5.3 Percentage of facilities or operations in compliance with food safety standards
- C.6.1 Incidents of tenure rights violation
- D.2.1 Amount of fines paid or payable due to corruption-related settlements

Beyond these specific indicators, users are encouraged to collect information along each of the indicators from suppliers, where the indicator is relevant for that stage of production.

### How to use the indicators

The indicators can be used by a range of actors, as outlined above in the section on Audience. The indicators are grouped first by sustainability dimension (economic, environmental, social, institutional) and then by topic. For example, labour rights, which is an important topic of social sustainability under the SDGs, is covered by a range of indicators that are related to one another and aim to address various aspects of labour rights.

**Table 2** outlines the indicators that **do not** apply for each subsector in the agrifood system. Since the indicators have been designed to be widely applicable across all actors from farm to plate, the lists below only note where indicators do not apply to a particular subsector or stage of the food system. Even where downstream companies may not have a direct role in indicators related to upstream activities, they are still encouraged to report on these indicators, given the role that upstream actors can play in influencing suppliers or downstream actors (as described in the previous section).

### Data collection

The indicators and associated guidance aim to illustrate what data need to be collected and how to use them to calculate and report against the indicator. However, given that each user will vary in terms of their access to data and management of data internally, the exact approach to data collection is up to each user. For example, for multinational corporations using the indicators, collecting data from various country offices or operations and aggregating at national or corporate level may be most relevant. For small and medium enterprises, collecting data may be more straightforward if operations only take place on one site. For national governments, data may be collected in part through surveys or central portals. For all actors, data should be disaggregated as much as possible to illustrate differences by geography, age, sex, vulnerable groups, types of incidents, etc. In order to feed into national-level reporting of the SDGs, it will also be important for all actors to report data by country and region, where possible. Reporting entities are encouraged to use digital technology (remote sensing, satellite imagery, etc.) to facilitate data collection and monitor progress (e.g. soil degradation, natural ecosystem conversion).

Table 3. Overview of indicators

	Topic	Indicator	Measurement	Link to SDGs
1	Revenue and/or (net) value added	A.1.1 Revenue	Total amount of revenue (gross sale) based on IFRS 15	8.2 (8.2.1); 2.3 (2.3.2); 2.4 (2.4.1)
2		A.1.2 Value added	Total economic value created by the entity, which can be distributed among different stakeholders and calculated as revenues plus other income minus operating costs	8.2 (8.2.1); 9.4 (9.4.1)
3		A.1.3 Net value added	The value added after subtracting depreciation on tangible assets, which could be used as the denominator of unit intensity indicators	8.2 (8.2.1)
4	Payments to the government	A.2.1 Taxes and other payments to the government	Total amount of taxes plus related penalties paid, plus all royalties, license fees, and other payments to the government (reported in absolute terms and in percentage terms)	17.1 (17.1.2)
5	New investment/expenditures	A.3.1 Green investment	Total amount of expenditures for green investments (reported in absolute terms and in percentage terms)	7.b (7.b.1)
6		A.3.2 Community investment	Total amount of community investments for which target beneficiaries are external to the entity (reported in absolute terms and in percentage terms)	17.17 (17.17.1)
7		A.3.3 Total expenditure on research and development	Total amount of expenditures on research and development (reported in absolute terms and in percentage terms)	9.5 (9.5.1)
8	Local supplier/purchasing programmes	A.4.1 Percentage of local procurement	Proportion of procurement spending of the reporting entity at local supplier during the reporting period (in absolute terms and percentage terms)	9.3 (9.3.1); 2.3 (2.3.2)
9		A.4.2 Fair pricing and transparent contract practices	Qualitative indicator measuring the reporting entity's policies and practices that recognize and support the rights of suppliers (especially the local suppliers, primary producers and smallholder farmers) to fair pricing and fair contracts or agreements	2.3 (2.3.2)
10	Economic resilience	A.5.1 Gross profit margin	Proportion of gross profit in revenue	2.4 (2.4.1); 8.2
11		A.5.2 Product diversification by revenue	Share of the main product (or service) in total revenue	2.4 (2.4.1); 8.2
12		A.5.3 Financial risk management	Qualitative indicator measuring the reporting entity's management practices with regard to financial risks	1.5 (1.5.2); 2.4 (2.4.1); 13.1

	Topic	Indicator	Measurement	Link to SDGs
13	Sustainable use of water	B.1.1 Water recycling and reuse	Proportion of recycled/reused water by the reporting entity during the reporting period (in absolute amount and percentage terms)	6.3 (6.3.1)
14		B.1.2 Water use efficiency	Amount of water used (freshwater withdrawal) by the reporting entity per net value added	6.4 (6.4.1)
15		B.1.3 Water stress	Proportion of freshwater withdrawal by sources from the water-stressed and water-scarce area in the total freshwater withdrawal (in absolute amount and percentage terms)	6.4 (6.4.2)
16		B.1.4 Water management practices	Qualitative indicators measuring the water management practices of the reporting entity	6.3; 6.4; 6.5
17	Waste management	B.2.1 Reduction of waste generation	Total amount of solid waste generated by the entity, and the waste generation per unit of net value added	12.5
18		B.2.2 Waste reused and recycled	Total amount of the solid waste reused and recycled, and the amount per unit of net value added	12.5 (12.5.1)
19		B.2.3 Hazardous waste	Total amount of hazardous waste, and the amount of hazardous waste per unit of net value added	12.4 (12.4.2)
20	Greenhouse gas emissions	B.3.1 Greenhouse gas emission (scope 1)	Total amount of the direct greenhouse gas (scope 1) emissions, and the emissions per unit of net value added	9.4 (9.4.1)
21		B.3.2 Greenhouse gas emission (scope 2)	Total amount of the indirect greenhouse gas (scope 2) emissions, and the emissions per unit of net value added	9.4 (9.4.1)
22		B.3.3 Greenhouse gas emission (scope 3)	Total amount of the indirect greenhouse gas (scope 3) emissions	9.4 (9.4.1)
23		B.3.4 Greenhouse gas emissions management practices	Qualitative indicators measuring the reporting entity's management practices with regards to greenhouse gas reduction and adaptation to climate change	9.4
24	Ozone-depleting substances	B.4.1 Ozone-depleting substances and chemicals	Total amount of ozone-depleting substances (ODS) consumption, and the consumption per unit of net value added.	12.4 (12.4.2)
25	Energy consumption	B.5.1 Renewable energy	Total amount of renewable energy consumption, and its proportion to total energy consumption	7.2 (7.2.1)
26		B.5.2 Energy efficiency	Total amount of energy consumed by the reporting entity, and the amount of energy consumption per net value added	7.3 (7.3.1)
27	Ecosystems and biodiversity	B.6.1 Natural ecosystem conversion	Size, location and type of natural ecosystem conversions that have occurred on the area owned, leased or managed by the reporting entity, and its suppliers since 2015	14.2; 15.1
28		B.6.2 Habitat area protected, created or restored	Proportion of habitat areas protected, created or restored out of the total area owned, controlled or managed by the company in the reporting period	2.4 (2.4.1); 15.5
29		B.6.3 Sustainable use, conservation and restoration of biodiversity practices	Qualitative indicator measuring the reporting entity's practices for the sustainable use, conservation and restoration of biodiversity	2.4 (2.4.1); 15.5; 15.9; 14.4

	Topic	Indicator	Measurement	Link to SDGs
30	Soil	B.7.1 Soil degradation	Proportion of land with soil degradation in the total area of agricultural production of the reporting entity, including soil erosion, reduction in soil fertility, salinization of irrigated lands and waterlogging	2.4 (2.4.1); 15.3 (15.3.1)
31		B.8.1 Fertilizer use	Volume and intensity (as a proportion of the total cropland area owned, leased and managed by the entity) of fertilizers used by the entity during the reporting period, by fertilizer nutrients (i.e. nitrogen-based (N), phosphate-based (P <sub>2</sub> O <sub>5</sub> ) and potassium-based (K <sub>2</sub> O))	2.4 (2.4.1); 6.3; 15.3
32	Fertilizers and pesticides	B.8.2 Fertilizer management practices	Qualitative indicator measuring the fertilizer management practices of the reporting entity	2.4 (2.4.1); 6.3; 15.3
33		Pesticide use	Volume and intensity (as a proportion of the total cropland area owned, leased and managed by the entity) of pesticides used by the entity during the reporting period, by hazard level	2.4 (2.4.1); 6.3; 3.9
34		B.8.4 Pesticide management practices	Qualitative indicator measuring the pesticide management practices of the reporting entity	2.4 (2.4.1); 6.3; 3.9
35	Food loss and waste	B.9.1 Food loss	Total amount and percentage of food loss of the entity's key commodities	12.3 (12.3.1a)
36		B.9.2 Food waste	Total volume and percentage of food waste along the relevant stages of the value chain in which the entity is involved	12.3 (12.3.1.b)
37	Decent work	C.1.1 Employee wages and benefits as a proportion of revenue	Proportion of the costs of the employee's wages and benefits to the revenue of the reporting entity during the reporting period	10.4 (10.4.1)
38		C.1.2 Percentage of employees and other workers paid above living wage	Percentage of employees and other workers paid above a living wage, disaggregated by occupation, gender, age and disability status	2.4 (2.4.1); 8.5 (8.5.1)
39	Human capital	C.2.1 Average hours of training per year per employee	Average hours of training per employee (including other workers), including internal and external training	4.3 (4.3.1)
40		C.2.2 Expenditures on employee training per year per employee	Average amount of expenditure on employee training per year per person, including both direct and indirect costs related to human resource training	4.3 (4.3.1)
41	Human capital	C.3.1 Expenditures on employee health and safety as a proportion of revenue	Proportion of the total expenses related to occupational safety and health issues to the total revenue of the reporting entity	3.8; 8.8
42		C.3.2 Frequency/incident rates of occupational injuries	Number of new injuries cases in the reporting period divided by the total number of working hours in the same period; and total number of lost working hours due to occupational injuries in the reporting period divided by the total number of working hours in the same period	8.8 (8.8.1)
43	Labour rights	C.4.1 Percentage of employees covered by collective agreements	Proportion of employees and workers covered by collective agreements to total employees and workers (in terms of FTE)	8.8 (8.8.2)
44		C.4.2 Incidents of child labour	Number of incidents of child labour by the reporting entity and all suppliers during the last three years	8.7 (8.7.1)
45		C.4.3 Incidents of forced labour	Number of incidents of forced labour by the reporting entity and all suppliers during the last three years	8.7

	Topic	Indicator	Measurement	Link to SDGs
46	Public health and nutrition	C.5.1 Food labelling practices	Qualitative indicator measuring the food labelling practices of the reporting entity	2.2; 12.3
47		C.5.2 Percentage of sales of nutritious food	Percentage of sales of nutritious food out of total sales	2.2
48		C.5.3 Percentage of facilities or operations in compliance with food safety standards	Percentage of the reporting entity's operations and its suppliers which are audited and in compliance with food safety standards	2.2; 3.9 (3.9.3); 12.3
49	Tenure rights	C.6.1 Incidents of tenure rights violation	Number of incidents in which the reporting entity has not complied with tenure rights laws, regulations, norms and standards in the past three years	5.a (5.a.1); 1.4; 14.b.1
50	Corporate governance disclosure	D.1.1 Number of board meetings and attendance rate	Number of board meetings during the reporting period; and the attendance rate of all board meetings during the reporting period	16.6
51		D.1.2 Proportion of women in managerial positions and among board members	Proportion of women in management positions to all employees in management positions; and the proportion of female board members on the board	5.5 (5.5.2)
52		D.1.3 Board members by age group	Number and percentage of board members in different age groups (e.g. under 30 years of age, between 30 and 50, over 50)	16.7 (16.7.1)
53		D.1.4 Number of meetings of audit committee and attendance rate	Number of audit committee meetings during the reporting period, and the attendance rate of all audit committee meetings	16.6
54		D.1.5 Compensation per board members	Compensation (including base salary and variable compensation) received by board members (including executive and non-executive directors)	16.6
55	Anti-corruption practices	D.2.1 Amount of fines paid or payable due to corruption-related settlements	Total monetary value of paid and payable corruption-related fines imposed by regulators and courts in a reporting period	16.5 (16.5.2)
56		D.2.2 Average number of hours of training on anti-corruption issues, per year per employee	The total number of hours of training on anti-corruption issues divided by the number of employees and workers of the reporting entity in the reporting period	16.5 (16.5.2)
57	Due diligence	D.3.1 Management of economic, environmental, social and institutional risks through due diligence practices	Qualitative indicator measuring the reporting entity's due diligence practices in identifying, preventing and mitigating the economic, social and environmental risks on its operations and along its value chain	12.6 (12.6.1); 8.7; 8.8; Goals 14 and 15; 16.5



## 2. Background: rationale and objectives



The achievement of the 17 Sustainable Development Goals (SDG) adopted in 2015 by the Member States of the United Nations (UN) calls for collective transformational changes. The mobilization of all actors, including the private sector, in the implementation of the 2030 Agenda for Sustainable Development is essential to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. In particular, companies and private-sector entities are expected to take responsibility in adopting more sustainable institutional, economic, social and environmental practices in the ways they conduct business or develop new markets.

Over the last few decades, the establishment of accounting and sustainability reporting standards have had an impact on pushing companies to improve their practices, while triggering sustainable investments for economic growth. Perceptions around sustainability performance measurement and reporting evolved, from being merely an extraordinary practice, to an act of leadership and now, to an expected behaviour. Since this evolution increases pressure on private-sector entities to put themselves under the scrutiny of governments, investors, non-governmental organizations and consumers, business sustainable performance disclosures are seen also as a means to catalyse efforts to look within the enterprise and trigger solutions for sustainable change. SDG 12 (ensure sustainable consumption and production patterns), through its associated Target 12.6, explicitly encourages companies, especially large and transnational companies, to adopt sustainable practices and integrate sustainability information in their reporting cycles.

Monitoring the SDG Indicator 12.6.1 (the number of companies publishing sustainability reports) provides national governments with the possibility to collect relevant data on companies' contributions towards the SDGs, which can be used as an important source of data for the SDG monitoring framework and to design targeted approaches to promote change in corporate behaviour regarding sustainability issues. However, this requires comparable and reliable data reflecting companies' performance towards the SDG targets and indicators agreed by the UN Member States.

It is in this perspective that the United Nations Conference on Trade and Development (UNCTAD) developed the *Guidance on core indicators for entity reporting on the contribution towards the implementation of the Sustainable Development Goals (GCI)* (UNCTAD, 2019). This work was performed in accordance with the agreed conclusions of the Thirty-fourth session of the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR), which in 2017 had requested UNCTAD to develop a guiding document on a limited number of core indicators for entity reporting, aligned with the SDGs. The UNCTAD GCI is the result of several discussions that took place during the Thirty-fourth, Thirty-fifth and Thirty-sixth ISAR meetings and their intersessional forums, as well as various ISAR Consultative Group Meetings convened from 2016 to 2018.

The core indicators identified by UNCTAD were, however, intended as a starting or entry point in relation to sustainability and SDG reporting by private-sector entities. Therefore, they only represent the minimum disclosures that companies would need to provide for governments to be able to evaluate the contribution of the private sector to the implementation of the SDGs. As they do not cover all SDG macro-level indicators and only include a selected number of industry-agnostic corporate indicators, they should not prevent governments and private-sector entities from, respectively, requesting and disclosing additional qualitative and quantitative information in order to more accurately evaluate the contribution of the private sector to the SDGs.

This *Guidance on core indicators for agrifood systems – Measuring the private sector’s contribution to the Sustainable Development Goals* aims to provide additional comparable and reliable indicators to monitor more comprehensively the contribution of food and agriculture private-sector entities to the SDGs. The need for this document was driven by the fact that the impact of the food and agriculture sector on several targets of SDGs 2, 12, 14 and 15, in particular, was not reflected in the UNCTAD core set of indicators. The present guidance was thus conceived as a complement to the UNCTAD GCI. On one hand, it provides additional guidelines on how to measure and report the UNCTAD core set of indicators, given the particularity of food and agriculture entities. On the other, it proposes an additional minimum set of indicators to be measured and reported by the entities involved in agrifood systems, from production to food services and restaurants.

This supplementary guidance proposes a total of 57 indicators (32 of which were already included in the UNCTAD GCI) covering selected economic, social, environmental and institutional sustainability dimensions relevant to the food and agriculture sector. For each indicator, the definition, rationale, measurement methodology and conceptual interpretation are provided. The links and alignment of each indicator to relevant SDG indicators are also discussed.

Similar to the UNCTAD GCI, the objective of this document is to provide practical information on how food and agriculture companies’ contribution to the SDGs can be measured in a consistent manner and in alignment with countries’ needs relating to monitoring the attainment of Agenda 2030. Indeed, it intends to assist entities in providing baseline data on sustainability issues in a consistent and comparable manner that would meet the needs of SDG reporting in FAO Members at the country and company level. The indicators are further intended to serve as a tool to assist governments in:

- improving private sector’s accountability mechanisms and assessing their contribution to SDG implementation, in particular on key transformative actions needed to achieve the SDGs
  - setting standards and policies for corporate sustainability reporting, establishing national private sector reporting mechanisms and enabling the reporting on SDG Indicator 12.6.1 (Number of companies publishing sustainability reports), and
  - potentially reusing the data reported by private entities to improve SDG monitoring at the national level.
- This publication will be updated as needed, based on the results of its practical application.



**Yerevan, Armenia.**

Employers work at a factory where black currant and grape juice, nectars and drinks are produced.

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## I. Methodological considerations

The guidance contained in this document and the selection of the core indicators are based on the methodological considerations outlined below.

### GUIDING PRINCIPLES



Alignment with the SDGs, the 20 recommended actions to transform food and agriculture in order to achieve the SDGs and related international commitments



Consistency with existing frameworks, standards and methods



Minimum set with broad coverage



Preference for quantitative indicators

- **Alignment with the SDGs, and the 20 recommended actions to transform food and agriculture in order to achieve the SDGs and related international commitments**

The objective of this document is to measure private-sector entities' contribution to the SDGs. The SDG goals, targets and indicators were the fundamental principles referred to in formulating this guidance. Each of the core indicators is linked with at least one SDG indicator (or target). Whenever possible, the core indicators were strictly aligned with the relevant SDG indicators in terms of methodology. However, considering the particularity of the targets for the private entities, not all indicators are methodologically consistent with the relevant SDG indicators. In this case, another key principle applied when developing the core indicators was to ensure that the data required for reporting on the indicators in this guidance could also be used for SDG reporting. The FAO publication titled *Transforming food and agriculture to achieve the SDGs* was another important reference in producing this guidance. That publication outlined 20 transformative actions through a set of approaches, practices, policies and tools that interlink multiple SDGs and entail participation among different actors, including of the private sector. In addition, where the SDGs align with other international commitments to which the private sector is expected to contribute (e.g. the implementation of the Paris Agreement, the post-2020 Global Biodiversity Framework), these were also taken into account.

- **Consistency with existing frameworks, standards and methods**

A lack of harmonization, consistency (comparability) and agreed standards characterizes existing reporting frameworks for the private sector. The indicators aim to provide a standardized SDG-aligned framework for private-sector entities involved in the food and agriculture sector. It is not aimed at creating new norms; rather, its objective is to align as much as possible with common sustainability indicators based on entities' current reporting practices and leading reporting frameworks (by UNCTAD, the Global Reporting Initiative [GRI], the Sustainability Accounting Standards Board [SASB], the Sustainability Assessment for Food and Agriculture systems [SAFA] and others). Additional indicators have only been introduced where standards did not previously exist or where existing standards were not aligned directly with the SDGs. With regard to reporting rules or technical issues, this guidance follows existing internationally recognized guidelines,

codes or standards, for example the OECD-FAO Guidance for Responsible Agricultural Supply Chains, the Intergovernmental Panel for Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, the Voluntary Guidelines on the Responsible Governance of Tenure and other relevant voluntary guidelines and codes of conducts, (on pesticide management, fertilizer management, etc.).

- **Minimum set with broad coverage**

The food and agriculture sector is a broad and diverse field, which includes a series of subsectors that have various impacts on the economy, the environment and society. In addition, entities' practices are varied, and each entity may be at a different stage in their sustainability reporting journey. Therefore, this document is not supposed to cover all relevant topics and indicators: rather, it provides a minimum set of core indicators to measure the main contribution of the private sector to the SDGs. It remains up to individual businesses in different operating contexts to start from these baseline indicators and provide additional information as needed, to reflect their specific SDG-related practices and the more specific needs of users.

This document aims to provide a generic measurement framework for the whole agrifood sector and thus proposes indicators that apply to most actors in the agrifood value chain.

- **Preference for quantitative indicators**

In order to assess entities' impact in a numerically accurate and comparable way, quantitative indicators were the first choice when developing the indicator framework. As a result, 48 out of the 57 indicators included in this framework are quantitative. However, for certain specific topics, the quantitative measurement of the impact was problematic, either because there was no general acceptance of the sustainability quantitative measures proposed or because the indicators suggested were too difficult for entities to measure. Moreover, the multidimensionality of some topics cannot be captured by a single indicator without falling into the complexity of composite indicators or indexes. For example, the impact of food and agriculture on biodiversity includes multiple aspects for which there is no agreed discrete sustainability measurement standard. Therefore, this publication includes qualitative indicators that ask the reporting entity to disclose relevant information on strategies, plans and best practices to manage the entity's impact on the material topic, through a checkbox system.

## **Human rights and the SDGs**

Human rights are essential to achieving the SDGs. If the goal of "leaving no one behind" is to be reached, it is more important than ever that all stakeholders respect, protect and promote human rights. The SDGs do not include a specific target or indicator related to human rights but, instead, have considered human rights throughout the implementation of the SDGs themselves. Emphasis has been placed on encouraging effective accountability mechanisms for states, but also for the private sector, to ensure that human rights are respected and protected. The indicator framework included herein follows this approach, with human rights integrated throughout. Private-sector organizations are encouraged to underscore their commitment to respecting and protecting human rights by supporting the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, in addition to the eight ILO core conventions forming part of the Declaration on Fundamental Principles and Rights at Work. A wide range of the indicators address human rights directly (e.g. social indicators), whereas others support human rights more indirectly (e.g. institutional indicators).

## SCOPE

The indicators and guidance provide an overview of a framework for measuring the contribution of the agrifood system private sector to achieving SDG goals and targets. In principle, the core food and agriculture indicators should cover the entire food system, including all stages covered in the supply chain and all food and agriculture subsectors. However, considering that the activities and operations of various agricultural subsectors may need to address dramatically different sustainability issues, the scope of this framework covers only the five main subsectors of the food system: agriculture production (including crop planting, animal production, forestry and non-wood forest products, fishing and aquaculture), food processing, food wholesale, food retail, and food service. As listed below, the scopes of these five subsectors were defined on the basis of the United Nations International Standard Industrial Classification (ISIC) (UNSD, 2008). Entities engaged in multiple stages of the food supply chain are encouraged to apply this guidance in relation to each of the areas that are relevant to their operations.



### Agriculture production (crop and animal production, forestry, aquaculture and fishing)

The scope of the framework for the agricultural production sector covers all relevant subsectors: crop production, animal production, agro-forestry, fishing and aquaculture. The scope of crop and animal production is consistent with ISIC Section A – 01 Crop and animal production, hunting and related activities. Aquaculture includes part of the activities falling under ISIC Section A – 03 Fishing and aquaculture. For detailed classifications, see Table 4 below.

Specifically, this sector also includes forms of organic agriculture, the growing of genetically modified crops and the raising of genetically modified animals. Production can be carried out for own account as well as for third parties, such as in contract farming. Service activities incidental to agriculture and agricultural holdings involved in mixed farming (i.e. that have reasonably balanced crop and animal production) are included. The preparation of products for primary markets (i.e.

cleaning, trimming, grading, disinfecting) is also included here.

Due to its specific social impact, the tobacco sector is specifically excluded from the scope of measurement. Similarly, because of its specific environmental impact on oceans and the water ecosystems, the fishing sector has also been excluded. This sector should be covered by a separate indicator framework.

While the preparation of products for primary markets is included in this category, any subsequent processing of agricultural products (crops, livestock, fish, crustaceans or molluscs) beyond that needed for primary markets is excluded (and classified as food processing activities). Field construction (agricultural land terracing, drainage, preparing rice paddies, etc.) and the marketing of farm products are also excluded.





## Food processing

The scope of the food processing sector refers to the activities included in ISIC Section C Manufacturing – Division 10 – Manufacture of food products, and Division 11 – Manufacture of beverages. The manufacture of food products includes the transformation (i.e. processing) of agriculture, forestry and fishing products into food for humans or animals, and the production of various intermediate products that are not directly food products (feathers, wool, etc.). The manufacture of beverages includes the production of nonalcoholic beverages and mineral water, the manufacture of alcoholic beverages mainly through fermentation, beer and wine, and the manufacture of distilled alcoholic beverages. For specific classifications, see Table 4 below.

It should be noted that although forestry, marine aquaculture and fishery activities are not included in the measuring scope of this framework, the food processing activities of food gathered from forestry activities (e.g. non-wood forest products such as

nuts or mushrooms) and all fish, molluscs and aquatic plants obtained from fishing and marine aquaculture for human and animal food are included in the scope of the framework.

Some activities are considered manufacturing (for example, those performed in bakeries, pastry shops and prepared meat shops that sell their own production) even though there is retail sale of the products in the producers' own shops. However, where the processing is minimal and does not lead to a real transformation, the unit should be classified under the food wholesale and retail sector.

Production of animal feeds from slaughter waste or by-products is included in this sector (Category 1080, as in Table 4), while processing food and beverage waste into secondary raw material, the disposal of food and beverage waste and the transformation of crop and animal fibres into textile or wearing apparel are excluded.



## Food wholesale

The scope of the food wholesale sector consists of the activities included in ISIC Section G – Division 46 – Group 462 and Group 463 (see Table 4). It should

be noted that since tobacco activities are not included in the measuring scope of this framework, the scope of Group 463 has been modified to exclude the wholesale of tobacco.



## Food retail






The scope of the food retail sector consists of the activities included in Section G – Division 47 – Group 471, Group 472 and Group 478 of the ISIC classification (see Table 4). It should be noted that since tobacco activities are not included in the measuring scope of this framework, Class 4723 – Retail sale of tobacco products in specialized stores has been removed, and the scope of Class 4711 has been modified to exclude retail sale in non-specialized stores with tobacco predominating.













## Food service

The scope of the food service sector consists of the activities included in Section I – Division 56 – Food and beverage service activities. All classes and groups within this division are in scope.

Table 4. Scope of the four target sectors (link to ISIC classification)

Stage of agrifood systems and activities in scope	Agricultural production 	Food processing 	Food wholesale 	Food retail 	Food service 
<b>Inclusion</b>	<p><b>Section A – Agriculture, forestry and fishing</b>  <b>Division 01 Crop and animal production, hunting and related service activities</b></p> <ul style="list-style-type: none"> <li>• 011 Growing of non-perennial crops               <ul style="list-style-type: none"> <li>○ 0111 Growing of cereals (except rice), leguminous crops and oil seeds</li> <li>○ 0112 Growing of rice</li> <li>○ 0113 Growing of vegetables and melons, roots and tubers</li> <li>○ 0114 Growing of sugar cane</li> <li>○ 0116 Growing of fibre crops</li> <li>○ 0119 Growing of other non-perennial crops</li> </ul> </li> <li>• 012 Growing of perennial crops               <ul style="list-style-type: none"> <li>○ 0121 Growing of grapes</li> <li>○ 0122 Growing of tropical and subtropical fruits</li> <li>○ 0123 Growing of citrus fruits</li> <li>○ 0124 Growing of pome fruits and stone fruits</li> <li>○ 0125 Growing of other tree and bush fruits and nuts</li> <li>○ 0126 Growing of oleaginous fruits</li> <li>○ 0127 Growing of beverage crops</li> <li>○ 0128 Growing of spices, aromatic, drug and pharmaceutical crops</li> <li>○ 0129 Growing of other perennial crops</li> </ul> </li> <li>• 013 0130 Plant propagation</li> <li>• 014 Animal production               <ul style="list-style-type: none"> <li>○ 0141 Raising of cattle and buffaloes</li> <li>○ 0142 Raising of horses and other</li> </ul> </li> </ul>	<p><b>Section C – Manufacturing</b>  <b>Division 10 Manufacture of food products</b></p> <ul style="list-style-type: none"> <li>• 101 1010 Processing and preserving of meat</li> <li>• 102 1020 Processing and preserving of fish, crustaceans and molluscs</li> <li>• 103 1030 Processing and preserving of fruit and vegetables</li> <li>• 104 1040 Manufacture of vegetable and animal oils and fats</li> <li>• 105 1050 Manufacture of dairy products</li> <li>• 106 Manufacture of grain mill products, starches and starch products               <ul style="list-style-type: none"> <li>○ 1061 Manufacture of grain mill products</li> <li>○ 1062 Manufacture of starches and starch products</li> </ul> </li> <li>• 107 Manufacture of other food products               <ul style="list-style-type: none"> <li>○ 1071 Manufacture of bakery products</li> <li>○ 1072 Manufacture of sugar</li> <li>○ 1073 Manufacture of cocoa, chocolate and sugar confectionery</li> <li>○ 1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products</li> <li>○ 1075 Manufacture of prepared meals and dishes</li> <li>○ 1079 Manufacture of other</li> </ul> </li> </ul>	<p><b>Section G – Wholesale and retail trade; repair of motor vehicles and motorcycles</b>  <b>Division 46 Wholesale trade, except of motor vehicles and motorcycles</b></p> <ul style="list-style-type: none"> <li>• 462 4620 Wholesale of agricultural raw materials and live animals</li> <li>• 463 4630 (<i>partial</i>) Wholesale of food, beverages</li> </ul>	<p><b>Section G – Wholesale and retail trade; repair of motor vehicles and motorcycles</b>  <b>Division 47 Retail trade, except of motor vehicles and motorcycles</b></p> <ul style="list-style-type: none"> <li>• 471 Retail sale in non-specialized stores               <ul style="list-style-type: none"> <li>○ 4711 (<i>partial</i>) Retail sale in non-specialized stores with food, beverages predominating (<i>partial</i>)</li> </ul> </li> <li>• 472 Retail sale of food, beverages in specialized stores               <ul style="list-style-type: none"> <li>○ 4721 Retail sale of food in specialized stores</li> <li>○ 4722 Retail sale of beverages in specialized stores</li> </ul> </li> <li>• 478 Retail sale via stalls and markets               <ul style="list-style-type: none"> <li>○ 4781 Retail sale via stalls and markets of food, beverages and tobacco products</li> </ul> </li> </ul>	<p><b>Section I – Food and beverage serving activities providing complete meals or drinks</b></p> <ul style="list-style-type: none"> <li>• 561 Restaurants and mobile food service activities</li> <li>• 562 Event catering and other food service activities</li> <li>• 563 Beverage-serving activities</li> </ul>

Stage of agrifood systems and activities in scope	Agricultural production 	Food processing 	Food wholesale 	Food retail 	Food service 
	<p>equines</p> <ul style="list-style-type: none"> <li>○ 0143 Raising of camels and camelids</li> <li>○ 0144 Raising of sheep and goats</li> <li>○ 0145 Raising of swine/pigs</li> <li>○ 0146 Raising of poultry</li> <li>○ 0149 Raising of other animals</li> <li>● 015 0150 Mixed farming</li> <li>● 016 Support activities to agriculture and post-harvest crop activities               <ul style="list-style-type: none"> <li>○ 0161 Support activities for crop production</li> <li>○ 0162 Support activities for animal production</li> <li>○ 0163 Post-harvest crop activities</li> <li>○ 0164 Seed processing for propagation</li> </ul> </li> <li>● <b>Division 02 Forestry and logging</b> <ul style="list-style-type: none"> <li>● 021 0210 Silviculture and other forestry activities</li> <li>● 022 0220 Logging</li> <li>● 023 0230 Gathering of non-wood forest products</li> <li>● 024 0240 Support services to forestry</li> </ul> </li> <li>● <b>Division 03 Fishing and aquaculture</b> <ul style="list-style-type: none"> <li>● 031 Fishing                   <ul style="list-style-type: none"> <li>○ 0311 Marine fishing</li> <li>○ 0312 Freshwater fishing</li> </ul> </li> <li>● 032 Aquaculture                   <ul style="list-style-type: none"> <li>○ 0321 Marine aquaculture</li> <li>○ 0322 Freshwater aquaculture</li> </ul> </li> </ul> </li> </ul>	<p>food products n.e.c.</p> <ul style="list-style-type: none"> <li>● 108 1080 Manufacture of prepared animal feeds</li> </ul> <p><b>Division 11 Manufacture of beverages</b></p> <ul style="list-style-type: none"> <li>● 1101 Distilling, rectifying and blending of spirits</li> <li>● 1102 Manufacture of wines</li> <li>● 1103 Manufacture of malt liquors and malt</li> <li>● 1104 Manufacture of soft drinks; production of mineral waters and other bottled waters</li> </ul>			

Stage of agrifood systems and activities in scope	Agricultural production 	Food processing 	Food wholesale 	Food retail 	Food service 
<b>Exclusion</b>	<p><b>Division 01 Crop and animal production, hunting and related service activities</b></p> <ul style="list-style-type: none"> <li>○ 0115 Growing of tobacco</li> </ul>	<p><b>Division 12 Manufacture of tobacco products</b></p> <ul style="list-style-type: none"> <li>● 120 1200 Manufacture of tobacco products</li> </ul> <p><b>Division 13 Manufacture of textiles</b></p> <p><b>Division 13 Manufacture of wearing apparel</b></p>	<p><b>Division 46 Wholesale trade, except of motor vehicles and motorcycles</b></p> <ul style="list-style-type: none"> <li>● 463 4630 (<i>partial</i>) Wholesale of tobacco</li> </ul>	<p><b>Division 47 Retail trade, except of motor vehicles and motorcycles</b></p> <ul style="list-style-type: none"> <li>● 471 Retail sale in non-specialized stores <ul style="list-style-type: none"> <li>○ 4711 (<i>partial</i>) Retail sale in non-specialized stores with tobacco predominating</li> </ul> </li> <li>● 472 Retail sale of food, beverages in specialized stores <ul style="list-style-type: none"> <li>○ 4723 Retail sale of tobacco products in specialized stores</li> </ul> </li> </ul>	

Note: n.e.c = not elsewhere classified.

## DATA COLLECTION AND REPORTING



Collect data at business unit or facility level (disaggregated) approach



Aggregate data by country to contribute to country-level reporting



Aggregate data at corporate level

Data collection and reporting should follow the same approach as the UNCTAD GCI (UNCTAD, 2019). Reporting entities should collect and record the underlying data for each of the core indicators at a business unit/facility level so that the data can be aggregated at the corporate level to understand overall performance, or can be disaggregated by country or region to contribute to SDG monitoring.

Entities are usually made up of a number of different units, especially in the case of large and diverse businesses (which encompass different locations and different products). This means that data collection and aggregation often need to meet a range of reporting requirements (such as international codes, national legislation or accounting rules) and user needs (such as reviewing the impact of the entity on sustainability by region).

Therefore, it is suggested that data be collected and recorded at a disaggregated level so that the reporting entity can flexibly consolidate them in various forms according to different needs.

For example, it could be required that environmental and social data be collected and reported at the level of individual facilities (e.g. a factory or business office) in some cases. If an entity has operations such as factories in different countries, it is likely that these factories operate under different regulations and thus need to meet different data and reporting requirements. Similarly, for SDG reporting at

national level, governments need access to data which only pertain to the impact achieved within national borders. Data aggregated at the transnational level, such as on total greenhouse gas (GHG) emissions, may not be useful to a country's reporting on SDGs.

For the economic, financial or institutional indicators, the data reported at the corporate level can also be useful. International Financial Reporting Standards (IFRS) require reporting entities that control other entities, for example subsidiaries, to prepare consolidated financial statements. According to IFRS, consolidated financial statements are "the financial statements of a group in which the assets, liabilities, equity, income, expenses and cash flows of the parent and its subsidiaries are presented as those of a single economic entity" (IFRS, 2021).

Therefore, the indicators can facilitate the collection and use of both disaggregated and aggregated data.

## Treatment of suppliers

Suppliers include the organizations or persons that provide a product or service used in the supply chain of the reporting entity (Global Reporting Initiative [GRI], 2020). For the purpose of reporting, priority should be on Tier 1 or critical suppliers. The indicators aim to address the importance of suppliers in food and agriculture systems in several ways, chiefly by including specific indicators that (i) assess a company's relationship with its suppliers; and ii) assess the impact that suppliers have on a downstream companies' environmental and social performance. Downstream companies are closer to consumers and as a result often subject to greater scrutiny on sustainability. While downstream companies may not be directly responsible for issues further upstream, they are able to influence these activities through their relationship with suppliers, whether through a "code of conduct" or establishing supplier requirements in tendering. Depending on where a company sits in the food system, their influence and engagement with suppliers will differ.

The indicators can be applied in relation to suppliers in several ways:

1. To assess a company's *relationship* with its suppliers

- A.4.1 Percentage of local procurement
- A.4.2 Fair pricing and transparent contract practices
- A.5.3 Financial risk management
- D.3.1 Management of economic, environmental, social and institutional risks through due diligence

2. To assess key environmental and social impact of suppliers

- B.1.4 Water management practices
- B.3.3 Greenhouse gas emissions (scope 3)
- B.3.4 Greenhouse gas emissions management practices
- B.6.1 Natural ecosystem conversion
- B.6.3 Sustainable use, conservation and restoration of biodiversity practices
- C.3.2 Frequency/incident rates of occupational injuries
- C.4.2 Incidents of child labour
- C.4.3 Incidents of forced labour
- C.5.3 Percentage of facilities or operations in compliance with food safety standards
- C.6.1 Incidents of tenure rights violation
- D.2.1 Amount of fines paid or payable due to corruption-related settlements

The aim is to assess actual or potential adverse impacts and whether the reporting entity (a) caused or would cause the adverse impact; (b) contributed or would contribute to the adverse impact; or (c) whether the adverse impact is directly linked to the reporting entity's operations or products through its engagement with the supplier (OECD, 2018).







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## II. Core food and agricultural indicators for measuring the private sector's contribution to the SDGs

This section provides information on the 57 core indicators suggested for the sustainability measurement of private companies in the agriculture production and processing sector. A mix of both quantitative and qualitative indicators are presented. Quantitative indicators should be reported in the unit specified under each indicator. Qualitative indicators include “yes or no” answers for each of the list of practices, commitments or approaches followed or in place. For each indicator, the definition, rationale, measurement methodology, and concept interpretation are provided. The link and alignment of each indicator with relevant SDG indicators are also discussed.

General information which should be provided by each entity includes:

- name of the reporting entity;
- location of the reporting entity;
- nature of ownership and legal form;
- markets served (including geographic breakdown, sectors of activities [according to the ISIC classification presented above] and types of customers and beneficiaries);
- significant changes during the reporting period regarding the organization's size, structure and ownership, such as change of location, change in operations, facilities opening or closing, changes in the share capital structure, mergers, acquisitions and other capital formation, maintenance and alternation operations;
- a materiality assessment of the key sustainability issues and management's approach to addressing the issues;
- link to sustainability strategy or principles related to sustainability;
- governance structure and/or mechanisms for managing key impacts, risks and opportunities; and
- a description of the reporting entity's supply chain (including Tier 1 suppliers) and its main elements as they relate to the organization's activities, primary brands, products and services.

If the reporting entity is a multinational company, or the subsidiary of a multinational company, then the following information should also be reported:

- the location of the organization's headquarters; and
- the number of countries where the entity operates and names of countries where the entity has significant impacts that are specifically relevant to the sustainability topics covered by the entity.

## A. Economic dimension

Within the economic dimension, 12 indicators under 5 topics are suggested.

Topic	Indicator
<b>A.1. Revenue and/or (net) value added</b>	A.1.1 Revenue
	A.1.2 Value added
	A.1.3 Net value added
<b>A.2. Payments to government</b>	A.2.1 Taxes and other payments to the government
<b>A.3. New investment/expenditure</b>	A.3.1 Green investment
	A.3.2 Community investment
	A.3.3 Total expenditure on research and development
<b>A.4. Local supplier/purchasing programmes</b>	A.4.1 Percentage of local procurement
	A.4.2 Fair pricing and transparent contract practices
<b>A.5. Economic resilience</b>	A.5.1 Gross profit margin
	A.5.2 Product diversification by revenue
	A.5.3 Financial risk management practices

### A.1.1. Revenue

**Link to SDGs:** SDG Target 8.2, Indicator 8.2.1; SDG Target 2.3, Indicator 2.3.2; SDG Target 2.4, Indicator 2.4.1

**Scope:** All sectors

#### Definition

Revenue, also referred to as gross sales or turnover, is the recurrent income that a business has generated from its daily business activities, usually from the sale of goods and services to customers. In other words, revenue is the total amount of sales recognized for the reporting period (prior to any deductions).

#### Rationale

The indicator on revenue provides a basic measurement of the entity's total value of output for its goods and services. It is one of the most basic financial indicators to measure the economic performance of a company. It is linked to SDG Target 8.2 (achieving higher levels of economic productivity through diversification, technology upgrading and innovation) and SDG Indicator 8.2.1 (annual growth rate of real gross domestic product [GDP] per employed person). This is calculated based on the production side of national accounts, which requires high-quality information on entities' revenue. For the agriculture sector, revenue from farming is also considered in the compilation of SDG Indicators 2.3.1 (volume of production per labour unit by classes of farming/pastoral/forestry enterprise size), 2.3.2 (average income of small-scale food producers, by sex and indigenous status) and 2.4.1 (proportion of agricultural area under productive and sustainable agriculture). Finally, references to revenue are used in the denominators of several SDG indicators, underscoring the importance of a consistent and coherent approach to the calculation of this indicator.

#### Methodology

Revenue should ideally be measured according to IFRS 15 (IFRS, 2021), published by the International Accounting Standards Board (IASB), and the Interpretations developed by the IFRS Interpretations Committee. If an entity does not apply IFRS 15 or use IFRS for small and medium-sized enterprises (SMEs), this choice should be clearly stated and explained (UNCTAD, 2019). It is expressed in the local currency unit (e.g USD, EUR).

All economic disclosures, including revenue, are expected to be compiled and compared. Thus, revenue figures from the audited financial statements or internally audited management accounts of the company should be the data source of this metric, whenever possible.

### A.1.2. Value added

**Link to SDGs:** SDG Target 8.2, Indicator 8.2.1; SDG Target 9.4, Indicator 9.4.1

**Scope:** All sectors

#### Definition

Value added is defined as the direct economic value generated by the reporting entity with operating costs subtracted.<sup>3</sup> In other words, it is the wealth the entity can create and that can be distributed among different stakeholders (employees and workers, lenders, authorities and shareholders). Value added includes not only the revenue that is the recurrent income of the entity, but also other income, such as income from financial investments, the sale of assets and other non-recurrent income. This indicator, together with Indicators A.1.1, revenue and A.1.3, net value added, aims to measure the economic performance of the reporting entity; while Indicator A.1.1, revenue, focuses on the revenue derived from the main business, Indicators A.1.2, value added, and A.1.3, net value added, focus more on the total revenue. They are separately used

<sup>3</sup> The definition of value added and the calculation method used here are in line with the approach adopted in the GRI (Disclosure 201-1) and the UNCTAD Guidance (A1.2 Value added).

as denominators of SDG indicators and of the following indicators in this framework. For example, revenue is used as the denominator of the total expenditure on research and development (see Indicator A.4.3), which is aligned with the general economic definition of “R&D intensity” – the ratio of expenditure on research and development to total sales – and with the UNCTAD indicator definition. Net value added, instead, is used as the denominator of the indicator of GHG emissions scope 1 and scope 2. It is aligned with SDG 9.4.1 (CO<sub>2</sub> emission per unit of value added) and modified to fit the company-level measurement (from value added to net value added), aligning with the UNCTAD indicator.

### Rationale

Information on the generation and distribution of economic value provides a basic indication of how an organization has created wealth for stakeholders. Several components of the Economic Value Generated and Distributed (EVG&D) also provide an economic profile of an organization, which can be useful for normalizing other performance figures (e.g. in the compilation of SDG Indicators 9.4.1 and 9.b.1). This indicator aligns with SDG Indicator 8.2.1 (annual growth rate of real GDP per employed person) as a measurement of gross production or economic value generated at the company level. It can be compiled by country to provide a useful picture of the reporting sector’s contribution to GDP.

### Methodology

Value added is also referred to as Gross Value Added (GVA). It is equal to direct economic value generated and distributed (revenues and other income) minus operating costs. It can be calculated with the following equations and is expressed in local currency units.

$$Value\ added = Revenues + Other\ income - Operating\ costs$$

### Concepts

*Revenue:* See Indicator A.1.1 Revenue.

*Other income:* Other income refers to the income derived from activities unrelated to the main business of the private entity. Other income is usually not recurrent. It cannot reflect the productivity of the entity but is related to its operation and investment performance. Income from financial investments and revenues from the sale of assets are two main sources of other income.

Revenues from financial investments can include cash received as:

- interest on financial loans;
- dividends from shareholdings;
- royalties; and
- direct income generated from assets, such as property rental.

Revenues from the sale of assets can include:

- physical assets, such as property, infrastructure and equipment; and
- intangibles, such as intellectual property rights, designs and brand names.

*Direct EVG&D:* Direct EVG&D, which equals to revenue plus other income, can be used as a measure of the total income or economic value created by the enterprise, including those from the core business and from the non-core business. It can be calculated from both ends. From the value generation side, EVG can be calculated as revenue plus other income. From the other side, it can be calculated as the economic value retained (EVT) by the company plus the economic value distributed to different stakeholders (EVD), which can be suppliers, employees and workers, investors/lenders, governments, the community, etc.

$$EVG = Revenues + Other\ income = EVD + EVT$$

$$EVD = Operating\ costs + Employee\ wages\ and\ benefits + Payments\ to\ providers\ of\ capital \\ + Payments\ to\ government + Community\ investments \\ + Other\ investment\ or\ expenditure$$

*Operating costs.* The definition of operating costs used in this indicator is different from that commonly employed in accounting. It is defined as all payments made outside the organization for materials, product components, facilities and services purchased. The costs should not be limited to those incurred in the production process; rather, they can also include property rental, license fees, royalties, payments for contract workers, etc. The definition stresses the economic value distributed to the external suppliers, regardless of whether the purchased goods and services are used for physical production or administrative management.

*Employee wages and benefits.* This is calculated as total payroll (including employee salaries and amounts paid to government institutions on behalf of employees and workers) plus total benefits (excluding training, costs of protective equipment or other cost items directly related to the employee's job function). Total benefits can include regular contributions, such as pensions, insurance, fleet and private health; as well as other employee support, such as housing, interest-free loans, public transport assistance, educational grants and redundancy payments. Amounts paid to government institutions on behalf of employees and workers can include employee taxes, levies and unemployment funds.

*Payments to providers of capital.* This is calculated as payments to providers of capital as dividends to all shareholders, plus interest payments made to providers of loans. Interest payments made to providers of loans can include interest on all forms of debt and borrowings (not only long-term debt).

*Payments to government.* An organization can calculate the amount of payments to governments as all of the organization's taxes plus related penalties paid and other payments to the government at the international, national and local levels. Specifically, it includes all the organization's taxes, which can include income and property taxes, as well as excise duties, value added tax, local rates and other levies and taxes that may be industry- or country-specific, and all royalties, license fees and other payments to the government. This definition is aligned with Indicator A.3.1, taxes and other payments to the government.

*Community investments.* An organization can calculate community investments as voluntary donations plus the investments of funds in the broader community, where the target beneficiaries are external to the organization. This definition is aligned with Indicator A.4.2, community investment. Examples of expenditure that could be included in the community investments are the following:

- contributions to charities, non-governmental organizations (NGOs) and research institutes (unrelated to the organization's commercial research and development);
- funds to support community infrastructure, such as recreational facilities; and
- direct costs of social programmes, including arts and educational events.

### A.1.3. Net value added

**Link to SDGs:** SDG Target 8.2, Indicator 8.2.1

**Scope:** All sectors

#### **Definition**

Net value added refers to the value added after deducting depreciation.<sup>4</sup> Value added emphasizes the economic value created or generated without considering changes in the economic value of the fixed capital, while net value added takes the wear and tear of fixed assets into consideration as part of the costs.

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<sup>4</sup> The definition of value added and the calculation method used here are in line with the approach adopted in the GRI (Disclosure 201-1) and the UNCTAD GCI (A1.2 Value added). Value added can also be calculated as: salaries + depreciation + amortization + interest paid + taxes + community investment + dividends + retained profit. Net value added can be calculated as: salaries + amortization + interest paid + taxes + community investment + dividends + retained profit.

## Rationale

Net value added is closely related to the indicator on value added. It is also used to measure the economic performance of the reporting entity. Net value added is also the reference indicator used as the denominator in calculating intensity/efficiency indicators that measure phenomena influenced by the economic size of the entity. For example, to measure the GHG emissions of companies of different scales, it is not possible to directly compare the total volumes of GHG emitted. Thus, net value added is introduced to form comparable unit intensity indicators, e.g. the volume of GHGs emitted per unit of net value added.

## Methodology

Net value added is calculated by deducting the consumption of fixed capital (or depreciation charges) from the value added. However, the amortization of intangible assets is not included in the deduction.

The indicator is computed as the value added minus depreciation. It is expressed in local currency units.

$$\text{Net value added} = \text{Value added} - \text{Depreciation}$$

## A.2.1. Taxes and other payments to the government

**Link to SDGs:** SDG Target 17.1, Indicator 17.1.2

**Scope:** All sectors

## Definition

This indicator is defined as the proportion of taxes and other payments to the government to the total revenue of the reporting entity in the reporting period. Taxes and other payments refers to the amount of taxes (encompassing not only income taxes, but also other levies and taxes such as property taxes or value-added taxes) plus related penalties paid, plus all royalties, license fees, and other payments to the government. It is suggested that the entity also report the total amount of taxes and other payments in absolute terms.

## Rationale

The contribution of the private sector to the local economy by paying taxes and other payments is a significant component of sustainable economic development. In both developed and developing countries, enterprises and individuals contribute to local and national public budgets through the payment of taxes and fees, which can be used to invest in improving and offering public services, such as infrastructure, social security or environmental protection. Taxes and other payments made to the government will contribute to SDG Target 17.1 (strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection). The indicator is also relevant to SDG Indicator 17.1.2 (proportion of domestic budget funded by domestic taxes).

## Methodology

The indicator is computed as the total amount of taxes and other payments to the government divided by the revenue of the reporting entity. Taxes and other payments and revenue are both measured in monetary units, and expressed in local currency units, e.g. EUR. The indicator is expressed as a percentage (%).

$$\text{Proportion of taxes and other payments to the government} = \frac{\text{Taxes and other payments to the government}}{\text{Revenue}}$$

The total amount of taxes and other payments to the government should be reported separately in absolute terms.



## Concepts

*Revenue:* See A.1.1 Revenue.

*Taxes and other payments to the government:* See Indicator A.1.2, value added. In addition, it should be noted that the indicator does not include amounts related to the acquisition of government assets, such as purchases of formerly state-owned enterprises. Finally, penalties and fines for non-compliance issues related to tax payment (e.g. environmental pollution) must also be excluded from this indicator.

### A.3.1. Green investment

**Link to SDGs:** SDG Target 7.b, Indicator 7.b.1

**Scope:** All sectors

#### Definition

This indicator is defined as the proportion of green investment to the total revenue of the reporting entity in the reporting period. Green investment refers to the investment that can be considered positive for the environment in a direct and/or indirect manner. In other words, this indicator includes all expenditure on investments for which the primary purpose is the prevention, reduction and elimination of pollution and other forms of degradation to the environment.

#### Rationale

Over the past decade, the concept of the “green economy” has emerged as a strategic priority for many governments (UNEP, 2020). An inclusive green economy is one that improves human well-being and builds social equity while reducing environmental risks and scarcities. “Green economy in the context of sustainable development and poverty eradication” was acknowledged as a tool for achieving sustainable development, and requires a significant increase in public and private investment. For the private sector, contributing to sustainable development requires investment to improve energy efficiency performance and reduce emissions and pollution, among other areas of improvement. These initiatives will contribute to the achievement of SDG Target 7.b (expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all). The indicator is relevant to SDG Indicator 7.b.1 (investments in energy efficiency as a proportion of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services). Investment related to climate-smart agricultural practices and agro-biodiversity/biodiversity, water, soil, and waste reduction should also be included.

#### Methodology

The indicator is computed as the total amount of green investment divided by the revenue of the reporting entity. Green investment and revenue are both expressed in local currency units, e.g. EUR. The indicator is expressed as a percentage (%).

$$\text{Proportion of green investment} = \frac{\text{Green investment}}{\text{Revenue}}$$

The total amount of green investment should be reported separately in absolute terms.

## Concepts

*Revenue:* see Indicator A.1.1 Revenue.

*Green investment:* There are a number of different definitions of “green” applying to economic activities, and entities employ many synonyms (e.g. environmental, ecological, eco-friendly) to denote this type of investment. Typically, green investments comprise low-carbon power generation and vehicles, smart grids, energy efficiency, pollution controls, recycling, waste management and other technologies that contribute

to solving particular environmental problems. To understand which types of technologies are related to green investments, and as a starting point to decide which investments can be included in the calculation of this indicator, it is suggested that the following checklist be used:

- general environmental management (including waste management, air and water pollution abatement, soil remediation);
- renewable energy (including biofuels);
- combustion technology for improved efficiency;
- climate change mitigation (e.g. capture, storage, sequestration and disposal of GHGs);
- indirect contribution (e.g. energy storage);
- transportation (emissions abatement, efficiency); and
- buildings (energy efficiency).

The European Union Classification of Environmental Protection Activities (CEPA) also includes the following activities related to environmental protection outlays:

- capital formation and the purchase of land for environmental protection activities;
- the purchase of environmental protection products, i.e. goods that directly contribute to preservation efforts (e.g. septic tanks, rubbish containers and compost containers); and
- investments in adapted goods, which are goods that have been specifically modified to be greener (i.e. mercury-free batteries, chlorofluorocarbon [CFC]-free products). Only the extra costs paid in excess of the cost of the normal product is counted.

Given the lack of shared definitions across industries, and that the definition of green investment is likely to depend on the entity's location and operational context, it is important to complement the disclosure of this indicator with an explanation of why an investment has been categorized as green, consistently with local taxonomies and definitions.

### A.3.2. Community investment

**Link to SDGs:** SDG Target 17.17, Indicator 17.17.1

**Scope:** All sectors

#### **Definition**

This indicator is defined as the proportion of community investment to the total revenue of the reporting entity in the reporting period. Community investment refers to voluntary donations plus the investment of funds in the broader community, where the target beneficiaries are external to the organization.

#### **Rationale**

Community investment is an important way for the company to promote local development and benefit local stakeholders in their territorial areas of operation. It can help establish mutually beneficial relationships between a company and local residents by contributing towards long-term improvements in the quality of life for local communities. Community investment in the agricultural sector may also have a deeper impact, contributing to improve the livelihoods of the most vulnerable groups. A positive and stable micro-environment could contribute to the sustainable development of the entity, and if well managed, could generate social or environmental benefits while also turning a profit. Finally, community investments contribute directly to SDG Target 17.17 (encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships) and are relevant to SDG Indicator 17.17.1 (amount in United States dollars committed to public-private partnerships for infrastructure).

### Methodology

The indicator is computed as the total amount of community investment divided by the revenue of the reporting entity. Community investment and revenue are both expressed in local currency units, e.g. EUR. The indicator is expressed as a percentage (%).

$$\text{Proportion of community investment} = \frac{\text{Community investment}}{\text{Revenue}}$$

The total amount of the community investment should be reported separately in absolute terms.

### Concepts

*Revenue*: see Indicator A.1.1 Revenue.

*Community investment*: see Indicator A.1.2, value added. When calculating the community investment, the legal and commercial activities or investments the purpose of which is driven primarily by core business needs or to facilitate the business operation of the entity should be excluded. If reporting infrastructure investments, an organization can include costs of goods and labour, in addition to capital costs, as well as operating costs to support ongoing facilities or programmes. An example of support for ongoing facilities or programmes can be funding for the daily operations of a public facility. Regarding support for social programmes, the amount for calculating the indicators should refer to the specific operating costs related to the programmes financed by the entity. Non-monetary contributions should also be included, e.g. in-kind donations and human resource support.

### A.3.3. Total expenditure on research and development

**Link to SDGs:** SDG Target 9.5, Indicator 9.5.1

**Scope:** All sectors

#### Definition

This indicator is defined as the proportion of research and development (R&D) expenditure to the total revenue of the reporting entity in the reporting period. R&D expenditure refers to the total costs related to the research and development of new production technologies, products, models, tools and methods, usually driven by core business purposes for increasing output or profit.

#### Rationale

R&D refers to innovative activities undertaken by corporations or governments in developing new services or products, or improving existing services or products. R&D differs from the vast majority of corporate activities in that it is not intended to yield immediate profit, and generally carries a greater risk and uncertain returns on the investment. However, R&D constitutes the first stage of development of potential new services or the production process, and is crucial for acquiring larger shares of the market through the marketization of new products (Investopedia, 2020). R&D plays a vital role in the field of food and agriculture. The growth of global agricultural productivity has been promoted by the adoption of new techniques and innovations. Agricultural R&D has reduced poverty by making food cheaper and more accessible. Expenditure on R&D contributes directly to SDG Target 9.5 (enhance scientific research [and] upgrade the technological capabilities of industrial sectors [...] including, by 2030, encouraging innovation and substantially increasing [...] public and private research and development spending). The calculation method for this indicator is methodologically equivalent to that of SDG Indicator 9.5.1 (research and development expenditure as a proportion of GDP). It provides a useful picture of the contribution of the reporting sector to R&D and technological progress and can be compared with national estimates.

### Methodology

The indicator is computed as the total amount of R&D expenditure divided by the revenue of the reporting entity. R&D expenditure and revenue are both expressed in local currency units, e.g. EUR. The indicator is expressed as a percentage (%).

$$\text{Proportion of R\&D expenditure} = \frac{\text{R\&D expenditure}}{\text{Revenue}}$$

The total amount of the R&D expenditure should be reported separately; the indicator can be presented in both absolute terms and as a percentage (%).

### Concepts

*Revenue*: See Indicator A.1.1 Revenue.

*R&D expenditure*: Total expenditures on R&D include all costs related to original and planned research undertaken with the prospect of gaining new scientific or technical knowledge and understanding (expenditures for research activities) and all costs related to the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use (expenditures for development activities). Examples of such activities may be the following: research to discover new knowledge; modification of formulas, products or processes; design of tools that involve new technology; design and testing of prototypes, new products and processes. There are different accounting treatments for R&D expenditures. To calculate this indicator, all R&D expenditures incurred in the reporting period should be considered, independently of their accounting treatment.

### A.4.1. Percentage of local procurement

**Link to SDGs:** SDG Target 9.3, Indicator 9.3.1; SDG Target 2.3, Indicator 2.3.2

**Scope:** All sectors

#### Definition

This indicator is defined as the proportion of local procurement costs to the total purchasing of the reporting entity in the reporting period. Local procurement costs refer to expenditures incurred in obtaining personnel, services, supplies and equipment from local and/or indigenous sources.

#### Rationale

Local procurement is the commitment of the enterprise to benefit local economies through purchasing goods or services from local suppliers, rather than solely procuring them internationally. It could contribute to the local economy by providing access to markets and opportunities for local suppliers (SDG Target 9.3 – increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets; and SDG Indicator 9.3.1 – proportion of small-scale industries in total industry value added), and therefore has the potential to increase the income of smallholders (SDG Target 2.3 – by 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment; and SDG Indicator 2.3.2 – average income of small-scale food producers, by sex and indigenous status). The development of the local supply chain could also lead to more employment and investment in the community and skills improvement. Compared with global procurement, local procurement may have price and quality disadvantages. However, through local procurement, the enterprise can gain benefits by integrating local providers into the supply chain and influencing the quality of the inputs. Increasing the proportion of local procurement could help enterprises improve the diversity and stability of supply channels, thereby improving resilience.

## Methodology

The indicator is computed as the total amount of the costs of local procurement divided by the total purchasing of the reporting entity in the given period. The local procurement costs and the total purchasing are both expressed in local currency units, e.g. EUR. The indicator is expressed as a percentage (%).

$$\text{Proportion of local procurement} = \frac{\text{Local procurement costs}}{\text{Total purchasing}}$$

The total amount of local procurement costs should be reported separately, in absolute terms.

## Concepts

*Total purchasing:* This is defined as all payments made by the organization for materials, product components, facilities and services purchased. The costs should not be limited to those incurred in the production process; rather, they also include costs for administrative or financial purposes: employee training expenses, property rental, license fees, royalties, etc.

*Local procurement costs:* The costs of local procurement can be calculated using invoices or commitments made during the reporting period based on the accrual accounting principle. Local suppliers refer to those organizations or people that provide products or services to the reporting entity and that are based in the same geographical market as the entity. The definition of “local” may be varied, and could refer to the local community, a region within a country, or a country. It is recommended to use the country as the geographic distinguishing criterion for this indicator. Thus, purchasing is defined as local when it concerns products or services produced in the same country as the reporting entity or provided by an entity that is incorporated in the same country as the reporting entity.

## A.4.2. Fair pricing and transparent contract practices

**Link to SDGs:** SDG Target 2.3., Indicator 2.3.2

**Scope:** All sectors

### Definition

This indicator aims to measure the reporting entity’s policies and practices that recognize and support the rights of suppliers (especially local suppliers, primary producers and smallholder farmers) to fair pricing and fair contracts or agreements.

### Rationale

To maintain sustained trading relationships and have a positive impact on the local community, small-scale food producers and the value chain, the enterprise or buyer is expected to establish fair trading relationships with suppliers. The unequal status of large enterprises and small suppliers often leads to asymmetric information and unequal rights, which could consequently distort prices. In these circumstances, prices cannot reflect the real cost of agricultural production and support a decent livelihood for suppliers, thereby reducing their risk resilience. Fair pricing becomes possible when buyers agree to negotiate with their suppliers on an equal basis before establishing contracts. This indicator measures whether buyers treat their suppliers with respect, especially smallholder farmers, primary production suppliers and small-scale producers. Fair pricing and transparent contracts contribute to increasing the income of small-scale food producers and is therefore linked to the achievement of SDG Target 2.3 and SDG Indicator 2.3.2 (average income of small-scale food producers, by sex and indigenous status).

## Methodology

For this indicator, the reporting entity should report which, of the good practices that recognize and support the rights of suppliers to fair pricing and transparent contracts, have been implemented during the reporting period. If the following practices are not applicable or feasible for the entity's production or business processes, this should be distinctly stated. In addition, the reporting entity can adopt other contracting practices that may be beneficial to the suppliers; these should also be reported, separately.

The list of information to be disclosed is selected on the basis of SAFA (FAO, 2013), as follows (answers to be given on a yes/no basis, unless otherwise specified), seeks to ascertain whether the entity has:

- established contracts with suppliers that are fair,<sup>5</sup> transparent, clearly written and understood by suppliers, and include at a minimum:
  - contract provisions for a conflict resolution process including third-party mediators;
  - contract provisions for terms for termination of the contract;
  - the possibility of either party to terminate the contract based on mutually agreed terms of termination;
  - expectations regarding quality, quantity, timing and other specifications about delivery which are overly restrictive;
  - requirements, such as investments or upgrades;
  - risk-sharing mechanisms in the event of catastrophe;
  - secure terms for a sufficiently long period of time, to cover any debts or losses to the producer, as a result of required investments or upgrades;
  - contract terms (written or unwritten) that do not limit producers' ability to grow other crops, sell to other buyers, or participate in other markets (i.e. that do not prevent or discourage the suppliers from pursuing these activities);
- established the price in the entity's contracts or agreements on the basis of fair prices and respect for the suppliers' negotiation rights, including via the following practices:
  - the entity is open to negotiation based on evidence of the producer's costs of production;
  - the price paid reflects inflation and agreement and dialogue between the parties involved;
  - the pricing agreement is stable, and both parties agree on and understand the terms for changes in pricing;
  - the price paid covers at least: a living wage for the producer; the ability of the producer to pay a living wage to employees and workers whose work is necessary to meet the contract; costs of production; and any upgrades or other investments required, and that wages are audited by a third party;
  - if a price that covers a given specification above cannot be paid due to the buyer's financial limitations, a dialogue is established and a plan to increase the price with the increase in profit to the buyer is made clear to both parties.
- purchased any fair trade commodities in their production and operation;
- any other practices to secure fair price and transparent contracts, and if yes, these should be specified;
- in the case of non-written verbal agreements, specifications on how mutual and similar understanding of all of the above terms has been reached with suppliers and buyers.

### A.5.1. Gross profit margin

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 2); SDG Target 8.2

**Scope:** All sectors

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<sup>5</sup> "Fair" is defined as having been facilitated by both parties, with reciprocal dependency, based on FAO's Guiding principles for responsible contract farming operations (2012).



### Definition

Gross profit margin measures the proportion of gross profit to the total revenue. It is often expressed as a percentage of revenue and can also be called the gross margin ratio. Gross profit is the profit a company makes after deducting the direct costs associated with producing its products or providing its services, but before deducting indirect costs, including general, marketing and administrative expenses. Gross profit margin is a metric used to assess a company's financial health and business model by revealing the amount of money left over after deducting the cost of goods sold (COGS).

### Rationale

In SDG Indicator 2.4.1 (proportion of agricultural area under productive and sustainable agriculture), profitability is used as a sub-indicator to measure the economic sustainability of the agricultural holding. For a private company, making enough profit to secure daily operations is a basic and core target. This indicator has two components: gross profit and revenue. Gross profit, which equals the difference between the value of the entity's outputs and the direct costs of their related inputs, indicates the profitability of the entity in the reporting period. A negative or low gross profit value indicates that the entity is either not profitable (i.e. it cannot pay for its daily operating expenses) or that it is economically vulnerable to the various risks that can affect its operation. Gross profit margin is the first level of profitability, indicating how efficient a company is – compared to its competitors – in creating a product or providing a service and selling them to the customers.

### Methodology

The indicator is computed as the difference between the revenue and COGS divided by the revenue of the reporting entity. The indicator is expressed as a percentage (%) (Investopedia, 2020).

$$\text{Gross Profit Margin} = \frac{\text{Revenue} - \text{COGS}}{\text{Revenue}}$$

### Concepts

*Revenue*: See A.1.1 Revenue.

*Cost of goods sold (COGS)*: COGS refers to the direct costs incurred due to the production of the goods sold and/or provision of the services by the reporting entity. This amount includes the costs of the materials and labour directly attributable to production and sales. It excludes indirect expenses, such as administration and financial costs. COGS is different from the "Operating costs" used in calculating value added. COGS is identified by whether the cost is directly generated from the production and sales. For example, costs relating to the labour force are included in COGS as long as they are directly related to production, while the salaries of administrative staff should not be included.

## A.5.2. Product diversification by revenue

**Link to SDGs:** SDG Target 2.4.1, Indicator 2.4.1 (Sub-indicator 3); SDG Target 8.2

**Scope:** All sectors

### Definition

This indicator measures a private company's degree of product diversification, and is defined as the main product's share of total revenue. The main product's share of total revenue measures the proportion of a company's income derived from its main product (or service) compared to its total revenue. It measures the diversity of a company's products and operation.

## Rationale

Product diversification refers to the process through which the enterprise diversifies or expands its existing product range by modifying existing products, adding new products, or introducing new businesses that aim at expanding its income sources. In terms of agriculture production, for example, product diversification enables better use of land through crop rotation and the production of several crops and species simultaneously. It can have positive economic and environmental impacts by broadening the sources of income and reducing fertilizer and pesticide use. Furthermore, it gives the enterprise the possibility to multiply its sources of income, reduce dependence on the production of main products, and enhance its ability to resist systemic or market risks. For large enterprises, product diversification also offers additional revenue sources and spreads risk across multiple products and markets. Within the context of SDG Indicator 2.4.1, product diversification is used to evaluate the economic sustainability of the agricultural holding. It also contributes to the attainment of SDG Target 8.2 (achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labour-intensive sectors).

## Methodology

The indicator is computed as the revenue derived from the main agriculture or food product divided by the total revenue of the reporting entity. The indicator is expressed as a percentage (%).

$$\text{Share of main product in total revenue} = \frac{\text{Revenue derived from the main agriculture or food product}}{\text{Revenue}}$$

## Concepts

*Revenue*: See Indicator A.1.1 Revenue.

*Revenue derived from the main agriculture or food product*: This refers to the gross sales of the main agriculture or food product of the entity, and is equal to the sale price per unit of the main product multiplied by the number of units sold.

## A.5.3. Financial risk management practices

**Link to SDGs:** SDG Target 1.5, Indicator 1.5.2; SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 3); SDG Target 13.1

**Scope:** All sectors

## Definition

This indicator aims to assess the enterprise's economic sustainability by measuring the practices it adopts in reducing and adapting to potential financial risks, including developing a risk adaptation and mitigation plan.

## Rationale

Every enterprise along the food supply chain is exposed to different types of risks that can threaten its viability and have a negative impact on enterprise economic performance or growth. A financial risk adaptation and prevention/mitigation plan is a structured set of actions and mechanisms to prevent, manage and reduce risks. The development of a risk adaptation and mitigation plan requires the entity to comprehensively evaluate the potential financial risks to which it is exposed and set up solutions/measures in advance. Such a plan can help enterprises avoid and prevent possible risks, reduce the extent to which they are exposed to crises, strengthen their capacity of risk response, and minimize the negative impact of risks. In SDG Indicator 2.4.1, a risk mitigation mechanism is the third sub-indicator and is used to evaluate the agricultural holding's economic sustainability. These mechanisms can also contribute to the achievement

of SDG Target 13.1 (strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries).

### **Methodology**

For this indicator, the reporting entity should report on good practices implemented regarding financial risk mitigation (see below). If the practices are not applicable or feasible for the entity's production or business process, this should be distinctly stated. In addition, the reporting entity may adopt other practices to reduce or adapt to potential risks; these should also be reported, separately.

The information that should be reported includes (on a yes/no basis, unless otherwise specified) whether the entity has:

- analysed and assessed the risks to which it has been and could be exposed, including all internal and external factors, such as risks related to finance, credit, price, market, supply chain, natural disasters, diseases and climate change;
- classified and rated the potential risks based on benchmarks such as the likelihood of occurrence (e.g. certain, likely, possible, unlikely, rare); the enterprise's level of exposure (e.g. extreme, high, moderate, low); and the severity of the possible negative impact in case of occurrence. (e.g. scale, scope and amenability to be remedied);
- put in place a plan to reduce and adapt to the risks that could potentially threaten the business, and a system for measuring the financial impact of various risks, including natural disasters;
- conducted scenario assumptions and analyses for each possible risk, and established targeted measures and solutions accordingly;
- built stable, sustaining, diversified supply channels and has alternative procurement channels that can be easily accessed in case of need, in order to reduce the risk of input supply shortages;
- diversified its sales revenue structure or end markets (e.g. different countries, sectors) and holds a stable share in each market;
- a liquidity level that is considered good (e.g. the long-term net cash flow is stable and positive);
- in the case of negative net cash flow:
  - whether this has happened only in the short term; and
  - whether the enterprise has set up precautionary measures, such as a bridge loan;
- access to a sufficient number of diversified financial sources that maintain its capital flow, such as trade credit, bank credit provisions (bridge loans or lines of credit), credit insurance, factoring (third-party company purchase of receivables), explicit government-supported guarantees for financial obligations, individual and group-based sources of capital, microcredit institutions or insurance groups;
- maintained a good credit record and can ensure access to sufficient financing when needed;
- implemented any other practices related to risk mitigation; if so, these should be specified.





**Homs, Syria.**

A milk processing unit producing sterilized milk and local cheese to meet the market's food needs.  
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## B. Environmental dimension

Within the environmental dimension, 24 indicators under nine topics are recommended, as follows:

Topic	Indicator
<b>B.1. Sustainable use of water</b>	B.1.1 Water recycling and reuse
	B.1.2 Water use efficiency
	B.1.3 Water stress
	B.1.4 Water management practices
<b>B.2. Waste management</b>	B.2.1 Reduction of waste generation
	B.2.2 Waste reused, remanufactured, recycled
	B.2.3 Hazardous waste
<b>B.3. Greenhouse gas emissions</b>	B.3.1 Greenhouse gas emissions (scope 1)
	B.3.2 Greenhouse gas emissions (scope 2)
	B.3.3 Greenhouse gas emissions (scope 3)
	B.3.4 Greenhouse gas emissions management practices
<b>B.4 Ozone-depleting substances and chemicals</b>	B.4.1 Ozone-depleting substances and chemicals
<b>B.5. Energy consumption</b>	B.5.1 Renewable energy
	B.5.2 Energy efficiency
<b>B.6. Ecosystems and biodiversity</b>	B.6.1 Natural ecosystem conversion
	B.6.2 Habitat area protected, created or restored
	B.6.3 Sustainable use, conservation and restoration of biodiversity practices
<b>B.7. Soil</b>	B.7.1 Soil degradation
<b>B.8 Fertilizers and pesticides</b>	B.8.1 Fertilizer use
	B.8.2 Fertilizer management practices
	B.8.3 Pesticide use
	B.8.4 Pesticide management practices
<b>B.9 Food loss and waste</b>	B.9.1 Food loss
	B.9.2 Food waste

## B.1.1. Water recycling and reuse

**Link to SDGs:** SDG Target 6.3, Indicator 6.3.1

**Scope:** All sectors

### Definition

Water recycling and reuse refers to the act of processing used water and wastewater through another cycle before discharge. This indicator is defined as the ratio between the total volume of water recycled and reused and the total volume of freshwater withdrawal by the entity during the reporting period.

### Rationale

Water recycling and reuse contributes to SDG Target 6.3 (by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally) and is relevant to SDG Indicator 6.3.1 (proportion of domestic and industrial wastewater flows safely treated). The ratio between the total volume of water recycled or reused and the total volume of freshwater withdrawal shows the entity's capacity to optimize the use of water resources. A higher ratio means that the company has a higher wastewater treatment capacity and a greater awareness of the need for water conservation.

### Methodology

The indicator is computed as the total volume of water recycled and reused divided by the total volume of freshwater withdrawal from all resources by the reporting entity during the reporting period. The indicator is expressed as a percentage (%).

$$\text{Water recycling and reuse ratio} = \frac{\text{Water recycled and reused}}{\text{Total freshwater withdrawal}}$$

The total volume of water recycled and reused should be reported separately and expressed in cubic metres (m<sup>3</sup>).

### Concepts

*Water recycled and reused:* This concept refers to the used water and wastewater (treated or untreated) that is processed through another cycle before discharge, in a different process but within the same facility or at another of the organization's facilities. For different usage, reused water can be untreated or treated at different levels. For example, recycled water for landscape irrigation requires less treatment than recycled water for drinking. The treatment can be done on-site or off-site, by the entity itself or subcontracted to third-party wastewater treatment companies. For example, when recycling used water for cooling processes, no or only low pre-treatment is required.

To calculate the amount of water recycled directly without treatment, the following example can be used as a reference: if a business site has a production cycle that requires 10 m<sup>3</sup> of water per cycle, the organization withdraws 10 m<sup>3</sup> of water for one production process cycle and reuses it for an additional four cycles, then the volume of water recycled is 40 m<sup>3</sup> (UNCTAD, 2019). To measure the amount of water reused after treatment, a business should monitor the volume of water processed. The total volume of water recycled and reused equals the amount of the water reused directly without treatment plus the amount of water reused after treatment.

*Total freshwater withdrawal:* See Indicator B.1.1 Water use efficiency.



## B.1.2. Water use efficiency

**Link to SDGs:** SDG Target 6.4, Indicator 6.4.1

**Scope:** All sectors

### Definition

Water use efficiency refers to the net value added of the reporting entity per volume of water use in the reporting period. In this indicator, water use is defined as total freshwater withdrawn from surface water, groundwater and third-party water.

### Rationale

Use for crops and livestock already accounts for 70 percent of all water withdrawals globally, and up to 95 percent, in some developing countries (FAO, 2018a). Freshwater withdrawal for crop irrigation, livestock feeding and aquaculture operations is likely to increase as global population growth and economic development drive up food demand. The high and growing water requirements need to be counterbalanced by a global increase in water use efficiency. Indeed, to reach SDG 6 (ensuring availability and sustainable management of water and sanitation for all) and SDG Target 6.4 calls for, among others, a substantial increase in water-use efficiency across all sectors by 2030, an achievement that is measured by SDG Indicator 6.4.1 (change in water use efficiency over time). The calculation method of this indicator is methodologically equivalent to that applicable to SDG Indicator 6.4.1 (change in water use efficiency over time). It provides a useful picture of the reporting sector's contribution to the improvement of water use efficiency and can be compared with national estimates.

### Methodology

The indicator is computed as the net value added of the reporting entity divided by the total volume of freshwater withdrawal in the reporting period. Total freshwater withdrawal is expressed in m<sup>3</sup>, and water use efficiency is expressed in units of local currency per m<sup>3</sup> (e.g. EUR/m<sup>3</sup>).

$$\text{Water use efficiency} = \frac{\text{Net value added}}{\text{Total freshwater withdrawal}}$$

The total amount of freshwater withdrawal should be reported separately as an absolute amount (expressed in m<sup>3</sup>). To report changes in water use efficiency, it is recommended to present, as a percentage, the change of water use per net value added between two reporting periods. It is also suggested that the entity report freshwater withdrawal with a further breakdown by water resources (surface water, groundwater and third-party freshwater).

### Concepts

**Total freshwater withdrawal:** This is calculated as the sum of all water withdrawn within the boundaries of the organization, from all sources and for any use during the reporting period. Sources of water withdrawal include surface water, groundwater and third-party freshwater. This intermediate indicator should be reported with a breakdown by source.

**Surface water:** Water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams (CDP, 2018a).

**Groundwater:** Water that is being held in, and that can be recovered from, an underground formation.<sup>6</sup>

**Third-party freshwater:** Freshwater that comes from municipal water suppliers and public or private utilities, and other organizations involved in the provision, transport and treatment of water (GRI, 2021). Treated

<sup>6</sup> ISO 14046:2014 – Environmental management – Water.

water from municipal or other third-party wastewater treatment plants could be a good resource for irrigation, but should not be included in this indicator.

*Net value added:* see Indicator A.1.3 Net value added.

### B.1.3. Water stress

**Link to SDGs:** SDG Target 6.4; Indicator 6.4.2

**Scope:** All sectors

#### Definition

The indicator is defined as the share of freshwater withdrawn from water-stressed or water-scarce areas in total freshwater withdrawal during the reporting period. The indicator is expressed as a percentage and calculated by two intermediate indicators that should also be reported: the volume of freshwater withdrawal from water-stressed areas and total freshwater withdrawal from all areas.

#### Rationale

To achieve SDG 6, SDG Target 6.4 aims to ensure a sustainable supply of freshwater in order to address water scarcity and substantially reduce the number of people suffering from it. SDG Indicator 6.4.2 (level of water stress: freshwater withdrawal as a proportion of available freshwater resources) (FAO, 2021b) measures the relationship between total water use and water availability at the national level. Water availability is generally only known for the whole country or large areas. As a result, to understand the impact of an entity on water resources, the measurement must focus on more disaggregated levels. The volume of water withdrawal from water-stressed areas can indicate the organization's impact in sensitive locations. Considering the need for comparison between entities of different sizes and water use intensity, the proportion of water withdrawal from water-stressed areas to total freshwater withdrawal is a suitable indicator to understand how an entity's activities affect water availability in water-stressed or water-scarce areas.

#### Methodology

The indicator is computed as the total volume of freshwater withdrawal from water-stressed or water-scarce areas divided by the total volume of freshwater withdrawal from all areas. The indicator is expressed as a percentage (%). The volume of freshwater withdrawal is expressed in m<sup>3</sup>.

$$\text{Proportion of water withdrawal from water stressed areas} = \frac{\text{Freshwater withdrawal from water stressed or water scarce areas}}{\text{Total freshwater withdrawal}}$$

The total amount of freshwater withdrawal from water-stressed or water-scarce areas should be reported separately as an absolute amount (expressed in m<sup>3</sup>). If possible, it is also suggested that the entity report freshwater withdrawal with a further breakdown by water resource (surface water, groundwater and third-party freshwater).

To contextualize how an entity manages water use and stress, it is important to take into account its water resource context. It is thus suggested that the reporting entity disclose information on the local water stress level, which could be reported separately by country or region if the reporting entity owns more than one production site.

#### Concepts

*Total freshwater withdrawal:* See Indicator B1.1 Water use efficiency.

*Water-stressed or water-scarce area:* The level of water stress is defined as the proportion of freshwater

withdrawal to the available freshwater resources. It is calculated as the ratio of total freshwater withdrawn annually by all major sectors, including environmental water requirements, to the total amount of renewable freshwater resources, expressed as a percentage. An area is considered water-stressed if this percentage is between 25 and 70 percent, and water-scarce if it is above 70 percent. The United Nations World Water Development Report 2019 (UNESCO, 2019) provides information on the list of countries that experience water stress or water scarcity. More geographically disaggregated information can sometimes be found at the subnational level.

*Surface water:* See Indicator B1.1, Surface water

*Groundwater:* See Indicator B1.1, Groundwater

*Third-party freshwater:* See Indicator B1.1, Third-party water

### **B.1.4. Water management practices**

**Link to SDGs:** SDG Targets 6.3, 6.4 and 6.5

**Scope:** All sectors

#### **Definition**

This indicator aims to measure the various water management practices implemented by the reporting entity during the reporting period to optimize water conservation and prevent water pollution.

#### **Rationale**

Achieving SDG 6 (ensure access to water and sanitation for all) will require all actors to improve their water management practices to reduce water pollution (SDG Target 6.3), improve water use efficiency (SDG Target 6.4), address water scarcity (SDG Target 6.4) and implement integrated water resources management (SDG Target 6.5). Despite increases in water use by sectors other than agriculture, irrigation continues to be the main reason for water use globally, and agriculture is responsible for 70 percent of all freshwater withdrawals worldwide (FAO, 2016a). There is an urgent need, therefore, to improve water management and to use water more efficiently in agriculture. Agricultural water management usually includes applying technologies and practices that improve the productivity of rainfed farming systems, e.g. irrigation technologies. In addition, water management includes integrated management measures associated with water withdrawal, water consumption, water discharge and wastewater treatment. Agricultural water management is also closely related to soil, land, pesticides, fertilizers and other ecosystem conservation practices, which are partly covered below and will be further measured in relevant indicators.

#### **Methodology**

For this indicator, the reporting entity should check which of the best practices listed below have been implemented in all related activities of the entity. If the following practices are not applicable or feasible for the entity's production or operation, this should be distinctly stated. In addition, the reporting entity may adopt additional water management practices that can be beneficial to the environment and water resources; these should be reported separately.

The list of good practices to be disclosed, selected on the basis of the *Sustainability Accounting Standards for the Food and Beverage Sector (SASB, 2021)* the *Sustainability Assessment of Food and Agriculture systems (SAFA) Indicators* (FAO, 2013) and the *Technical Guidelines for Responsible Fisheries, No. 5, Suppl. 4, Ecosystem Approach to Aquaculture* (FAO, 2010), is whether the reporting entity has (answers to be given on a yes/no basis, unless otherwise specified):

- set targets and plans for its water management, including whether:

- there is a written record showing that the entity has assessed its water management risks associated with water withdrawals, water consumption, water pollution and discharge of water and/or wastewater;
- there are established written plans or strategies with the goals of water conservation and water pollution reduction;
- concrete, measurable and binding targets within a specific time frame have been set in the entity's water management plan;
- the entity has made a commitment to the achievement of related SDGs or SDG targets or indicators that are included in the entity's water management plans, such as SDG Indicators 6.3.1, 6.4.1, 6.4.2; and
- the entity has included in its plans the exact steps (activities, investments) required to achieve the water-related goals (or in other relevant documents).
- assessed the impacts of its water dependency across its value chain, with specific consideration of any dependency in water-stressed areas including whether:
  - there is a written record outlining the risks associated with water withdrawals, water consumption, water pollution and discharge of water and/or wastewater across the entity's value chain;
  - the entity has designed and implemented a strategy to respond to identified risks related to its suppliers; and
  - the entity has made publicly available the impacts, including withdrawals, across its operations and plans to address any impacts.
- implemented the below examples of "good practices" of water conservation and water pollution reduction (if applicable and feasible):
  - reporting entities involved in crop production
    - mulching and tillage to break pore continuity and reduce water evaporation from soils;
    - water harvesting;
    - minimization of irrigation water, such as through use of efficient irrigation technologies e.g. concrete water courses and water storage reservoirs or tanks;
    - use of soil moisture and rainfall sensors to optimize irrigation schedules;
    - breeding and selection of crop species and varieties that are adapted to the local climate and make efficient use of water;
    - enhancement of water use efficiency by preventing losses of products due to pests, diseases or lack of nutrients;
    - use of cover crops, and avoidance of bare fallows;
    - land use and land cover change to more complex and diverse systems with better soil coverage, including agroforestry, organic management, mixed crop-livestock systems, mixed rice-fish systems, intercropping, perennials, polycultures and forest gardens;
    - soil and water conservation measures, such as soil or stone bunds, drainage measures, furrow dikes, swales or raised beds;
    - adoption of no-spray buffer zones;
    - conservation tillage practices;
    - non-use of highly hazardous chemicals, persistent organic pollutants and those having potential adverse effects on aquatic life, including copper sulphite, glyphosate, atrazine, 2,4-d, carbaryl, malathion, etc.; and
    - protecting hedgerows, water courses, wells, boreholes and springs by not cultivating adjacent to them or leaving at least 3 metres (m) of distance with buffer strips
  - reporting entities involved in livestock production
    - wastewater recycling in livestock sheds;
    - reducing water use for the cleaning of livestock sheds or milk parlours by optimizing water pressure and hose diameter;
    - breeding and selection of animal species and breeds that are adapted to the local climate and make efficient use of water;

- keeping livestock out of sensitive/degraded areas, providing alternative sources of water and shade and promoting re-vegetation of ranges, pastures and riparian zones; and
- use of mobile livestock dipping facilities with a sealed drainage and collection system
  
- reporting entities involved in aquaculture
- maintaining/installing/upgrading accurate mechanisms to control water flows throughout the aquaculture system;
- minimizing water use for washing aquaculture facilities;
- reuse of freshwater in aquaculture operations, such as to irrigate surrounding fields, to refill tanks post-treatment;
- implementation of re-circulating aquaculture systems;
- reduction of pond water losses, such as minimization of seepage through lining;
- use of non-chemical methods of managing aquatic weeds;
- use recirculation closed systems or sedimentation ponds to treat effluents in aquaculture systems;
- siting of aquaculture cages in high-water exchange areas (flushing of nutrients);
- use on-farm or higher-level infrastructure for wastewater and sediment treatment, coupled with recycling of nutrient-rich residues;
- limits to entry based on estimated environmental capacity;
- increase environmental capacity through development/enhancement of natural treatment systems or “green infrastructure”; and
- site rotation and fallowing (e.g. in cage culture) to reduce local benthic impacts by allowing time for recovery
  
- other
- adopting water-saving production process or equipment;
- reusing and recycling water in heating and cooling systems;
- improving water use efficiency by process control and production scheduling;
- training workers on standard operating procedures, including the use of water;
- regular maintenance of water equipment to avoid the waste of water; and
- treating wastewater as regulated before discharging.
  
- whether any other practices with high potential in terms of water conservation and water pollution reduction are implemented by the reporting entity; if so, these should be specified.

### B.2.1. Reduction of waste generation

**Link to SDGs:** SDG Target 12.5

**Scope:** All sectors

#### **Definition**

This indicator measures the intensity of waste generated by the reporting entity during the reporting period. It is calculated as the total amount of waste generated divided by the net value added. It should be calculated and reported for at least two consecutive years, to show the entity’s progress in reducing waste generation over time.

#### **Rationale**

Agrifood systems generate millions of tonnes of organic and inorganic waste per year, including crop residues, animal manure, excess feed, food packaging and other agricultural waste. Waste prevention, reduction, reuse and recycling are the four main solutions to agrifood waste; of these, waste reduction and prevention the most important ones. By calculating and reporting the entity’s waste generated per net value

added over time, enterprises can measure the impact of their efforts to reduce waste while pursuing economic value and output. Examples of such efforts include reducing packaging along the value chain, using new crop varieties with relatively less crop residue, adopting optimized feeding plans to reduce animal manure, and purchasing fertilizers and pesticides packed in recyclable plastic bags. The comparison of data from different years reveals the company's performance on waste prevention and reduction. The reduction of waste generation is linked with SDG Target 12.5 (by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse).

### Methodology

The indicator is computed as the total amount of waste generated divided by the total net value added by the reporting entity in the reporting period. The waste generated should be reported by weight, in kilograms (kg) or tonnes. The indicator is expressed in kg or tonnes per unit of local currency, (e.g. kg/EUR, t/USD).

$$\text{Waste generation rate} = \frac{\text{Total waste generated}}{\text{Net value added}}$$

The total amount of waste generated should also be reported separately as an absolute volume (expressed in kg), based on which the indicator could reflect both the aggregate and the intensity.

The total amount of waste generated should also be reported separately as an absolute volume (expressed in kg or tonnes). Both the total amount and intensity of waste generated should be calculated and reported for at least two consecutive years to show the entity's progress in reducing waste generation over time.

### Concepts

**Total waste generated:** The sum of the amounts of all solid waste generated during production and operation activities in the entity during the reporting period. Although agriculture waste can exist in different forms, waste gas and wastewater are not included in the definition (UNCTAD, 2019). Possible solid waste includes: crop residues (i.e. stalks, stubble, stems, leaves, seed pods and other material left on farmlands and plantations after the crop has been harvested), animal manure, fish faecal matter, waste feed, feathers, bedding material, wastewater with high solid content, and other solid waste generated during livestock and poultry breeding; agriculture films, pesticide packaging and other plastic waste; animal remains and carcasses, etc. (UNSD, 2016). Solid waste generated by the food processing and food sale sectors include food and non-food residue, such as the non-edible portion of food products, food losses, packaging and other metal, wood, paper and plastic materials accumulated at food processing plants.

Considering internal reuse and recycling in the production processes, the total waste generated excludes the amount of waste material that has been treated through a closed-loop process, i.e. recycled, reused and returned to the production process of the reporting period.

**Closed loop:** This means that the recycled, reused and remanufactured material is returned to the production process of the reporting entity. An *open loop* process, instead, means that that the recycled, reused and remanufactured material is returned to the market, but not to the production processes of the reporting entity.

## B.2.2. Waste reused and recycled

**Link to SDGs:** SDG Target 12.5, Indicator 12.5.1

**Scope:** All sectors

### Definition

The indicator measures the amount of solid waste reused or recycled by the company or third-party organizations. In order to normalize and compare the data between different periods and between different entities, the indicator is calculated as the amount of waste reused and recycled divided by net value added.



## Rationale

Waste generation represents an enormous loss of resources in terms of both materials and energy. In agriculture production and food processing, many types of organic waste – e.g. straws, manure, non-edible portion of food products – can be reused as sources of fertilizer, energy and industry material. The reuse and recycling of waste in the agrifood sector can increase the remaining value of agriculture waste and material utilization efficiency. By calculating the amount of waste reused and recycled, this indicator shows the entity's efforts in minimizing agriculture waste and maximizing the utilization of materials, and therefore its contribution to SDG Target 12.5 (by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse). This indicator is also relevant to SDG Indicator 12.5.1 (national recycling rate, tonnes of material recycled).

## Methodology

The indicator is computed as the total amount of solid waste reused and recycled divided by the net value added of the reporting entity in the reporting period. The amount of waste reused and recycled should be measured in terms of weight and expressed in kg or tonnes. The indicator is expressed in kg or tonne per unit of local currency, e.g. kg/EUR or t/USD.

$$\text{Waste reused rate} = \frac{\text{Waste reused and recycled}}{\text{Net value added}}$$

The total amount of waste reused and recycled should also be reported separately as an absolute volume (expressed in kg).

The reuse and recycling of agriculture waste gas and wastewater are not included in this indicator. The waste reused and recycled in closed-loop and open-loop processes should both be included (see the definitions in B.4.1).

## Concepts

*Waste reused and recycled:* This refers to the solid agricultural waste generated by the reporting entity and then reused or recycled, either on-site or off-site, by the entity or by third-party organizations. Both the waste recycled in closed-loop and open-loop processes are included in the calculation. Solid agricultural waste mainly includes crop residues, e.g. stalks and stubble (stems), leaves, seedpods; manure, waste feed, feathers and other solid waste from animal breeding; agriculture plastic waste; and animal remains.

*Reuse:* This refers to activities in which agriculture and food by-products that cannot function in their original purposes serve as a new type of product with little or no processing. Examples are cultivation residues, such as rice husks, applied directly for soil mulching; manure directly used as an organic fertilizer for soil and plants without treatment; and animal waste used as a food source for fish after anaerobic digesting (Huynh and Nguyen, 2010).

*Recycling:* Recycling involves a complex set of activities in a process to recover resources, including useful nutrients and energy, from agricultural waste. Compared to waste reuse, recycling requires more inputs and investment for the collecting, transporting and processing of the waste. Examples of recycling include using the non-edible portion of food products and crop residues to produce industrial products or producing biogas via the anaerobic digestion of straw or from manure.

### B.2.3. Hazardous waste

**Link to SDGs:** SDG Target 12.4, Indicator 12.4.2

**Scope:** All sectors

#### Definition

The indicator measures the amount of hazardous waste generated by the reporting entity, in absolute terms as well as in proportion to the net value added in the reporting entity during the reporting period.

#### Rationale

Hazardous waste refers to waste that poses substantial or potential threats to public health or the environment. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (hereafter, Basel Convention), adopted in 1989, has set the fundamental goals of reducing hazardous waste generation and promoting environmentally sound management of hazardous wastes, which aim at protecting human health and the environment against the adverse effects of hazardous waste. Hazardous waste in agriculture production includes excessive, obsolete pesticides and other waste identified as hazardous according to the Basel Convention. Reducing the generation of hazardous waste contributes to the attainment of SDG Target 12.4 (achieving the environmentally sound management of chemicals and all wastes throughout their life cycle by 2020). The indicator is also relevant to SDG Indicator 12.4.2 (hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment).

#### Methodology

The indicator is computed as the total amount of hazardous waste generated divided by the net value added of the reporting entity during the period. The amount of hazardous waste is measured in terms of weight and expressed in kg or tonnes. The indicator is expressed in kg or tonnes per unit of local currency, e.g. kg/EUR or t/USD.

$$\text{Hazardous waste generation rate} = \frac{\text{Hazardous waste generated}}{\text{Net value added}}$$

The total amount of hazardous waste generated should also be reported separately as an absolute amount (expressed in kg). If the entity treats its hazardous waste, it should also disclose the proportion of hazardous waste treated to reduce and eliminate danger to people and the environment compared to the total amount of hazardous waste generated in the same period (expressed as a percentage, %).

#### Concepts

*Hazardous waste:* Hazardous waste can be identified according to the Basel Convention, which has defined the following list of hazardous characteristics:

- 1 H1 Explosive
- 3 H3 Flammable liquids
- 4.1 H4.1 Flammable solids
- 4.2 H4.2 Substance or wastes liable to spontaneous combustion
- 4.3 H4.3 Substances or wastes which, in contact with water, emit flammable gases
- 5.1 H5.1 Oxidizing
- 5.2 H5.2 Organic peroxides
- 6.1 H6.1 Poisonous (acute)
- 6.2 H6.2 Infectious substances
- 8 H8 Corrosive
- 9 H10 Liberation
- 9 H11 Toxic (delayed or chronic)
- 9 H12 Ecotoxic
- 9 H13 Capable, by any means, after disposal, of yielding another material, e.g. leachate, which possesses any of the characteristics listed above.

### B.3.1. GHG emissions (scope 1)

**Link to SDGs:** SDG Target 9.4, Indicator 9.4.1

**Scope:** All sectors

#### Definition

This indicator refers to the volume and intensity (as the proportion of net value added) of the reporting entity's direct GHG emissions, also referred to as GHG emissions (scope 1), during the reporting period. These emissions occur within the entity's organizational boundaries, and from sources that are owned, controlled or managed by the organization.

#### Rationale

Agrifood systems are a major source of GHG emissions that drive global climate change. They contribute one third of total GHG emissions globally, while agriculture is the largest contributor to non-CO<sub>2</sub> GHG emissions, accounting for 56 percent thereof (CGIAR, 2021). At the same time, the food and agriculture sector is also one of the most sensitive and vulnerable sectors to climate change. Climate change has both direct and indirect effects on agricultural productivity, threatening our ability to ensure global food security, eradicate poverty and achieve sustainable development. Reducing GHG emissions is therefore essential to the achievement of the SDGs, and particularly SDG Target 9.4 (upgrade infrastructure and retrofit industries to make them sustainable). The calculation method of this indicator is methodologically aligned with SDG Indicator 9.4.1 (CO<sub>2</sub> emissions per unit of new value added at national level). Together with Indicator B2.2 (GHG emissions scope 2), this indicator can be compared to national estimates to provide a useful picture of the reporting sector's contribution to the reduction of GHG emissions.

#### Methodology

The indicator includes the reporting entity's (i) total volume of GHG emissions (scope 1) and (ii) GHG emissions (scope 1) intensity, calculated as the total volume of its emissions divided by its total net value added during the reporting period. The GHG emissions should be converted into a CO<sub>2</sub> equivalent and reported in kg or tonnes of CO<sub>2</sub>. The intensity should be reported in kg or tonnes of CO<sub>2</sub> per unit of local currency (e.g. USD, EUR).

If possible, it is suggested that the entity also report GHG emissions (scope 1) with a further breakdown by emission resources (mechanical, non-mechanical and land use change).

$$GHG\ emissions\ (scope\ 1)\ intensity = \frac{Total\ GHG\ emissions\ (scope\ 1)}{Net\ value\ added}$$

The calculation of GHG emissions (scope 1) is most commonly and easily done via the emissions factor approach, which involves the multiplication of management activity data by a relevant emission factor describing the amount of GHG emissions per unit of activity. Comparing and aggregating emissions from various GHGs is done on the basis of global warming potential (GWP) and expressed as a CO<sub>2</sub> equivalent.

Resources for calculating GHG emissions and converting into CO<sub>2</sub> equivalents include the IPCC Guidelines for National Greenhouse Gas Inventories<sup>27</sup> and the GHG Protocol Agricultural Guidance. For the aquaculture sector, MacLeod *et al.* (2017) and Robb *et al.* (2017) are two examples of further guidance.

#### Concepts

*Net value added:* See Indicator A.1.3 Net value added.

*GHG emissions (scope 1):* GHG emissions are divided into three scopes. Direct emissions are included in scope 1, while indirect emissions in scope 2 and scope 3. GHG emissions (scope 1), i.e. direct emissions, are emissions from sources that are owned or controlled by the organization. Generally, the sources of GHG

emissions (scope 1) include the burning of fossil fuels, such as via stationary combustion and mobile combustion. For the agriculture sector, however, the calculation of GHG emissions must also take into account GHG emissions from non-mechanical sources and land use changes (GHG Protocol, 2021). Indeed, agriculture relies on biological systems, in which emissions of GHGs generally occur through much more complex mechanisms than from the use of mechanical equipment (e.g. burning of fossil fuels). Globally, emissions from non-mechanical sources can even be greater than mechanical sources, in terms of CH<sub>4</sub> (enteric fermentation) and N<sub>2</sub>O (soils).

*GHG emissions from mechanical sources:* These include emissions from equipment or machinery operated on farms, such as mobile machinery (e.g. harvesters), stationary equipment (e.g. boilers) and refrigeration and air-conditioning equipment. This is aligned with the definition of GHGs for other sectors, including:

- mobile combustion – emissions from the combustion of fossil fuels (e.g. gasoline, diesel) used in the operation of vehicles or other forms of mobile machinery (e.g. tilling, sowing, harvesting and transport vessels), mainly CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O; and
- stationary emissions – from the combustion of fossil fuels (natural gas, fuel oil, propane, etc.) for heating or other applications (e.g. milling and irrigation equipment), mainly CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O; and
- refrigeration and air-conditioning equipment: hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

*GHG emissions from non-mechanical sources:* These include emissions from either biological processes shaped by climatic and soil conditions (e.g. decomposition) or the burning of crop residues. They are often connected by complex patterns of N and C flows through farms, including:

- drainage and tillage of soils – CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O;
- addition of synthetic fertilizers, livestock and aquaculture waste, and crop residues to soils – CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O;
- addition of urea and lime to soils – CO<sub>2</sub>;
- enteric fermentation – CH<sub>4</sub>;
- rice cultivation – CH<sub>4</sub>;
- manure management – CH<sub>4</sub> and N<sub>2</sub>O;
- land-use change – CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O;
- open burning of savannahs and of crop residues left on fields – CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O;
- managed woodland (e.g. tree strips, timber belts) – CO<sub>2</sub>;
- composting of organic wastes – CH<sub>4</sub>; and
- oxidation of horticultural growing media (e.g., peat) – CO<sub>2</sub>.

*GHG emissions from land use change:* These emissions include emissions from the conversion of one category of land use (e.g. forest) into another (e.g. cropland) through fire, draining, clear felling or soil preparation.

### B.3.2. GHG emissions (scope 2)

**Link to SDGs:** SDG Target 9.4, Indicator 9.4.1

**Scope:** All sectors

#### Definition

This indicator refers to the volume and intensity (as a proportion of net value added) of the reporting entity's indirect GHG emissions (scope 2). Scope 2 covers emissions arising from the generation of secondary energy forms that are purchased by the entity for its own use, for example emissions from consumption of purchased electricity, heat or steam.

#### Rationale

For many agrifood entities involved in downstream activities, the GHG emissions (scope 2) that result from the generation of purchased energy can be much greater than their direct GHG emissions (scope 1). GHG

emissions (scope 2) are also the largest source of GHG emissions globally: the generation of electricity and heat accounts for one third of global GHG emissions. This indicator measures the entity's contribution to SDG Target 9.4 (upgrade infrastructure and retrofit industries to make them sustainable). The calculation method of this indicator is methodologically aligned with SDG Indicator 9.4.1 (CO<sub>2</sub> emissions per unit of value added at national level). Together with Indicator B.3.1 (GHG emissions [scope 1]) this indicator can be compared with the corresponding national figures to assess the reporting entity's contribution.

### Methodology

The indicator corresponds to the reporting entity's (i) total volume of GHG emissions (scope 2) and (ii) its GHG emissions (scope 2) intensity, calculated as its total volume of GHG emissions (scope 2) divided by its total net value added during the reporting period. The total volume of GHG emissions should be converted into a CO<sub>2</sub> equivalent and reported in kg or tonnes of CO<sub>2</sub>. The intensity of GHG emissions (scope 2) should be reported in kg or tonnes of CO<sub>2</sub> per unit of local currency (e.g. USD, EUR).

$$GHG\ emissions\ (scope\ 2)\ intensity = \frac{GHG\ emissions\ (scope\ 2)}{Net\ value\ added}$$

The total volume of GHG emissions (scope 2) can be calculated as activity data (e.g. megawatt-hours, or MWh, of electricity consumption) multiplied by emission factors. The common methods used to determine emission factors are the following.

- Market-based method. This is a method to quantify the GHG emissions (scope 2) of a reporter based on the GHG emissions emitted by the generators from which the reporter acquires energy independently through contractual instruments. In this case, the emission factors are derived from the GHG emission rate represented in the contractual instruments that meet scope 2 quality criteria. The market-based method is based on supplier-specific emission factors.
- Location-based method. This method quantifies the GHG emissions (scope 2) of a reporter based on average energy generation emission factors for defined geographic locations, including local, subnational or national boundaries. Under this approach, emission factors represent average emissions from energy generation occurring within a defined geographic area and a defined period. This method is based on information on statistical emissions and electricity output aggregated and averaged within a defined geographic boundary and during a defined period.

Resources for calculating scope 2 emissions include *IPCC Guidelines for National Greenhouse Gas Inventories* and the *GHG Protocol Scope 2 Guidance*. These references help identify the methods and tools that are most suitable for the reporting entity's specific activities.

### Concepts

*Net value added*: See Indicator A.1.3 Net value added.

*Indirect emissions*: This refers to emissions that are a consequence of the activities of the reporting company, but that occur at sources owned or controlled by another company. A complete GHG inventory includes scope 1, scope 2 and scope 3. Direct emissions are included in scope 1, and indirect emissions are included the emissions of scope 2 and scope 3. The three scopes are mutually exclusive for the reporting company, such that there is no double counting of emissions between the scopes (GHG Protocol, 2013a). In other words, a company's scope 3 inventory does not include any emissions already accounted for as scope 1 or scope 2 by the same company. Combined, a company's scope 1, scope 2, and scope 3 emissions represent the total GHG emissions related to company activities.

*GHG emissions (scope 2)*: Scope 2 GHG emissions are indirect emissions that include GHG emissions from the generation of purchased or acquired electricity, steam, heat or cooling consumed by the reporting company (GHG Protocol, 2015). GHG emissions from energy generation occur at discrete sources owned and operated by generators that account for direct emissions from generation in their scope 1 inventory. Scope 2 includes

emissions from energy purchased or acquired and consumed by the reporting company. At least four types of purchased energy are tracked in scope 2, including electricity, steam and heat cooling.

The total volume of GHG emissions (scope 2) can be calculated as activity data (e.g. MWh) multiplied by emission factors. The common methods for determining the emission factors are the following.

- Market-based method. This is a method to quantify the GHG emissions (scope 2) of a reporter based on GHG emissions emitted by the generators from which the reporter acquires energy independently through contractual instruments. In this case, the emission factors are derived from the GHG emission rate represented in the contractual instruments that meet scope 2 quality criteria. The market-based method is based on supplier-specific emission factors.
- Location-based method. This method quantifies the GHG emissions (scope 2) of a reporter based on average energy generation emission factors for defined geographic locations, including local, subnational or national boundaries. Under this approach, emission factors represent average emissions from energy generation occurring within a defined geographic area and a defined period. This method is based on information on statistical emissions and electricity output aggregated and averaged within a defined geographic boundary and during a defined period.

### B.3.3. GHG emissions (scope 3)

**Link to SDGs:** SDG Target 9.4, Indicator 9.4.1

**Scope:** All sectors

#### Definition

This indicator refers to the volume of the reporting entity's indirect GHG emissions occurring along its value chain, also referred to as GHG emissions (scope 3). The GHG emissions (scope 3) indicator, like GHG emissions (scope 2), is categorized as considering indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions.

#### Rationale

GHG emissions (scope 3) include GHG emissions that occur upstream and downstream of the reporting entity. Evaluating scope 3 emissions enables companies to identify the greatest GHG reduction opportunities across their entire corporate value chain, and in turn make more sustainable decisions regarding their company's activities and the products they buy, sell and produce. This contributes to SDG Target 9.4 (upgrade infrastructure and retrofit industries to make them sustainable). This indicator has been developed to monitor the entity's GHG scope 3 emissions over time, measuring its performance in GHG emissions reduction along its value chain.

#### Methodology

The indicator corresponds to the reporting entity's total volume of GHG emissions (scope 3) during the reporting period. The total volume of GHG emissions should be converted into CO<sub>2</sub> equivalents and expressed in kg or tonnes of CO<sub>2</sub>.

Guidance on how to calculate scope 3 emissions is available in the *Technical Guidance for Calculating Scope 3 Emissions* (GHG Protocol, 2013b) and *The Corporate Value Chain (Scope 3) Accounting and Reporting Standard* (GHG Protocol, 2013a).

#### Concepts

*Net value added:* See Indicator A.1.3 Net value added.

*GHG emissions (scope 3):* By definition, scope 3 emissions occur from sources owned or controlled by other



entities in the value chain (e.g. materials suppliers, third-party logistics providers, waste management suppliers, travel suppliers, lessees and lessors, franchisees, retailers, employees and workers, and customers). Scope 3 emissions can be divided into upstream and downstream emissions. The distinction is based on the financial transactions of the reporting company (GHG Protocol, 2011).

- Upstream emissions are indirect GHG emissions related to purchased or acquired goods and services. They usually include:
  - purchased goods and services
  - capital goods
  - fuel- and energy-related activities (not included in scope 1 or scope 2)
  - upstream transportation and distribution
  - waste generated in operations
  - business travel
  - employee commuting
  - upstream leased assets
- Downstream emissions are indirect GHG emissions related to sold goods and services. They include:
  - downstream transportation and distribution
  - processing of sold products
  - use of sold products
  - end-of-life treatment of sold products
  - downstream leased assets
  - franchises
  - investments

The categories provide reporting entities with a systematic framework to organize, understand and report on the diversity of scope 3 activities within a corporate value chain. The reporting organization should also identify GHG emissions (scope 3) by assessing the impact of its activities. The activities that should be included when measuring the entity's GHG emissions (scope 3) are those that:

- contribute significantly to the organization's total anticipated other indirect (scope 3) GHG emissions;
- offer potential for reductions that the organization can undertake or influence;
- contribute to climate-change-related risks, such as financial, regulatory, supply chain, product and customer, litigation and reputational risks;
- are deemed material by stakeholders, such as customers, suppliers, investors or civil society;
- result from outsourced activities previously performed in house, or that are typically performed in house by other organizations in the same sector;
- have been identified as significant for the organization's sector; and
- meet any additional criteria for determining relevance developed by the organization or by organizations in its sector.

### B.3.4. GHG emissions management practices

**Link to SDGs:** SDG Target 9.4

**Scope:** All sectors

#### **Definition**

This indicator aims to measure the various GHG emissions management practices implemented by the reporting entity to reduce its carbon footprint and adapt to climate change during the reporting period.

#### **Rationale**

The 2015 Paris Agreement sets a global goal to strengthen the response to the threat of climate change by keeping the rise in global temperature this century below 2°C higher than pre-industrial levels, and pursues efforts to limit this temperature increase even further, to 1.5°C. Under the Agreement, 189 signatory

countries submitted their own national plans, setting targets for emissions reductions and specifying pathways by which they aim to meet those targets. At the same time, an increasing number of private companies have integrated climate change into their business strategy, setting out visions of a carbon-free future. According to a survey of 6 937 companies by the Carbon Disclosure Protocol (CDP) in 2018, approximately half of the companies have an absolute and/or intensity target for GHG emissions reduction (CDP, 2018b). However, despite this initial progress in awareness of climate risk, greater ambition and effective actions are expected to match the volume of activity on climate, with a firm commitment to the goal of limiting global warming to 1.5°C above pre-industrial levels. This indicator also measures the entity's contribution to SDG Target 9.4 (upgrade infrastructure and retrofit industries to make them sustainable) and is related to SDG Indicator 9.4.1 (CO<sub>2</sub> emissions per unit of new value added at national level).

### **Methodology**

For this indicator, the reporting entity should check which of the examples of good practices below, related to the management of GHG emissions, have been implemented by the entity during the reporting period. If the following practices are not applicable or feasible for the entity's production or business process, this should be distinctly stated. In addition, the reporting entity may adopt additional GHG emissions management practices that may be beneficial to the environment; these should also be reported, separately.

The list of information to be disclosed is selected on the basis of the *Sustainability Accounting Standards for the Food and Beverage Sector* (SASB, 2021) and the *Carbon Disclosure Protocol questionnaires* (CDP, 2021) as follows. In particular, it is sought to ascertain whether the reporting entity:

- has included climate-related issues under the oversight of the senior management or the board of directors;
- has a process in place for identifying, assessing, and responding to climate-related risks and opportunities, including financial risks;
- has established a GHG reduction and adaption strategy, including whether (answers to be given on a yes/no basis, unless otherwise specified):
  - there are written plans or strategies to achieve concrete, measurable, binding and science-based GHG emissions reduction targets within a specific timeframe;
  - a science-based target (SBTi) has been set and accepted;
  - the reduction targets include scope 1 and 2 emissions reduction targets that align with a 1.5°C trajectory or net zero by 2050;
  - the reduction targets include scope 3 emissions reduction targets that align with a 1.5°C trajectory or net zero by 2050;
  - the reporting entity has integrated its GHG reduction strategy and plan within the overall business strategy;
  - the exact steps (activities, investments) required to achieve the entity's GHG emissions reduction goals have been stated and prioritized;
  - progress and performance against targets are regularly measured and disclosed, including capital expenditures related to emissions reduction projects.
- has implemented the following (if applicable and feasible):
  - prioritizing actions and/or investments related to energy efficiency, logistics and transport optimization, waste reduction, farming practices, etc.;
  - engaging regularly with value chain actors to achieve emissions reduction targets;
  - redesigning product portfolios to have low-carbon-content products;
  - training farmers in carbon farming;
  - avoiding burning of crop residues;
  - upgrading cooling systems (air conditioners); and
  - upgrading to zero-emission fleets (electric vehicles), logistics efficiency and energy efficiency.
- has established an internal carbon price;
- has engaged in cooperation with governments and other stakeholders to create the right policy and financial environment for a low-carbon future, including:

- cooperation with local or national governments;
- cooperation with UN agencies; and
- cooperation with NGOs. Whether any other practices with high potential in terms of GHG emissions reduction and adaptation are implemented by the reporting entity; if so, please specify.

### B.4.1. Ozone-depleting substances and chemicals

**Link to SDGs:** SDG Target 12.4, Indicator 12.4.2

**Scope:** All sectors

#### Definition

This indicator refers to the volume and intensity (as a proportion of net value added) of ozone-depleting substances (ODS) consumed by the reporting entity during the reporting period.

#### Rationale

Ozone depletion and the ozone hole have generated worldwide concern over increased cancer risks and other negative effects. The main cause of ozone depletion and the ozone hole is manufactured chemicals, especially manufactured halocarbon refrigerants, solvents, propellants and foam blowing agents (chlorofluorocarbons [CFCs], hydrochlorofluorocarbons [HCFCs], halons), and referred to as ODS. These chemicals could lead to damage in the ozone layer, causing skin cancer, sunburn, permanent blindness and cataracts and other harm to humans, as well as harm to plants and animals. Concerns about ozone layer thinning led to the adoption of the Montreal Protocol in 1987, which regulates the production and consumption of almost 100 manufactured chemicals referred to as ODS. By reducing the consumption of ODS, reporting entities will contribute to the achievement of SDG Target 12.4 (achieve the environmentally sound management of chemicals and all wastes throughout their life cycle by 2020). This indicator is linked to SDG Indicator 12.4.2 (hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment).

#### Methodology

The indicator includes the reporting entity's (i) total amount of ODS consumption and (ii) its ODS consumption intensity computed as its total amount of ODS consumption divided by its total net value added in the reporting period. ODS consumption is expressed in terms of kg CFC-11 equivalent. Net value added is expressed in local currency units. The intensity indicator is therefore expressed in kg CFC-11 equivalent per unit of local currency, e.g. kg CFC-11 equivalent/EUR.

$$ODS\ consumption\ intensity = \frac{ODS\ consumption}{Net\ value\ added}$$

#### Concepts

**Ozone depleting substances (ODS):** These are chemicals, mainly manufactured halocarbon refrigerants, solvents, propellants and foam blowing agents (CFCs, HCFCs, halons) that are the main cause of ozone depletion. These compounds are transported into the stratosphere by turbulent mixing after having been emitted from the Earth's surface. Once in the stratosphere, they release halogen atoms through photodissociation, which catalyse the breakdown of ozone (O<sub>3</sub>) into oxygen (O<sub>2</sub>). The most important ODS are controlled under the Montreal Protocol, and are listed in Annexes A, B, C and E thereof.

**Ozone depletion potential (ODP):** In the Annexes to the Montreal Protocol, every controlled substance is listed, together with a value expressing its ODP. An ODP value indicates the impact a certain substance has on the depletion of the ozone layer relative to a reference substance. The reference substance is usually trichlorofluoromethane (CFC-11), with an ozone depletion potential of 1.0.

*ODS CFC-11 equivalent*: To calculate the ODS CFC-11 equivalent of ODS (produced, purchased or sold), the following example can be used. An entity produced 200 kg of the ODS halon-1211 and 100 kg of CFC-115 during the reporting period. Halon-1211 has an ODP index of 3.0, and CFC-115 of 0.6. Thus, the entity should multiply the amount of ODS used by the ODP index of each to obtain the total ODP value (200 kg multiplied by 3.0 plus 100 kg multiplied by 0.6), which equals to 660 kg CFC-11 equivalent.

$$ODS\ CFC11\ Equivalent = \sum_{i=1} ODS_i \times ODP\ index\ i$$

*ODS consumption*: According to the Montreal Protocol, ODS consumption is defined as ODS production plus imports minus exports (European Environment Agency, 2019). To measure entities' ODS consumption, imports could be modified as the ODS purchase and exports could be modified as ODS disposal/sale. Reclaim, recycling and recovery are not included in the calculation of ODS consumption.

*ODS production*: This is the amount of ODS produced by the entity. ODS purchase can assume different forms, including ODS embodied in supplied goods, equipment for own use and other forms. ODS disposal/sales refers to the amount of sales of ODS (if the transaction takes place), the amount of ODS destroyed by technologies to be approved by the entity, and the amount entirely used as feedstock in the manufacture of other chemicals.

$$ODS\ consumption = ODS\ production + ODS\ purchase - ODS\ disposal/sales$$

### B.5.1. Renewable energy

**Link to SDGs:** SDG target 7.2; SDG Indicator 7.2.1

**Scope:** All sectors

#### Definition

This indicator refers to the proportion of an entity's consumption of renewable energy compared to its total energy consumption during the reporting period. Types of renewable energy include solar energy, biomass, hydropower, geothermal energy and ocean energy.

#### Rationale

SDG 7 aims at ensuring access to affordable, reliable, sustainable and modern energy for all. Transforming the world's energy systems, including boosting the use of renewable energy, is crucial to advancing sustainable development and resilience to environmental issues such as climate change. It is at the core of SDG Target 7.2 (by 2030, increase substantially the share of renewable energy in the global energy mix). Renewable energy consumption has grown rapidly in recent years, driven by policy support and sharp cost reductions for solar photovoltaics and wind power in particular. The share of renewables in global electricity generation reached 26 percent in 2018 (IEA, 2019). It is estimated that the capacity for renewable power will expand by 50 percent between 2019 and 2024, led by the solar photovoltaic system. Nonetheless, renewable power as a whole still needs to expand significantly to meet the Sustainable Development Scenario share of half of overall generation by 2030, set by the International Energy Agency (IEA). The calculation method for this indicator is methodologically aligned with SDG Indicator 7.2.1 (renewable energy share in total final energy consumption). It can be compared with national estimates to provide a useful picture of the reporting sector's contribution to renewable energy use.

#### Methodology

This indicator is computed as the total amount of renewable energy consumed by the reporting entity divided by its total energy consumption in the reporting period. Energy consumption is expressed in joules. The indicator is expressed as a percentage (%).

$$Share\ of\ renewable\ energy\ in\ total\ energy\ consumption = \frac{Renewable\ energy\ consumption}{Total\ energy\ consumption}$$

To better understand enterprises' energy use, it is suggested that the entity also report total renewable energy consumption as an absolute amount (expressed in joules). If possible, the indicator should be reported with a further breakdown by type of renewable energy sources (biofuels, solar energy, biomass, etc.).

### Concepts

*Total energy consumption*: see Indicator B.6.1 Energy efficiency

*Renewable energy consumption*: The energy consumed by the entity from all renewable sources, including biofuels, solar energy, biomass, hydropower, geothermal energy and ocean energy.

## B.5.2. Energy efficiency

**Link to SDGs:** SDG Target 7.3, Indicator 7.3.1

**Scope:** All sectors

### Definition

This indicator refers to the entity's energy consumption per unit of value added. It is calculated based on the total energy that an entity has consumed during the reporting period.

### Rationale

Modern agriculture requires energy input at all stages of agricultural production, such as in farm machinery, water management, irrigation, cultivation, harvesting and fishing vessels. Post-harvest energy use includes energy for food processing, storage, refrigeration, ventilation and air conditioning, transportation to markets and food preparation. Improving energy efficiency aims at using less energy to achieve the same or better results, thereby eliminating energy waste. Energy efficiency can bring multiple benefits: saving energy, ensuring energy security, reducing GHG emissions and lowering energy prices, thereby saving costs for households and the entire economy (IEA, 2015). While there are technologies that can help accomplish this objective, improving energy efficiency is the cheapest, and often most immediate, way to reduce the use of fossil fuels. By improving energy efficiency, entities can contribute to the achievement of SDG Target 7.3 (by 2030, double the global rate of improvement in energy efficiency). The calculation method for this indicator is methodologically aligned with SDG Indicator 7.3.1 (energy intensity measured in terms of primary energy and GDP). It can be compared with national estimates to provide a useful picture of the reporting sector's contribution to the improvement of energy use efficiency.

### Methodology

This indicator is computed as the total amount of energy consumed by the reporting entity divided by the net value added it generated in the reporting period. The energy consumption is expressed in joules. The net value added is expressed in local currency units. The indicator is expressed in joules per unit of local currency (e.g. joules/EUR).

$$\text{Energy use efficiency} = \frac{\text{Total energy consumption}}{\text{Net value added}}$$

To better understand the energy use of enterprises, it is recommended that the entity also report total energy consumption as an absolute amount (expressed in joules).

### Concepts

*Total energy consumption*: The sum of all energy from all sources consumed within the organization, i.e. non-renewable fuel consumed + renewable fuel consumed + electricity, heating, cooling and steam purchased for consumption + self-generated electricity, heating, cooling and steam, which are not consumed and not sold by the entity.

Fuel consumption is expressed in joules, while electricity, heating, cooling and steamed consumption can be expressed in joules, watt-hours or multiples. Therefore, conversion factors are needed to express everything in joules. Different energy commodities all have different caloric contents. To make them comparable, they are converted into thermal equivalents using net caloric content. If the energy commodity is used in a country for which specific values are listed (i.e. there are local conversion factors), these values should be used; otherwise, the default value should be applied (UNCTAD, 2014).

*Net value added:* see Indicator A1.3 Net value added.

### B.6.1. Natural ecosystem conversion

**Link to SDGs:** SDG Targets 14.2; 15.1

**Scope:** All sectors and suppliers

#### Definition

This indicator refers to the size, location and type of natural ecosystem conversion that has occurred on the land owned, leased or managed by the reporting entity and its suppliers since 2015. The reporting period is from 2015 (the year of Agenda 2030 adoption) to the reporting year. The indicator aims to measure the extent to which the entity's activities affect natural ecosystems' species composition, structure or function.

#### Rationale

Pressures on natural ecosystems have a direct impact on biodiversity loss and the important processes they perform, including absorbing and storing vast quantities of CO<sub>2</sub>, purifying air and water and supporting soil formation. When natural ecosystems are converted to other uses, stored carbon can be released into the atmosphere, contributing to GHG emissions. A number of agricultural commodities have been shown to present particular risks for natural ecosystems, including cattle, palm oil, soy, cocoa and coffee. 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.

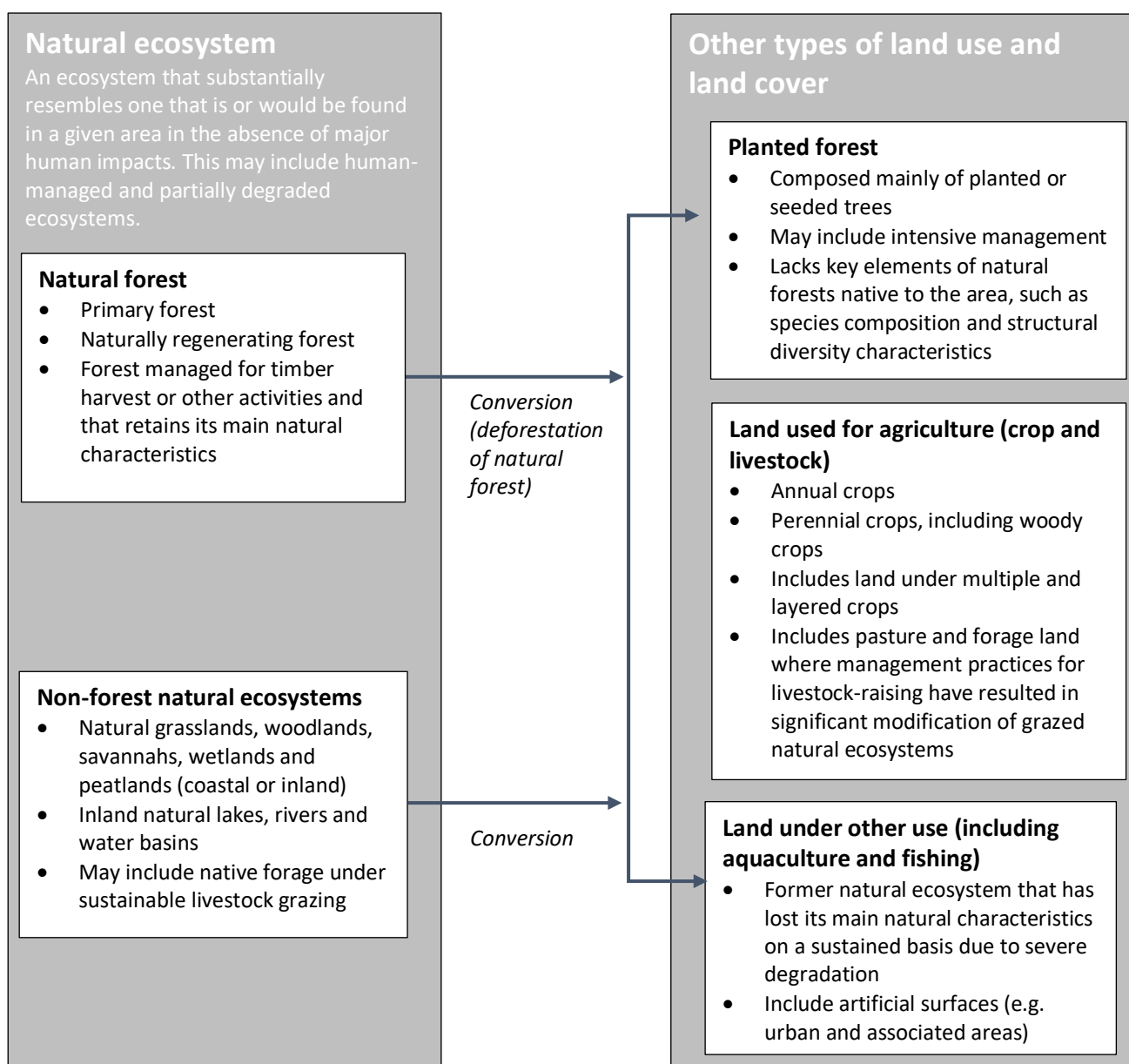
This indicator measures the entity's contribution to SDG Targets 14.2 (sustainably manage and protect coastal ecosystems to avoid significant adverse impacts) and 15.1 (ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements).

#### Methodology:

The **size of natural ecosystem conversion** is calculated as the total area of natural ecosystems in the area owned, controlled or managed by the reporting entity and its suppliers which have been converted since 2015 (expressed in ha). The entity should report this sub-indicator separately by location, ecosystem type (at least by primary forests, other naturally regenerating forests and non-forest natural ecosystems) and for both the reporting entity and its suppliers. The different types of natural ecosystems are characterized by their biome, vegetation type and high conservation value status, as relevant to the specific region and regulatory context.



The figure below illustrates the types of natural ecosystem conversion in scope for this indicator. The definitions are adapted from the Accountability Framework Initiative (AFi, 2019).



## Concepts

**Natural ecosystem:** An ecosystem that substantially resembles one that is or would be found in a given area in the absence of major human impacts. This may include human-managed and partially degraded ecosystems. For this indicator, the scope is limited to the natural ecosystem located on land owned, controlled or managed by the reporting entity.

**Ecosystem conversion:** This is defined in the change in the conditions of an ecosystem such that there is a conversion of all or part of the area from one ecosystem type to another, over the course of the reporting period (UNEP, 2019).

**Forest:** This refers to land spanning more than 0.5 hectares (ha) with trees higher than 5 m and a canopy

cover of more than 10 percent, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use. Specifically:

- “Forest” is determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5 m *in situ*.
- It includes areas with young trees that have not yet reached, but that are expected to reach, a canopy cover of 10 percent and a tree height of 5 m. It also includes areas that are temporarily unstocked due to clear-cutting as part of a forest management practice or natural disasters, and that are expected to be regenerated within five years. Local conditions may, in exceptional cases, justify a longer time frame.
- It includes forest roads, firebreaks and other small open areas, forests in national parks, nature reserves and other protected areas, such as those of specific environmental, scientific, historical, cultural or spiritual interest.
- It includes windbreaks, shelterbelts and corridors of trees with an area of more than 0.5 ha and a width of more than 20 m.
- It includes abandoned shifting cultivation land with regeneration of trees that have, or are expected to, reach a canopy cover of 10 percent and tree height of 5 m.
- It includes areas with mangroves in tidal zones, regardless of whether this area is classified as land area.
- It includes rubberwood, cork oak and Christmas tree plantations.
- It includes areas with bamboo and palms, provided that land use, height and canopy cover criteria are met.
- It includes areas outside the legally designated forest land that meet the definition of “forest”.
- It excludes tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems when crops are grown under tree cover. Some agroforestry systems, such as the *Taungya* system, whereby crops are grown only during the first years of the forest rotation, should be classified as forests.

*Primary forest*: This term refers to naturally regenerated forests (forests predominantly composed of trees established through natural regeneration) of native tree species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed. Specifically:

- It includes both pristine and managed forests that meet the definition.
- It includes forests where indigenous peoples engage in traditional forest stewardship activities that meet the definition.
- It includes forests with visible signs of abiotic damage (such as storms, snow, drought or fire) and biotic damage (such as insects, pests and diseases).
- It excludes forests where hunting, poaching, trapping or gathering have caused significant loss of native species or disturbance to ecological processes.
- Some key characteristics of primary forests are:
  - they show natural forest dynamics, such as a natural tree species composition, occurrence of dead wood, a natural age structure and natural regeneration processes;
  - the area is large enough to maintain its natural ecological processes; and
  - there has been no known significant human intervention, or the last significant human intervention was sufficiently long ago to have allowed the natural species composition and processes to become re-established.

*Naturally regenerating forest*: The term refers to forests predominantly composed of trees established through natural regeneration. Specifically, it includes:

- forests for which it is not possible to distinguish whether they have been planted or are naturally regenerated;
- forests with a mix of naturally regenerated native tree species and planted/seeded trees, and where the naturally regenerated trees are expected to constitute the major part of the growing stock at stand maturity;

- coppice from trees originally established through natural regeneration; and
- naturally regenerated trees of introduced species.

*Planted forest:* This refers to forests predominantly composed of trees established through planting or deliberate seeding. Specifically:

- in this context, it predominantly means that the planted/seeded trees are expected to constitute more than 50 percent of the growing stock at maturity; and
- it includes coppice from trees that were originally planted or seeded.

*Deforestation:* This refers to the conversion of forests to other land use, whether human-induced or not (AFi, 2019). This definition and all of the following forestry-related definitions refer to the Global Forest Resource Assessment 2020 Terms and Definitions. They are also consistent with the relevant definitions used in SDG Indicator 15.1.1 (forest area as a percentage of total land area). The area of deforestation refers to the change of the forest extent, including the change of naturally regenerated forests and forests resulting from tree plantation. Specifically:

- it includes permanent reduction of the tree canopy cover below the minimum threshold of 10 percent;
- it also includes areas of forest converted to agriculture, pasture, water reservoirs, mining and urban areas;
- the term specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures; and
- includes areas where, for example, the impact of disturbance, over-utilization or changing environmental conditions affects the forest to such an extent that it cannot sustain a canopy cover above the threshold of 10 percent.

## B.6.2. Habitat area protected, created or restored

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 8); SDG Target 15.5

**Scope:** Agriculture production

### Definition

The habitat area protected, created or restored refers to the share of habitat area that has either been protected (i.e. left undeveloped), created (i.e. new habitat which could be created in more industrial or urban locations) or restored (i.e. areas previously degraded and now restored to near natural habitat conditions), in the total area used by the reporting entity in the reporting period.

### Rationale

Biodiversity is indispensable to food security and sustainable development. It supplies many vital ecosystem processes, such as creating and maintaining healthy soils, and pollinating plants (FAO, 2019a). Yet, the world's biodiversity is under severe threat. The destruction of natural and near-natural habitats is the driver that most negatively affects the functioning of ecosystems. This indicator measures the extent of an organization's activities with respect to the creation, protection and restoration of natural habitats, which will help reduce the global degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species (SDG Target 15.5).

In the context of entities involved in agricultural production, this indicator also measures the entity's contribution to SDG Target 2.4 (land under productive and sustainable agriculture) and is linked with SDG Indicator 2.4.1 (in particular, Sub-indicator 2.4.1.8 on use of agro-biodiversity supportive practices), which sets, as the criterion of sustainability, the conservation of at least 10 percent of the holding area for natural or diverse vegetation at the farm level.

## Methodology

This indicator is calculated as the total area of the habitat protected, created or restored divided by the total area of the land used by the reporting entity during the reporting period. The habitat area being protected, created or restored and the total land used are both expressed in ha. The indicator is expressed as a percentage (%).

$$\text{Habitat area protected/created/restored ratio} = \frac{\text{Total area of habitat protected, created or restored}}{\text{Total land area used}}$$

The total area of habitat area protected, created or restored and the total land area used should also be reported separately, in absolute terms (ha). Besides the protected area within the entity's total land area, the reporting entity should report whether partnerships exist with third parties to protect, conserve or restore habitat areas located outside of the entity's agricultural holding. The entity should report the total area of habitat protected/created/restored by the third party, as well as the location and status of each area.

## Concepts

*Habitat area protected/created/restored*: This refers to the area (in the reporting entity's land area) being protected from harm during the entity's operational activities, where the environment remains in its original state with a healthy and functioning ecosystem (protected) or where the reporting entity has created or restored degraded areas to achieve a healthy functioning ecosystem.

*Total land area used*: The term refers to the operating area of the reporting entity (FAO, 2015a). It provides a measure of the size of the holding, including all area operated by the holding without regard to title or legal form. Thus, the areas owned by the entity but rented to others should not be included in the total area used. Conversely, the area not owned by members of a household but rented from others for agricultural production purposes should be included.

## B.6.3. Sustainable use, conservation and restoration of biodiversity practices

**Link to SDGs:** SDG Target 2.4; SDG Indicator 2.4.1 (Sub-indicator 8); SDG Target 15.5; SDG Target 15.9, SDG Target 14.4

**Scope:** All sectors

### Definition

This indicator aims to measure the practices supporting biodiversity for food and agriculture implemented by the reporting entity.

### Rationale

Many key components of biodiversity for food and agriculture at genetic, species and ecosystem levels are in decline. The number of livestock breeds at risk of extinction is increasing and fish stock are decreasing at an alarming rate. Overall, the diversity of crops present in farmers' fields has declined and threats to crop diversity are increasing. Biodiversity is a complex concept and is therefore difficult to measure. The development of biodiversity-related indicators for the agriculture and food sector requires the consideration of a large number of sub-indicators for which there are no universally agreed sustainability criteria. SDG Indicator 2.4.1 introduces the use of agro-biodiversity-supportive agriculture as a sub-indicator to measure the level of adoption of more sustainable agricultural practices, by identifying a limited list of farmers' activities that better contribute to biodiversity conservation. *The State of the World's Biodiversity for Food and Agriculture* (FAO, 2019a) also highlights several types of practices that can contribute to the sustainable use and conservation of biodiversity. In this indicator, the sustainable use and conservation of biodiversity for food and agriculture (BFA) is the main focus, which calls for approaches that involve the integrated management of genetic resources, species and ecosystems in the entity's entire business conduct. In addition

to SDG Target 2.4 (land under productive and sustainable agriculture), the indicator measures the entity's contribution to SDG Targets 14.4 (regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans), 15.5 (take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species) and 15.9 (integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts).

### **Methodology**

For this indicator, the reporting entity should check which of the good practices regarding the sustainable use and conservation of BFA have been implemented by the entity and its suppliers during the reporting period. If the following practices are not applicable or feasible for the entity's production or business processes, this should be distinctly stated. In addition, the reporting entity may adopt additional practices that may be beneficial to the sustainability of the ecosystem and biodiversity; these should be reported separately.

The list of information to be disclosed is based on the good practices summarized in *The State of the World's Biodiversity for Food and Agriculture* (FAO, 2019a), SAFA (FAO, 2013) and SDG Indicator 2.4.1 (Sub-indicator 8), and includes the following (answers to be given on a yes/no basis unless otherwise specified):

- whether the entity has a written record showing that the reporting entity has assessed the risks and impacts on biodiversity of its operations, processes and services, including the risks associated with biodiversity restoration and conservation, ecosystem protection, etc.;
- whether the entity has established plans or strategies, available to all stakeholders, with biodiversity conservation and rehabilitation targets, including:
  - written plans or strategies having the goals of promoting sustainable use, conservation and restoration of biodiversity;
  - a commitment to the achievement of related SDG goals, targets and/or indicators, such as SDG 14, SDG 15 and SDG Target 2.4.1, are included in the entity's biodiversity management plans;
  - concrete, measurable and binding targets of the biodiversity conservation or restoration efforts that have been set in the entity's biodiversity management plan;
  - targets, including those at species and genetic levels;
  - whether these targets include deforestation/conversion-free targets for all the relevant high-risk commodities produced or purchased by the reporting entity; and
  - the exact steps (activities, investments) required to achieve the biodiversity conservation and restoration goals of the entity, clarified in the plan;
- whether the reporting entity has assessed and addressed the impact of its suppliers on biodiversity and associated risks, including with:
  - a written record showing that the reporting entity has assessed the risks and impacts on biodiversity related to the operations, processes and services of its suppliers, including the risks associated with biodiversity restoration and conservation, ecosystem protection, etc. and
  - a strategy to respond to identified risks related to its suppliers;
- whether the below good practices of sustainable use and conservation of BFA are implemented by the company (if applicable and feasible):
  - promoting the change of land cover and land use towards more structurally complex and species-diverse systems – agroforestry, mixed crop-livestock systems, mixed rice-fish systems, mangrove-shrimp, intercropping, perennials, forest gardens, etc.;
  - diversification of crop and grassland management, such as diverse crop rotation, late and/or staggered mowing, maintenance of wildflower strips and ecological infrastructures, such as stone and wood heaps, trees and hedgerows;

- application of new ecological management practices and production approaches, including organic agriculture, low external input agriculture, etc;
  - using ecological approaches to preserve and enhance soil fertility, such as integrated plant nutrient management;
  - using ecological approaches towards disease, pest and weed control, such as integrated pest and weed management;
  - biodiversity restoration practices, such as the creation and maintenance of habitat networks (see Indicator B.6.3) that facilitate exchange between populations, establishment of conservation of multi-species tree stands, installation of nesting aids, *in situ* conservation of genetic diversity, creation and maintenance of wildlife habitat and of a species-diverse forest edge;
  - allocating part of the land to locally adapted, rare or traditional varieties, including breeds of livestock and crop varieties;
  - treating effluents and waste to avoid water, soil or air pollution;
  - minimizing and ensuring safe disposal of operational waste that can impact ecosystems and their biodiversity, such as lost fishing gear, oil spills, on-board spoilage of catch;
  - reuse and recover of ecosystem-beneficial resources, such as compost;
  - well-defined and effective fish harvest control rules to reduce the amount of, and the mortality arising from, unwanted catch;
  - appropriate fishing methods designed to minimise adverse impacts on habitat, especially in critical or sensitive zones such as spawning and nursery areas; and
  - reducing pressure on species at risk and monitoring impact on the International Union for Conservation of Nature’s Red List of Threatened Species (IUCN, 2021) and national conservation list species.
- whether the entity has engaged in cooperation with governments and other stakeholders in the field of biodiversity protection and sustainability of the ecosystem, including:
    - cooperation with local and national governments;
    - cooperation with UN agencies; and
    - cooperation with NGOs;
  - whether any other practices with high potential in terms of biodiversity conservation and restoration are implemented by the reporting entity; if so, please specify.

### Concepts

*Ecosystem restoration* is defined as a process of reversing the degradation of ecosystems, such as landscapes, lakes and oceans to regain their ecological functionality – in other words, to improve the productivity and capacity of ecosystems to meet the needs of society. This can be done by allowing the natural regeneration of overexploited ecosystems or by planting trees and other plants (UNSD, 2014).

### B.7.1. Soil degradation

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 4); SDG Target 15.3, Indicator 15.3.1

**Scope:** Agriculture production (aquaculture and fishing excluded)

#### Definition

This indicator refers to the share of land with soil degradation in the total area of agricultural production of the reporting entity. Soil degradation is defined as a change in soil health status, resulting in a diminished capacity of the ecosystem to provide goods and services for its beneficiaries. The main types of soil degradation are defined by four categories:

- soil erosion
- soil fertility reduction



- soil salinization
- waterlogging.

This indicator should be calculated and reported for at least two years between 2015 and the current reporting year, to show the entity's progress in reducing or reversing soil degradation overtime.

### Rationale

Around the world, 33 percent of land is moderately to highly degraded due to the erosion, salinization, compaction, acidification and chemical pollution of soils. The *Status of the World's Soil Resources* (FAO, 2015b) identifies ten main threats to soil functions, including soil erosion, soil organic carbon loss, soil contamination, soil acidification, soil salinization, soil biodiversity loss, soil surface effects, soil nutrient status, soil compaction and soil moisture conditions. Similar to SDG Indicator 2.4.1, which includes prevalence of soil degradation as a criterion to measure land under productive and sustainable agriculture (SDG 2.4), this indicator focuses on the four main types of soil degradation that combine the characteristics that are more widespread and easier to assess through farm surveys: soil erosion; reduction in soil fertility; salinization of irrigated land; and waterlogging. By reporting this indicator over time (at least for two years between 2015 and the current reporting year), the company can also show their contribution to SDG Target 15.3 (combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world). Since the indicator is aligned with SDG Sub-indicator 2.4.1 (prevalence of soil degradation) and SDG Indicator 15.3.1 (proportion of land that is degraded over total land area), it can be compared with the national prevalence estimates of land and soil degradation.

### Methodology

This indicator is calculated as the combined agricultural land area affected by any of the main types of soil degradation (FAO, 2021c and FAO, 2017) (soil erosion, reduction in soil fertility, salinization of irrigated land and waterlogging), divided by the total agricultural land area of the reporting entity during the reporting period. The land areas are expressed in ha. The indicator is expressed as a percentage (%).

$$\text{Soil degradation ratio} = \frac{\text{Combined agriculture land area affected by any of the main types of soil degradation}}{\text{Total agricultural land area}}$$

This indicator should be calculated and reported for at least two years between 2015 and the current reporting year, to show the entity's progress in reducing and reversing soil degradation over time.

### Concepts

*Total agricultural land area*: The term refers to the land used for agriculture production, including:

- land under temporary crops;
- land under temporary meadows and pastures;
- land temporarily fallow;
- land under permanent crops; and
- land under permanent meadows and pastures.

The land owned by the reporting entity but rented to a third party should not be included in the agricultural land of the company. Conversely, land not owned by the reporting entity but rented from a third party for agricultural production purposes should be included (FAO, 2015a).

*Soil erosion*: Soil erosion is one of the ten major soil threats identified in the *Status of the World's Soil Resources report* (FAO, 2015b). It is defined as the accelerated removal of topsoil from the land surface through water, wind and tillage. Soil erosion occurs naturally under all climatic conditions and on all continents, but it is significantly increased and accelerated by unsustainable human activities (up to 1 000 times), such as intensive agriculture, deforestation, overgrazing and improper land use changes. Soil erosion

rates are much higher than soil formation rates. Soil is a finite resource, meaning that its loss and degradation is not recoverable within a human lifespan (FAO, 2019b).

*Soil fertility reduction:* Soil fertility is the capacity to receive, store and transmit energy to support plant growth. It is the component of overall soil productivity that deals with its available nutrient status, and its ability to provide nutrients out of its own reserves and through external applications for crop production. There are three main components of soil fertility: physical, chemical and biological (Abbott and Murphy, 2003). The level of soil fertility results from the inherent characteristics of the soil and the interactions that occur between these three components. Most characteristics that contribute to the fertility of soil, such as soil pH and the susceptibility of the soil to compaction, are dependent on the constituents of the original parent rock. Subsequent events, including the growth of plants and addition of fertilizer, modify soil characteristics and alter its fertility. The main causes of soil fertility reduction include continuous use of acidic, salty or synthetic fertilizers, insecticides, fungicides and herbicides, competing land uses, etc.

*Soil salinization:* When salts more soluble than calcium carbonate and gypsum are present in the soil and affect crop growth and yield of most crops, these soils are considered salt-affected. Most of these soils have an electrical conductivity greater than 4 ohms/cm. Many of them are classified as Solonchak. The presence of salts affects plant uptake of nutrients, as well as microbiological activity in the soil. Salinity may also affect other soils to a lesser extent and may lead to the recognition of saline phases, which also deserve attention when present under salt-sensitive crops (spinach, etc.).

*Waterlogging:* This is the rise of the water table into the root zone of the soil profile, such that plant growth is adversely affected by deficiency of oxygen. The critical depth depends on the kind of crop, but waterlogging is commonly defined as light for a soil profile depth of 3 m for substantial parts of the year, and as moderate for less than 1.5 m. Severe waterlogging occurs with a water table at a depth ranging from 0 cm to 30 cm. This study also includes ponding, where the water table rises above the surface. Waterlogging as a form of land degradation should be distinguished from naturally occurring poorly drained areas, and is also from the different problem of flooding.

### B.8.1. Fertilizer use

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 6); SDG Target 6.3; SDG Target 15.3

**Scope:** Agriculture production (aquaculture and fishing excluded)

#### Definition

This indicator refers to the volume and intensity (as a proportion of the total cropland area owned, leased and managed by entity) of fertilizers used by the entity during the reporting period, by fertilizer nutrients (i.e. nitrogen-based (N), phosphate-based (P<sub>2</sub>O<sub>5</sub>) and potassium-based (K<sub>2</sub>O)).

#### Rationale

Proper management and use of fertilizers in crop production is essential for maintaining or improving soil health and minimizing any potential environmental impacts. When they are overused, fertilizer nutrients that are not taken up by plants or retained in soils may be transported to groundwater causing potential human and animal health impacts, or to waterways, especially nitrogen and phosphorus, causing eutrophication and deterioration of water quality. Excess nutrients may also be released from soils to the atmosphere through ammonia volatilization or as greenhouse gas emissions of N<sub>2</sub>O. On the other hand, insufficient use of fertilizers entails adding nutrients at levels below crop requirements and results in opportunity costs for yield potential, nutritional content, return of carbon to soil and enhancement of soil health, as well as net nutrient removal from the soil system (FAO, 2019c). Providing a quantitative evidence of the fertilizers used by the entity both in total and use intensity terms can therefore assist in monitoring the entity's impact on water quality (SDG Target 6.3) and soil degradation (SDG Target 15.3). This indicator can also provide evidence of

the entity's performance in terms of productive and sustainable agriculture (SDG Target 2.4), as the adequate management of fertilizers (Sub-indicator 6 of SDG Indicator 2.4.1) is considered in the assessment of progress on this target.

### Methodology

The fertilizer use intensity indicator is calculated as the total amount of fertilizers used divided by the total cropland area owned, leased and managed by the entity during the reporting period, by fertilizer nutrients (i.e. nitrogen-based (N), phosphate-based (P<sub>2</sub>O<sub>5</sub>) and potassium-based (K<sub>2</sub>O)). The total amount of fertilizers used is expressed in kg. The cropland area is expressed in ha. The intensity indicator is expressed in kg per ha (kg/ha).

$$\text{Fertilizer use intensity}_{\text{nutrient}} = \frac{\text{Total amount of fertilizers used}_{\text{nutrient}}}{\text{Total cropland area}}$$

The total amount of fertilizers used, by fertilizer nutrients should be reported separately, as an absolute amount (expressed in kg), so that both the volume and intensity of fertilizers used by the reporting entity is well captured.

### Concepts

**Total cropland area:** Total cropland area refers to the land used for growing crops (temporary and permanent, including cropped land under protective cover). It excludes land under permanent meadows and pastures, and land under farm buildings and farmyards. It includes all cropland operated by the entity regardless of title or legal form. Thus, land owned by the reporting entity but rented to a third party should not be included. Conversely, land not owned by the reporting entity but rented from a third party for agricultural production purposes should be included (FAO, 2015a). In determining the total cropland area, the following types of land should be included:

- land under temporary crops;
- land under temporary meadows and pastures;
- land temporarily fallow; and
- land under permanent crops.

**Fertilizer nutrients:** Fertilizer nutrients are key nutrients contained in plants and used to improve plant growth. The three primary plant nutrients include:

- nitrogen-based nutrients (including, but not limited to, NH<sub>4</sub> and NO<sub>3</sub>), reported as N;
- phosphate-based nutrients (including, but not limited to, Ca(H<sub>2</sub>PO<sub>4</sub>)<sub>2</sub> and (NH<sub>4</sub>)<sub>2</sub>HPO<sub>4</sub>), reported as P<sub>2</sub>O<sub>5</sub>; and
- potassium nutrients (potash)-based (including, but not limited to, K<sub>2</sub>SO<sub>4</sub> and KCl), reported as K<sub>2</sub>O.

The amount of fertilizers used by nutrients can be obtained using the percentage (%) of nutrient content on fertilizer labels, or if this information is not available, the default conversion factors proposed by FAO (FAO, 2021d).

## B.8.2. Fertilizer management practices

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 6); SDG Target 6.3; SDG Target 15.3

**Scope:** Agriculture production (aquaculture excluded)

### Definition

This indicator aims to measure the set of fertilizer use and management practices implemented by the reporting entity.

## Rationale

As already mentioned, proper management and use of fertilizers is essential for maintaining or improving soil health while minimizing potential environmental impacts. In addition to the potential impacts of fertilizer over- and underuse described previously, improper or inappropriate fertilizer management or use might have an impact on human and animal health, soil health, suboptimal agricultural productivity and the environment. This includes, for example, inappropriate application of fertilizers, nutrient imbalances, application (or cumulative application) of contaminants to the soil via fertilizers, improper fertilizer storage or handling, and fertilizer leaks or spills. The implementation of best practices in managing and using fertilizers can provide evidence on the entity's contribution to maintaining or improving water quality (SDG Target 6.3) and reducing or reversing soil degradation (SDG Target 15.3). It also contributes to measure the entity's performance in terms of productive and sustainable agriculture (SDG Target 2.4), as the adequate management of fertilizers (Sub-indicator 6 of SDG Indicator 2.4.1) is considered in the assessment of progress on this target.

## Methodology

For this indicator, the reporting entity should check which of the good practices listed below related to the management of fertilizer have been implemented in the entity during the reporting period. If the following practices are not applicable or feasible for the entity's production or business processes, this should be distinctly stated. In addition, the reporting entity may adopt other fertilizer management practices that may be beneficial to the environment and ecosystem; these should also be reported, separately.

The list of good practices to be disclosed is selected on the basis of the *International Code of Conduct for the sustainable use and management of fertilizers* (FAO, 2019c) and is as follows (answers to be given on a yes/no basis):

- whether the entity selects and purchases fertilizers as regulated, in particular if the entity implements the following practices:
  - purchasing and using high-quality fertilizers that comply with the legislation in force in the country where the product is placed on the market;
  - obtaining fertilizers that are properly and clearly labelled from officially recognized dealers;
- whether the entity conducts integrated plant nutrition management in preparations before fertilization to maximize the use of nutrients, in particular by implementing the following practices:
  - correcting or managing soil conditions that prevent crop response to plant nutrient additions or limit nutrient cycling – such conditions include extreme acidity or alkalinity, excessive salts or sodium, or lack of organic matter;
  - utilizing soil testing to identify and quantify soil conditions that might limit crop response to plant nutrient additions and for the determination of fertilizer recommendations;
  - utilizing fertilizer recommendations by local Agricultural Extension and Advisory Services (AEAS) and providers that are based on site-specific information, including relevant soil characteristics, crops and cultivars to be grown, previous crops grown and expected yields, as well as climatic and hydrological conditions;
  - practicing Integrated Soil Fertility Management (ISFM) as appropriate, through integrated farming practices and agroforestry and use of all relevant sources of plant nutrients, including animal manures, compost, crop residues and other materials, particularly those that are locally available;
  - using crop rotations, pulses and other legumes, cover crops and other green manures as a means to enhance soil health and fertility and reduce fertilizer inputs;
  - using soil sampling at least every five years to perform nutrient budget calculations; and
  - designing and using buffer strips along water courses to reduce the risk of water contamination;

- whether the entity implements best practices in the process of fertilizer application and in subsequent management after fertilizer application, in particular the following:
  - applying fertilizers at the proper time and in the proper amount based on the soil type and climate, as well as use of the most appropriate fertilizer source, in accordance with global principles of plant nutrient management such as ISFM;
  - complying with local regulations and limits relevant to fertilizer use, and adhering to best management practices for fertilizer use including proper handling, storage, transportation and disposal;
  - complying with the application and cumulative application limits for nutrients and maximum allowable concentrations for contaminants;
  - keeping records of fertilizer sales or applications (source, rate, time and placement) to support governments for the purpose of statistical information on fertilizer use;
  - using the organic source of nutrients (including manure or composting residues), in combination with synthetic/mineral fertilizers, or replacing inorganic fertilizers with organic ones;
  - controlling application rates, timing and placement to maximize the availability of recycled plant nutrients and minimize potential negative impacts such as nutrient leaching, odours, runoff or any other undesirable off-site effects; and
  - recycling or disposing of fertilizer containers as and where appropriate;
- whether any other practices related to the sustainable use and management of fertilizers are implemented by the reporting entity; if so, please specify.

### B.8.3. Pesticide use

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 7); SDG Target 6.3; SDG Target 3.9

**Scope:** Agriculture production (crop production only)

#### Definition

This indicator refers to the volume and intensity (as a proportion of the total cropland area owned, leased and managed by the entity) of pesticides used by the entity during the reporting period, by hazard level (i.e. highly hazardous, moderately hazardous, slightly hazardous and unlikely to present acute hazard).

#### Rationale

Pesticides are important inputs in modern agriculture. They can contribute to increasing agricultural productivity and achieving the goal of Zero Hunger by preventing crop losses from insects and other pests. However, chemical pesticides used as pest management tools can be highly toxic. If not properly used or well managed, they may cause harm to human and animal health, and the environment. According to WHO, banning the use of the most toxic pesticides (extremely hazardous and highly hazardous pesticides) could prevent over 155 000 deaths from self-poisoning yearly (WHO, 2016). By providing quantitative evidence of the pesticides used by the entity in both total and use intensity terms and by hazard level can therefore assist in monitoring the entity's impact on SDG Target 6.3 (improve water quality by reducing pollution) and Target 3.9 (reduce the number of death and illness from hazardous chemicals and air, water and soil pollution). It also contributes to measure the entity's performance in terms of productive and sustainable agriculture (SDG Target 2.4), as the adequate management of pesticides (Sub-indicator 7 of SDG Indicator 2.4.1) is considered in the assessment of progress on this target.

## Methodology

The pesticide use intensity indicator is calculated as the total amount of pesticides used divided by the total cropland area owned, leased and managed by the entity during the reporting period, by hazard level (i.e. highly hazardous, moderately hazardous, slightly hazardous and unlikely to present acute hazard). The total amount of pesticides used is expressed in kg. The cropland area is expressed in ha. The intensity indicator is therefore expressed in kg per ha (kg/ha).

$$\text{Pesticide use intensity}_{\text{hazard level}} = \frac{\text{Total amount of pesticides used}_{\text{hazard level}}}{\text{Total cropland area}}$$

The total amount of pesticides used, by hazard level should be reported separately as an absolute amount (expressed in kg), so that both the volume and the intensity of pesticides used by the entity during the reporting period are well captured.

## Concepts

*Total amount of pesticides used:* This refers to the total weight (in kg) of active ingredients in pesticide mixtures applied on the land owned, leased and managed by the entity, whether from major pesticide groups (i.e. insecticides, herbicides, fungicides, plant growth regulators and rodenticides) or pesticides of certain relevant chemical families (FAO and WHO, 2016). The weight of active ingredients in pesticide mixtures can be calculated by multiplying the proportion of active ingredients by the total weight of the mixture.

*Hazard level:* The hazard level, as defined by WHO, is the acute risk to health (that is, the risk of single or multiple exposures over a relatively short period of time) that might be encountered accidentally by any person handling the product in accordance with the directions for handling by the manufacturer or in accordance with the rules laid down for storage and transportation by competent international bodies. The hazard level can be determined from the WHO Recommended Classification of Pesticides by Hazard (WHO, 2020a).

*Total cropland area:* See SDG Indicator B.10.2 Management of pesticides.

## B.8.4. Pesticide management practices

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 7); SDG Target 6.3; SDG Target 3.9

**Scope:** Agriculture production (crop production only)

### Definition

This indicator aims to measure the set of pesticide use and management practices implemented by the entity that can minimize the risks associated with the use of pesticides and limit their impact on human and animal health and the environment.

### Rationale

Assessing the management and use of pesticides should be a comprehensive exercise, which should address all sustainable measures taken in the process of pesticide production, trade and application. This indicator uses Integrated Pest Management (IPM) as a reference to define sustainable measures of plant protection and pest management. The International Code of Conduct on Pesticide Management is also a reference text containing good practices in pesticide management and providing a framework that guides government regulators, the private sector, civil society and other stakeholders on good practices in managing pesticides (FAO, 2020). This indicator is aligned with SDG Indicator 2.4.1, which includes management of pesticides as one of its sub-indicators. It is also relevant to SDG Target 2.4 (land under productive and sustainable agriculture), Target 6.3 (improve water quality by reducing pollution) and Target 3.9 (reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution).



## Methodology

For this indicator, the reporting entity should check which of the below good practices related to the use and management of pesticides have been implemented by the entity during the reporting period. If the following practices are not applicable or feasible for the entity's production or business process, this should be distinctly stated. In addition, the reporting entity may adopt other pesticide management practices that can reduce risks for the environment and ecosystems; these should also be reported, separately.

The list of information to be disclosed is selected on the basis of the practices recommended under IPM (FAO, 2021e) and the *International Code of Conduct on Pesticide Management* (FAO, 2021f), and is as follows (answers to be given on a yes/no basis unless otherwise specified):

- whether the entity adopts integrated measures to prevent or suppress plant diseases, pests and other harmful organisms to reduce pesticide use, in particular :
  - assessing the risk of pests and diseases regularly and quantitatively using appropriate methods and tools;
  - applying crop spacing, crop rotation, mixed cropping or intercropping;
  - using adequate cultivation techniques and good agricultural practices (GAPs), e.g. adjusting planting time, seedbed sanitation, sowing dates and densities, under-sowing, conservation tillage, pruning and direct sowing;
  - using pest-resistant/tolerant cultivars and varieties, standard/certified seeds and planting materials that minimize the pressure, and maximize biological prevention, of pests and diseases;
  - preventing the spread of harmful organisms by means of field sanitation and hygiene measures (e.g. systematic removal of plant parts attacked by pests, regular cleansing of machinery and equipment);
  - protecting and enhancing important beneficial organisms, e.g. by utilizing ecological infrastructures inside and outside production sites;
  - performing biological pest control; and
  - adopting pasture rotation to suppress the livestock pest population.
- whether the decision to use pesticides and the selection of pesticides are given scientific and comprehensive consideration, and in particular whether the entity implements the following practices:
  - deciding on interventions following consideration of all possible methods and their short- and long-term effects on farm productivity and environmental implications;
  - prioritizing sustainable biological, physical and other non-chemical pest and disease management methods and biopesticides over chemical methods; and
  - applying pesticides only as a last resort, when there are no adequate non-chemical alternatives and the use of pesticides is economically justified;
- whether the entity implements best practices in the process of pesticide application and subsequent management after pesticide application, in particular:
  - applying the pesticides as specifically as, and at the minimum levels, possible to avoid side effects on human health, non-target organisms and the environment, e.g. by means of partial applications;
  - adhering to label directions for pesticide use (including use of protection equipment while applying pesticides);
  - ensuring that agrochemicals are only applied by specially trained knowledgeable persons;
  - ensuring that equipment used for the handling and application of agrochemicals complies with established safety and maintenance standards;
  - storing and using agrochemicals according to legal requirements, e.g. registration for individual crops, rates, timings and pre-harvest intervals;
  - using one pesticide no more than two times or in mixture in a season, to avoid pesticide resistance;
  - maintaining accurate records of agrochemical use;

- avoiding impact on non-target areas of any pest and disease management activity;
- avoiding point source pollution from agrochemicals resulting from use, storage, cleaning and disposal of products or application equipment;
- monitoring the success of the applied pest management measures;
- engaging in systematic removal of plant parts attacked by pests;
- maintaining and cleaning the spray/protection equipment properly after use; and
- safely disposing of waste (cartons, bottles and bags);
- whether any other pesticides management and use practices to reduce risks on the environment and ecosystems are implemented; if so, please specify.

### B.9.1. Food loss

**Link to SDGs:** SDG Target 12.3; SDG Indicator 12.3.1.a

**Scope:** Agriculture production/food processing/food wholesale

#### Definition

This indicator measures the food loss percentage (FLP) relative to the entity's main commodities during the reporting period. For each commodity, the FLP is calculated as the total amount of food losses that have occurred at all value chain stages in which the relevant entity is involved divided by the total initial amount of the commodity (e.g. before entering the entity's first stage of the value chain). It should be calculated and reported for at least two years between 2015 and the current reporting year, to show the entity's progress in reducing food loss over time.

#### Rationale

In 2011, FAO estimated that approximately one third of the world's food was lost or wasted every year (FAO, 2011a). In 2019, a new estimation concluded that approximately 14 percent of the world's food is lost from post-harvest up to (but not including) the retail level (FAO, 2019d). Food loss and waste (FLW) have become issues of great public concern. SDG Target 12.3 calls for halving per capita global food waste at retail and consumer levels by 2030, as well as reducing food losses along the production and supply chains, including postharvest losses (Fabi and English, 2018). The target is measured by two SDG sub-indicators: Sub-indicator 12.3.1.a, food loss index, which focuses on the reduction of losses along the food production and supply chains up to the retail stage (supply-oriented) (FAO, 2021g); and Sub-indicator 12.3.1.b, food waste index, which focuses on the retail and consumer levels (demand-oriented). Aligned with the scope of SDG Sub-indicator 12.3.1.a, this indicator should be reported for food loss occurring during the first four stages of the agrifood supply chain: harvest, post-harvest, processing and distribution. By reporting FLP at the stage/commodity level, companies can show not only the critical loss point of the value chain, but also help reduce gaps in the food loss data necessary to compile SDG Sub-indicator 12.3.1.a, and thus directly contribute to SDG reporting.

#### Methodology

For each commodity, the FLP is calculated as the total amount of food losses (FL) that have occurred at all value chain stages in which the relevant entity is involved, divided by the total initial amount of commodity (e.g. before entering the first value chain stage in which the entity is involved). To calculate the FLP per commodity, the following methodology can be applied.

- 1) The entity records the initial volume (expressed in kg or tonnes) of commodity  $i$  (e.g. maize, tuna, tilapia, eggs) as it enters the first stage of the value chain in which the entity is involved. This amount is the denominator of the FLP for commodity  $i$ .
- 2) The entity measures and records the amount of food loss (FL) expressed in kg or tonnes separately, by commodity and by the stages along the value chain in which the entity is involved. The amount of food loss by commodity  $i$  and stage  $j$ ,  $FL_{ij}$ , is the basic reporting unit of this FLP indicator.
- 3) The FLP is calculated and reported separately, by commodity  $i$  and by stage  $j$ , as  $FLP_{ij}$ . Reporting at the

$FLP_{ij}$  level will help the entity identify the critical food loss points along its operations, and thus better inform its actions on food loss reduction.  $FLP_{ij}$  is calculated as the  $FL_{ij}$  divided by the total initial amount of commodity  $i$  (before entering stage  $j$ ).

$$FLP_{ij} = \frac{FL_{ij}}{\text{Total initial volume of commodity } i \text{ entering stage } j}$$

The FLP of commodity  $i$  is calculated as the total amount of food loss occurring at all value chain stages in which the entity is involved when producing, handling or processing commodity  $i$  (by adding up the  $FL_{ij}$  values of all relevant stages), divided by the total initial amount of commodity  $i$  (before entering the first stage). The food loss and the initial amount of the commodity are both expressed in terms of kg or tonnes. The FLP is expressed as a percentage (%).

$$FLP_i = \frac{\sum_{j=0}^n FL_{ij}}{\text{Total initial volume of the commodity } i \text{ entering the first stage}}$$

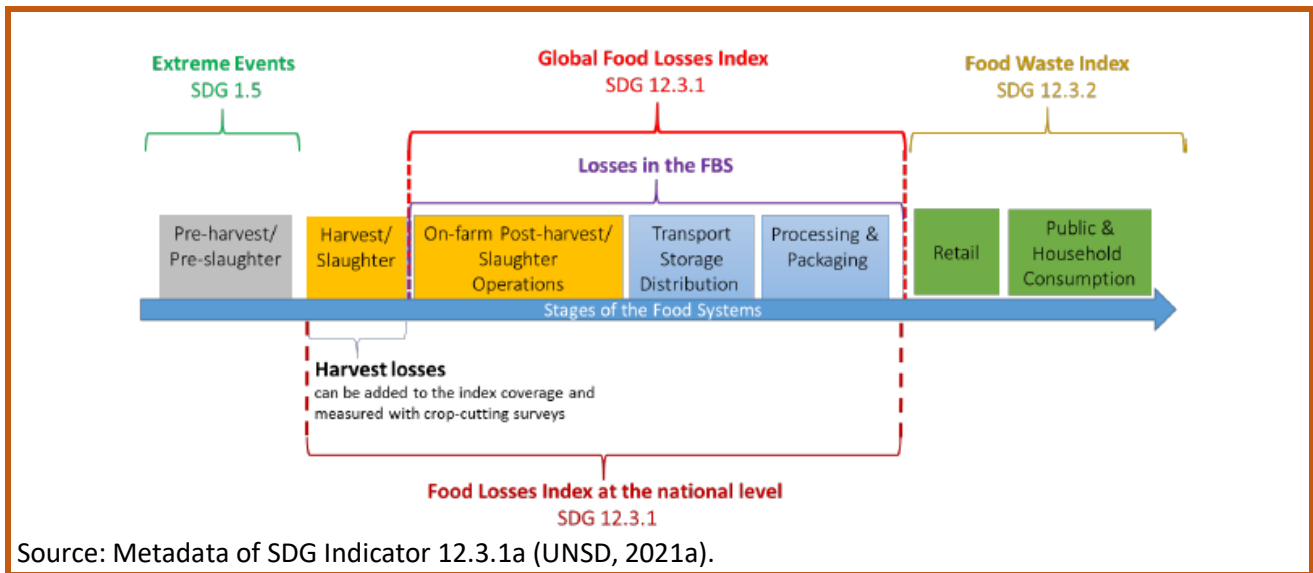
To show its contribution to SDG Target 12.3 (reduction of food loss over time), the reporting entity should calculate and report the FLPs of its main commodities for at least two years between 2015 and the current reporting year, unless the reporting period is the baseline year.

The main commodities of the entity are defined as the commodities most relevant to its main businesses. For instance, economic value can be used as a criterion to select the key commodities. For the sake of simplicity, losses of food processed products stemming from several mixed input commodities and occurring before the retail level could be reported under Indicator B.5.2 (Food waste), if the company cannot isolate the losses by input commodity (Fabi and English, 2018).

For this indicator, the scope of the value chain stages include harvest, on-farm postharvest,<sup>7</sup> transport/storage/distribution, and processing/packaging. These are aligned with the stages of the value chain used in the global food losses index of SDG Sub-indicator 12.3.1.a. Generally, companies operate in only one stage, defined by the main service or products they provide. Although they may be involved in other activities (e.g. short-term storage) to support their main businesses, the food loss generated by these activities is assigned to the stage related to its main business. For instance, a food processor might have a commodity stock stored; food losses occurring during its storage are part of the processing stage, and not of the second stage defined in this indicator, transport/storage/distribution. Certain integrated companies may have several major businesses: for instance, they may be both food growers and processors. In this case, they should report the food losses incurred during the two stages separately.

<sup>7</sup> Including slaughter and post-slaughter/milking and post-milking/catch, harvest-related activities and post-landing operations.

Figure 2. SDGs and the stages of the food system



### Concepts

**Food loss:** Aligned with SDG Sub-indicator 12.3.1.a, this refers to all human-edible<sup>8</sup> commodity quantities that, directly or indirectly, completely exit the post-harvest/slaughter production/supply chain by being discarded, incinerated or otherwise, and do not re-enter in any other utilization (animal feed, industrial use, etc.), up to but excluding the retail level. Losses that occur during storage, transportation and processing, also of imported quantities, are therefore all included. Losses include the commodity as a whole, with its non-edible parts.

In order to identify the FLP, the entity must record food loss quantities for each activity along its production and processing chain. Some companies may register the total input quantity and the quantities discarded in grading, storage, or processing, while others may register the total input and output of commodities under each activity (FAO, 2021h and FAO, 2018b).

To maintain alignment with SDG Sub-indicator 12.3.1.a, the following aspect especially should be noted, no matter which calculating tools the reporting entity chooses.

- i) A conversion factor should be used in the calculation of food loss. Non-edible parts of the commodities must be included, while weight losses due to moisture or humidity should not be considered food losses. In this case, primary product equivalents should be calculated by the conversion factor. In addition, discarded products (e.g. for quality reasons) that are reused in secondary markets, as animal feed or for industrial use, should not be included in the figures for food loss, although they relate to economic losses. When entities record their technical conversion factors (e.g. out of 1 tonne of wheat, how many tonnes of flour are obtained), these are generally the aspects of the definition of food loss definition that should be controlled.
- ii) The reuse and destination of discarded products must be considered in the calculation of food loss. Within an entity, from grading onwards, various processes and activities can take place in different product lines, some of which are interrelated. It is necessary to cover all activities for food loss measurement or to carefully identify the main food loss points where the produce is disposed.

<sup>8</sup> Human-edible commodities refer to commodities that are fit and produced for human consumption, while edible/non-edible parts refer to parts of the commodities that are discarded due to culturally defined practices and consumption habits. Although in a country they may be perceived as non-edible, these discarded parts are included as food losses. This is because, on one hand, there are opportunities to use these as food; on the other, to ensure alignment with production data that include the entire produce. An exception are grains, where edible parts (stalks, hulks, leaves) are excluded from the production data and thus from food loss measurement.

Companies should also record the destination of discarded produce, especially if it re-enters the supply chain with a different utilization (feed, non-food processing) or if it is disposed of (through incineration, landfills, composting, anaerobic digestion). Only food disposed of is considered food loss.

*Inedible (or non-edible) parts:* Components associated with a food that, in a particular food supply chain, are not intended for human consumption. Examples of inedible parts include bones, rinds and pits/stones. “Inedible parts” do not include packaging. What is considered inedible varies among users (e.g. chicken feet are consumed in some food supply chains but not others), changes over time, and is influenced by a range of variables, including culture, socio-economic factors, availability, price, technological advances, international trade and geography.

## B.9.2. Food waste

**Link to SDGs:** SDG Target 12.3, Indicator 12.3.1.b

**Scope:** Food retail

### Definition

This indicator refers to the total volume of food waste and the food waste percentage (FWP) that have occurred along the relevant stages of the value chain in which the entity is involved during the reporting period. It covers food waste at the food retail, food services and restauration stages of the supply chain. The indicator should be calculated and reported for at least two years between 2015 and the current reporting year, to show the entity’s progress in the reduction of food waste over time.

### Rationale

Seventeen percent of all food produced is wasted at the retail and consumption levels (UNEP, 2021), while another 14 percent is lost before it reaches the retail level. Food loss and waste disproportionately affects the high-value perishable foods needed for a healthy diet, thus contributing to malnutrition, which affects one in three people globally. Food loss and waste dramatically impacts the amount of food available, generates economic losses and increases the environmental footprint of unsustainable production. SDG Target 12.3 calls for halving per capita global food waste at retail and consumer levels by 2030, as well as reducing food losses along the production and supply chains, including postharvest losses. The reduction of food waste at the retail food services and restaurant levels can have a direct impact on food supply and economic losses, as well as reduce pressure on the environment. By reporting the value and percentage of food waste, companies can not only evaluate their performance in terms of reducing food waste, but also help reduce gaps in food waste data on the national level, and thus contribute to SDG reporting.

### Methodology

This indicator is computed as the total amount of food waste divided by the input amount of the food commodities of the reporting entity during the reporting period. The numerator and denominator are both expressed in kg or tonnes. The indicator is expressed as a percentage (%).

$$\text{Food Waste Percentage (FWP)} = \frac{\text{Total amount of food waste}}{\text{Total amount of input food commodities}}$$

To better understand the scale of the entity’s food waste during the reporting period, the entity should also report the total amount of food waste as an absolute amount (expressed in kg or tonnes). If possible, disaggregation by edible and inedible proportions is recommended.

To show the entity’s progress in the reduction of food waste over time and illustrate the entity’s contribution to SDG Target 12.3, the total amount of food waste and the associated FWP should be calculated and reported for at least two years between 2015 and the current reporting year, unless the reporting period is the baseline year.

The reporting stages of this indicator include the food retail, food services and restauration stages. The scope is consistent with the stage division of the value chain in SDG Indicator 12.3.1.

The total amount of food wasted by the entity at the food retail level, food services and restauration stages is the critical information needed to report on this indicator. It is established by measuring the food waste generated by all relevant operating units of the entity, using any of the following methods, a combination thereof or any other method that is equivalent in terms of relevance, representativeness and reliability.

These methods are derived from the recommended methods to measure food waste at the national level under SDG Indicator 12.3.1. The reporting entity can select an appropriate method based on its waste stream and the scale of waste. For example, if a food retailer avails itself of the waste disposal services of a third-party agency, and its food waste is packaged separately and not mixed with other non-food waste, the reporting entity could apply the counting method (whereby the amount of food waste can be measured simply by counting the bags of waste).

- Direct weighing: using a measuring device to determine the mass of food wasted. This could involve weighbridges for collection vehicles or simple scales, in a market setting.
- Mass balance: a method of measurement using a material flow approach. It uses information on the amounts of material going into and used within a system to work out how much has “leaked” from the system. The principle is the law of the conservation of mass. The method works well where all flows into and out of the system are accurately quantified.
- Counting: assessing the number of discrete food items that have been discarded and using the result to determine the mass. This could include scanner data or simply the counting of bags of waste.
- Assessing volume: assessing the physical space occupied by the food waste and using the result to determine the mass. Where the entire quantity of food waste is likely to have the same composition, for example a waste stream from a specialized meat market, the density of that waste is likely to be consistent. Therefore, a value for mass can be determined by applying the density of the waste to the volume it occupies (such as a residue collection vat in the example of a meat market).
- Waste composition analysis: physically separating food waste from other material to determine its mass and composition. This can be the most accurate way to gain deeper understanding of the differences in the type of material (wasted food versus inedible parts) and the types or categories of food wasted. Thus, even in a separate food waste stream, this method is useful to achieve a narrower scope or provide greater detail.

*Table 5. Waste streams and related measurement methods*

Waste stream	Appropriate measurement methods
Food waste in a container (single stream – not mixed with other wastes)	<ul style="list-style-type: none"> <li>• Use of records specifying volume or weight, e.g. from waste contractor</li> <li>• Volume assessment</li> <li>• Weighing, of whole containers or samples</li> </ul>
Food waste in a container (mixed with other wastes)	<ul style="list-style-type: none"> <li>• Weighing, via waste composition analysis or trial weighing</li> <li>• Volume assessment</li> </ul>
Uncontained food waste (not mixed with other wastes and not discharged to sewer)	<ul style="list-style-type: none"> <li>• Weighing, of samples or entire stream depending on feasibility</li> <li>• Volume assessment</li> </ul>
Surplus food taken back to a distribution centre or similar using reverse logistics	<ul style="list-style-type: none"> <li>• Mass balance</li> </ul>



There are also a variety of public food waste measurement tools or protocols that can facilitate reporting. The reporting entity can select a tool or protocol that suits its circumstances and should report the reasons for choosing the tool. Some of the tools available include the Food Waste Measurement tool kit by WRAP UK (WRAP, 2021 and 2018) (recognized by the European Union) and the Food Loss & Waste Protocol (WRI, 2021).

### **Concepts**

*Food waste:* Aligned with SDG Sub-Indicator 12.3.1.b, food waste in this indicator refers to all the food commodities, whether processed, semi-processed, or raw, that are discarded, incinerated or otherwise at the food retail, food service and/or restoration stages, and do not re-enter in any other utilization (animal feed, industrial use, etc). The food discarded in the food processing sector is usually categorized as food loss, while the products stemming from several mixed input commodities could be included within the scope of food waste if the company cannot isolate the losses by input commodity. “Food” includes drinks, and any substance that has been used in the manufacture, preparation or treatment of food. Food also includes material that has spoiled and is therefore no longer fit for human consumption. It does not include cosmetics, tobacco or substances used only as drugs. It does not include processing agents used along the food supply chain, for example water used to clean materials in factories or markets.

It should be noted that animal feed and bioprocessed materials are not food waste, as they do not enter the waste stream and are re-utilized in another form. The discarded inedible parts of commodities are also considered food waste; thus, inedible parts should be included when calculating food waste. Sewage is technically within the scope of food waste; however, due to the difficulties in measuring the food waste going to sewage, it is not included in the measurement of this indicator.





**Kiambu County, Kenya.**

A woman watering a garden of indigenous vegetables at a farm in Kiambu.

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## C. Social dimension

Within the social dimension, 13 indicators under six topics are suggested, as follows.

Topic	Indicator
<b>C.1. Decent work</b>	C.1.1. Employee wages and benefits as a proportion of revenue
	C.1.2. Percentage of employees and other workers paid above living wage
<b>C.2. Human capital</b>	C.2.1. Average hours of training per year per employee
	C.2.2. Expenditure on employee training per year per employee
<b>C.3. Health and safety</b>	C.3.1. Expenditures on employee health and safety as a proportion of revenue
	C.3.2. Frequency/incident rates of occupational injuries
<b>C.4. Labour rights</b>	C.4.1. Percentage of employees and workers covered by collective agreements
	C.4.2. Incidents of child labour
	C.4.3. Incidents of forced labour
<b>C.5. Public health and nutrition</b>	C.5.1. Food labelling practices
	C.5.2. Percentage of sales of nutritious food
	C.5.3. Percentage of facilities or operations in compliance with food safety standards
<b>C.6. Tenure rights</b>	C.6.1. Incidents of tenure rights violation

### C.1.1. Employee wages and benefits as a proportion of revenue

**Link to SDGs:** SDG Target 10.4; Indicator 10.4.1

**Scope:** All sectors

#### Definition

This indicator refers to the entity's total costs due to employee wages and benefits compared to its total revenue in the reporting period.

#### Rationale

Employee wages and benefits as a proportion of revenue measure how much of the wealth an enterprise creates is allocated to its employees and workers. This indicator assesses the entity's contribution to SDG Target 10.4, which aims at adopting policies – especially fiscal, wage and social protection policies – and progressively achieving greater equality. The calculation method of this indicator is methodologically aligned with SDG Indicator 10.4.1 (labour share of GDP, comprising wages and social protection transfers). It can be compared to national estimates to provide a useful picture of the entity's contribution to labour income.

#### Methodology

The indicator is calculated as the total costs relating to employee wages and benefits divided by the total revenue of the reporting entity during the reporting period. The costs relating to employee wages and benefits and the revenue are both expressed in local currency units, e.g. EUR. The indicator is expressed as a percentage (%).

$$\text{Employee wages and benefits ratio} = \frac{\text{Employee wages and benefits}}{\text{Revenue}}$$

#### Concepts

*Employee wages and benefits:* See SDG Indicator A.1.2, value added. The total amount of employee wages and benefits include direct employee salaries and amounts paid to government institutions on behalf of employees and workers, plus total benefits. However, the costs of employee training, protective equipment or other items directly related to the employee's job function are excluded.

*Revenue:* See Indicator A.1.1 Revenue.

### C.1.2. Percentage of employees and other workers paid above living wage

**Link to SDGs:** SDG Target 2.4, Indicator 2.4.1 (Sub-indicator 9); SDG Target 8.5, Indicator 8.5.1

**Scope:** All sectors

#### Definition

This indicator refers to the percentage of employees and workers paid an amount above a living wage, disaggregated by occupation, gender, age and disability status. It corresponds to the number of employees and other workers paid an amount above a living wage divided by the number of employees and other workers who have worked for the entity during the reporting period.

#### Rationale

SDG 8 calls for the promotion of sustained, inclusive and sustainable economic growth, full and productive employment and decent work. Adequate and fair income is one of the most important pillars of decent work (SDG Target 8.5), which is the key element to achieving a fair globalization and poverty reduction (ILO, 2021a). Furthermore, the earnings of employees and other workers indicate the quality of employment and the development of the enterprise, which forms the basis of economic growth. A living wage refers to a wage that is high enough to maintain a normal standard of living, given the circumstances of each country.

For entities involved in agricultural production, this indicator also measures the entity's contribution to SDG Target 2.4 (land under productive and sustainable agriculture), since adequate remuneration paid to unskilled workers is one of the criteria applied to assess sustainability under SDG Indicator 2.4.1 (Sub-indicator 9).

### Methodology

This indicator is calculated as the number of employees and other workers paid an amount above a living wage divided by the number of employees and other workers during the reporting period. The number of employees is expressed in terms of full-time equivalent (FTE) employees. The indicator is expressed as a percentage (%).

$$\text{Percentage of employees and other workers paid above living wage} = \frac{\text{Number of employees and other workers paid above living wage}}{\text{Number of employees and other workers}}$$

In line with SDG Indicator 8.5.1, it is recommended that the entity report on this indicator with a further breakdown by occupation, gender, age group and disability status (UNSD, 2021b).

The disaggregation of occupations should follow the International Standard Classification of Occupations 2008 (ISCO-08) (ILO, 2016a), at least at the major group level, which comprises the following:

- managers
- professionals
- technicians and associate professionals
- clerical support workers
- services and sales workers
- skilled agricultural, forestry and fishery workers
- craft and related trades workers
- plant and machine operators and assemblers
- elementary occupations (e.g. unskilled agriculture labours)
- armed forces occupations.

### Concepts

*Number of employees:* The personnel of the entity changes over time. To measure this indicator, the end of the reporting period (usually the last day) is selected as the reporting time. The number of employees refers to the total workforce of the reporting entity in the reporting period, and is expressed in terms of FTE employees. FTE is calculated by summing up all the hours worked in the reporting period by both part-time and full-time workers, and then dividing this number by the average working hours of full-time workers.

*Living wage:* The remuneration received for a standard workweek by a worker in a particular place sufficient to afford a decent standard of living for the worker and his or her family. Elements of a decent standard of living include food, water, housing, education, health care, transportation, clothing and other essential needs, including provision for unexpected events. The living wage can be estimated using the Anker methodology (GLWC, 2021).

*Workers:* Persons that perform work (i.e. activities to produce goods or to provide services). The term "workers" includes, but is not limited to, employees. Further examples of workers include interns, apprentices, self-employed persons and persons working for organizations other than the reporting organization, e.g. for suppliers (GRI, 2018).

*Employees:* Individuals who are in an employment relationship with the organization, according to national

law or its application. Employees are all those workers who hold the types of job defined as paid employment jobs. Employees with stable contracts are those employees who have had, and continue to have, an explicit (written or oral) or implicit contract of employment, or a succession of such contracts, with the same employer on a continuous basis. The phrase “on a continuous basis” implies a period of employment that is longer than a specified minimum, determined according to national circumstances. Regular employees are those employees with stable contracts concerning whom the employing organization is responsible for paying taxes and social security contributions, and/or whose contractual relationship is subject to national labour legislation (OECD, 2021).

### C.2.1. Average hours of training per year per employee

**Link to SDGs:** SDG Target 4.3, Indicator 4.3.1

**Scope:** All sectors

#### Definition

This indicator refers to the average hours of training per employee, including both internal and external training, as long as it is supported by the entity.

#### Rationale

Education, training and lifelong learning contribute significantly to promoting the interests of individuals, enterprises, the economy and society, especially considering the critical challenge of attaining full employment, poverty eradication, social inclusion and sustained economic growth in the global economy (ILO, 2004). Employee training refers to the continued efforts of enterprises to boost the performance and productivity of its employees and workers, as well as to facilitate lifelong learning, thus achieving sustainable development for individuals and society. This indicator provides evidence on the scale of an entity’s human capital investment in employee training and the degree to which this investment is made across the entire employee base, in terms of hours of training. As such, it measures the entity’s contribution to SDG Target 4.3 (by 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university) and is closely linked to Indicator 4.3.1 (participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex).

#### Methodology

This indicator is calculated as the total number of hours of employee training supported by the entity divided by the total number of employees and workers in the reporting period during the reporting period. The indicator is expressed in terms of hours (h) per person.

$$\text{Average hours of training per year per employee} = \frac{\text{Total hours of employee training supported by the entity}}{\text{Number of employees and workers}}$$

In the context of SDG Target 4.3, it is recommended to disaggregate this indicator by sex and age group.

#### Concepts

**Total hours of employee training supported by the entity:** The first step to calculate this indicator is to identify all training programmes undertaken by the entity in a reporting period so that the relevant hours can be cumulated. Training programmes supported by the entity could include internal training, external training and education; the provision of sabbatical periods with guaranteed return to employment, e.g. paid educational leave; and training on specific topics, such as health and safety.



## C.2.2. Expenditures on employee training per year per person

**Link to SDGs:** SDG Target 4.3, Indicator 4.3.1

**Scope:** All sectors

### Definition

This indicator is defined as the average amount of expenditure on employee training per year per person, including both direct and indirect costs related to human resource training by the entity in the reporting period.

### Rationale

Investing in employee training and development enables the organization to create a highly skilled workforce. On a broader scale, it can facilitate increasing the total number of skilled workers in the workforce and the proportion of skilled labour in the whole labour force. This indicator provides evidence of the scale of an entity's investment in employee training related with the improvement of skills and technical capacity (other types of training are covered in other indicators), and the degree to which this investment is made across the entire employee base. As such, it measures the entity's contribution to SDG Target 4.3 (by 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university) and is closely linked to Indicator 4.3.1 (participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex).

### Methodology

This indicator is calculated as the total expenditure related to employee training divided by the total number of employees and workers of the reporting entity in the reporting period. The indicator is expressed in local currency units, per year and per person.

$$\text{Expenditures on employee training per year per person} = \frac{\text{Total expenditure related to employee training}}{\text{Number of employees and workers}}$$

In the context of SDG Target 4.3, it is recommended to disaggregate this indicator by sex and age group.

### Concepts

*Total expenditure related to employee training:* In order to calculate the expenditure referring to training programmes, it is suggested that both direct and indirect costs of training be considered, for example course fees, trainer's fees, training facilities, training equipment and any related travel costs.

## C.3.1. Expenditures on employee health and safety as a proportion of revenue

**Link to SDGs:** SDG Targets 3.8 and 8.8

**Scope:** All sectors

### Definition

This indicator measures the entity's expenses or investments relating to employees and workers' health and safety. It is defined as the total expenses incurred by the reporting entity to guarantee employees and workers' health and safety as a proportion of its total revenue in the reporting period.

### Rationale

Occupational health and safety have been recognized as one of the material topics of corporate social responsibility. It covers issues related to the physical and mental well-being of workers. Expenditures related to employee health and safety programmes or insurances contribute not only to employees and workers' well-being, but also to the stability and sustainability of entity operations. This indicator is related to SDG

Target 8.8, which aims at promoting safe and secure working environment for all workers, and contributes to SDG Target 3.8: achieve universal health coverage, including financial risk protection, access to quality essential health-care services and success to safe, quality and affordable essential medicines and vaccines for all.

### **Methodology**

This indicator is computed as the total expenses incurred for employee health and safety divided by the total revenue of the reporting entity in the reporting period. The expenses for employee health and safety and the revenue are both expressed in local currency units. The indicator is expressed as a percentage (%).

$$\text{Expenditures on employee health and safety} = \frac{\text{Total expenses for employee health and safety}}{\text{Revenue}}$$

The total expenses for employee health and safety should be reported separately, as an absolute amount (expressed in local currency units).

### **Concepts**

*Total expenses for employee health and safety:* Total expenses for employee health and safety are calculated by adding up the expenses for occupational safety and health-related insurance programmes, for health care activities financed directly by the entity, and all expenses sustained for working environment issues related to occupational safety and health incurred during the reporting period.

More specifically, in order to calculate this indicator, it is advisable to follow the Occupational Safety and Health Recommendation, 1981 (No. 164) of the International Labour Organization (ILO), and determine whether the expenses are derived from or related to employees' and workers' health and safety. The measures recommended include the following:

- design, siting, structural features, installation, maintenance, repair and alteration of workplaces and means of access thereto and egress therefrom;
- lighting, ventilation, order and cleanliness of workplaces;
- temperature, humidity and movement of air in the workplace;
- design, construction, use, maintenance, testing and inspection of machinery and equipment liable to present hazards and, as appropriate, their approval and transfer;
- prevention of harmful physical or mental stress due to conditions of work;
- handling, stacking and storage of loads and materials, manually or mechanically;
- use of electricity;
- manufacture, packing, labelling, transport, storage and use of dangerous substances and agents, disposal of their wastes and residues, and, as appropriate, their replacement with other substances or agents that are not dangerous or that are less dangerous;
- radiation protection;
- prevention and control of, and protection against, occupational hazards due to noise and vibration;
- control of the atmosphere and other ambient factors of workplaces;
- prevention and control of hazards due to high and low barometric pressures;
- prevention of fires and explosions and measures to be taken in case of fire or explosion;
- design, manufacture, supply, use, maintenance and testing of personal protective equipment and protective clothing;
- sanitary installations, washing facilities, facilities for changing and storing clothes, supply of drinking water, and any other welfare facilities connected with occupational safety and health;
- first-aid treatment;
- establishment of emergency plans; and
- supervision of the health of workers.

In addition, given the increasing importance of the services sector and its intrinsic characteristics, this indicator should also reflect reporting on mental health and stress. Therefore, expenses related to mental

health should be considered in the computation.

*Revenue:* see Indicator A.1.1 Revenue.

### C.3.2. Frequency/incident rates of occupational injuries

**Link to SDGs:** SDG Target 8.8, Indicator 8.8.1

**Scope:** All sectors

#### Definition

This indicator measures the incidence and frequency rate of occupational injuries by the reporting entity and its suppliers. The frequency rate of occupational injuries refers to the ratio of the number of new injury cases to the total working hours. Incidence is defined as the ratio between the working hours lost due to occupational injuries and the total working hours.

#### Rationale

This indicator aims at evaluating the entity's efforts to lower the risk of occupational injuries and improve the effectiveness of prevention measures. This shows the entity's contribution to SDG Target 8.8 (promote safe and secure working environments for all workers) both in its own operations and those of its suppliers. It is aligned with SDG Indicator 8.8.1: frequency rate of fatal and non-fatal occupational injuries by sex and migrant status. The frequency rate of the entity's occupational injuries can be used to monitor the implementation of its policies and programmes for the prevention of occupational injuries. On the other hand, incidence, which measures the lost working hours as a proportion of the total working hours, indicates the consequences and impact of occupational injuries on the labour force, which can indirectly reflect economic losses incurred by the entity.

#### Methodology

The frequency rate of occupational injuries is computed as the number of new injury cases in the reporting period divided by the total number of working hours in the same period. It is expressed in terms of cases per hour. The number of new injury cases should be reported separately, as an absolute amount. The frequency rate and number of new injury cases should be disaggregated by reporting entity and supplier.

$$\text{Frequency rate of occupational injuries} = \frac{\text{Number of new injury cases}}{\text{Total number of working hours}}$$

The incident rate of occupational injuries is calculated as the total number of lost working hours due to occupational injuries in the reporting period divided by the total number of working hours in the same period. It is expressed as a percentage (%) and should be disaggregated by reporting entity and supplier.

$$\text{Incidence of occupational injuries} = \frac{\text{Total number of lost working hours due to occupational injuries}}{\text{Total number of working hours}}$$

The total number of lost working hours due to occupational injuries should also be reported separately. The incident rate and total number of lost working hours due to occupational injuries should be disaggregated by reporting entity and supplier.

#### Concepts

*Number of new injury cases:* Aligned with SDG Indicator 8.8.1, new injury cases should be identified by the reporting entity according to the definition of occupational injury in the Resolution concerning statistics of occupational injuries (resulting from occupational accidents) adopted by the Sixteenth International Conference of Labour Statisticians (ICLS) in 1998.

*Occupational injury:* This refers to any personal injury, disease or death resulting from an occupational

accident. An occupational injury is different from an occupational disease, which develops as a result of exposure over a period of time to risk factors linked to the work activity. Diseases are included only in cases where the disease arose as a direct result of an accident. An occupational injury can be fatal or non-fatal (and non-fatal injuries can entail the loss of work days).

*Occupational accident:* Occupational accidents refer to an unexpected and unplanned occurrence, including acts of violence, arising out of or in connection with work that results in one or more workers incurring a personal injury, disease or death. Occupational accidents encompass travel, transport or road traffic accidents in which workers are injured and that arise out of or in the course of work – that is, while engaged in economic activities, at work, or carrying out the business of the employer.

*Total number of lost working hours due to occupational injuries:* The relevant data can be collected and compiled by specific occupational injuries records. Alternatively, it could be calculated as the number of days lost due to occupational injuries multiplied by the number of regulated working hours per day.

*Total number of working hours:* See Indicator C.1.2 Average hourly earnings of all employees and workers.

### C.4.1. Percentage of employees covered by collective agreements

**Link to SDGs:** SDG Target 8.8, Indicator 8.8.2

**Scope:** All sectors

#### Definition

This indicator refers to the proportion of employees and workers covered by collective agreements to the reporting entity's total number of employees and workers in the reporting period.

#### Rationale

Collective bargaining refers to the negotiations between employers (or their organizations) and trade unions for establishing fair wages and working conditions. It is a fundamental labour right. This indicator measures reporting entities' contribution to the protection of labour rights (SDG Target 8.8) and is in line with SDG Indicator 8.8.2, which falls under the target of protecting labour rights, and measures the level of national compliance with labour rights (freedom of association and collective bargaining) based on textual sources of ILO and national legislation, by sex and migrant status. Collective agreements may address the rights and responsibilities of the parties, thus ensuring harmonious and productive industries and workplaces. This lays the foundation for sound labour relations. Enhancing the inclusiveness of collective bargaining and collective agreements is key to reduce inequality and extend labour protections.

#### Methodology

The indicator is computed as the number of employees and workers covered by collective agreements divided by the total number of employees and workers of the reporting entity, at the end of the reporting period. The number of employees and workers is expressed in terms of fullFTE employees and workers. The indicator is expressed as a percentage (%).

$$\text{Percentage of employees and workers covered by collective agreements} = \frac{\text{Number of employees and workers covered by collective agreements}}{\text{Number of employees and workers}}$$

The two intermediate indicators, the number of employees and workers covered by collective agreements and the total number of employees and workers, should be reported separately as absolute amounts, which reflect the scale of the entity's personnel in the reporting period. It is suggested that the entity report on this indicator with a further breakdown by gender.

## Concepts

*Number of employees and workers covered by collective agreements:* Employees and workers covered by collective bargaining agreements should be identified by the reporting entity. Collective bargaining refers to all negotiations that take place between employers (or their representative organizations) and workers (usually, trade unions) (GRI, 2016a). Typical issues on the bargaining agenda include wages, working time, training, occupational health and safety and equal treatment. The objective of these negotiations is to reach a collective agreement that regulates the terms and conditions of employment (ILO, 2021b).

By definition, collective bargaining agreements are obligations (often legally binding) that the organization should undertake. The organization is expected to understand the coverage of the agreement (the workers who are obligatorily covered by the agreement).

Collective agreements can be made at various levels and for different categories and groups of workers. Collective agreements can be concluded at organization level; at the industry level, in countries where this is the practice; or both. Collective agreements can cover specific groups of workers, for example those performing a specific activity or working at a specific location.

## C.4.2 Incidents of child labour

**Link to SDGs:** SDG Target 8.7, Indicator 8.7.1

**Scope:** All sectors

### Definition

This indicator measures the number of incidents of non-compliance with child labour laws and regulations by the reporting entity and by its suppliers during the last three years, disaggregated by type of child labour, indicating where the worst forms of child labour were present.

### Rationale

Child labour is a global phenomenon. According to ILO estimates (ILO, 2017), approximately 152 million children between 5 and 17 years of age are victims of child labour, accounting for almost one in ten of all children in the world. Nearly half of these, 73 million children, engage in hazardous work that directly endangers their health, safety and moral development. In many countries, child labour is found mainly in agricultural contexts. The agricultural sector accounts for the largest share of child labour, or 71 percent of all children engaged in child labour worldwide (ILO, 2021c). Child labour in agriculture relates primarily to subsistence and commercial farming, livestock feeding and aquaculture operations. It is often hazardous in nature and in terms of the circumstances in which it is carried out. SDG Target 8.7 calls on the global community to take immediate and effective measures to eradicate the worst forms of child labour, and to end child labour in all its forms by 2025. This indicator measures the impact of the entity's contribution to eliminating child labour in its own operations and those of its suppliers, and therefore to the achievement of SDG Target 8.7.

### Methodology

The reporting entity should report the total number of incidents of non-compliance with laws, regulations and/or international standards regarding child labour that have occurred within the scope of responsibility of the reporting entity and its suppliers during the past three years, indicating where the worst forms of child labour were present (disaggregated by reporting entity and supplier).

The incidents should include:

- incidents of non-compliance with national laws and regulations regarding child labour, including those resulting in a fine, penalty and/or a warning; and

- incidents of non-compliance with international labour standards regarding child labour, including the ILO Minimum Age Convention, 1973 (No. 138), Worst Forms of Child Labour Convention, 1999 (No. 182) and Labour Inspection (Agriculture) Convention, 1969 (No. 129).

The occurrence of the incident, its exposure, and its final determination and resolution may take several years. For this indicator, identification of the incident should be based on the time the incident was officially determined or recorded.

In addition, some critical information about the recorded incidents should be reported separately and disaggregated by age, gender, status as migrant/national child labourer, and tasks undertaken. The incidents can have an impact at different levels, to different degrees and on different scales. Therefore, besides the frequency of incidents of non-compliance, the entity should also report other key information, including:

- the total number of child victims affected by incidents of non-compliance;
- whether the incidents are involved with the worst forms of child labour (including hazardous child labour, forced labour and slavery) and, if yes, the total number of the child victims of each form; and
- whether the incidents have caused personal injury/disability/death to child victims, and, if yes, the total number of deaths, disability and injuries, reported separately.

### Concepts

*Child labour:* Not all work done by children should be classified as child labour and targeted for elimination. The term “child labour” is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development (ILO, 2021d). It refers to work that:

- is mentally, physically, socially or morally dangerous and harmful to children; and/or
- interferes with their schooling by depriving them of the opportunity to attend school, obliging them to leave school prematurely, or requiring them to attempt to combine school attendance with excessively long and heavy work.

The most fundamental criterion for the identification of child labour is the minimum working age. The ILO Minimum Age Convention, 1973 (No. 138) sets the general minimum age for children to work at 15 years of age and no lower than the end of compulsory education (although allowing for flexibility in specific circumstances, including a lower threshold of 14 years of age for developing countries). For work considered hazardous, the minimum age is 18 years. In addition, the Minimum Age Recommendation, 1973 (No. 146) and the Minimum Age (Agriculture) Convention, 1921 (No. 10) can be used as a reference when identifying the minimum age for admission to employment and work.

*Hazardous child labour:* Hazardous child labour is defined by Article 3(d) of the ILO Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour, 1999 (No. 182) as work that, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children. More specifically, hazardous child labour is work in dangerous or unhealthy conditions that could result in a child being killed, disabled, injured or made ill as a consequence.

*Worst forms of child labour:* The ILO Worst Forms of Child Labour Convention, 1999 (No. 182) defines the worst forms of child labour as all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage or serfdom; the use, procuring or offering of children for illicit activities; and children’s involvement in hazardous work. Eliminating the worst forms of child labour is the main priority in solving the problem of child labour.

*National laws and regulations:* A majority of countries have adopted legislation to prohibit or place severe restrictions on the employment and work of children, much of it stimulated and guided by standards adopted by ILO. Countries may set different regulations on child labour according to their economies and educational facilities. For example, as mentioned, the minimum age set by Convention No. 138 is 15 years, while for certain countries where educational facilities are insufficiently developed, the minimum age of 14 years is acceptable.



*International labour standards:* The fundamental international child labour standards (mainly referring to ILO conventions and recommendations on child labour and other related UN conventions) constitute the legal pillar of global action to combat child labour. The leading international labour standards (ILO, 2021f) on child labour in agriculture include the following ILO instruments:

- Minimum Age Convention, 1973 (No. 138)
- Worst Forms of Child Labour Convention, 1999 (No. 182)
- Labour Inspection (Agriculture) Convention, 1969 (No. 129)
- Safety and Health in Agriculture Convention, 2001 (No. 184)
- Domestic Workers Convention, 2011 (No. 189).

### C.4.3. Incidents of forced labour

**Link to SDGs:** SDG Target 8.7

**Scope:** All stages and suppliers

#### Definition

This indicator aims to measure incidents of forced labour related with the reporting entity and its suppliers in the last three years. In particular, it measures the number of incidents by tracking incidence of non-compliance with labour laws covering minimum wage, freedom of movement and the right to collective bargaining.

#### Rationale

Freedom from forced labour is a fundamental right at work. Agriculture is a high-risk sector for forced labour and human trafficking. Forced labour has been documented in the supply chains of most agricultural products. Forced labour 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 labour. Agriculture, aquaculture and fishing workers can become indebted to their employers because of fees owed for job access or obtaining accommodation. Migrant workers are also likelier to work under conditions of coercion and involuntariness. In the fishing sector, forced labour is particularly prevalent, because of the difficulty to control or enforce labour standards. Fishing workers may be migrants from lower-income countries, often working without a contract. This indicator measures the impact of the entity's contribution to the elimination of forced labour in its own operations and those of its suppliers, and therefore to the achievement of SDG Target 8.7.

#### Methodology

The reporting entity should report the total number of incidents of forced labour that have occurred within the scope of responsibility of the reporting entity and its suppliers (separately) during the past three years. Besides the frequency of incidents, the entity should also provide additional information on reported incidents, including:

- the total number of victims affected, by sex, age, country of origin, migrant status, occupation and status in employment;
- the characteristics of the forced labour incidents in terms of type of involuntary work, means of coercion, duration of forced labour, recruitment process and working and living conditions of forced labourers; and,
- actions taken to address the cause and how it will be avoided in the future.

#### Concepts

*Forced labour:* Forced or compulsory labour is defined as all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered voluntarily – ILO Forced Labour Convention, 1930 (No. 29). Some of the most common forms of forced labour include forced labour

in prisons (except for prisoners that have been convicted in a court of law, and whose labour is done under the supervision and control of a public authority), human trafficking for the purpose of forced labour, coercion in employment, forced labour linked to exploitative labour contract systems, and debt induced forced labour, also known as “debt-bondage” or “bonded labour” (ILO, 2015).

### C.5.1. Food labelling practices

**Link to SDGs:** SDG Target 2.2; SDG Target 12.3

**Scope:** Food processing/food wholesale/food retail

#### Definition

This indicator aims to measure the degree to reporting entity is compliant with national laws and international guidance on food labelling, and to which the reporting entity has sought to exceed minimum requirements. This indicator includes a qualitative list of practices implemented by the entity that measure adherence to food labelling laws and international guidance.

#### Rationale

Food labelling is an essential part of transparent accountability to food consumers. With the increase in global trade and a shift away from the traditional face-to-face food producer/buyer relationship, there is an increasing need for food labels that are clear and can be trusted (FAO, 2021i). In 2014, at the Second International Conference on Nutrition (ICN2), governments affirmed that “empowerment of consumers is necessary through improved and evidence-based health and nutrition information and education to make informed choices regarding consumption of food products for healthy dietary practices”. One of the main drivers for nutrition labelling is the increased prevalence of diet-related non-communicable diseases (e.g. obesity and diabetes). Nutrient labels can be effective instruments in helping consumers make healthy food choices, which contributes to SDG Target 2.2 of ending malnutrition in all its forms by 2030. A study carried out by the European Commission estimates that approximately 10 percent of food waste in the European Union is linked to date marking. Proper date marking on labels can also help reduce food waste, which thus contributes to SDG Target 12.3. As a result, by providing evidence on the company’s labelling practices, this indicator contributes to measure its contribution to SDG Targets 2.2 and 12.3.

#### Methodology

For this indicator, the reporting entity should report the good practices of food labelling that have been implemented by the entity during the reporting period. If the following practices are not applicable or feasible for the entity’s production or business processes, this should be distinctly stated. In addition, the reporting entity may adopt additional good practices related to food labelling; these should also be reported, separately.

The list of information to be disclosed is selected on the basis of *The Handbook on Food Labelling to Protect Consumers* (FAO, 2016b) and assesses whether the reporting entity (answers to be given on a yes/no basis, unless otherwise specified):

- complies with related food laws, regulations, and codes (e.g. the General Standard for the Labelling of Prepackaged Foods and other related guidance provided by the Codex Alimentarius [FAO and WHO, 2021a]) and meets the mandatory minimum requirements for labelling packaged foods, both in the countries where the food is produced and the countries where the food is being sold;
- complies with the laws, regulations and codes related to voluntary food labelling and avoids the provision of inappropriate or misleading information, both in the countries where the food is produced and where the food is sold;
- has any incidents of non-compliance with laws, regulations or codes concerning food labelling and information (including mandatory and voluntary labelling) during the reporting period;

- if “yes”, then whether the reporting entity has received any fines, penalties or warnings for it;
- has developed internal standards related to product labelling to avoid misleading labelling;
- has all product labelling audited against legally required codes;
- has included the content on the food labels, including nutritional claims and voluntary claims (e.g. organic), are routinely independently audited;
- presents useful, clear information as detailed below:
  - use of a standard format to convey the same information, to avoid confusion;
  - labels on packaged foods are separated from the container;
  - statements on the label are clear, prominent, indelible and readily legible by the consumer;
  - if the container is covered by a wrapper, the wrapper contains the necessary information or the label can be easily read through the outer wrapper;
  - the name and net contents of the food appear in a prominent position and in the same field of vision;
  - the language should be acceptable to the intended consumer;
  - labels in different languages on the same product should be consistent;
  - if the language on the original label is not acceptable, a supplementary label containing the mandatory information in the required language is added;
  - the font type, style and minimum size, as well as the use of uppercase and lowercase letters follow the instructions given by national authorities; and
  - a significant contrast is maintained between the text and background so that the nutrition information is clearly legible;
- has made nutritional information easily visible and intuitive for all customers;
- discloses the percentage of products for which it has rolled out nutrition information;
- discloses the number of markets where it has made nutritional information available;
- has adopted any measures to reduce food waste with labelling; and
- whether any other good practices related to food labelling are implemented, including with regard to nutrition, by the reporting entity; if so, please specify.

### Concepts

*Food label:* Food label refers to any tag, brand, mark, pictorial or other descriptive matter that is written, printed, stencilled, marked, embossed or impressed on, or attached to, a container of food or food product. It usually includes information on the ingredients, quality and nutritional value of the product. In addition to providing necessary information as required (usually by laws or regulations), voluntary food labels can also promote sale of the product.

## C.5.2. Percentage of sales of nutritious food

**Link to SDGs:** Target 2.2

**Scope:** Food Processing/food wholesale/food retail

### Definition

This indicator refers to the percentage of sales of nutritious food, calculated as the total sales generated from nutritious food divided by the total sales of the reporting entity during the reporting period. It aims to measure the entity’s efforts in contributing to better nutrition by making nutritious products more accessible and available to all.

### Rationale

The *State of Food Security and Nutrition in the World 2019* (FAO, 2019e) shows that the number of undernourished people has been slowly increasing for several consecutive years. At the same time, the number of overweight and obese people around the world is rising at an alarming rate. Poor diets are a major

contributory factor to the rising prevalence of malnutrition in all its forms (FAO and WHO, 2019). Moreover, unhealthy diets, as an important driver of the increase in noncommunicable diseases (NCDs) including diabetes, heart disease, stroke and cancer, were identified as the second-leading risk factor for deaths and disability-adjusted life-years (DALYs) globally in 2016 (GBD 2016 Risk Factors Collaborators, 2017). A healthy diet helps protect against malnutrition in all its forms, which is the focus of SDG Target 2.2, as well as against a range of NCDs and conditions (WHO, 2021a). Promoting sustainable healthy diets calls for actions from all sectors. As for companies and private enterprises, making healthy and nutritious food accessible and affordable can help food consumers make better choices and thus influence the food environment in a positive way.

### **Methodology**

The percentage of sales of nutritious food is calculated as the total sales generated from nutritious food divided by the total sales of the reporting entity during the reporting period. It is expressed as a percentage. To compile this indicator, the reporting entity should first classify which products in its portfolio qualify as nutritious food, in order to calculate the total portion of sales accounted for by those products. As the definition of healthy and nutritious food is still evolving, the entity should apply the nationally agreed definition where required. Otherwise, reporting entities can apply nutrient profiling or nutrient density rating methods. Together with this indicator, the entity should disclose the methodology used to classify its food products as nutritious food.

### **Concepts**

*Nutritious and healthy food:* Food that provides beneficial nutrients such as vitamins and minerals (micronutrients), essential amino and fatty acids, dietary fibre and other components to healthy diets that are beneficial for growth, health and development, guarding against malnutrition. Nutritious and healthy food also minimizes potentially harmful elements that are of public health concern (e.g. anti-nutrients, quantities of sodium, saturated fats, sugars) (Scientific Group of the UN Food Systems Summit, 2021 and WHO, 2021b).

*Nutrient profiling:* The science of classifying or ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health (WHO, 2021c).

*Nutrient density rating:* The Aggregate Nutrient Density Index (ANDI) is a scoring system that rates foods on a scale from 1 to 1 000 based on nutrient content. Developed by Joel Fuhrman, ANDI is assigned to whole foods that contain the highest nutrients per calorie.

## **C.5.3. Percentage of facilities or operations in compliance with food safety standards**

**Link to SDGs:** SDG Target 2.2; SDG Target 3.9, Indicator 3.9.3; SDG Target 12.3

**Scope:** All sectors

### **Definition**

This indicator measures the percentage of the reporting entity's operations and its suppliers that are audited and in compliance with food safety laws, regulations, codes and standards, including the Global Food Safety Initiative (GFSI) certification (or other independent certification in line with GFSI requirements).

### **Rationale**

Food safety and food quality are integral parts of the SDGs. Agenda 2030 calls for everyone, in particular the poor and vulnerable, to have access to safe, nutritious and sufficient food all year round. It pledges to ensure healthy lives and promote well-being, which is essential to sustainable development (FAO, 2019f). Yet every year, around the world, over 420 000 people die and approximately 600 million people – almost one in ten – fall ill after eating contaminated food (WHO, 2020b). Food safety and quality are the manifestations of many

issues in the supply chain of food products (pesticide use, fertilizer use, animal feed and use of antibiotics, the hygiene of processing operations, the use of additives, etc.), and are also causes of food loss and waste. In all countries, food is governed by a complex set of laws and regulations stipulating government mandatory requirements that food chain operators must meet; these laws and regulations form the legal basis for ensuring food safety and quality (FAO, 2021j). Furthermore, international voluntary standards and codes (e.g. Codex Alimentarius standards, guidelines and related texts) constitute the benchmark for food safety at the global level, aiming to harmonize national legal frameworks and provide technical support to all nations, especially in the context of global food trade. This indicator measures the impact of the reporting entity's efforts to achieve food safety and food quality and therefore its contribution to SDG Targets 2.2 (end all forms of nutrition), 3.9 (reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination) and 12.3 (reduction of food loss and waste).

### **Methodology**

The reporting entity should report the total number of its own facilities/operations and its suppliers' facilities/operations that have been audited and shown to be in compliance with national food safety laws and voluntary codes, including GFSI, within the last three years, divided by the total number of facilities/operations for the reporting entity and its suppliers.

Facilities included should not have incidents of non-compliance with:

- food regulations resulting in a fine, penalty or a warning;
- food regulations in the countries where products are produced or the countries where products are sold;
- relevant regulations of third-party independent certification bodies, for example certification programmes recognized by the GFSI;
- related international voluntary standards and codes (e.g. related Codex Alimentarius standards or guidelines).

The incidents should exclude those in which the organization was ultimately determined not to be at fault. The occurrence of the incident, its exposure, and its final determination and resolution may take place in different years. For this indicator, the identification of the incident should be based on the time when the incident was officially determined or recorded.

In addition, critical information about the recorded incidents should be reported separately. Incidents can have an impact on different scales, to different degrees, and at different levels. Therefore, besides the frequency of the incidents of non-compliance, the reporting entity should also report other key information, including:

- in case of food recall, the entity should report the scope of the recall, the total amount of the food recalled (economic value and the physical amount);
- if the incidents have caused personal injury/disability/death to consumers, the entity should report the number of deaths, disability and injuries separately; and
- if the incidents involve the improper use of antimicrobial substances, the entity should report the total number of relevant incidents separately.

Ideally, the national food control system is the main actor in food safety and food quality supervision. Thus, information from regulatory authorities can be a good source of data on this indicator. However, weak governance is the main reason for many food safety problems. The lack of a national food control system, or inadequate implementation, can be observed in many countries, which may cause difficulties in reporting on this indicator. When the official number of incidents of non-compliance with food safety and quality regulations cannot be obtained, the reporting entity should conduct a self-assessment or require a third-party assessment to report on this indicator. The self-assessment or third-party assessment should refer to the relevant Codex Alimentarius international food standards, guidelines and codes of practice (FAO and WHO, 2021b). The Codex Alimentarius texts referred to, as well as the considerations made when choosing these standards, should also be reported.

## Concept

*National food regulations:* In all countries, food is governed by a complex set of laws and regulations that set out the government's requirements, which must be met by food chain operators to ensure that the food is safe and of adequate quality. Generally, the term "food law" is used to apply to legislation that regulates the production, trade and handling of food, and thus covers the regulation of food control, food safety and relevant aspects of food trade. Minimum quality requirements are included in food law to ensure that the foods produced are unadulterated and are not subjected to any fraudulent practices. In addition, food law should cover the total value chain, beginning with provisions on animal feed, on-farm controls and early processing, through to final distribution and use by the consumer. Food law may encompass a range of laws which contain provisions for ensuring safe and quality food production. In addition, national laws and regulations may be constantly amended or updated to align with international agreements. The reporting entity should familiarize itself with the newest food laws and regulations.

*International voluntary standards/codes:* If the reporting entity only produces and sells foods in one country, then the national food laws and regulations applicable are the basic parameters with which compliance must be assured. If the policy and legal frameworks are not adequate in the country, or if the reporting entity engages in transnational food trade, it should also comply with international voluntary standards, such as Codex Alimentarius.

The Codex Alimentarius is a collection of internationally adopted food standards and related texts presented in a uniform manner. These food standards and related texts aim at protecting consumers' health and ensuring fair practices in the food trade. It includes standards for all the principal foods, whether processed, semi-processed or raw, for distribution to the consumer. The Codex Alimentarius includes provisions in respect of food hygiene, food additives, residues of pesticides and veterinary drugs, contaminants, labelling and presentation, methods of analysis and sampling, and import and export inspection and certification. Codex Alimentarius standards and related texts are not a substitute for, or alternative to, national legislation. They are intended to guide and promote the elaboration and establishment of definitions and requirements for foods, to assist in their harmonization and, in doing so, facilitate international trade. All Codex Alimentarius standards, guidelines and related texts can be found on the official website of the Codex Alimentarius (FAO and WHO, 2021c).

## C.6.1. Incidents of tenure rights violation

**Link to SDGs:** SDG Target 5.a, Indicator 5.a.1; SDG Target 1.4; SDG Target 14.b; Indicator 14.b.1

**Scope:** All sectors

### Definition

This indicator measures the reporting entity's respect for tenure rights, including the right to free, prior and informed consent (FPIC) of indigenous peoples, as outlined in customary land systems, regulations, norms and standards. The indicator is measured based on the number of incidents in which the reporting entity or its suppliers have not complied with land tenure rights laws, regulations, norms and standards in the past three years. In countries where land tenure regulatory systems are not in place, a third-party independent assessment (e.g. based on an investor's requirements) can be used as references for the entity to report on this indicator.

### Rationale

Tenure is crucial to the livelihoods of billions of people. Land is the key non-labour asset for people, providing places to build homes, grow food, raise livestock and run businesses. Having access and rights to use land and resources is fundamental for the sustainable development of communities. However, tenure systems increasingly face stress because of the world's growing population, environmental degradation and climate change pressures. Inadequate and insecure tenure rights increase vulnerability, hunger and poverty, and lead to conflicts and environmental degradation. Respect for tenure rights is an essential requirement for business, as non-state actors, including business enterprises, have a responsibility to respect human rights



and legitimate tenure rights. Business enterprises should take action, including by performing due diligence and implementing appropriate risk management systems, to avoid infringing on the legitimate land tenure rights of others, especially smallholder farmers, local people and indigenous people. An integral first step is consulting with local people on any change in local resource use and respecting the rights of communities, particularly indigenous peoples, to give or withhold consent to proposed projects that may affect the lands they customarily own, occupy or use. The concept and approach of FPIC allows communities to reach consensus and make decisions according to their own customary systems of decision-making. Reporting on this indicator facilitates enterprises in measuring their performance on legitimate tenure rights, thus contributing to SDG Target 1.4, which aims at ensuring that all have equal rights to economic resources and access to land. This indicator is also linked to SDG Indicator 5.a.1 (proportion of total agricultural population with ownership or secure rights over agricultural land).

### **Methodology**

The reporting entity should report the total number of incidents of non-compliance with the regulations and standards concerning legitimate tenure rights and governance across its value chain occurring during the last three years (disaggregated by reporting entity and supplier).

The incidents to report should include incidents of non-compliance with:

- the regulations concerning tenure rights of the operating/host countries (the countries in which the activities involving land sales, land leases or any other forms of land tenure change led by the reporting entity take place);
- the regulations concerning land tenure rights of the country in which the corporate headquarters are located (especially when the tenure regulation system in the operating country is inadequate); and
- the sustainability requirements or principles established by investors, such as financial institutions, on land tenure rights security (usually assessed by an independent third-party agency based on the investor's requirements).

The occurrence of the incident, its exposure, and final determination and resolution may take place in different years. For this indicator, the identification of the incident should be based on the time when the incident was officially determined or recorded.

In addition, critical information about the recorded incidents should be reported separately. Incidents can have an impact on different scales, to different degrees, and at different levels. Therefore, in addition to the frequency of incidents of non-compliance, the reporting entity should also report on other key particulars, including the following:

- the share of total affected area in the reporting entity's total land area.
- the size and location of the affected area;
- the total number of individuals (farmers, ranchers, small producers, etc.) affected by the incidents, including but not limited to those evicted, involuntarily resettled, and physically and economically displaced.

The affected area refers to the operational sites owned, leased and managed by the reporting entity where infringements of any legitimate tenure rights, including customary, collective and informal tenure rights, took place within the reporting period.

Ideally, the national regulatory system is the main actor in ensuring the security of land tenure rights. Thus, information from the relevant regulatory authority can be a good source of data for this indicator. However, weak governance is a main reason for many tenure problems. The lack of a suitable regulatory system and inadequate implementation can be observed in many countries, which may cause difficulties for entities seeking to report on this indicator. When the official number of incidents of non-compliance with land tenure right regulations cannot be obtained, the reporting entity should conduct a self-assessment or require a third-party assessment to report on this indicator. The self-assessment or third-party assessment should refer to relevant standards established in *The Voluntary Guidelines on the Responsible Governance of Tenure* (FAO, 2012), *The Responsible Governance of Tenure: A Technical Guide for Investors* (FAO, 2016c) and *Land*

*Tenure Rights: The Need for Greater Transparency among Companies Worldwide* (GRI, 2016b). The referred standards, as well as the considerations made when choosing those standards, should also be reported.

## Concepts

*Tenure and tenure rights:* Tenure is the relationship, whether defined legally or customarily, among people with respect to land (including associated buildings and other structures), fisheries, forests and other natural resources. The rules of tenure define how access is granted to use and have control over these resources, as well as associated responsibilities and restraints. They determine who can use which resources, for how long, and under which conditions. Tenure systems may be based on written policies and laws, as well as on unwritten customs and practices. Tenure rights may be held by individuals, families, indigenous peoples and other communities, associations and other corporate bodies, and by states and their various bodies. Within a country, a wide range of tenure rights may exist, including ownership rights, lease rights and use rights, as well as subsidiary tenure rights (FAO, 2002).

*Land tenure rights:* Land tenure generally refers to the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land resources (FAO, 2002). Currently, there is no internationally agreed definition of land within the context of tenure (FAO, 2012). The meaning of the word can be defined within the national context. Aligned with SDG Indicator 1.4.2 (UNSD, 2020), “land” covers all types of land use (such as residential, commercial, agricultural, forestry, grazing and wetlands, based on standard land-use classifications) in both rural and urban areas; and all land tenure types as recognized at the country level, such as freehold, leasehold, public land and customary land. When referring to land tenure, land is used to include not only land property in the literal sense, but also other natural resources that attach to the land, such as water and trees.

Land tenure is an institution, i.e. a set of rules invented by societies to regulate behaviour. Rules of tenure define how property rights to land are to be allocated within societies. They define how access is granted to rights to use, control and transfer land, as well as the associated responsibilities and restraints. In simple terms, land tenure systems determine who can use what resources for how long, and under what conditions. Land tenure is often categorized as follows. All land tenure rights should be properly secured. When reporting on this indicator, private and communal land tenure rights are of particular concern.

- **Private:** The assignment of rights to a private party, who may be an individual, a married couple, a group of people or a corporate body, such as a commercial entity or non-profit organization. For example, within a community, individual families may have exclusive rights to residential parcels, agricultural parcels and certain trees. Other members of the community can be excluded from using these resources without the consent of those who hold the rights.
- **Communal:** A right of commons may exist within a community, whereby each member has a right to use the holdings of the community independently. For example, the members of a community may have the right to graze cattle on a common pasture.
- **Open access:** Specific rights are not assigned to anyone and no person can be excluded. This typically includes marine tenure, where access to the high seas is generally open to all; it may also encompass rangelands, forests, etc., whereby there may be free access to the resources for all (an important difference between open access and communal systems is that under a communal system, non-members of the community are excluded from using the common areas).
- **State:** Property rights are assigned to an authority in the public sector. For example, in some countries, forest lands may fall under the mandate of the state, whether at a central or decentralized level of government.

*Tenure and tenure rights in fisheries and other natural resources:* Tenure in fisheries – as in other natural resource sectors – refers to the manner in which the relationships between people are defined and negotiated in the context of the utilization of fishery and related resources, i.e. tenure defines who is a user and, therefore, who has a legitimate right to a resource and who does not.

While formal tenure rights are generally still a developing concept in fisheries, there is a long history of customary and traditional tenure systems in fishing communities. These have tended to take the form of rights (to fish) in certain areas – i.e. spatial access or use rights – and have often been found in conjunction with land tenure. In many places, for example in small island states in Oceania, natural resources and the space they occupy have traditionally not been divided into the two distinct components of land and water. Instead, nature – including humans and society – is seen holistically, with communities having a multifunctional resource space as the basis for their livelihoods. Therefore, fisheries tenure cannot be viewed in isolation but must be considered in connection with a broader land and livelihoods context (FAO, 2011b).





**Tirana, Albania.**

Labeled food products on shelves.  
©FAO/Gent Skhullaku

## D. Institutional dimension

Within the institutional dimension, eight indicators under three topics are suggested, as follows.

Topic	Indicator
<b>D.1. Corporate governance disclosure</b>	D.1.1. Number of board meetings and attendance rate
	D.1.2. Proportion of women in managerial positions and among board members
	D.1.3. Board members by age group
	D.1.4. Number of meetings of audit committee and attendance rate
	D.1.5. Compensation per board members
<b>D.2. Anti-corruption practices</b>	D.2.1. Amount of fines paid or payable due to corruption-related settlements
	D.2.2. Average number of hours of training on anti-corruption issues, per year per employee
<b>D.3. Due diligence</b>	D.3.1. Management of economic, environmental, social and institutional risks through due diligence practices



### D.1.1. Number of board meetings and attendance rate

**Link to SDGs:** SDG Target 16.6

**Scope:** All sectors

#### Definition

This indicator includes two sub-indicators:

- the number of board meetings, which refers to the total number of board meetings held in the reporting entity during the reporting period.
- the board meetings attendance rate, which refers to the number of members present compared to the total expected number of participants in all board meetings held during the reporting period.

#### Rationale

In many jurisdictions, reporting on corporate governance is already a legal requirement for large listed entities. International benchmarks include the G20/OECD Principles of Corporate Governance (OECD, 2015), as well as the UNCTAD Guidance on Good Practices in Corporate Governance Disclosure (UNCTAD, 2006), which have stressed the disclosure of information on corporate governance. This indicator is relevant to SDG Target 16.6, which aims at developing effective accountable and transparent institutions at all levels.

#### Methodology

Two indicators should be reported. First, the number of board meetings is calculated by adding the total number of board meetings held by the reporting entity during the reporting period. It is expressed in absolute terms (number of meetings).

Second, the board meetings attendance rate is calculated as follows: the total number of members present (adding up the number of members present at each meeting) divided by the total expected number of participants in all board meetings held during the reporting period (expressed as a percentage, %).

$$\text{Attendance rate} = \frac{\text{Total number of board members present at each of the board meeting}}{\text{Number of board members} \times \text{Number of board meetings}}$$

Aligned with the UNCTAD GCI (UNCTAD, 2019), critical information related to corporate governance is included in the scope of reporting. However, this indicator might not be applicable to all enterprises. For SMEs, the absence of mechanisms such as boards should be specified.

### D.1.2. Proportion of women in managerial positions and among board members

**Link to SDGs:** SDG Target 5.5, Indicator 5.5.2

**Scope:** All sectors

#### Definition

This indicator includes two sub-indicators:

- the number of females as a proportion of the total number of persons employed in managerial positions;
- the number of female board members as a proportion of the total board members in the entity during the reporting period.

It provides an idea of women's participation in and opportunities for leadership in the company. The measurement of women in managerial positions can be done in three ways: considering the proportion of females (total) in management, the proportion of females in senior management, and the proportion of females in middle management (thus excluding junior management) (UNSD, 2021c).

#### Rationale

The indicator provides information on the proportion of women who are employed in decision-making and



management positions in the entity, thus providing insight into women’s power in decision-making and in the private sector (especially compared to men in those areas). For these purposes, it is preferable to measure the proportion of females among board members, in senior and middle management positions, and in total management positions separately. The share of women tends to be higher in junior management than in senior and middle management; therefore, limiting the indicator to a measurement of all management positions as a whole may introduce bias. Separate calculation provides information on whether women are more represented in junior management than in senior and middle management, and in the board, thus pointing to an eventual ceiling on women’s access to higher-level management positions. This indicator is linked with SDG Target 5.5 (ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life). The calculation method of this indicator is methodologically aligned with SDG Indicator 5.5.2 (proportion of women in managerial positions). It can be compared with national estimates to provide a useful picture of the reporting sector’s contribution to gender equality.

### Methodology

Two indicators should be reported:

1) The proportion of women in managerial positions, calculated as the number of females employed in managerial positions divided by the total number of employees in managerial positions. The proportion of women in senior and middle managerial positions is calculated with the same formula, but replacing the number of managerial positions with the number of senior and middle managerial positions. Both proportions are expressed as a percentage (%).

$$\text{Proportion of women in managerial positions (senior and middle managerial positions)} = \frac{\text{Number of females employed in managerial positions (senior and middle managerial positions)}}{\text{Total number of employees in managerial positions (senior and middle managerial positions)}}$$

2) The proportion of women in board members, calculated as the number of female board members divided by the total number of board members, and expressed as a percentage (%). The total number of women board members should also be reported.

$$\text{Proportion of women board members} = \frac{\text{Number of female board members}}{\text{Number of board members}}$$

Aligned with the UNCTAD GCI (UNCTAD, 2019), the critical information related to corporate governance is included in the scope of reporting. However, this indicator might not be applicable to all enterprises. For SMEs, the absence of mechanism such as boards should be specified.

### Concepts

*Managerial positions:* The first step to calculate this indicator is to identify those positions categorized as management positions. This is determined according to the categories established under the latest version of the ISCO-08 (ILO, 2016b), which organizes jobs into a clearly defined set of groups based on the tasks and duties undertaken in the job. The total number of management positions can be identified according to ISCO-08 Major Group 1. Senior and middle management positions refer to ISCO-08 Sub-major Groups 11, 12 and 13. The relevant categories are as follows:

- 1 Managers**
  - 11 Chief Executives, Senior Officials and Legislators**
    - 112 Managing Directors and Chief Executives
  - 12 Administrative and Commercial Managers**
    - 121 Business Services and Administration Managers
    - 122 Sales, Marketing and Development Managers
  - 13 Production and Specialized Services Managers**
    - 131 Production Managers in Agriculture, Forestry and Fisheries
    - 132 Manufacturing, Mining, Construction and Distribution Managers
    - 133 Information and Communications Technology Services Managers

*Number of females employed in managerial positions:* The number of employees can change over time, as well as the number of female employees and those in managerial positions. Thus, the intermediate indicators used in the calculation above, including the number of females in board members, the number of females employed in managerial positions (senior or middle managerial positions), the total number of employees in managerial positions, the number of female board members and the number of board members should all be calculated based on the average at the beginning and at the end of the reporting period. To be precise, this can be the average value of the number on the first day and the number on the last day of the reporting period.

### D.1.3. Board members by age group

**Link to SDGs:** SDG Target 16.7, Indicator 16.7.1

**Scope:** All sectors

#### Definition

This indicator refers to the number and percentage of board members in the different age groups. It presents a profile of the board members by age group.

#### Rationale

A balanced age mix in a board is important for sound decision-making. This indicator is relevant to SDG Target 16.7, which aims at ensuring responsive, inclusive, participatory and representative decision-making at all levels. It is also linked with SDG Indicator 16.7.1, the proportion of positions (by sex, age, persons with disabilities and population group) in public institutions (national and local legislatures, public service and judiciary) compared to national distributions. Although SDG Indicator 16.7.1 does not explicitly refer to private organizations, there could be positive spillover effects between the public and private sectors. Furthermore, information on the composition of the board is an important part of reporting for corporate governance purposes.

#### Methodology

To calculate this indicator, entities must first define the age ranges that they wish to map. In line with UNCTAD guidance, the following age groups are suggested: under 30 years of age, 30–50 years of age, and over 50 years of age.

Two indicators should be reported. The first of these is the number of board members in each age group, expressed in absolute terms (number of members).

The second is the percentage of board members in each age group, calculated as follows: the number of board members in each age group divided by the total number of board members in the reporting entity (expressed as a percentage).

$$\text{Percentage of board members in each age group} = \frac{\text{Number of board members in the age group}}{\text{Number of board members}}$$

The number of board members, as well as the number of board members in a given age group, can change over time. In this case, the number should be calculated based on the average at the beginning and at the end of the reporting period. The calculating method can draw on the methodology outlined for Indicator D.1.2. on the proportion of women in managerial positions or who are board members.

Aligned with the UNCTAD GCI (UNCTAD, 2019), critical information related to corporate governance is included in the scope of reporting. However, this indicator might not be applicable to all enterprises. For SMEs, the absence of mechanism such as boards should be specified.

#### D.1.4. Number of meetings of audit committee and attendance rate

**Link to SDGs:** SDG Target 16.6

**Scope:** All sectors

##### Definition

This indicator includes two sub-indicators:

- the number of meetings of audit committees, which refers to the total number of audit committee meetings in the reporting entity during the reporting period;
- the audit committee meeting attendance rate, which refers to the number of members present compared to the total expected number of participants in all audit committee meetings held during the reporting period.

##### Rationale

This indicator provides a quantitative measure of whether the entity has developed an effective, accountable and transparent governance mechanism. It is linked with SDG Target 16.6, which aims at developing effective accountable and transparent institutions at all levels.

##### Methodology

Two indicators should be reported:

- 1) The number of audit committee meetings, calculated by adding the total number of audit committee meetings held by the reporting entity during the reporting period. It is expressed in absolute terms (number of meetings).
- 2) The audit committee meetings attendance rate, calculated as the number of members present (summing up the number of members present at each meeting) divided by the total expected number of participants in all audit committee meetings held during the reporting period (expressed as a percentage, %).

*Attendance rate*

$$= \frac{\text{Total number of committee members present at each of the audit committee meeting}}{\text{Number of committee members} \times \text{Number of the audit committee meetings}}$$

Aligned with the UNCTAD GCI (UNCTAD, 2019), critical information related to corporate governance is included in the scope of reporting. However, this indicator might not be applicable to all enterprises. For SMEs, the absence of mechanisms such as boards should be specified.

#### D.1.5. Compensation per board member

**Link to SDGs:** SDG Target 16.6

**Scope:** All sectors

##### Definition

This indicator refers to the amount of compensation for each board member (including executive members and non-executive members) of the reporting entity.

##### Rationale

International benchmarks, including the G20/OECD Principles of Corporate Governance (OECD, 2015) and the UNCTAD Guidance on Good Practices in Corporate Governance Disclosure (UNCTAD, 2006), have stressed the importance of disclosure of information on corporate governance. Remuneration policies for the highest governance body and senior executives is one of the material topics regarding disclosure on corporate governance. This indicator is relevant to SDG Target 16.6, which aims at developing effective accountable

and transparent institutions at all levels.

### **Methodology**

This indicator is calculated as the amount of total compensation divided by the total number of board members (including executive members and non-executive members) of the reporting entity during the reporting period. It is expressed in local currency units per person.

$$\text{Compensation per board member} = \frac{\text{Total amount of compensation}}{\text{Total number of board members}}$$

The total amount of compensation should be reported separately. It is calculated as the sum of the following elements of a compensation package:

- fixed pay (base salary);
- variable pay (including performance pay, equity pay, bonuses, and deferred or vested shares);
- sign-on bonuses or recruitment incentive payments;
- termination payments (i.e. all payments made and benefits given to a departing executive or member of the highest governance body whose appointment is terminated);
- clawbacks (i.e. repayment of previously received compensation, required to be made by an executive to his or her employer in the event that certain conditions of employment or goals are not met); and
- retirement benefits.

Board members include executive members and non-executive members. The former term refers to board members who also have management responsibilities, while the latter refers to those without responsibilities for the entity's management of operations. The number of board members can change during the reporting period. In this case, the number should be calculated based on the average at the beginning and at the end of the reporting period. The calculating method can draw on the methodology outlined for Indicator D.1.2. on the proportion of women in managerial positions or who are board members.

## **D.2.1. Amount of fines paid or payable due to corruption-related settlements**

**Link to SDGs:** SDG Target 16.5, Indicator 16.5.2

**Scope:** All sectors

### **Definition**

This indicator refers to the total monetary value of paid or payable corruption-related fines imposed by regulators and courts in the reporting period.

### **Rationale**

Corruption is broadly linked to several negative effects, such as damage to the environment, abuse of human rights, abuse of democracy, misallocation of investments and undermining the rule of law. This indicator is linked with SDG Target 16.5 (substantially reduce corruption and bribery in all their forms) and SDG indicator 16.5.2 (proportion of businesses that had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months).

### **Methodology**

This indicator is calculated by adding the total amount of fines paid/payable related to convictions for violations of corruption-related laws or regulations of the reporting entity in the reporting period. The indicator is expressed in local currency units.

The steps involved in the computation of this indicator are the following:

- identify all convictions and other settlements for violations of corruption-related laws or regulations;
- identify the amount of fines paid/payable for each of the convictions; and
- sum up all the amounts identified with reference to the reporting period.

In addition, the total number of convictions should be reported separately, as an absolute amount.

### Concepts

*Corruption:* Corruption includes practices such as bribery, facilitation payments, fraud, extortion, collusion and money laundering, as well as the offer or receipt of gifts, loans, fees, rewards or other advantages as an inducement to do something that is dishonest, illegal or represents a breach of trust. It can also include practices such as embezzlement, trading in influence, abuse of function, illicit enrichment, concealment and obstructing justice.

## D.2.2. Average number of hours of training on anti-corruption issues per year per employee

**Link to SDGs:** SDG Target 16.5, Indicator 16.5.2

**Scope:** All sectors

### Definition

This indicator refers to the average number of training hours that employees and workers receive on the subject of anti-corruption issues during the reporting period.

### Rationale

This indicator is linked with SDG Target 16.5 (substantially reduce corruption and bribery in all their forms). It is also relevant to SDG Indicator 16.5.2 (proportion of businesses that had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months). Although SDG Indicator 16.7.1 does not explicitly refer to the training of employees and workers on anti-corruption issues, the training could raise awareness on the topic within the entity, and thus have a positive effect on preventing corruption.

### Methodology

This indicator is calculated as the total number of hours of training on anti-corruption issues divided by the number of employees and workers of the reporting entity in the reporting period. It is expressed in terms of hours per person.

$$\text{Average number of hours of training on anti-corruption issues} = \frac{\text{Total number of hours of training on anti-corruption issues}}{\text{Number of employees and workers}}$$

### Concepts

*Total number of hours of training on anti-corruption issues:* The methodology for measurement of this indicator draws on the methodology outlined for Indicator C.3.1 on the average hours of training per employee. In this case, the computation of hours of training should only take into account those hours of training related to anti-corruption issues. The identification of anti-corruption-related training could be undertaken either by the entity's overall training department (e.g. human resources), by the legal department or by other related departments. For more information on the definition and context of corruption, please see Indicator D.2.1.

It is suggested that the indicator on anti-corruption also cover the issue of codes of conduct used to remedy conviction and, more generally, that the reporting entity provide information about any actions taken in response to incidents of corruption, for example new or revised entity policies, training and initiatives to prevent such incidents.

*Number of employees and workers:* See Indicator C.3.1 Average hours of training per year per employee.

### **D.3.1. Management of economic, social and environmental risks through due diligence practices**

**Link to SDGs:** SDG Target 12.6, Indicator 12.6.1; SDG Target 8.7; SDG Target 8.8; SDGs 14 and 15, SDG Target 16.5.

**Scope:** All sectors

#### **Definition**

This indicator includes two sub-indicators to assess the enterprise's practices in identifying, preventing and mitigating actual and potential risks associated with the indicators, including key management systems and responses to identified risks. The focus of the indicators is on the due diligence process and systems in place, with the understanding that the issues themselves are addressed specifically within each indicator.

#### **Rationale**

In assessing and reporting on their performance, companies are increasingly expected to consider the possible economic, social and environmental impacts they might cause, contribute to or be linked with, not only through the companies' own operations, but throughout their supply chains and through their business relationships. The methodology of SDG Indicator 12.6.1 proposes minimum reporting requirements that focus on the performance of companies' own operations and an advanced set of disclosures that are more holistic. These include advanced disclosures on: (1) stakeholder engagement; (2) assessing impacts beyond the company boundaries and along the value chain; and (3) supplier and consumer engagement on sustainability issues. To facilitate these disclosures, entities are encouraged to adopt a risk prevention and mitigation plan, which consists of a structured set of actions and mechanisms to prevent, manage and reduce risks associated with the entity's operations, supply chains and other business relationships. The development of a risk prevention/mitigation plan requires the entity to comprehensively evaluate the potential risks, arising along its full supply chain, to which it is exposed and set up solutions to address these risks. Such a plan can help enterprises avoid and prevent possible risks, reduce the extent to which they are exposed to crises, strengthen their capacity of risk response, and minimize the negative impact of any residual risks. In particular, by identifying, preventing and managing some of the most severe risks related to agrifood supply chain, such as risks related to forced and child labour, labour rights, natural resources and governance, this indicator can also help entities assess and report on their contribution to SDG Targets 8.7, 8.8 and 16.5 as well as SDGs 14 and 15 more generally.

#### **Methodology**

For this indicator, the reporting entity should check which of the below good practices related to the company's due diligence process have been implemented by the entity during the reporting period. If the following practices are not applicable or feasible for the entity's production or business process, this should be distinctly stated. In addition, the reporting entity may adopt other relevant management practices related to supply chain due diligence processes that can reduce risks for humans, the planet and society; these practices should also be reported, separately.

The information that should be reported includes (on a yes/no basis, unless otherwise specified):

- whether the entity commits (as evidenced in public documentation) to the following international standards that aim to address a range of environmental, social and human rights issues along supply chains through the identification, prevention and mitigation of risks:
  - OECD-FAO Guidance for Responsible Agricultural Supply Chains
  - OECD Guidelines for Multinational Enterprises
  - OECD Due Diligence Guidance for Responsible Business Conduct



- UN Guiding Principles on Business and Human Rights
- ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy
- Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI)
- Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security
- Principles for Responsible Agricultural Investment that Respects Rights, Livelihoods and Resources (PRAI)
- principles developed by the Taskforce on Climate-Related Financial Disclosures
- principles developed by the The Taskforce on Nature-related Financial Disclosures
- the Accountability Framework
- Other (please specify)
- whether the entity has a due diligence policy in place, that includes processes and actions to identify and manage risks in line with internationally recognized frameworks, such as the OECD Due Diligence Guidance for Responsible Business Conduct, OECD-FAO Guidance for Responsible Agricultural Supply Chains, and the UN Guiding Principles on Business and Human Rights;
- whether the entity's due diligence policy and how it is implemented are publicly available;
- whether disclosures or corporate self-reporting on the entity's due diligence policy address the following elements of policy adoption and implementation:
  - enterprise management systems to support the due diligence process
  - identified risks and adverse impacts collected through risk and/or impact assessments
  - measures taken to prevent or mitigate identified risks
  - tracking and verification of effectiveness of risk prevention and mitigation measures taken
- whether the entity has engaged with its main suppliers to:
  - identify risks and their impacts
  - discuss and agree on measures to prevent or mitigate identified risks
  - design a tracking and verification system to monitor the effectiveness of risk prevention and mitigation measures taken
- whether the entity has engaged with its main customers to:
  - identify risks and their impacts
  - discuss and agree on measures to prevent or mitigate identified risks
  - design a tracking and verification system to monitor the effectiveness of risk prevention and mitigation measures taken
- whether any other practices related to the identification, prevention and mitigation of supply-chain risks are implemented by the reporting entity; if so, these should be specified.

**Concepts:**

- *Due diligence*: Process through which enterprises can identify, assess, mitigate, prevent and account for how they address the actual and potential adverse impacts in their own operations, their supply chain and other business relationships as an integral part of business decision-making and risk management systems (OECD, 2011).

## Annex

### Annex 1. Mapping of indicators against other sustainability standards and initiatives

Indicator	Title	Sustainability standards and initiatives (full reference available below)	SDGs
A.1.1	Revenue	UNCTAD GCI A.1.1* GRI 102-7 Scale of the organization*	8.2 (8.2.1); 2.3 (2.3.2); 2.4 (2.4.1)
A.1.2	Value added	UNCTAD GCI A.1.2* GRI 201-1 Direct economic value generated and distributed*	8.2 (8.2.1); 9.4 (9.4.1)
A.1.3	Net value added	UNCTAD GCI A.1.3* WEF Net economic contribution*	8.2 (8.2.1)
A.2.1	Taxes and other payments to the government	UNCTAD GCI A.2.1* FAO SAFA C.4.1.2 Fiscal commitment**	17.1 (17.1.2)
A.3.1	Green investment	UNCTAD GCI A.3.1*	7.b (7.b.1)
A.3.2	Community investment	UNCTAD GCI A.3.2* WEF Community investment**	17.17 (17.17.1)
A.3.3	Total expenditure on research and development	UNCTAD GCI A.3.3* WEF R&D spend ratio*	9.5 (9.5.1)
A.4.1	Percentage of local procurement	UNCTAD GCI A.4.1* GRI 204-1 Proportion of spending on local suppliers* FAO SAFA C.4.2.1 Local procurement**	9.3 (9.3.1); 2.3 (2.3.2)
A.4.2	Fair pricing and transparent contract practices	FAO SAFA S.2.1.1 Fair pricing and transparent contracts** GRI 204 Procurement Practices (using GRI 103 Management Approach)**	2.3 (2.3.2)
A.5.1	Gross profit margin	FAO SAFA C.1.4.1 Net income **	2.4 (2.4.1); 8.2
A.5.2	Product diversification by revenue	FAO SAFA C.2.1.2 Product diversification*	2.4 (2.4.1); 8.2
A.5.3	Financial risk management	GRI 102-15 Key impacts, risks, and opportunities** GRI 102-30 Effectiveness of risk management processes** GRI 201-2 Financial implications and other risks and opportunities due to climate change** FAO SAFA C.2.4.2 Safety nets ** FAO SAFA C.2.5.1 Risk management**	1.5 (1.5.2); 2.4 (2.4.1); 13.1
B.1.1	Water recycling and reuse	UNCTAD GCI B.1.1*	6.3 (6.3.1)
B.1.2	Water use efficiency	UNCTAD GCI B.1.2*	6.4 (6.4.1)
B.1.3	Water stress	UNCTAD GCI B.1.3* SASB FB-AG140a.1, SASB FB-PF140a.1 and SASB MP-PF140a.1 Total water consumed,	6.4 (6.4.2)

Indicator	Title	Sustainability standards and initiatives (full reference available below)	SDGs
		percentage of each in regions with high or extremely high baseline water stress* WEF Fresh water consumption in water-stressed areas**	
B.1.4	Water management practices	GRI 103 Management Approach** SASB FB-AG140a.2, FB-PF140a.3 and FB-MP140a.3 Water management risks and strategies and practices to mitigate them** FAO SAFA E.2.1.2 Water conservation practices** WBA Food and Agriculture Benchmark (B7)**	6.3; 6.4; 6.5
B.2.1	Reduction of waste generation	UNCTAD GCI B.2.1* GRI 306-3 Waste generated** FAO SAFA E.5.3.3 Waste disposal**	12.5
B.2.2	Waste reused, re-manufactured and recycled	UNCTAD GCI B.2.2* GRI 306-4 Waste diverted from disposal**	12.5 (12.5.1)
B.2.3	Hazardous waste	UNCTAD GCI B.2.3*	12.4 (12.4.2)
B.3.1	Greenhouse gas emissions (scope 1)	UNCTAD GCI B.3.1** GRI 305-1 Direct (Scope 1) GHG emissions** GRI 305-4 GHG emissions intensity** SASB FB-AG-110a.1 and FB-MP-110a.1 Gross global Scope 1 emissions** WEF GHG emissions*	9.4 (9.4.1)
B.3.2	Greenhouse gas emissions (scope 2)	UNCTAD GCI B.3.2* GRI 305-2 Energy indirect (Scope 2) GHG emissions** GRI 305-4 GHG emissions intensity** WEF GHG emissions*	9.4 (9.4.1)
B.3.3	Greenhouse gas emissions (scope 3)	GRI 305-3 Other indirect (Scope 3) GHG emissions** GRI 305-4 GHG emissions intensity** WEF GHG emissions*	9.4 (9.4.1)
B.3.4	Greenhouse gas emissions management practices	GRI 103 Management approach** SASB FB-AG-110a.2 and FB-MP-110a.2 Strategy to manage Scope 1 emissions, emissions targets and performance against target** FAO SAFA E.1.1.1 GHG reduction target** FAO SAFA E.1.1.2 GHG mitigation practices** CDP C1 Governance** CDP C2 Risks and opportunities** CDP C3 Business strategy** CDP C4 Targets and performance** WBA Food and Agriculture Benchmark (B1 and B2)** WEF GHG emissions**	9.4
B.4.1	Ozone-depleting substances and	UNCTAD GCI B.4.1*	12.4 (12.4.2)

Indicator	Title	Sustainability standards and initiatives (full reference available below)	SDGs
	chemicals	Disclosure 305-6 Emissions of ozone-depleting substances (ODS)**	
B.5.1	Renewable energy	UNCTAD GCI B.5.1* GRI 302-1 Energy consumption within the organization** SASB FB-AG130a.1, FB-PF130a.1, FB-MP130a.1 and FR-MP130a.1 Percentage renewable energy* FAO SAFA E.5.2.4 Renewable energy*	7.2 (7.2.1)
B.5.2	Energy efficiency	UNCTAD GCI B.5.2* GRI 302-3 Energy intensity** FAO SAFA E.5.2.3 Energy consumption**	7.3 (7.3.1)
B.6.1	Natural ecosystem conversion	GRI 304-2 Significant impacts of activities, products, and services on biodiversity** FAO SAFA E.4.1.5 Land use and land cover change** AFi 7.4, 7.4a Hectares of deforestation and/or conversion on land owned, controlled, or managed by the company* AFi 7.5, 7.5a Hectares of deforestation and/or conversion in operations of the company's direct and indirect suppliers* WEF Nature loss**	14.2; 15.1
B.6.2	Habitat area protected, created or restored	GRI 304-3 Habitats protected or restored**	2.4 (2.4.1); 15.5
B.6.3	Sustainable use, conservation and restoration of biodiversity practices	FAO SAFA E.4.1.1 Landscape/marine habitat conservation plan** FAO SAFA E.4.1.2 Ecosystem enhancing practices** FAO SAFA E.4.2.2 Species conservation practices** GRI 304-2 Significant impacts of activities, products, and services on biodiversity** GRI 103 Management approach** WBA Food and Agriculture Benchmark (B3, B5)**	2.4 (2.4.1); 15.5; 15.9; 14.4
B.7.1	Soil degradation	FAO SAFA E3.1 Soil quality**	2.4 (2.4.1); 15.3 (15.3.1)
B.8.1	Fertilizer use	FAO SAFA E.5.1.2 Nutrient balance**	2.4 (2.4.1); 6.3; 15.3
B.8.2	Fertilizer management practices	GRI 103 Management approach** FAO SAFA E.3.1.1 Soil improvement practices** WBA Food and Agriculture Benchmark (B6)**	2.4 (2.4.1); 6.3; 15.3
B.8.3	Pesticide use	FAO SAFA C.3.1.2 Hazardous pesticides**	2.4 (2.4.1); 6.3; 3.9
B.8.4	Pesticide management practices	GRI 103 Management approach** WBA Food and Agriculture Benchmark (B6)**	2.4 (2.4.1); 6.3; 3.9
B.9.1	Food loss	FAO SAFA E.5.3.4 Food loss and waste reduction**	12.3 (12.3.1a)
B.9.2	Food waste	SASB FB-FR150a.1 Amount of food waste generated, percentage diverted from the waste stream** FAO SAFA E.5.3.4 Food loss and waste reduction**	12.3 (12.3.1b)

Indicator	Title	Sustainability standards and initiatives (full reference available below)	SDGs
C.1.1	Employee wages and benefits as a proportion of revenue	UNCTAD GCI C.2.3*	10.4 (10.4.1)
C.1.2	Percentage of employees and other workers paid above a living wage	FAO SAFA S 1.1.2 Wage level* WBA Food and Agriculture Benchmark (D21)** WEF Living wage**	2.4 (2.4.1); 8.5 (8.5.1)
C.2.1	Average hours of training per year per employee	UNCTAD GCI C.2.1* GRI 404-1 Average hours of training per year per employee* WEF Training provided**	4.3 (4.3.1)
C.2.2	Expenditures on employee training per year per person	UNCTAD GCI C.2.2* WEF Training provided*	4.3 (4.3.1)
C.3.1	Expenditures on employee health and safety as a proportion of revenue	UNCTAD GCI C.3.1*	3.8; 8.8
C.3.2	Frequency/incident rates of occupational injuries	UNCTAD GCI C3.2* GRI 403-9 Work-related injuries** SASB FB-AG-320a.1 and SASB FB-MP-320a.1 Total recordable indecent rate** WEF Health and safety**	8.8 (8.8.1)
C.4.1	Percentage of employees covered by collective agreements	UNCTAD GCI C.4.1* SASB FB-FR-310a.2 Percentage of active workforce covered under collective bargaining agreements* GRI 102-41 Collective bargaining agreements	8.8 (8.8.2)
C.4.2	Incidents of child labour	GRI 419-1 Non-compliance with laws and regulation in the social and economic area** FAO SAFA S.3.3.1 Child labour**	8.7 (8.7.1)
C.4.3	Incidents of forced labour	GRI 419-1 Non-compliance with laws and regulation in the social and economic area** FAO SAFA S.3.2.1 Forced labour**	8.7
C.5.1	Food labelling practices	GRI 417-1 Requirements for product and service information and labelling** GRI 417-2 Incidents of non-compliance concerning product and service information and labelling SASB FB-FR-270a.1 Number of incidents of non-compliance with industry or regulatory labelling and/or marketing codes** SAFA C3.3.1 Product labelling** WBA Food and Agriculture Benchmark (C4)**	2.2; 12.3
C.5.2	Percentage of sales of nutritious food	SASB FB-PF-260a.1 and FB-FR-260a.1 Revenue from products labelled and/or marketed to promote health and nutrition attributes **	2.2
C.5.3	Percentage of facilities or operations in compliance with food safety standards	GRI 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services** FB-PF250a.3 Total notices of food safety violation received** FAO SAFA C.3.1.3 Food contamination**	2.2; 3.9 (3.9.3); 12.3

Indicator	Title	Sustainability standards and initiatives (full reference available below)	SDGs
		WBA Food and Agriculture Benchmark (C6)*;	
C.6.1	Incidents of tenure rights violation	GRI 419-1 Non-compliance with laws and regulation in the social and economic area** FAO SAFA G4.4.2 Tenure rights**	5.a (5.a.1); 1.4; 14.b.1
D.1.1	Number of board meetings and attendance rate	UNCTAD GCI D.1.1*	16.6
D.1.2	Proportion of women in managerial positions-and among board members	UNCTAD GCI C.1.1, D.1.2* GRI 405-1 Diversity of governance bodies and employees**	5.5 (5.5.2)
D.1.3	Board members by age group	UNCTAD GCI D.1.3*	16.7 (16.7.1)
D.1.4	Number of meetings of audit committee and attendance rate	UNCTAD GCI D.4.1*	16.6
D.1.5	Compensation per board members	UNCTAD GCI D.1.5*	16.6
D.2.1	Amount of fines paid or payable due to corruption-related settlements	UNCTAD GCI D.2.1* GRI 419-1 Non-compliance with laws and regulation in the social and economic area**	16.5 (16.5.2)
D.2.2	Average number of hours of training on anti-corruption issues per year per employee	UNCTAD GCI D.2.2*	16.5 (16.5.2)
D.3.1	Management of economic, environmental, social and institutional risks through due diligence practices	GRI 102-15 Key impact, risks and opportunities** GRI 102-29 Identifying and managing economic, environmental, and social impacts** GRI 308 Supplier environmental assessment** GRI 414 Supplier social assessment** SASB FB-AG-430a.3 Strategy to manage environmental and social risks arising from contract growing and commodity sourcing** SASB FB-FR-430a.3 Strategy to manage environmental and social risks arising within the supply chain, including animal welfare** FAO SAFA G.1.2.1 Due diligence** WEF Impact of material issues on stakeholders**	12.6 (12.6.1); 8.7; 8.8; Goals 14 and 15; 16.5

\* Identical disclosures

\*\*Compatible disclosures (i.e. disclosures and/or methods of the core food and agriculture indicators differ slightly but integrate elements of other standards and initiatives)



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# Guidance on core indicators for agrifood systems

Measuring the private sector's  
contribution to the Sustainable  
Development Goals

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