

Meat, Poultry & Dairy

Sustainability Accounting Standard

FOOD & BEVERAGE SECTOR

Sustainable Industry Classification System® (SICS®) FB-MP

Under Stewardship of the International Sustainability Standards Board

INDUSTRY STANDARD | VERSION 2023-12





ABOUT THE SASB STANDARDS

As of August 2022, the International Sustainability Standards Board (ISSB) of the IFRS Foundation assumed responsibility for the SASB Standards. The ISSB has committed to maintain, enhance and evolve the SASB Standards and encourages preparers and investors to continue to use the SASB Standards.

IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1) requires entities to refer to and consider the applicability of disclosure topics in the SASB Standards when identifying sustainability-related risks and opportunities that could reasonably be expected to affect an entity's prospects. Similarly, IFRS S1 requires entities to refer to and consider the applicability of metrics in the SASB Standards when determining what information to disclose regarding sustainability-related risks and opportunities.

In June 2023, the ISSB amended climate-related topics and metrics in the SASB Standards to align them with the industry-based guidance accompanying IFRS S2 *Climate-related Disclosures*. In December 2023, the ISSB amended the non-climate-related topics and metrics in connection with the International Applicability of SASB Standards project.

Effective Date

This version 2023-12 of the Standard is effective for all entities for annual periods beginning or after January 1, 2025. Early adoption is permitted for all entities.

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INTRODUCTION

Overview of SASB Standards

The SASB Standards are a set of 77 industry-specific sustainability accounting standards ("SASB Standards" or "Industry Standards"), categorised pursuant to the Sustainable Industry Classification System (SICS).

SASB Standards include:

- 1. **Industry descriptions** which are intended to help entities identify applicable industry guidance by describing the business models, associated activities and other common features that characterise participation in the industry.
- 2. **Disclosure topics** which describe specific sustainability-related risks or opportunities associated with the activities conducted by entities within a particular industry.
- 3. **Metrics** which accompany disclosure topics and are designed to, either individually or as part of a set, provide useful information regarding an entity's performance for a specific disclosure topic.
- 4. **Technical protocols** which provide guidance on definitions, scope, implementation and presentation of associated metrics.
- 5. **Activity metrics** which quantify the scale of specific activities or operations by an entity and are intended for use in conjunction with the metrics referred to in point 3 to normalise data and facilitate comparison.

Entities using the SASB Standards as part of their implementation of ISSB Standards should consider the relevant ISSB application guidance.

For entities using the SASB Standards independently from ISSB Standards, the SASB Standards Application Guidance establishes guidance applicable to the use of all Industry Standards and is considered part of the Standards. Unless otherwise specified in the technical protocols contained in the Industry Standards, the guidance in the SASB Standards Application Guidance applies to the definitions, scope, implementation, compilation and presentation of the metrics in the Industry Standards.

Historically, the *SASB Conceptual Framework* set out the basic concepts, principles, definitions and objectives that guided the SASB Standards Board in its approach to setting standards for sustainability accounting.

Use of the Standards

SASB Standards are intended to aid entities in disclosing information about sustainability-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long term. An entity determines which Industry Standard(s) and which disclosure topics are relevant to its business, and which associated metrics to report. In general, an entity should use the SASB Standard specific to its primary industry as identified in SICS®. However, companies with substantial business in multiple SICS® industries should refer to and consider the applicability of the disclosure topics and associated metrics in additional SASB Standards.

The disclosure topics and associated metrics contained in this Standard have been identified as those that are likely to be useful to investors. However, the responsibility for making materiality judgements and determinations rests with the reporting entity.

Industry Description

The Meat, Poultry & Dairy industry produces raw and processed animal products, including meats, eggs and dairy products, for human and animal consumption. Important activities include animal raising, slaughtering, processing and packaging. The industry's largest entities have international operations, and entities are integrated vertically to varying degrees, depending on the type of animal produced. Large industry operators typically rely on contract or independent farmers to supply animals and may have varying degrees of control over their operations. The industry sells products primarily to the Processed Foods industry and to retail distributors that distribute finished products to key end markets including restaurants, livestock and pet feed consumers, and grocery retailers.

SUSTAINABILITY DISCLOSURE TOPICS & METRICS

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
	Gross global Scope 1 emissions	Quantitative	Metric tonnes (t) CO ₂ -e	FB-MP-110a.1
Greenhouse Gas Emissions	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	FB-MP-110a.2
Energy Management	(1) Total energy consumed,(2) percentage grid electricity and(3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	FB-MP-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic metres (m³), Percentage (%)	FB-MP-140a.1
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	FB-MP-140a.2
	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Quantitative	Number	FB-MP-140a.3
Land Use & Ecological Impacts	Amount of animal litter and manure generated, percentage managed according to a nutrient management plan	Quantitative	Metric tonnes (t), Percentage (%)	FB-MP-160a.1
	Percentage of pasture and grazing land managed to conservation plan criteria	Quantitative	Percentage (%) by hectares	FB-MP-160a.2
	Animal protein production from confined animal feeding operations	Quantitative	Metric tonnes (t)	FB-MP-160a.3

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TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Food Safety	Global Food Safety Initiative (GFSI) audit (1) non-conformance rates and (2) associated corrective action rates for (a) major and (b) minor non-conformances	Quantitative	Rate	FB-MP-250a.1
	Percentage of supplier facilities certified to a Global Food Safety Initiative (GFSI) food safety certification programme	Quantitative	Percentage (%)	FB-MP-250a.2
	(1) Number of recalls issued and (2) total weight of products recalled ¹	Quantitative	Number, Metric tonnes (t)	FB-MP-250a.3
	Discussion of markets that ban imports of the entity's products	Discussion and Analysis	n/a	FB-MP-250a.4
Antibiotic Use in Animal Production	Percentage of animal production that received (1) medically important antibiotics and (2) not medically important antibiotics, by animal type	Quantitative	Percentage (%) by weight	FB-MP-260a.1
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	Rate	FB-MP-320a.1
	Description of efforts to assess, monitor, and mitigate acute and chronic respiratory health conditions	Discussion and Analysis	n/a	FB-MP-320a.2
	Percentage of pork produced without the use of gestation crates	Quantitative	Percentage (%) by weight	FB-MP-410a.1
Animal Care & Welfare	Percentage of cage-free shell egg sales	Quantitative	Percentage (%)	FB-MP-410a.2
	Percentage of production certified to a third-party animal welfare standard	Quantitative	Percentage (%) by weight	FB-MP-410a.3
Environmental & Social Impacts of Animal Supply Chain	Percentage of livestock from suppliers implementing conservation plan criteria	Quantitative	Percentage (%) by weight	FB-MP-430a.1
	Percentage of supplier and contract production facilities verified to meet animal welfare standards	Quantitative	Percentage (%)	FB-MP-430a.2

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¹ Note to **FB-MP-250a.3** – The disclosure shall include a description of notable recalls, such as those that affected a significant amount of product or those related to serious illnesses or fatalities.

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TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Animal & Feed Sourcing	Percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress	Quantitative	Percentage (%) by weight	FB-MP-440a.1
	Percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress	Quantitative	Percentage (%) by contract value	FB-MP-440a.2
	Discussion of strategy to manage opportunities and risks to feed sourcing and livestock supply presented by climate change	Discussion and Analysis	n/a	FB-MP-440a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of processing and manufacturing facilities	Quantitative	Number	FB-MP-000.A
Animal protein production, by category; percentage outsourced ²	Quantitative	Various, Percentage (%)	FB-MP-000.B

Note to **FB-MP-000.B** – Categories of animal protein production may be based on animal (for example, chicken, pork or beef) or product type (for example, milk or shell eggs). Units of measure shall be appropriate to the animal or product category (for example, metric tonnes, number/head or litres).

Greenhouse Gas Emissions

Topic Summary

The Meat, Poultry & Dairy industry generates significant Scope 1 greenhouse gas (GHG) emissions from both livestock and energy-intensive industrial processes. GHG emissions contribute to climate change and create additional regulatory compliance costs and risks for meat, poultry and dairy entities because of climate change mitigation policies. The majority of the industry's emissions stem directly from the animals themselves through the release of methane during enteric fermentation, and from manure storage and processing. The direct emissions from raising and producing livestock represent a significant portion of total GHG emissions released among all sources. Currently, these emissions sources are not regulated widely, which presents uncertainties regarding the future of GHG regulations for the industry. Entities in this industry also use large quantities of fossil fuels to meet energy needs, generating additional direct GHG emissions and increasing exposure to regulatory risks. Future emission regulations could result in additional operating or compliance costs. By implementing new technologies to capture animal emissions and focusing on energy efficiency, entities may mitigate regulatory risk and volatile energy costs while also limiting GHG emissions.

Metrics

FB-MP-110a.1. Gross global Scope 1 emissions

- The entity shall disclose its gross global Scope 1 greenhouse gas (GHG) emissions to the atmosphere of the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
 - 1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalents (CO₂-e), and calculated in accordance with published 100-year time horizon global warming potential (GWP) values. To date, the preferred source for GWP values is the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (2014).
 - 1.2 Gross emissions are GHGs emitted into the atmosphere before accounting for offsets, credits or other similar mechanisms that have reduced or compensated for emissions.
- 2 Scope 1 emissions are defined and shall be calculated according to the methodology contained in *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD).
 - 2.1 Acceptable calculation methodologies include those that conform to the GHG Protocol as the base reference, but provide additional guidance, such as industry- or region-specific guidance. Examples may include:
 - 2.1.1 GHG Reporting Guidance for the Aerospace Industry published by the International Aerospace Environmental Group (IAEG);

- 2.1.2 Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources published by the US Environmental Protection Agency (EPA);
- 2.1.3 India GHG Inventory Program;
- 2.1.4 ISO 14064-1;
- 2.1.5 Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011, published by Ipieca; and
- 2.1.6 Protocol for the quantification of greenhouse gas emissions from waste management activities published by Entreprises pour l'Environnement (EpE).
- 2.2 GHG emissions data shall be consolidated and disclosed according to the approach with which the entity consolidates its financial reporting data, which generally is aligned with the 'financial control' approach defined by the GHG Protocol, and the approach published by the Climate Disclosure Standards Board (CDSB) described in REQ-07, 'Organisational boundary', of the CDSB Framework for reporting environmental and social information.
- 3 The entity may discuss any change in its emissions from the previous reporting period, including whether the change was because of emissions reductions, divestment, acquisition, mergers, changes in output or changes in calculation methodology.
- 4 In the case that current reporting of GHG emissions to the CDP or other entity (for example, a national regulatory disclosure programme) differs in terms of the scope and consolidation approach used, the entity may disclose those emissions. However, primary disclosure shall be according to the guidelines described above.
- 5 The entity may discuss the calculation methodology for its emissions disclosure, such as if data is from continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.

FB-MP-110a.2. Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets

- 1 The entity shall discuss its long- and short-term strategy or plan to manage its Scope 1 greenhouse gas (GHG) emissions.
 - 1.1 Scope 1 emissions are defined according to *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD.
 - 1.2 The scope of GHG emissions includes the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
- The entity shall discuss its emission reduction target(s) and analyse its performance against the target(s), including, if relevant:

- 2.1 The scope of the emission reduction target (for example, the percentage of total emissions to which the target is applicable);
- 2.2 Whether the target is absolute or intensity-based, and the metric denominator if it is an intensity-based target;
- 2.3 The percentage reduction against the base year, with the base year representing the first year against which emissions are evaluated towards the achievement of the target;
- 2.4 The time lines for the reduction activity, including the start year, the target year and the base year;
- 2.5 The mechanism(s) for achieving the target; and
- 2.6 Any circumstances in which the target or base year emissions have been, or may be, recalculated retrospectively or the target or base year has been reset.
- The entity shall discuss the activities and investments required to achieve the plans or targets, and any risks or limiting factors that might affect achievement of the plans or targets.
- The entity shall discuss the scope of its strategies, plans or reduction targets, such as whether they pertain differently to different business units, geographies or emissions sources.
- The entity shall discuss whether its strategies, plans or reduction targets are related to, or associated with, emissions limiting or emissions reporting-based programmes or regulations (for example, the EU Emissions Trading Scheme, Quebec Cap-and-Trade System, California Cap-and-Trade Program), including regional, national, international or sectoral programmes.
- Disclosure of strategies, plans or reduction targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.

Energy Management

Topic Summary

The Meat, Poultry & Dairy industry relies heavily on purchased electricity and fuel as critical inputs for value creation. Entities' use of electricity and fossil fuels in their operations results in indirect and direct greenhouse gas (GHG) emissions, which contribute to environmental impacts, including climate change and pollution. Purchased electricity is a significant operating cost for meat, poultry and dairy entities. Efficient energy usage is essential to maintain a competitive advantage in this industry, as purchased fuels and electricity account for a significant portion of total production costs. Decisions regarding alternative fuels use, renewable energy and on-site electricity generation versus purchasing from the grid can influence both the costs and the reliability of the energy supply.

Metrics

FB-MP-130a.1. (1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable

- The entity shall disclose (1) the total amount of energy it consumed as an aggregate figure, in gigajoules (GJ).
 - The scope of energy consumption includes energy from all sources, including energy purchased from external sources and energy produced by the entity itself (self-generated). For example, direct fuel usage, purchased electricity, and heating, cooling and steam energy all are included within the scope of energy consumption.
 - The scope of energy consumption includes only energy directly consumed by the entity during the reporting period.
 - In calculating energy consumption from fuels and biofuels, the entity shall use higher heating values (HHV), also known as gross calorific values (GCV), which are measured directly or taken from the Intergovernmental Panel on Climate Change (IPCC).
- The entity shall disclose (2) the percentage of energy it consumed that was supplied from grid electricity.
 - 2.1 The percentage shall be calculated as purchased grid electricity consumption divided by total energy consumption.
- The entity shall disclose (3) the percentage of energy consumed that was renewable energy.
 - 3.1 Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro and biomass.
 - The percentage shall be calculated as renewable energy consumption divided by total energy consumption. 3.2

- 3.3 The scope of renewable energy includes renewable fuel the entity consumed, renewable energy the entity directly produced and renewable energy the entity purchased, if purchased through a renewable power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs) or guarantees of origin (GOs), a Green-e Energy Certified utility or supplier programme, or other green power products that explicitly include RECs or GOs, or for which Green-e Energy Certified RECs are paired with grid electricity.
 - 3.3.1 For any renewable electricity generated on-site, any RECs and GOs shall be retained (not sold) and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.
 - 3.3.2 For renewable PPAs and green power products, the agreement shall explicitly include and convey that RECs and GOs be retained or replaced and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.
 - 3.3.3 The renewable portion of the electricity grid mix that is outside of the control or influence of the entity is excluded from the scope of renewable energy.
- 3.4 For the purposes of this disclosure, the scope of renewable energy from biomass sources is limited to materials certified to a third-party standard (for example, Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification or American Tree Farm System), materials considered eligible sources of supply according to the Green-e Framework for Renewable Energy Certification, Version 1.0 (2017) or Green-e regional standards or materials eligible for an applicable jurisdictional renewable portfolio standard.
- 4 The entity shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel use (including biofuels) and conversion of kilowatt hours (kWh) to GJ (for energy data including electricity from solar or wind energy).

Water Management

Topic Summary

The Meat, Poultry & Dairy industry is water-intensive both in raising livestock and industrial processing. Additionally, entities in the industry typically generate wastewater or effluent, from both animal production and processing activities. As water scarcity becomes an issue of growing importance because of population growth, increasing consumption per capita, poor water management and climate change, entities in the industry may face higher operational costs or lost revenues because of water shortages or regulations resulting in production reduction. Entities can manage waterrelated risks and opportunities through capital investments and assessment of facility locations relative to water scarcity risks, improvements to operational efficiency, and partnerships with regulators and communities on issues related to water access and effluent.

Metrics

FB-MP-140a.1. (1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress

- The entity shall disclose the amount of water, in thousands of cubic metres, withdrawn from all sources.
 - Water sources include surface water (including water from wetlands, rivers, lakes and oceans), groundwater, rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities or other entities.
- The entity may disclose portions of its supply by source if, for example, significant portions of withdrawals are from non-freshwater sources.
 - 2.1 Fresh water may be defined according to the local laws and regulations where the entity operates. If no legal definition exists, fresh water shall be considered to be water that has less than 1,000 parts per million of dissolved solids.
 - Water obtained from a water utility in compliance with jurisdictional drinking water regulations can be assumed to meet the definition of fresh water.
- The entity shall disclose the amount of water, in thousands of cubic metres, consumed in its operations.
 - Water consumption is defined as: 3.1
 - 3.1.1 Water that evaporates during withdrawal, use and discharge
 - 3.1.2 Water that is directly or indirectly incorporated into the entity's product or service
 - 3.1.3 Water that does not otherwise return to the same catchment area from which it was withdrawn, such as water returned to another catchment area or the sea

- 4 The entity shall analyse all its operations for water risks and identify activities that withdraw and consume water in locations with High (40-80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.
- The entity shall disclose water withdrawn in locations with High or Extremely High Baseline Water Stress as a percentage of the total water withdrawn.
- The entity shall disclose water consumed in locations with High or Extremely High Baseline Water Stress as a percentage of the total water consumed.

FB-MP-140a.2. Description of water management risks and discussion of strategies and practices to mitigate those risks

- The entity shall describe its water management risks associated with water withdrawals, water consumption and discharge of water or wastewater.
 - Risks associated with water withdrawals and water consumption include risks to the availability of adequate, clean water resources, which include:
 - Environmental constraints—such as operating in water-stressed regions, drought, concerns of aquatic impingement or entrainment, interannual or seasonal variability, and risks from the impacts of climate change; and
 - 1.1.2 Regulatory and financial constraints—such as volatility in water costs, stakeholder perceptions and concerns related to water withdrawals (for example, those from local communities, nongovernmental organisations and regulatory agencies), direct competition with and impact from the actions of other users (for example, commercial and municipal users), restrictions to withdrawals because of regulations, and constraints on the entity's ability to obtain and retain water rights or permits.
 - 1.2 Risks associated with the discharge of water or wastewater include the ability to obtain rights or permits related to discharges, regulatory compliance related to discharges, restrictions to discharges, the ability to maintain control over the temperature of water discharges, liabilities, reputational risks and increased operating costs because of regulation, stakeholder perceptions and concerns related to water discharges (for example, those from local communities, non-governmental organisations and regulatory agencies).
- The entity may describe water management risks in the context of:
 - 2.1 How risks may vary by withdrawal source, including surface water (including water from wetlands, rivers, lakes and oceans), groundwater, rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities or other entities; and
 - 2.2 How risks may vary by discharge destinations, including surface water, groundwater or wastewater utilities.
- The entity may discuss the potential effects that water management risks may have on its operations and the time line over which such risks are expected to manifest.

- 3.1 Effects include those associated with costs, revenue, liabilities, continuity of operations and reputation.
- 4 The entity shall discuss its short- and long-term strategies or plan to mitigate water management risks, which may include:
 - 4.1 The scope of its strategy, plans, goals or targets, such as how they relate to various business units, geographies or water-consuming operational processes;
 - 4.2 Any water management goals or targets it has prioritised, and an analysis of performance against those goals or targets;
 - 4.2.1 Goals and targets include those associated with reducing water withdrawals, reducing water consumption, reducing water discharges, reducing aquatic impingements, improving the quality of water discharges and maintaining regulatory compliance.
 - 4.3 The activities and investments required to achieve the plans, goals or targets, and any risks or limiting factors that might affect achievement of the plans or targets; and
 - 4.4 Disclosure of strategies, plans, goals or targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.
- 5 For water management targets, the entity shall additionally disclose:
 - 5.1 Whether the target is absolute or intensity-based, and the metric denominator if it is an intensity-based target:
 - 5.2 The time lines for the water management plans, including the start year, the target year and the base year; and
 - 5.3 The mechanism(s) for achieving the target, including:
 - 5.3.1 Efficiency efforts, such as the use of water recycling or closed-loop systems;
 - 5.3.2 Product innovations such as redesigning products or services to require less water;
 - 5.3.3 Process and equipment innovations, such as those that enable the reduction of aquatic impingements or entrainments;
 - 5.3.4 Use of tools and technologies (for example, the World Wildlife Fund Water Risk Filter, The Global Water Tool and Water Footprint Network Footprint Assessment Tool) to analyse water use, risk and opportunities;
 - 5.3.5 Collaborations or programmes in place with the community or other organisations.
 - 5.4 The percentage reduction or improvement from the base year, in which the base year is the first year against which water management targets are evaluated towards the achievement of the target.

6 The entity shall discuss whether its water management practices result in any additional life cycle effects or tradeoffs in its organisation, including trade-offs in land use, energy production and greenhouse gas (GHG) emissions, and why the entity chose these practices despite life cycle trade-offs.

FB-MP-140a.3. Number of incidents of non-compliance associated with water quality permits, standards and regulations

- 1 The entity shall disclose the total number of incidents of non-compliance, including violations of a technology-based standard and exceedances of quantity or quality-based standards.
- 2 The scope of disclosure includes incidents governed by applicable jurisdictional statutory permits and regulations, which include the discharge of a hazardous substance, violation of pre-treatment requirements or total maximum daily load (TMDL) exceedances.
- The scope of disclosure shall only include incidents of non-compliance that resulted in a formal enforcement action(s).
 - 3.1 Formal enforcement actions are defined as governmental recognised actions that address a violation or threatened violation of water quantity or quality laws, regulations, policies or orders, and can result in administrative penalty orders, administrative orders and judicial actions, among others.
- 4 Violations shall be disclosed, regardless of their measurement methodology or frequency. These include violations for:
 - 4.1 Continuous discharges, limitations, standards and prohibitions that are generally expressed as maximum daily, weekly and monthly averages; and
 - 4.2 Non-continuous discharges or limitations that are generally expressed in terms of frequency, total mass, maximum rate of discharge and mass or concentration of specified pollutants.

Land Use & Ecological Impacts

Topic Summary

Meat, Poultry & Dairy industry operations have diverse ecological impacts, primarily because of significant land-use requirements to raise livestock and the contamination of the air, land and groundwater by animal waste. While the impacts are varied, both traditional and confined animal feeding operations may result in significant ecological impacts. The primary concern from confined animal feeding operations and animal-product processing facilities is the generation of large and concentrated amounts of waste and pollutants. Treating effluent and waste from facilities involves significant costs. Non-confined animal feeding operations require large tracts of pastureland and may result in the physical degradation of land resources. Land use and ecological impacts pose legal and regulatory risks in the form of fines, litigation and difficulties obtaining permits for facility expansions or waste discharges.

Metrics

FB-MP-160a.1. Amount of animal litter and manure generated, percentage managed according to a nutrient management plan

- The entity shall disclose the total amount, in metric tonnes, of animal litter and manure generated at its facilities.
 - The scope of animal litter and manure includes both dry and liquid manures and litter.
- The entity shall disclose the percentage of animal litter and manure generated from facilities that implement a nutrient management plan divided by the total amount of animal litter and manure generated.
 - 2.1 A nutrient management plan is defined as a documented management practice that addresses the generation, collection, treatment, storage and agronomic use of all manure.
 - 2.2 At a minimum, the nutrient management plan shall meet these minimum specific elements:
 - 2.2.1 background and site information;
 - 2.2.2 manure and wastewater handling and storage;
 - 2.2.3 farmstead safety and security;
 - 2.2.4 land treatment practices;
 - 2.2.5 soil and risk assessment analyses;
 - 2.2.6 nutrient management;
 - 2.2.7 recordkeeping; and
 - 2.2.8 references.

- The scope of disclosure includes facilities that the entity owns and operates, facilities from which it contracts animal production (for example, independent producers) and facilities that otherwise supply animal protein to the entity (for example, for processing by the entity).
- The scope of disclosure includes production areas and land treatment areas.
 - 4.1 Production area includes the animal confinement area, storage areas for feed and other raw materials, animal mortality facilities and manure-handling containment or storage areas.
 - 4.2 Land treatment area includes land under control of the entity or its contracted suppliers (for example, independent producers), whether it is owned, rented or leased, and to which manure or process wastewater is, or might be, applied for crop, hay or pasture production or other uses.

FB-MP-160a.2. Percentage of pasture and grazing land managed to conservation plan criteria

- The entity shall disclose the percentage of pasture and grazing land that is managed to applicable jurisdictional conservation plan criteria.
 - The percentage shall be calculated as the area of pasture and grazing land managed to applicable 1.1 conservation plan criteria divided by the total area of pasture and grazing land.
 - Conservation plans are jurisdictional standards or regulations intended to promote sustainable 1.2 management of natural resources, which may include soil, water, air, and related plant and animal resources.
- The scope of disclosure includes land defined as rangeland, which is land on which the historic climax plant community is predominantly grasses, grass-like plants, forbs or shrubs, includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing, and includes grazed forest, naturalised pasture, pastureland, hayland, and grazed and hayed cropland.
 - 2.1 The scope of disclosure includes land from operations that the entity owns and operates, operations with which it contracts animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity (for example, for processing by the entity).
- The entity shall disclose the jurisdictional standard or regulation used for its calculation.

FB-MP-160a.3. Animal protein production from confined animal feeding operations

- The entity shall disclose the amount, in metric tonnes, of animal protein production from confined animal feeding operations.
 - 1.1 Confined animal feeding operations are defined as animal feeding practices in dense population or limited spaces. They require high resource inputs, such as chemicals, for maximum livestock production, which can lead to environmental impacts such as pollution and waste.
 - Confined animal feeding operations also could be referred to as intensive farming, resourceintensive animal production or concentrated animal feeding operations.

- 1.2 The amount shall be calculated as the carcass (or dressed) weight of animal protein.
 - Carcass is defined as all parts, including viscera, of any slaughtered livestock.
- The entity may use applicable jurisdictional definitions of confined animal feeding operations. 1.3
 - If the entity uses a jurisdictional definition of confined animal feeding operations, the entity shall 1.3.1 disclose the definition used.
- The scope includes animal protein from operations that the entity owns and operates, operations with which it contracts animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity (for example, for processing by the entity).

Food Safety

Topic Summary

Meat, poultry and dairy products are either sold directly to consumers (for example, milk or eggs) or are processed into a wide variety of foods. Maintaining product quality and safety is crucial because contamination by pathogens, chemicals or spoilage presents serious health risks to humans and animals. Food safety practices and procedures in the industry are often subject to intense scrutiny and oversight, and outbreaks of diseases among livestock may result in increased regulation. Product recalls can harm brand reputation, reduce revenues and lead to costly fines. Recalls can also increase regulatory scrutiny, which may lead to trade restrictions. Obtaining food safety certifications and ensuring suppliers follow food safety guidelines may help entities safeguard against product safety risks and improve consumers' perceived quality of their products.

Metrics

FB-MP-250a.1. Global Food Safety Initiative (GFSI) audit (1) non-conformance rates and (2) associated corrective action rates for (a) major and (b) minor nonconformances

- The entity shall disclose (1) its facilities' non-conformance rates with Global Food Safety Initiative (GFSI) recognised food safety certification programmes for (a) major non-conformances, and separately, (b) minor nonconformances.
 - A major non-conformance is defined by the relevant GFSI-recognised certification programme and includes the highest severity of non-conformances requiring escalation by auditors. Major non-conformances may arise from significant risks to food safety, non-compliance with relevant regulatory requirements or failure to correct minor non-conformances. Major non-conformances must be corrected in accordance with the relevant GFSI-recognised certification programme under audit.
 - A minor non-conformance is defined by the relevant GFSI-recognised certification programme and by itself does not confirm a systemic problem.
 - The entity shall calculate the non-conformance rates as the number of non-conformances (for each 1.3 respective category) identified in its facilities divided by the number of facilities audited.
 - The scope of the disclosure includes audit results from facilities owned or operated by the entity.
- The entity shall disclose (2) the corrective action rates associated with its facilities' (a) major non-conformances, and separately, (b) minor non-conformances.
 - A corrective action is defined as the completion of an action (generally identified in a Corrective Action Plan), within the time line defined by the GFSI-recognised certification programme, designed to eliminate the cause of a detected non-conformance, including implementing practices or systems to eliminate any non-conformance and ensure no reoccurrence of the non-conformance, as well as verifying the action taken.

- 2.2 The entity shall calculate the corrective action rates as the number of corrective actions that address nonconformances (for each respective category) divided by the total number of non-conformances identified (for each respective category).
- The entity may disclose the relevant GFSI-recognised certification programme used to audit its facilities.

FB-MP-250a.2. Percentage of supplier facilities certified to a Global Food Safety Initiative (GFSI) food safety certification programme

- The entity shall disclose the percentage of its supplier facilities certified to a Global Food Safety Initiative (GFSI) recognised certification programme.
 - 1.1 The percentage shall be calculated as the number of supplier facilities certified to an applicable GFSIrecognised certification programme divided by the total number of supplier facilities.
 - 1.2 The scope of the disclosure includes facilities operated by entities with which the entity contracts animal production (for example, independent producers) and those that otherwise supply animal protein to the entity (for example, for processing by the entity).
- The scope of the disclosure excludes suppliers of packaging materials or other goods and inputs that are not animal protein.
- The entity may disclose the GFSI-recognised certification programme used to audit its facilities.

FB-MP-250a.3. (1) Number of recalls issued and (2) total weight of products recalled

- The entity shall disclose (1) the total number of food safety-related recalls it issued during the reporting period, including voluntary and involuntary recalls.
 - 1.1 A food safety-related recall is defined as the removal of a marketed product that occurs if a food may reasonably be believed to cause consumers to become ill.
 - Involuntary recalls are those requested or mandated by applicable jurisdictional legal or regulatory authorities, and they are issued when a product does not comply with regulatory food safety standards, when a food safety-related defect in a product is identified or during instances of import refusal.
 - Voluntary recalls are those initiated by the entity to remove products from the market for food safety-related concerns.
- The entity shall disclose (2) the total weight, in metric tonnes, of food product subject to recalls.
- The entity may separately disclose the percentage of recalls that were (a) voluntary or (b) involuntary.

Note to FB-MP-250a.3

The entity shall provide a discussion of notable recalls, such as those that affected a significant number of products or those related to potential or actual serious illnesses or fatalities.

- A recall may be considered notable if it is mentioned in periodic jurisdictional recall reports.
- For such recalls, the entity may provide:
 - 2.1 description and cause of the recall issue;
 - 2.2 the total weight of products recalled;
 - 2.3 the cost to remedy the issue;
 - 2.4 whether the recall was voluntary or involuntary;
 - 2.5 corrective actions; and
 - 2.6 any other significant outcomes (for example, legal proceedings or consumer fatalities).

FB-MP-250a.4. Discussion of markets that ban imports of the entity's products

- The entity shall disclose a list of jurisdictions that restrict, ban or suspend imports of the entity's products because of sanitary and phytosanitary (SPS) measures.
 - SPS measures are food, animal, and plant safety and health standards and regulations enacted by governments to protect human, animal, or plant life or health in accordance with the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures.
 - The scope of the disclosure excludes import bans, embargoes or restrictions in place because of non-SPS measures.
- The entity shall discuss, with respect to each ban:
 - 2.1 the animal protein products affected;
 - 2.2 the duration for which the ban has been in place;
 - 2.3 the stated reason for the ban (for example, risk of bovine spongiform encephalopathy); and
 - 2.4 the effects on the entity's results of operations and financial condition.

Antibiotic Use in Animal Production

Topic Summary

In livestock production, prevalent use of antibiotics that are also administered to humans may promote the development of antibiotic-resistant strains of bacteria. Although the use of antibiotics in animal feed or water supplies can improve the output of animal production and enhance animal welfare in industrial farm settings, entities in the industry must balance these benefits against the potential public health risks. The use of antibiotics in animal production presents reputational and regulatory risks, both of which can affect long-term profitability through effects on demand and market share for meat, poultry and dairy producers. Depending on the animal species, entities in the industry may have varying degrees of control over, and management approaches to, this issue. Entities may have direct control over the feed and medicine administered by contract suppliers in some instances but may set requirements for suppliers more broadly in others.

Metrics

FB-MP-260a.1. Percentage of animal production that received (1) medically important antibiotics and (2) not medically important antibiotics, by animal type

- The entity shall disclose (1) the percentage of animal production, by weight, that received medically important antibiotics by animal type (for example, pork, beef, chicken or turkey).
 - Medically important antibiotics are defined as all antimicrobial drugs included in the World Health Organization's (WHO) Medically Important Antimicrobials for Human Medicine (MIA) list.
 - 1.1.1 Antibiotics considered medically important are those used in animal and human medicine.
 - 1.1.2 Updates made to the list of drugs included in the WHO MIA list shall constitute updates to this metric.
 - The entity shall calculate the percentage as the carcass (or dressed) weight of animal protein that received medically important antibiotics at any stage of its life divided by the total carcass (or dressed) weight of animal protein produced during the reporting period.
- The entity shall disclose (2) the percentage of animal production, by weight, that received not medically important antibiotics, by animal type.
 - Not medically important antibiotics (or 'not medically important antimicrobial drugs') include all other antibiotics, excluding medically important antibiotics defined according to the WHO MIA list, administered at any stage of an animal's life.
 - 2.1.1 Antibiotics considered not medically important are those not used in human medicine.
 - The percentage is calculated as the carcass (or dressed) weight of animal protein that received not medically important antibiotics at any stage of its life divided by the total carcass (or dressed) weight of animal protein produced during the reporting period.

- 3 An animal that receives both medically important and not medically important antibiotics shall be included in both percentage calculations.
- The scope includes animal protein from operations that the entity owns and operates, operations with which it contracts animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity (for example, for processing by the entity).

Workforce Health & Safety

Topic Summary

The Meat, Poultry & Dairy industry has relatively high injury rates compared with other industries given the prevalence of industrial machinery, chemicals, and a fast-paced, loud working environment. Common acute and chronic industrial hazards include musculoskeletal disorders, exposure to chemicals and pathogens, and traumatic injuries from machines and tools. Worker injuries or deaths may result in low worker morale and productivity, and prohibitive legal, financial and reputational risks to the entity. Regulators may levy fines against entities for worker health and safety standard non-compliance or mandate employee training to reduce preventable accidents. By developing a strong safety culture and reducing employees' exposure to potentially harmful situations, an entity can safeguard against accidents and proactively improve workforce health and safety.

Metrics

FB-MP-320a.1. (1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees

- The entity shall disclose its total recordable incident rate (TRIR) for work-related injuries and illnesses.
 - An injury or illness is considered a recordable incident if it results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. Additionally, a significant injury or illness diagnosed by a physician or other licensed health care professional is considered a recordable incident, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid or loss of consciousness.
 - 1.1.1 First aid is defined as emergency care or treatment for an ill or injured person before regular medical aid can be provided.
 - 1.1.2 The entity may use applicable jurisdictional criteria for definitions of a recordable incident and a non-recordable incident such as first aid. The entity shall disclose the legal, regulatory or industry framework used as the source for these criteria and definitions.
- The entity shall disclose its fatality rate for work-related fatalities.
- All disclosed rates shall be calculated as: (statistic count × 200,000) / total number of hours worked by all employees in the year reported.
 - 3.1 The '200,000' in the rate calculation represents the total number of hours 100 full-time workers working 40 hours per week for 50 weeks per year can provide annually.
- The scope of the disclosure includes work-related incidents only.
 - Work-related incidents are injuries and illnesses resulting from events or exposures in the work environment.

- 4.2 The work environment is the establishment and other locations where one or more employees are working or are present as a condition of their employment.
- The work environment includes not only physical locations, but also the equipment or materials used by the 4.3 employee during the course of work.
- Incidents that occur while an employee is travelling are work-related if, at the time of the injury or illness, the 4.4 employee was engaged in work activities in the interest of the employer.
- 4.5 A work-related incident must be a new case, not a previously recorded injury or illness being updated.
- The entity shall disclose the rates for each of these employee categories:
 - 5.1 direct employees, defined as individuals on the entity's payroll, whether they are full-time, short service, part-time, executive, labour, salary, seasonal, migrant or hourly employees; and
 - contract employees, defined as individuals who are not on the entity's payroll, but whom the entity 5.2 supervises or manages, including independent contractors and those employed by third parties (for example, temp agencies and labour brokers).
- The scope of the disclosure includes all employees regardless of employee location or type of employment.

FB-MP-320a.2. Description of efforts to assess, monitor, and mitigate acute and chronic respiratory health conditions

- The entity shall discuss its efforts to assess, monitor and mitigate acute and chronic respiratory health conditions in employees.
 - Acute respiratory conditions may include chemical burns, inflammation of the respiratory tract, acute or subacute bronchitis and death.
 - 1.2 Chronic respiratory conditions may include chronic bronchitis, chronic lung disease (for example, COPD), decreased lung function, organic toxic dust syndrome and other conditions resulting from exposure to particulate matter.
 - Relevant efforts to discuss may include management plans, policies, risk assessments, participation in long-term health studies, health and wellness monitoring programmes, readily accessible personal protective equipment (PPE) and implementation of relevant worker training programmes.

Animal Care & Welfare

Topic Summary

Entities in the Meat, Poultry & Dairy industry are especially sensitive to changes in the public perception of animal welfare. Entities perceived to be causing unnecessary cruelty to animals may face increased risk of fines, damage to brand reputation and regulatory restrictions, such as mandated factory closures. Pressure from consumers and advocacy groups can drive shifts in industry practices such as reducing the use of small enclosures. Entities that anticipate or adapt to these trends effectively may increase market share by capturing new markets as they emerge, or by being the first to comply with new regulations.

Metrics

FB-MP-410a.1. Percentage of pork produced without the use of gestation crates

- The entity shall disclose the percentage of pork produced, by weight, without the use of gestation crates.
 - A gestation crate is defined as an enclosure for housing an individual breeding sow, if the enclosure can enclose an unmoving sow, but is restrictive enough to prevent dynamic movements, such as turning around. Gestation crates are typically non-bedded, with concrete floors and metal stalls.
 - 1.2 The percentage shall be calculated as the weight of pork produced without using gestation crates, divided by the total weight of pork produced.
 - 1.2.1 Weight of production shall be calculated using carcass weight or retail weight (if the entity has sourced already-processed pork or pork products).
- The scope of the disclosure includes pork or pork products that originated from facilities the entity owns and operates and facilities from which the entity contracts animal production (for example, independent producers).
- The entity may discuss, if relevant:
 - how, if applicable, the use of gestation crates is drafted in contracts with producers and independent 3.1 farmers;
 - 3.2 important customers' conditions regarding the use of gestation crates and how the entity meets those conditions; and
 - 3.3 any targets the entity has related to phasing out gestation crates, and progress toward those targets.

FB-MP-410a.2. Percentage of cage-free shell egg sales

The entity shall disclose the percentage of shell eggs that originated from a cage-free environment.

- Eggs that originated from a cage-free environment are defined as those produced by hens housed in a space that allows for unrestricted access to food and water and provides freedom to roam within the space during the laying cycle.
 - 1.1.1 The scope also includes eggs that originated from a free-range environment.
- The percentage shall be calculated as the number of shell eggs produced that originated from a cage-free environment divided by the total number of shell eggs produced.
- The scope of the disclosure includes eggs from facilities that the entity owns and operates, facilities from which the entity contracts egg production (for example, independent producers) and eggs that the entity purchases for resale.

FB-MP-410a.3. Percentage of production certified to a third-party animal welfare standard

- The entity shall disclose the percentage of animal protein production, by weight, certified to third-party animal welfare standards.
 - 1.1 An animal welfare standard is defined as a standard that relates to one or more of these aspects of beef, pork or poultry production:
 - 1.1.1 animal treatment and handling;
 - 1.1.2 housing and transportation conditions;
 - 1.1.3 slaughter facilities and procedures; or
 - 1.1.4 the use of antibiotics and hormones.
 - Animal welfare standards may include Animal Welfare Approved, Certified Humane Program, Food Alliance Certified and the Global Animal Partnership 5-Step Animal Welfare Rating Program.
 - The percentage shall be calculated as the weight of animal protein production certified to third-party animal welfare standards divided by the total weight of animal protein production.
 - The weight of production shall be calculated using the carcass weight or retail weight (if the entity 1.3.1 has sourced already-processed animals or animal products).
- The scope of the disclosure includes all animal protein production offered for sale by the entity, including animal protein from facilities the entity owns and operates, and from which the entity contracts animal production (for example, independent producers).
- The entity may disclose the animal welfare standards to which its production is certified.
- The entity may discuss additional animal welfare standards that it implements in its operations or supply chain that are not third-party verified (for example, those enforced by the entity, trade association or customer).

Environmental & Social Impacts of Animal Supply Chain

Topic Summary

Entities in the Meat, Poultry & Dairy industry rely on a variety of contract farmers and suppliers. Environmental and social impacts within the industry's supply chain include those related to deforestation, land use and waste management, water withdrawals, animal welfare, antibiotic usage and food safety. An entity's management of environmental and social risks relating to its animal supply chain is critical to secure a steady source of animals at desired price points and prevent reputational damage, all of which may decrease revenue and market share.

Metrics

FB-MP-430a.1. Percentage of livestock from suppliers implementing conservation plan criteria

- The entity shall disclose the percentage of livestock, by weight, sourced from suppliers that manage pasture and grazing land to applicable jurisdictional conservation plan criteria.
 - The percentage shall be calculated as the live weight of livestock sourced from suppliers implementing the 1.1 applicable jurisdictional conservation plan criteria divided by the total live weight of livestock sourced by the
 - 'Conservation plans' are defined as jurisdictional standards or regulations intended to promote sustainable management of natural resources, including soil, water, air and related plant and animal resources.
- The scope of the disclosure includes livestock purchased by the entity during the reporting period, adjusted for any changes in the inventory of live animals.
- The entity shall disclose the jurisdictional standard or regulation used for the calculation.

FB-MP-430a.2. Percentage of supplier and contract production facilities verified to meet animal welfare standards

- The entity shall disclose the percentage of its supplier and contract production facilities verified to be operating in accordance with animal welfare standards.
 - 1.1 An animal welfare standard is defined as a standard that relates to one or more of these aspects of beef, pork or poultry production:
 - 1.1.1 animal treatment and handling;
 - 1.1.2 housing and transportation conditions;
 - 1.1.3 slaughter facilities and procedures; or
 - 1.1.4 use of antibiotics and hormones.

- 1.2 Animal welfare standards include those that the entity has developed and enforces in its supply chain, those developed and enforced by a trade association, or those developed and enforced by a third party.
- Third-party animal welfare standards may include Animal Welfare Approved, Certified Humane Program, 1.3 Food Alliance and the Global Animal Partnership 5-Step Animal Welfare Rating Program.
- The percentage shall be calculated as the number of supplier facilities verified to be operating in 1.4 accordance with animal welfare standards divided by the total number of supplier facilities.
- The scope of the disclosure includes facilities operated by entities from which the entity contracts animal production (for example, independent producers) and those that otherwise supply animal protein to the entity (for example, for processing by the entity).
- The entity may disclose the animal welfare standards to which its production is certified. 3
- The entity may discuss additional animal welfare standards it implements in its operations or supply chain that are not third-party verified (for example, those enforced by the entity, trade association or customer).

Animal & Feed Sourcing

Topic Summary

Meat, poultry and dairy entities source animal and animal feed from a range of suppliers depending on animal species. The industry's ability to reliably source animals and animal feed at desired price points may be affected by climate change, water scarcity, land management and other resource scarcity considerations. Entities that select and work with suppliers who are less resource-intensive and who actively manage adaptation to climate change and other resource scarcity risks, may reduce price volatility and supply disruptions. Additionally, such entities may improve their brand reputation and develop new market opportunities. Failure to effectively manage sourcing risks may result in higher costs of capital, reduced margins and constrained revenue growth.

Metrics

FB-MP-440a.1. Percentage of animal feed sourced from regions with High or **Extremely High Baseline Water Stress**

- The entity shall disclose the percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress.
 - Animal feed includes soybean meal, cornmeal and other grains, and other fodder provided to livestock, but excludes forage.
- The scope of disclosure shall include feed grown or manufactured by the entity and feed purchased by the entity.
- The percentage shall be calculated as the weight of animal feed sourced from regions with High or Extremely High Baseline Water Stress divided by the total weight of animal feed sourced by the entity.
 - The entity shall identify animal feed sourced from locations with High (40-80%) or Extremely High (>80%) 3.1 Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.

FB-MP-440a.2. Percentage of contracts with producers located in regions with **High or Extremely High Baseline Water Stress**

- The entity shall disclose the percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress.
 - A contract producer (or grower) is a party with which the entity has an agreement under which the party typically agrees to provide facilities, labour, utilities and care for livestock owned by the entity in return for payment.
- 2 The percentage shall be calculated as the value of contracts associated with entities located in water-stressed regions divided by the total value of contracts associated with contract production of animal protein.

2.1 The entity shall identify contract producers that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool. Aqueduct.

FB-MP-440a.3. Discussion of strategy to manage opportunities and risks to feed sourcing and livestock supply presented by climate change

- 1 The entity shall discuss the risks or opportunities presented by climate change scenarios to its feed sourcing and livestock supply.
 - 1.1 Feed-sourcing risks and opportunities include those at the cultivation, milling and other processing and transportation phases of animal feed production.
 - 1.2 Livestock production risks and opportunities include those affecting all life cycle phases of bringing animal protein to market, including breeding, grazing, feedlot, slaughter, processing and distribution/transportation of live animals and processed animal protein products.
- 2 The entity may identify the risks presented by climate change, which may include availability of water, shifts in rangeland quality, disease migration and more frequent extreme weather events.
- 3 The entity may discuss how climate change scenarios will manifest (for example, at the point they will affect the entity's supply chain), how each type of feed (for example, soybean meal, cornmeal and other grains, or hay) or livestock (for example, beef cattle, dairy cattle, pigs or poultry) may be affected, and how other operating conditions (for example, transportation and logistics or physical infrastructure) will be affected.
- 4 The entity shall discuss efforts to assess and monitor the impacts of climate change and the related strategies to adapt to any risks or recognise any opportunities.
 - 4.1 For feed, strategies may include use of insurance, investments in hedging instruments, supply chain diversification, and ecosystem and biodiversity management.
 - 4.2 For livestock, strategies may include use of insurance, investments in hedging instruments, supply chain diversification, ecosystem and biodiversity management, and development of tolerant livestock breeds.
- The entity may discuss the probability that risks and opportunities will come to fruition, the likely magnitude of the effect on financial results and operating conditions, and the time frame over which such risks and opportunities are expected to manifest.
- 6 The entity may include discussion of the methods or models used to develop the climate change scenario(s) it uses, including the use of global gridded crop models or scientific research provided by governmental and non-governmental organisations (for example, Intergovernmental Panel on Climate Change Climate Scenario Process).
- The scope of disclosure includes the impact of climate change on the entity's operations, but it excludes the entity's strategy and risks and opportunities related to the mitigation of greenhouse gas (GHG) emissions generated through its operations (addressed in FB-MP.110a.2).

