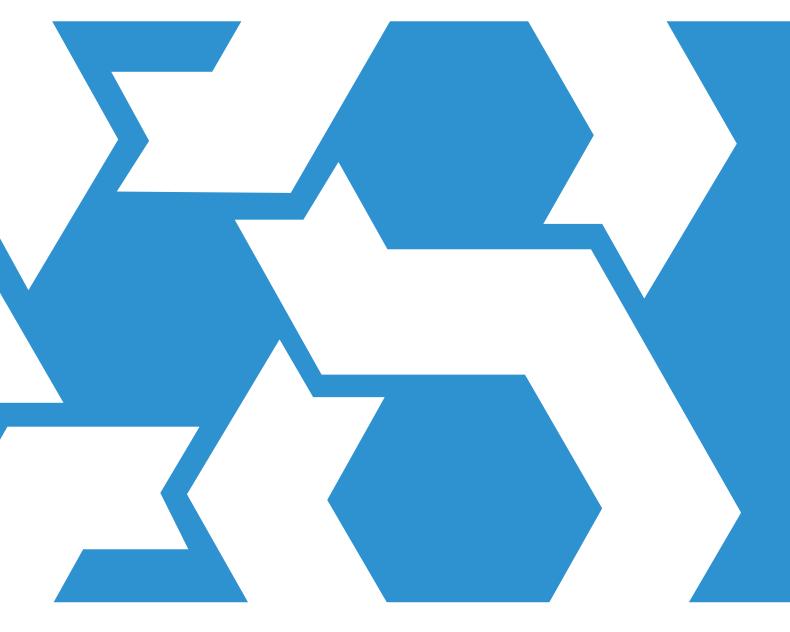


March 2022 **Exposure Draft** IFRS® Sustainability Disclosure Standard

[Draft] IFRS S2 Climate-related Disclosures Appendix B Industry-based disclosure requirements

Volume B23—Meat, Poultry & Dairy

Comments to be received by 29 July 2022



International Sustainability Standards Board

ED/2022/S2

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Introduction

This volume is part of Appendix B of [draft] IFRS S2 Climate-related Disclosures and is an integral part of that [draft] Standard. It has the same authority as the other parts of that [draft] Standard.

This volume sets out the requirements for identifying, measuring and disclosing information related to an entity's significant climate-related risks and opportunities that are associated with specific business models, economic activities and other common features that characterise participation in this industry.

The industry-based disclosure requirements are derived from SASB Standards (see paragraphs B10–B12 of [Draft] IFRS S2 *Climate-related Disclosures*). Amendments to the SASB Standards, described in paragraph B11, are marked up for ease of reference. New text is underlined and deleted text is struck through. The metric codes used in SASB Standards have also been included, where applicable, for ease of reference. For additional context regarding the industry-based disclosure requirements contained in this volume, including structure and terminology, application and illustrative examples, refer to Appendix B paragraphs B3–B17.

Meat, Poultry & Dairy

Industry Description

The Meat, Poultry & Dairy industry produces raw and processed animal products, including meats, eggs, and dairy products, for human and animal consumption. Key activities include animal raising, slaughtering, processing, and packaging. The industry's largest companies have international operations, and companies are vertically integrated to varying degrees, depending on the type of animal produced. Large industry operators typically rely on contract or independent farmers to supply their 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
Greenhouse Gas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO ₂ -e	FB-MP-110a.1
	Discussion of long-term 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) percent- age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent- age (%)	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 meters (m ³), Percent- age (%)	FB-MP-140a.1
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	FB-MP-140a.2
	Number of incidents of non-compliance 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 tons (t), Percentage (%)	FB-MP-160a.1
	Percentage of pasture and grazing land managed to Natural Resources Conser- vation Service (NRCS) conservation plan criteria	Quantitative	Percentage (%) by hectares	FB-MP-160a.2

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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 Extreme- ly 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 ²⁹	Quantitative	Various, Percentage (%)	FB-MP-000.B

²⁹ Note to **FB-MP-000.B** – Categories of animal protein production may be based on animal (e.g., chicken, pork, beef) and/or product type (e.g., milk, shell eggs). Units of measure shall be appropriate to the animal or product category (e.g., metric tons, number/head, gallons).

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 companies due to 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, both in the U.S. and globally. These emissions sources are currently not widely regulated, which presents uncertainties as to the future of GHG regulations for the industry. Companies 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 and/or compliance costs. By implementing new technologies to capture animal emissions and focusing on energy efficiency, companies can mitigate regulatory risk and volatile energy costs while also limiting their GHG emissions.

Metrics

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

- 1 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), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
 - 1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tons 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 include, but are not limited to:

- 2.1.1 GHG Reporting Guidance for the Aerospace Industry published by International Aerospace Environmental Group (IAEG)
- 2.1.2 Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources published by the U.S. 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
- 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 is generally 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 information, natural capital and associated business impacts (April 2018).
- 3 The entity may discuss any change in its emissions from the previous reporting period, including whether the change was due to emissions reductions, divestment, acquisition, mergers, changes in output, and/or changes in calculation methodology.
- 4 In the case that current reporting of GHG emissions to the CDP or other entity (e.g., a national regulatory disclosure program) 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 are from continuous emissions monitoring systems (CEMS), engineering calculations, or mass balance calculations.

FB-MP-110a.2. Discussion of long-term 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-term 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).

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- 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), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
- 2 The entity shall discuss its emission reduction target(s) and analyze its performance against the target(s), including the following, where relevant:
 - 2.1 The scope of the emission reduction target (e.g., 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 toward the achievement of the target;
 - 2.4 The timelines 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.
- 3 The entity shall discuss the activities and investments required to achieve the plans and/or targets, and any risks or limiting factors that might affect achievement of the plans and/or targets.
- 4 The entity shall discuss the scope of its strategies, plans, and/or reduction targets, such as how they relate to different business units, geographies, or emissions sources.
- 5 The entity shall discuss whether its strategies, plans, and/or reduction targets are related to, or associated with, emissions limiting and/or emissions reporting-based programs or regulations (e.g., the EU Emissions Trading Scheme, Quebec Cap-and-Trade System, California Cap-and-Trade Program), including regional, national, international, or sectoral programs.
- 6 Disclosure of strategies, plans, and/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. Companies' use of electricity and fossil fuels in their operations results in direct and indirect 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 companies. 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 the use of alternative fuels, renewable energy, and on-site generation of electricity versus purchasing from the grid can play an important role in influencing both the costs and the reliability of the energy supply.

Metrics

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

- 1 The entity shall disclose (1) the total amount of energy it consumed as an aggregate figure, in gigajoules (GJ).
 - 1.1 The scope of energy consumption includes energy from all sources, including energy purchased from sources external to the entity and energy produced by the entity itself (self-generated). For example, direct fuel usage, purchased electricity, and heating, cooling, and steam energy are all included within the scope of energy consumption.
 - 1.2 The scope of energy consumption includes only energy directly consumed by the entity during the reporting period.
 - 1.3 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 directly measured or taken from the Intergovernmental Panel on Climate Change (IPCC), the U.S. Department of Energy (DOE), or the U.S. Energy Information Administration (EIA).
- 2 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.
- 3 The entity shall disclose (3) the percentage of energy it consumed that is 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.
 - 3.2 The percentage shall be calculated as renewable energy consumption divided by total energy consumption.

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- 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 program, 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 must be retained (i.e., not sold) and retired or cancelled on behalf of the entity in order for the entity to claim them as renewable energy.
 - 3.3.2 For renewable PPAs and green power products, the agreement must explicitly include and convey that RECs and GOs be retained or replaced and retired or cancelled on behalf of the entity in order 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 hydro and biomass sources is limited to the following:
 - 3.4.1 Energy from hydro sources is limited to those that are certified by the Low Impact Hydropower Institute or that are eligible for a state Renewable Portfolio Standard;
 - 3.4.2 Energy from biomass sources is limited to materials certified to a third-party standard (e.g., 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 *Greene Framework for Renewable Energy Certification, Version 1.0* (2017) or Green-e regional standards, and/or materials that are eligible for an applicable state 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 usage (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, companies in the industry typically generate wastewater, or effluent, from both animal production and processing activities. As water scarcity becomes an issue of growing importance due to population growth, increasing consumption per capita, poor water management, and climate change, companies in the industry may face higher operational costs or lost revenues due to water shortages and/or regulations resulting in production reduction. Companies can manage water-related 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

- 1 The entity shall disclose the amount of water, in thousands of cubic meters, that was withdrawn from all sources.
 - 1.1 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.
- 2 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. Where there is no legal definition, fresh water shall be considered to be water that has less than 1,000 parts per million of dissolved solids per the U.S. Geological Survey.
 - 2.2 Water obtained from a water utility in compliance with U.S. National <u>Primary Drinking Water Regulations</u> jurisdictional drinking water <u>regulations</u> can be assumed to meet the definition of fresh water.
- 3 The entity shall disclose the amount of water, in thousands of cubic meters, that was consumed in its operations.
 - 3.1 Water consumption is defined as:
 - 3.1.1 Water that evaporates during withdrawal, usage, 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.

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

- 1 The entity shall describe its water management risks associated with water withdrawals, water consumption, and discharge of water and/or wastewater.
 - 1.1 Risks associated with water withdrawals and water consumption include risks to the availability of adequate, clean water resources, including, but not limited to:
 - 1.1.1 Environmental constraints—such as operating in water-stressed regions, drought, concerns of aquatic impingement or entrainment, interannual or seasonal variability, and risks due to the impact of climate change
 - 1.1.2 Regulatory and financial constraints—such as volatility in water costs, stakeholder perceptions and concerns related to water withdrawals (e.g., those from local communities, non-governmental organizations, and regulatory agencies), direct competition with and impact from the actions of other users (e.g., commercial and municipal users), restrictions to withdrawals due to 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 and/or wastewater, include, but are not limited to, the ability to obtain rights or permits related to discharges, compliance with regulations related to discharges, restrictions to discharges, the ability to maintain control over the temperature of water discharges, liabilities and/or reputational risks, and increased operating costs due to regulation, stakeholder perceptions and concerns related to water discharges (e.g., those from local communities, nongovernmental organizations, and regulatory agencies).
- 2 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.
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- 3 The entity may discuss the potential impacts that water management risks may have on its operations and the timeline over which such risks are expected to manifest.
 - 3.1 Impacts may include, but are not limited to, those associated with costs, revenues, liabilities, continuity of operations, and reputation.
- 4 The entity shall discuss its short-term and long-term strategies or plan to mitigate water management risks, including, but not limited to:
 - 4.1 The scope of its strategy, plans, goals and/or targets, such as how they relate to different business units, geographies, or water-consuming operational processes.
 - 4.2 Any water management goals and/or targets it has prioritized, and an analysis of performance against those goals and/or targets.
 - 4.2.1 Goals and targets may include, but are not limited to, those associated with reducing water withdrawals, reducing water consumption, reducing water discharges, reducing aquatic impingements, improving the quality of water discharges, and regulatory compliance.
 - 4.3 The activities and investments required to achieve the plans, goals and/or targets, and any risks or limiting factors that might affect achievement of the plans and/or targets.
 - 4.4 Disclosure of strategies, plans, goals, and/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 timelines for the water management plans, including the start year, the target year, and the base year.
 - 5.3 The mechanism(s) for achieving the target, including:
 - 5.3.1 Efficiency efforts, such as the use of water recycling and/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 (e.g., the World Wildlife Fund Water Risk Filter, The Global Water Tool, and Water Footprint Network Footprint Assessment Tool) to analyze water use, risk, and opportunities; and
 - 5.3.5 Collaborations or programs in place with the community or other organizations.

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- 5.4 The percentage reduction or improvement from the base year, where the base year is the first year against which water management targets are evaluated toward the achievement of the target.
- 6 The entity shall discuss whether its water management practices result in any additional lifecycle impacts or tradeoffs in its organization, including tradeoffs in land use, energy production, and greenhouse gas (GHG) emissions, and why the entity chose these practices despite lifecycle tradeoffs.

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

- 1 The entity shall disclose the total number of instances of non-compliance, including violations of a technology-based standard and exceedances of quantity and/or quality-based standards.
- 2 The scope of disclosure includes incidents governed by national, state, and local statutory permits and regulations, including, but not limited to, the discharge of a hazardous substance, violation of pretreatment requirements, or total maximum daily load (TMDL) exceedances.
- 3 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 actions that address a violation or threatened violation of water quantity and/or quality laws, regulations, policies, or orders, and can result in administrative penalty orders, administrative orders, and judicial actions, among others. For example, the U.S. Environmental Protection Agency (EPA) provides guidance on the scope of formal enforcement actions in, Informal and Formal Actions, Summary Guidance and Portrayal on EPA Websites.
- 4 Violations shall be disclosed, regardless of their measurement methodology or frequency. These include:
 - 4.1 Continuous discharges, limitations, standards, and prohibitions that are generally expressed as maximum daily, weekly average, and monthly averages.
 - 4.2 Non-continuous discharges and 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 needs to raise livestock and the contamination of the air, land, and groundwater by animal waste. While the impacts are different, both traditional and Concentrated Animal Feeding Operations (CAFO) lead to significant ecological impacts. The primary concern from CAFOs and animal-product processing facilities is the generation of large and concentrated amounts of waste and pollutants into the environment. Treating effluent and waste from facilities involves significant costs. Non-CAFO animal farming, which requires large tracts of pastureland, can lead to 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

- 1 The entity shall disclose the total amount, in metric tons, of animal litter and manure generated at its facilities.
 - 1.1 The scope of animal litter and manure includes both dry and liquid manures and litter.
- 2 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 the <u>following</u> minimum specific elements-of the Natural Resources Conservation Service (NRCS) Comprehensive Nutrient Management Plan (CNMP), which include:
 - 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–according to the criteria in the Nutrient Management Conservation Practice (Code 590)
 - 2.2.7 Recordkeeping
 - 2.2.8 References

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- 3 The scope of disclosure includes facilities that the entity owns and operates, facilities from which it contracts animal production (e.g., independent producers), and facilities that otherwise supply animal protein to the entity (e.g., for processing by the entity).
- 4 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 and/or its contracted suppliers (e.g., independent producers), whether it is owned, rented, or leased, 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 Natural Resources Conservation Service (NRCS) conservation plan criteria

- 1 The entity shall disclose the percentage of pasture and grazing land that is managed to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) applicable jurisdictional conservation plan criteria.
 - 1.1 Land shall be considered to be managed to NRCS conservation plan criteria if its management follows the planning process described by the National Planning Procedures Handbook and management practices outlined in the National Range and Pasture Handbook (NRPH), USDA NRCS, Grazing Lands Technology Institute Revision 1, December 2003.
 - <u>1.1</u> 1.2 The percentage shall be calculated as the area of pasture and grazing land managed to <u>NRCS applicable</u> conservation plan criteria divided by the total area of pasture and grazing land.
 - <u>1.2</u> <u>Conservation plans are jurisdictional standards or regulations intended to</u> promote sustainable management of natural resources, including, but not limited to soil, water, air, and related plant and animal resources.
- 2 The scope of disclosure includes land defined by the NRPH as rangeland, which is land on which the historic climax plant community is predominantly grasses, grasslike 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, naturalized 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 (e.g., independent producers), and operations that otherwise supply animal protein to the entity (e.g., for processing by the entity).
- <u>3</u> The entity shall disclose the jurisdictional standard or regulation used for its calculation.

Animal & Feed Sourcing

Topic Summary

Meat, poultry, and dairy companies 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. Companies that select and work with suppliers who are less resource-intensive and who actively manage adaptation to climate change and other resource scarcity risks, will be better protected from potential price volatility and supply disruptions. Additionally, such companies may improve their brand reputation and develop new market opportunities. Failure to effectively manage sourcing risks can lead to 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

- 1 The entity shall disclose the percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress.
 - 1.1 Animal feed includes soybean meal, cornmeal and other grains, and other fodder provided to livestock, but excludes forage.
- 2 The scope of disclosure shall include feed grown and/or manufactured by the entity and feed that is purchased by the entity.
- 3 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.
 - 3.1 The entity shall identify animal feed sourced from 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.2. Percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress

- 1 The entity shall disclose the percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress.
 - 1.1 A contract producer (or grower) is a party with which the entity has an agreement under which the party typically agrees to provide facilities, labor, 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.

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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 and/or opportunities that are 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 lifecycle 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, including, but not limited to, 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 (e.g., at the point they will affect the entity's supply chain), how each type of feed (e.g., soybean meal, cornmeal and other grains, or hay) or livestock (e.g., beef cattle, dairy cattle, pigs, or poultry) may be affected, and how other operating conditions (e.g., 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 it employs to adapt to any risks and/or recognize any opportunities.
 - 4.1 For feed, strategies include, but are not limited to, use of insurance, investments in hedging instruments, supply chain diversification, and ecosystem and biodiversity management.
 - 4.2 For livestock, strategies include, but are not limited to, use of insurance, investments in hedging instruments, supply chain diversification, ecosystem and biodiversity management, and development of tolerant livestock breeds.
- 5 The entity may discuss the probability that risks and opportunities will come to fruition, the likely magnitude of the impact on financial results and operating conditions, and the timeframe 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 organizations (e.g., Intergovernmental Panel on Climate Change Climate Scenario Process).

7 The scope of disclosure includes the impact of climate change on the entity's operations, but excludes the entity's strategy and risks and opportunities related to the mitigation of greenhouse gas (GHG) emissions that are generated through its operations (addressed in FB-MP.110a.2).