SASB STANDARDS

Now part of IFRS Foundation

Pulp & Paper Products

Sustainability Accounting Standard

RENEWABLE RESOURCES & ALTERNATIVE ENERGY SECTOR

Sustainable Industry Classification System® (SICS®) RR-PP

Under Stewardship of the International Sustainability Standards Board

INDUSTRY STANDARD | VERSION 2023-12

IFRS® Sustainability

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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

Pulp & Paper Products industry entities manufacture a range of wood pulp and paper products, including pulp fibre, paper packaging and sanitary paper, office paper, newsprint, and paper for industrial applications. Entities in the industry typically function as business-to-business entities and may have operations in multiple countries. Although some integrated entities own or manage timber tracts and are engaged in forest management, sustainability issues arising from these activities are addressed in the Forestry Management (RR-FM) industry.

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 tonnes (t) CO_2-e	RR-PP-110a.1
	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	RR-PP-110a.2
Air Quality	Air emissions of the following pollutants: (1) NO_x (excluding N_2O), (2) SO_2, (3) volatile organic compounds (VOCs), (4) particulate matter (PM), and (5) hazardous air pollutants (HAPs)	Quantitative	Metric tonnes (t)	RR-PP-120a.1
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage from biomass, (4) percentage from other renewable energy and (5) total self-generated energy [1]	Quantitative	Gigajoules (GJ), Percentage (%)	RR-PP-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 (m^3), Percentage (%)	RR-PP-140a.1
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	RR-PP-140a.2
Supply Chain Management	Percentage of wood fibre sourced from (1) third-party certified forestlands and percentage to each standard and (2) meeting other fibre sourcing standards and percentage to each standard [2]	Quantitative	Percentage (%) by weight	RR-PP-430a.1
	Amount of recycled and recovered fibre procured [3]	Quantitative	Metric tonnes (t)	RR-PP-430a.2

[1] Note to **RR-PP-130a.1** – The entity shall discuss risks and uncertainties associated with the use of biomass for energy.

[2] Note to **RR-PP-430a.1** – The entity shall discuss due diligence practices for fibre that is not from certified forestlands or certified to other fibre sourcing standards.

[3] Note to **RR-PP-430a.2** – The entity shall discuss its strategy to incorporate environmental lifecycle analyses into decisions to source recycled and recovered fibre versus virgin fibre.

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Pulp production	Quantitative	Air-dried metric tonnes (t)	RR-PP-000.A
Paper production	Quantitative	Air-dried metric tonnes (t)	RR-PP-000.B
Total wood fibre sourced[4]	Quantitative	Metric tonnes (t)	RR-PP-000.C

[4] Note to **RR-PP-000.C** – The scope of wood-fibre-based raw materials includes all inputs processed to be sold as a finished good, including recycled raw materials, virgin raw materials and goods that will be consumed directly in the production process and excluding biomass for energy use.

Greenhouse Gas Emissions

Topic Summary

The manufacturing of pulp and paper products generates direct greenhouse gas (GHG) emissions associated with the combustion of fossil fuels and biomass in stationary and mobile engines, cogeneration boilers, and other processing equipment. Entities in this industry also typically use significant amounts of carbon-neutral biomass for their energy needs, the use of which may reduce the costs associated with purchasing fossil fuels, as well as mitigate regulatory risk associated with carbon emissions. Emissions associated with fossil fuel sources may add regulatory compliance costs, depending on the magnitude of emissions and the prevailing emissions regulations. Entities that cost-effectively manage GHG emissions through greater energy efficiency, alternative fuels use or manufacturing process improvements may benefit from improved operating efficiency and reduced regulatory compliance costs.

Metrics

RR-PP-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 (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalent (CO_2-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:

2.1.1 G*HG 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 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 generally is aligned with the 'financial control' approach defined by the *GHG Protocol*, and the approach published by the Climate Disclosure Standards Board (CDSB) that is 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 are from continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.

RR-PP-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 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).

1.2 The scope of GHG emissions includes the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

2 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.

3 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.

4 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.

5 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.

6 Disclosure of strategies, plans or reduction targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.

Air Quality

Topic Summary

Pulp and paper products mills generate air emissions including sulphur oxides, nitrogen oxides and particulate matter. The sources of emissions include cogeneration fuel boilers, pulp and paper pressure chambers, wood chip pulping, pulping chemical recovery, and process engines. Although emissions from the industry have declined considerably in recent years, emissions abatement expenditures may be significant, while evolving air-quality regulations can create regulatory uncertainty. Entities that can cost-effectively reduce air emissions may improve operational efficiency, benefit from a lower cost structure and mitigate regulatory risk.

Metrics

RR-PP-120a.1. Air emissions of the following pollutants: (1) NO_x (excluding N_2O), (2) SO_2, (3) volatile organic compounds (VOCs), (4) particulate matter (PM), and (5) hazardous air pollutants (HAPs)

1 The entity shall disclose its emissions of air pollutants, in metric tonnes per pollutant, released into the atmosphere.

1.1 The scope of the disclosure includes air pollutants associated with the entity's direct air emissions resulting from all the entity's activities and sources of emissions, which may include stationary or mobile sources, production facilities, office buildings and transportation fleets.

2 The entity shall disclose its emissions of (1) oxides of nitrogen (NO_x), reported as NO_x.

2.1 The scope of NO_x includes NO and NO_2 but excludes N_2O.

3 The entity shall disclose its emissions of (2) oxides of sulphur (SO_2)

4 The entity shall disclose its emissions of (3) non-methane volatile organic compounds (VOCs).

4.1 VOCs are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and methane, that participates in atmospheric photochemical reactions, except those designated under applicable jurisdictional laws or regulations as having negligible photochemical reactivity.

4.2 If applicable regulatory definitions of VOCs conflict with this definition, the entity may define VOCs in accordance with the applicable jurisdictional legal or regulatory definition. In this case, the entity shall identify the source of the definition.

5 The entity shall disclose its emissions of (4) particulate matter (PM), reported as total filterable PM emissions.

6 The entity shall disclose its emissions of (5) hazardous air pollutants (HAPs).

6.1 HAPs are defined as those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

7 The entity may discuss the calculation method for its emissions disclosure, such as whether data is from continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.

Energy Management

Topic Summary

Pulp and paper products manufacturing is energy-intensive. In most facilities, entities generate energy primarily from the combustion of biomass and fossil fuels, although purchased electricity also may be used in some facilities. Decisions regarding on-site electricity generation versus sourcing it from the grid, as well as the use of biomass and other renewable energy, may create trade-offs related to the energy supply's cost and reliability for operations and the extent of the regulatory risk from Scope 1 or other air emissions. The way an entity manages energy efficiency, its reliance on varied types of energy and the associated sustainability risks, and its access to alternative energy sources, may mitigate the effects of energy cost variability.

Metrics

RR-PP-130a.1. (1) Total energy consumed, (2) percentage grid electricity, (3) percentage from biomass, (4) percentage from other renewable energy and (5) total self-generated energy

1 The entity shall disclose (1) the total amount of energy 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 use, purchased electricity, and heating, cooling and steam energy all are 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 measured directly or taken from the Intergovernmental Panel on Climate Change (IPCC).

2 The entity shall disclose (2) the percentage of energy 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 consumed that was supplied by biomass.

3.1 The percentage shall be calculated as biomass energy consumption divided by total energy consumption.

4 For the purposes of this disclosure, the scope of renewable energy from biomass sources is limited to:

4.1 Energy from biomass sources that meets at least one of the following criteria:

4.1.1 Certification 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)

4.1.2 Classification as an 'eligible renewable' according to the Green-e Energy National Standard Version 2.5 (2014)

4.1.3 Eligibility for a jurisdictional Renewable Portfolio Standard

5 The entity shall disclose (4) the percentage of energy it consumed that was renewable energy, excluding biomass energy.

5.1 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.

5.2 The percentage shall be calculated as renewable energy consumption divided by total energy consumption.

5.3 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.

5.3.1 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.

5.3.2 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.

5.3.3 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.

6 The entity shall disclose (5) the amount of energy self-generated by the entity as an aggregate figure, in gigajoules (GJ).

6.1 The entity may disclose the amount of self-generated energy sold to an electric utility or end-use customer.

6.2 The entity may disclose the amount of self-generated energy that was renewable energy, where renewable energy is defined above.

7 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).

Note to **RR-PP-130a.1**

1 The entity shall describe risks and uncertainties associated with the use of biomass as an energy source, and it shall describe how it manages those risks.

2 Risks and uncertainties associated with the use of biomass as an energy source may include:

2.1 Risks from air emissions (such as oxides of nitrogen and sulphur), including costs to comply with emissions restrictions and reputational damage resulting from violations.

2.2 Regulatory risks, including financial effects associated with compliance with potential biogenic carbon dioxide regulations, or reputational impacts associated with biomass failing to meet the definition of eligible renewable energy in a jurisdictional Renewable Portfolio Standard.

2.3 Sourcing risks, including reputational risks associated with a lack of transparency about whether purchased biomass was sustainably harvested.

Water Management

Topic Summary

Pulp and paper products manufacturing is typically water-intensive in materials processing, process cooling and steam generation at on-site energy plants. Entities require ample, stable water supplies and may produce large volumes of wastewater, the majority of which is treated and returned to the environment. Process water typically contains dissolved organic compounds and other solids, underscoring the importance of water treatment. In addition to water effluents, water availability is an important consideration because water scarcity may result in higher supply costs, supply disruptions or tension with local water users. Entities may adopt various strategies to address water supply and treatment issues, such as cost-effectively enhancing the recycling of process water, improving production techniques to lower water intensity, and ensuring compliance with water-effluent regulations.

Metrics

RR-PP-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 metres, 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. 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.

2.2 Water obtained from a water utility in compliance with jurisdictional drinking water regulations can be assumed to meet the definition of fresh water.

3 The entity shall disclose the amount of water, in thousands of cubic metres, consumed in its operations.

3.1 Water consumption is defined as:

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.

5 The entity shall disclose 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 water consumed in locations with High or Extremely High Baseline Water Stress as a percentage of the total water consumed.

RR-PP-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 or wastewater.

1.1 Risks associated with water withdrawals and water consumption include risks to the availability of adequate, clean water resources, which include:

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 from 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 (for example, those from local communities, non-governmental 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).

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.

3 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 plans to mitigate water management risks, which 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 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.

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 activities, 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 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, risks and opportunities; and

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 lifecycle impacts or trade-offs in its organisation, including trade-offs in land use, energy production and greenhouse gas (GHG) emissions, and why the entity chose these practices despite lifecycle trade-offs.

Supply Chain Management

Topic Summary

Pulp and paper products entities source wood and wood fibre from forestry management entities, paper fibre recyclers and forests that the entities themselves manage. Supply chain risks include decreased productivity of forestlands because of management practices or climate change, regulations addressing sustainable forest management, and reputational effects. To mitigate such risks and satisfy growing customer demand for sustainably sourced fibre and paper products, manufacturers implement forest certification and fibre chain-of-custody standards which verify that virgin and recycled fibre originate from sustainably managed forests. In addition, pulp and paper manufacturers may face trade-offs from the use of recovered fibre. Products with recycled content are increasingly in demand, providing a possible avenue for product differentiation, while using recycled fibre can minimise the need for virgin fibre. Conversely, manufacturing products with a greater recycled content may increase waste generation and energy consumption, while recycled fibre can be costlier, given demand–supply gaps. Therefore, entities may benefit by optimising recycled fibre use to balance its environmental and economic trade-offs.

Metrics

RR-PP-430a.1. Percentage of wood fibre sourced from (1) third-party certified forestlands and percentage to each standard and (2) meeting other fibre sourcing standards and percentage to each standard

1 The entity shall disclose the percentage of total wood-fibre-based materials sourced from forestlands certified to forest management standards, where:

1.1 Third-party forest management standards are those certifying forests are harvested in a sustainable manner and ensure adherence to environmental and social criteria including legal compliance, land rights, community and worker relations, environmental impact and biodiversity, forest management plans and practices, land use, wildlife habitat conservation, and water conservation, among others.

1.2 Third-party forest management certifications may include those promoted by the following organisations (or the equivalent):

1.2.1 American Tree Farm System (ATFS) (ATFS Certification)

1.2.2 Forest Stewardship Council (FSC) (FSC Forest Management and Chain of Custody certifications)

1.2.3 Programme for the Endorsement of Forest Certification (PEFC) (PEFC Chain of Custody certifications)

1.2.4 Forest certification systems endorsed by the PEFC

1.2.5 Sustainable Forest Initiative (SFI) (SFI Forest Management and Chain of Custody certifications)

1.3 The scope of wood-fibre-based materials includes all inputs processed to be sold as a finished good, including recycled raw materials, virgin raw materials, and goods consumed directly in the production process and excluding biomass for energy.

2 The percentage of wood-fibre-based materials from third-party certified forestlands shall be calculated as the total weight (in air dried metric tonnes) of the entity's wood-fibre-based materials sourced from third-party certified forestlands divided by the total weight (in air dried metric tonnes) of wood-fibre-based materials sourced.

3 The entity shall disclose the percentage of the total wood-fibre-based materials from third-party certified forestlands certified to each standard (for example, FSC Chain of Custody, PEFC Chain of Custody and SFI Chain of Custody).

3.1 The entity shall calculate the percentage of wood-fibre-based materials certified to each standard as the amount of wood-fibre-based materials third-party certified to the respective standard divided by the total amount of wood fibre sourced by the entity.

3.2 If wood-fibre is certified to multiple third-party certifications, the entity shall include the amount of such fibre in its calculations for each relevant certification.

4 The entity shall disclose the percentage of its total wood-fibre-based materials sourced from non-third-party certified forestlands but meets other fibre sourcing standards, including:

4.1 Responsible fibre sourcing standards (for example, SFI Fibre Sourcing Standard)

4.2 Controlled wood standards (for example, FSC Controlled Wood Certification and PEFC Controlled Wood)

4.3 Recycled fibre standards that include post- and pre-consumer reclaimed material (for example, PEFC Controlled Sources, FSC Recycled Label and SFI Recycled Label)

4.4 Any other due diligence standards that cover sourcing requirements for fibre from non-certified forestlands

5 For fibre from non-certified forestlands that meets multiple fibre sourcing standards, the entity shall not account for the weight more than once when calculating the total percentage of fibre from non-certified forestlands that meets other fibre sourcing standards.

6 The entity shall disclose the percentage of wood fibre that meets each sourcing standard (for example, FSC Controlled Wood, SFI Fibre Sourcing Standard and PEFC Controlled Sources).

6.1 If wood fibre meets multiple sourcing standards, the entity shall include the amount of such fibre in its calculations for each relevant sourcing standard.

Note to **RR-PP-430a.1**

1 The entity shall discuss its due diligence practices for fibre that is not from certified forestlands or certified to other fibre sourcing standards and its policies to verify the forestry management and harvesting practices of suppliers, which may include codes of conduct, audits or contracts, among others.

2 The entity shall disclose how it verifies that its non-certified fibre includes criteria for the following:

2.1 Wood legality

2.2 Wood sourced from areas of protected conservation status or high biodiversity value

2.3 Logging in or near areas of endangered species habitat

2.4 Logging in or near areas of indigenous peoples' land

2.5 The forestry management and harvesting practices of suppliers, including reviews of environmental impact assessments or forestry management plans

2.6 The use of genetically modified organisms (GMOs), pesticides or other chemicals in forests

2.7 Criteria outlined in the definition of SFI 'controversial sources', the definition of FSC 'controlled wood', or the equivalent

3 The entity also may disclose the sources of its wood fibre (for example, from corporate, private or federally owned forestlands and whether fibre is grown domestically or internationally) and the potential risks associated with procuring fibre from these sources.

RR-PP-430a.2. Amount of recycled and recovered fibre procured

1 The entity shall disclose the amount of recycled and recovered fibre procured in metric tonnes from suppliers as well as recycled and recovered fibre obtained directly through collection programmes.

2 Recycled content is defined, consistent with definitions in ISO 14021:1999, 'Environmental labels and declarations—Self-declared environmental claims (Type II environmental labelling)', as the portion, by mass, of recycled or recovered material in a product or packaging, where only pre-consumer and post-consumer materials shall be considered as recycled content, and where:

2.1 Recycled material is defined as material reprocessed from recovered (or reclaimed) material by means of a manufacturing process and made into a final product or a component for incorporation into a product.

2.2 Recovered material is defined as material that would have otherwise been discarded as waste or used for energy recovery, but it has instead been collected and recovered (or reclaimed) as a material input, in lieu of new primary material, for a recycling or manufacturing process.

2.3 Pre-consumer material is defined as material diverted from the waste stream during a manufacturing process. Excluded is the reuse of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated them.

2.4 Post-consumer material is defined as material generated by households or by commercial, industrial and institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

2.5 Fibre shall be considered recycled or recovered if it meets the SFI definition of recycled content, the FSC definition of reclaimed material, or the PEFC definition of recycled wood and fibres.

Note to **RR-PP-430a.2**

1 The entity shall discuss how it incorporates environmental lifecycle analyses into decisions to source recycled and recovered fibre versus virgin fibre.

1.1 An environmental lifecycle trade-off is defined as an environmental benefit or consequence of choosing to source one type of fibre over another.

1.1.1 Environmental lifecycle benefits from using recycled and recovered fibre may include reducing the need for deforestation, reducing GHG emissions from paper in landfills and reducing landfill waste.

1.1.2 Environmental lifecycle consequences of using recycled and recovered fibre can include increased resource consumption and generation of air emissions during the transportation and processing of fibre.

2 The entity shall discuss how lifecycle trade-off assessments are incorporated into its fibre sourcing decisions, including how the following risks and opportunities are managed:

2.1 Costs of recycled and recovered materials

2.2 Constraints related to accessing the necessary supply of recycled and recovered fibre

2.3 Recycling infrastructure needed by the entity or external paper collection facilities

2.4 Consumer behaviour to improve recovery of paper for recycling

2.5 Virgin wood fibre sourcing risks

2.6 Improving paper recovery rates

2.7 Regulation related to consumer recycling or minimum recycled content usage

2.8 Quality of fibre needed for products and the intended use of fibre for product segments

2.9 Product innovation opportunities

2.10 Increased revenue and reputational benefits related to products with recycled or recovered content

3 The entity may disclose a breakdown of its recycled and recovered fibre use by product segment.

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