
ISSB meeting

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Project	Biodiversity, Ecosystems and Ecosystem Services (BEES)
Topic	Current state of disclosure of BEES-related information—sector findings
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Purpose

1. This paper summarises the staff's assessment of the metrics entities disclosed on biodiversity, ecosystems and ecosystem services (BEES)-related topics within, between and among different economic sectors.
2. To research the current state of BEES-related disclosure, this assessment compares information from two databases: a sample of publicly-traded global companies in developed and emerging markets ('available reporters') and a sample of companies reporting in accordance with SASB Standards ('SASB reporters'). The staff's analysis draws on both data sets to compare disclosure patterns within, between and among sectors to understand similarities and differences. These findings will inform considerations for the next phase of the BEES research project and any potential future standard-setting activities, including enhancements to the SASB Standards.
3. This paper is meant to be read in tandem with Agenda Paper 3C *Current state of disclosure of BEES-related information* and Agenda Paper 3B and 4C *Approach to research on current state of disclosure of BEES and human capital-related information*. The staff will not ask the ISSB to make any decisions in this session.

Background

4. This paper explores the research question, ‘What is the current state of company disclosure about BEES-related risks and opportunities?’ The sector-based assessment presented herein specifically addresses, for BEES-related topics:
- (a) Do the topics appear to be *sector-based* or *cross cutting* among sectors?
 - (i) A *sector-based* topic is one that could reasonably be expected to present risks or opportunities that are relevant to entities in only a subset of sectors or industries, or where the characteristics of the risks and opportunities appear to be specific to sector or industry contexts.
 - (ii) A *cross-cutting* topic is one that could reasonably be expected to present risks or opportunities that are relevant to entities in a wide range of different sectors and industries and appear to have similar characteristics regardless of sector or industry contexts.¹
 - (b) Within a given sector, are there differences in the information disclosed between available reporters and SASB reporters?
 - (i) Given the above findings, what are future areas of investigation for the next phase of the research project and considerations for enhancements to the SASB Standards?
5. This assessment compares:
- (a) from the sample of available reporters, BEES-related information from disclosures determined to be similar to the metrics requirements in the IFRS S1 core content area; and
 - (b) from the sample of SASB reporters, BEES-related metrics and/or technical protocols (collectively referred to as ‘disclosure elements’) within the SASB Standards.

¹ Subject to further research, these topics may still include aspects or information that is specific to sector or industry contexts.

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6. For the purpose of comparing disclosures, the staff developed a list of seven BEES-related topics to help categorise disclosures. Those topics consist of biodiversity, species and ecosystems; land use and land use change; pollution; resource use and extraction; waste and circularity; and water and wastewater.²
 7. The staff's findings regarding similarities and differences between the two databases are subject to additional analysis and engagement with stakeholders to better understand their potential relevance to investors' decisions and relationship to an entity's prospects. This paper is one element of assessing the current state of disclosure. It is not the staff's intention that the ISSB consider these findings in isolation, but rather in combination with the findings of the other research areas. The staff plans to present further analysis of the connections among the different research areas at future meetings.
 8. Further information about the scope of reporters included and the approach for overall assessment can be found in Agenda Paper 3B and 4C *Approach to research on current state of disclosure of BEES and human capital-related information*.

Summary of findings

9. In the analysis of BEES-related disclosures, the staff found that three out of seven topics appear likely to be cross-cutting throughout sectors: pollution, waste and circularity and water and wastewater. These topics were found to be cross-cutting due to their general relevance and consistency of characterisation throughout sectors.
10. The staff also noted four out of seven topics that appear to be sector-based: biodiversity, species and ecosystems, land use and land use change, resource use and extraction, and 'other' BEES-related topics. These topics were found to be sector-

² See Agenda Paper 3B and 4C *Approach to research on current state of disclosure of BEES and human capital-related information* for the definition of each category. While this topical tagging provides a structure for comparison, it should be noted that disclosures are often complex and topics may be interrelated. These groupings do not represent proposed ISSB categories, definitions or focus areas. They were established purely to categorise and compare the findings in this analysis. Any proposed definitions, groupings or categories to be used in future research or standard-setting are still to be determined.

based for a range of reasons. Some topics appear to be sector-based due to the sector specificity of the information disclosed under the topic (resource use and extraction and ‘other’ BEES-related topics). Some topics appear sector-based due to sector-based disclosure patterns and the relevance of the topic itself to only a subset of sectors (biodiversity, species and ecosystems and land use and land use change).

11. The BEES-related topics were also assessed to determine differences in disclosure patterns between available reporters and SASB reporters. Six of the seven topics were found to have similar disclosure patterns between both databases. Land use and land use change was found to have differences in disclosure patterns. Some of the differences can be attributed to the inherent structure of the SASB Standards, where the presence of defined technical protocols and the relative abundance of certain disclosure elements dictates the extent of disclosure to a degree. Areas where differing patterns emerged in comparison to the available reporters are highlighted under each topic for future research.

Questions for the ISSB

1. Do ISSB members have any questions or clarifications about sector findings on the current state of disclosure of BEES-related information?
2. Which of the findings about the current state of disclosure of BEES-related information presented in this paper do ISSB members think warrant further research or engagement in the next phase of research?
3. Which of the findings about the current state of disclosure of human capital-related information presented in this paper do ISSB members think warrant further research or engagement with regards to the SASB enhancements?

Analysis

Biodiversity, species and ecosystems

12. Available reporters: Some entities in the available reporters database disclosed information about biodiversity, species or ecosystems. Entities in all 11 SICS sectors

reported information related to this topic, with the highest disclosure rates in the Renewable Resources & Alternative Energy and Extractives & Minerals Processing sectors. Under this topic, information about the management of biodiversity, ecosystems and species (including, for example, conservation, restoration, rehabilitation) was the most highly disclosed throughout sectors. There were examples of entities disclosing biodiversity, species and ecosystems-related information linked to specific sector or industry contexts. Other aspects were disclosed under this topic at a lower rate, including outcomes of biodiversity-related measurements or assessments and drivers of biodiversity loss (for example, information about an entity's locations or sites with biodiversity-related impacts or proximity to those sites).

13. SASB reporters: Relative to other BEES-related topics in the SASB Standards, biodiversity, species and ecosystems-related disclosure elements are less abundant and entities disclosed related information at a lower rate on average. Biodiversity, species and ecosystems-related disclosure elements are present in five of 11 SIC sectors, with the highest disclosure rates in the Renewable Resources & Alternative Energy sector. Under this topic, the most highly disclosed and the most common disclosure element throughout sectors was information about an entity's locations or sites with biodiversity-related impacts or proximity to those sites (present in four sectors). Information on efforts to manage, and project delays related to, ecological impacts was the least frequently disclosed (present in the Renewable Resources & Alternative Energy sector).
14. Comparison: Based on the current state of disclosure, this topic appears likely to be *sector-based* with the most relevance to entities in the Extractives & Minerals Processing and Renewable Resources & Alternative Energy sectors. There appear to be similar disclosure patterns between available reporters and SASB Standards disclosures, although available reporters disclosed broader information such as biodiversity-related measurements and assessments.

Land use and land use change

15. Available reporters: Some entities in the available reporters database disclosed information about land use and land use change. Entities in all 11 SICCS sectors reported information related to this topic, with the highest disclosure rates in the Food & Beverage and Extractives & Minerals Processing sectors. Under this topic, information about land use change (for example, disturbed, reclaimed or restored land) was the most highly disclosed throughout sectors. The exception is for entities in the Food & Beverage, Renewable Resources & Alternative Energy and the Consumer Goods sectors, where the most highly disclosed information was about land management in either entities' operations or supply chain (for example, about specific agricultural or forestry activities and related certifications).
16. SASB reporters: Relative to other BEES-related topics in the SASB Standards, land use and land use change-related disclosure elements are least abundant and entities disclosed related information at a lower rate on average. Land use and land use change-related disclosure elements are present in three of 11 SICCS sectors, with the highest disclosure rates in the Infrastructure sector. Under this topic, the most highly disclosed information was about the number of lots or homes related to land use type (redevelopment sites, infill sites, compact developments) in the Home Builders industry standard. Information on land area disturbed and/or restored (present in the Extractives & Minerals Processing sector) was disclosed at a medium level, whereas the percentage of land managed to conservation plan criteria (present in the Food & Beverage sector) was least frequently disclosed.
17. Comparison: Based on the current state of disclosure, this topic appears likely to be *sector-based*. Although information under this topic can be consistently characterised (for example, disturbed, reclaimed or restored land and land management practices), land use and land use change-related information appears to have the most relevance to entities in the Food & Beverage and Extractives & Minerals Processing sectors. There appear to be differing disclosure patterns between available reporters and SASB

Standards disclosures, including entities in the Food & Beverage sector reporting on land management practices at differing rates.

Pollution

18. Available reporters: Some entities in the available reporters database disclosed information about pollution. Entities in all 11 SICS sectors reported information related to this topic, with the highest disclosure rates in the Extractives & Minerals Processing, Resource Transformation and Transportation sectors. Under this topic, information about emissions to air (with the reported air pollutants varying between sectors) was the most highly disclosed throughout sectors. The exception was in the Food & Beverages and the Health Care sectors, where information about emissions to water was the most highly disclosed. Information about incidents and related fines due to non-compliance with pollution-related laws and regulations was disclosed under this topic at a slightly lower rate, while other aspects were disclosed at a significantly lower rate, including emissions to land or soil and noise pollution.
19. SASB reporters: Relative to other BEES-related topics in the SASB Standards, pollution-related disclosure elements are highly abundant and entities disclosed related information at a high rate on average. Pollution-related disclosure elements are present in nine of 11 SICS sectors. Relevant disclosure elements are the most numerous in the Extractives & Minerals Processing sector. Disclosure rates on this topic were highest from entities in the Technology & Communications and Transportation sectors on average. Under this topic, the most highly disclosed and the most common information throughout sectors was the quantity of pollutant emissions to air (present in five sectors), where the exact list of air pollutants disclosed varies between sectors. Other pollution-related disclosure elements vary widely throughout sectors and were reported inconsistently. These disclosure elements typically address incidents of pollution emissions, information on management of chemicals or hazardous substances, and an entity's management of pollution-related risks. Details on SASB reporter disclosures on emissions to water are otherwise discussed under 'Water and wastewater' (paragraph 27).

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20. Comparison: Based on the current state of disclosure, this topic appears likely to be *cross-cutting*. Pollution-related information is consistently characterised and measured and is relevant throughout sectors. There appear to be similar disclosure patterns between available reporters and SASB Standards disclosures. Subject to further research, some pollution-related information was disclosed that is specific to sector or industry contexts. This was typically disclosure related to specific pollutants or emissions to different destinations.

Resource use and extraction

21. Available reporters: Many entities in the available reporters database disclosed information about resource use. Entities in all 11 SICS sectors reported information related to this topic, with the highest disclosure rates in the Food & Beverage sector, where most entities disclosed information about resource use. Under this topic, information about the use of input materials to production was the most highly disclosed throughout sectors. This includes information about about resource origins and supply chain (including information of materials produced via circular economy-based processes such as recycling or reuse) and related certifications. Other aspects were disclosed at a lower rate, including information about energy use and use of materials for packaging.
22. SASB reporters: Relative to other BEES-related topics in the SASB Standards, resource use and extraction-related disclosure elements are moderately abundant and entities disclosed related information at a medium rate on average. Resource use and extraction-related disclosure elements are present in nine of 11 SICS sectors. Consumption of renewable fuel was disclosed at the most consistently high rate (present in three sectors), except in the Food & Beverage sector where entities disclosed that information at a lower rate. An entity's management of risks associated with the use of critical materials (present in five sectors) and the quantity of raw materials purchased and percentage certified to a sustainable standard (present in four sectors) was reported at a medium rate. Among sectors, resource use and extraction-related disclosure elements are least frequently disclosed in the Food & Beverage

sector. Due to the industry specificity of the SASB Standards, other resource use and extraction-related disclosure elements vary widely throughout sectors and were reported inconsistently. These disclosure elements are typically related to the management of input resources and materials including critical materials. Details on SASB reporter disclosures on material recycling or reuse are otherwise discussed under ‘Waste and circularity’ (paragraph 24).

23. Comparison: Based on the current state of disclosure, this topic appears likely to be *sector-based*. Although some information is consistently characterised at a high level, the types of resources, their origins, associated risks, and related certifications vary by sector or industry context. There appear to be similar disclosure patterns between available reporters and SASB Standards disclosures.

Waste and circularity

24. Available reporters: Many entities in the available reporters database disclosed information about waste. Entities in all 11 SICs sectors reported information related to this topic, with the highest disclosure rates in the Resource Transformation, Food & Beverage and Consumer Goods sectors, where most entities disclosed information about waste. Under this topic, information is disclosed either about waste generation (including information on the amount of total waste produced or of specific categories of waste, such as hazardous waste) or about waste disposal methods (for example, landfill, recycling, or reuse including circularity mechanisms). Additionally, sectoral differences emerged regarding the categories of waste considered in the disclosed metrics related to waste generation—for example, food waste in the Food & Beverage or Services sectors, medical waste in the Health Care sector, or mineral and non-mineral waste in Extractives & Minerals Processing sector. Details on available reporter disclosures on circularity mechanisms related to inputs to production are also discussed under ‘Resource use and extraction’ (paragraph 21).
25. SASB reporters: Relative to other BEES-related topics in the SASB Standards, waste and circularity-related disclosure elements are highly abundant and entities disclosed

related information at a high rate on average. Waste and circularity-related disclosure elements are present in nine of 11 SICS sectors. Under this topic, the most highly disclosed and the most common disclosure element throughout sectors was the amount of waste generated, percentage hazardous, and/or percentage recycled (seven sectors). Information on packaging weight and recycled content (two sectors) and end of life material recovery and recyclability (five sectors) were disclosed at a high rate. Information on sector-specific types of waste generated and management varies across sectors, with the lowest disclosure rates in the Food & Beverage sector (food waste) and the Extractives & Mineral Processing sector (coal and mining waste).

26. Comparison: Based on the current state of disclosure, this topic appears likely to be *cross-cutting*. Waste and circularity-related information is consistently characterised and measured and is relevant throughout sectors. There appear to be similar disclosure patterns between available reporters and SASB Standards disclosures. Subject to further research, some waste and circularity-related information is disclosed that is specific to sector or industry contexts. This is typically information that disaggregates or adds to total waste disclosures, including specific types of waste, associated risks, and circularity mechanisms.

Water and wastewater

27. Available reporters: Many entities in the available reporters database disclosed information about water and wastewater. Entities in all 11 SICS sectors reported information related to this topic, with the highest disclosure rates in the Resource Transformation, Extractives & Minerals Processing, the Food & Beverage and the Renewable Resources & Alternative Energy sectors, where most entities disclosed information about water and wastewater. Under this topic, information on quantitative use of water (including water withdrawals or consumption, and related intensities) was the most highly disclosed throughout sectors. Other aspects were disclosed under this topic at a lower rate, including water quality (for example, wastewater produced, or emissions into water), or information specific water management processes (for example, water recycled or reused).

28. SASB reporters: Relative to other BEES-related topics in the SASB Standards, water and wastewater-related disclosure elements are highly abundant and entities disclosed related information at a medium rate on average. Water and wastewater-related disclosure elements are present in nine of 11 SICS sectors. Under this topic, the most highly disclosed and the most common disclosure element throughout sectors was the total amount of water withdrawn and/or consumed (eight sectors). Information on the management of water risks (five sectors) and number of incidents of non-compliance (five sectors) was disclosed at a medium rate. Information on operational and customer-related water efficiency (primarily concentrated in the Infrastructure sector) and on products or ingredients sourced from water-stressed areas (primarily concentrated in the Food & Beverage sector) was disclosed at a lower rate.
29. Comparison: Based on the current state of disclosure, this topic appears likely to be *cross-cutting*. Water and wastewater-related information is consistently characterised and measured and is relevant throughout sectors. There appear to be similar disclosure patterns between available reporters and SASB Standards disclosures. Subject to further research, some water and wastewater-related information is disclosed that is specific to sector or industry contexts. This is typically information that disaggregates or adds to total water and wastewater disclosures, including specific types of pollutants.

Other

30. Staff identified disclosures that were relevant to BEES-related risks or opportunities but did not fit within the categories set out above.
31. Available reporters: Some entities in the available reporters database disclosed information about two additional BEES-related topics: sustainable products and related certifications, and environmental compliance and environmental certifications of operations. Entities in all 11 SICS sectors reported information related to these topics, with the highest disclosure rates in the Consumer Goods and the Food & Beverage sectors for sustainable products, and in the Extractives & Minerals

Processing and the Resource Transformation sectors for environmental compliance of operations. Under these topics, examples of disclosed information were:

- (a) sustainable products and related certifications: products receiving the Environmental Product Declarations, percentage of products certified PEFC or EU Ecolabel, or revenue from sustainable agriculture or organic products; and
 - (b) environmental compliance and environmental certifications of operations: percentage of manufacturing locations certified (including, for example, the following certifications: Zero Waste Certification, the Alliance for Water Stewardship standard, the ISO 14001 on Environmental Management System, and building related certifications like BREEAM or LEED), or number of environmental audits.
32. SASB reporters: Other BEES-related information was disclosed in accordance with the SASB Standards, typically related to non-specific environmental impacts or related risks and opportunities that may be connected to BEES but are not necessarily specific to a BEES-related topic. This typically was information disclosed on sourcing practices, entity strategies and risk management and third-party certifications related to environmental criteria or risks. These disclosure elements are present in 10 sectors and relative to other BEES-related topics in the SASB Standards, such information was disclosed at lower to medium rates.
33. Comparison: Based on the current state of disclosure, these topics appear likely to be *sector-based*. Although some information is consistently characterised at a high level, the range of topics and the types of products and relevant certifications vary by sector or industry context. There appear to be similar disclosure patterns between available reporters and SASB Standards disclosures subject to further investigation into the breadth of ‘other’ topics.

Appendix A: Quantitative analysis of disclosures of BEES-related information in the SASB Standards

The number of SASB Standards disclosure elements (#) and entity reporting rates (%) within sectors.

	Consumer Goods		Extractives & Minerals Processing		Financials		Food & Beverage		Health Care		Infrastructure		Renewable Resources & Alternative Energy		Resource Transformation		Services		Technology & Communications		Transportation	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Biodiversity, species and ecosystems			5	Most									7	Most	1	Most	1	Most			2	Most
Land use and land use change			3	Most			1	Many			3	Most										
Other	5	Most	18	Most	15	Most	14	Most	3	Most	14	Most	8	Almost all	1	Most	2	Most	5	Almost all		
Pollution	8	Almost all	24	Most			2	Most	1	Most	9	Most	8	Most	8	Most			2	Almost all	10	Almost all
Resource use and extraction	4	Almost all	4	Most			14	Most	1	Most	4	Most	6	Most	6	Most			3	Almost all	6	Almost all
Waste and circularity	7	Almost all	15	Most			10	Most	6	Most	6	Almost all	10	Most	8	Almost all			5	Almost all	6	Most
Water and wastewater	4	Most	14	Most			20	Most			22	Most	7	Most	6	Almost all	1	Almost all	4	Most	2	Most