
ISSB Meeting

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Project	Biodiversity, ecosystems and ecosystem services
Topic	Phase 1 research—summary of findings
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Purpose and structure

1. This paper provides the International Sustainability Standards Board (ISSB) with a summary of findings from the first phase of its research project on risks and opportunities associated with biodiversity, ecosystems and ecosystem services (BEES).
2. The staff will not ask the ISSB to make any decisions in this session.
3. This paper is structured as follows:
 - (a) Background (paragraphs 5–9);
 - (b) Summary of findings from phase 1 (paragraphs 10–23);
 - (c) Common themes in the four research areas (paragraph 24); and
 - (d) Next step (paragraph 25)
4. Appendix A contains a complete list of all agenda papers discussed by the ISSB in the first phase of research.

Background

5. In July 2024, we provided an overview of the design and approach used to carry out the first phase of the BEES research project.¹ The project is intended to collect evidence on two broad areas of consideration:
 - (a) the nature and extent of investors' need for more useful information about BEES-related risks and opportunities that could be reasonably expected to affect an entity's prospects; and
 - (b) the potential way(s) to address that need.
6. We developed our design and approach with a particular focus on four anchoring principles to help ensure the research:
 - (a) is oriented towards providing information that is useful to investors in their decisions that relate to providing resources to an entity;
 - (b) gives due consideration to the frameworks and standards, and practice already established in the market;
 - (c) builds on the foundation established by IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information*; and
 - (d) considers the ISSB's core activities of interoperability, connectivity and stakeholder engagement, as well as its commitment to proportionality.
7. We decided to execute the research using a phased approach that would enable the ISSB to first build a foundation of knowledge and understanding before synthesising the findings and analysing implications regarding the necessity and feasibility of standard-setting.
8. Our research thus far has focused on the initial, foundation-building phase with work taking place in four, clearly defined areas guided by specific research questions. The key areas of research are:

¹ [Agenda Paper 2B Research design and approach](#) (July 2024).

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- (a) *evidence of investor interest*—‘what are the information needs of investors and how is current disclosure practice meeting or failing to meet these needs?’;
 - (b) *evidence of effects on an entity’s prospects*—‘whether, how and to what extent do BEES-related risks and opportunities affect an entity’s cash flows, its access to finance or its cost of capital over the short, medium or long term?’;
 - (c) *landscape of other standards and frameworks*—‘what is the current landscape of standards and frameworks for BEES-related reporting and how does it compare to the requirements in IFRS S1 and the SASB Standards?’; and
 - (d) *current state of disclosure*—‘what is the current state of entity disclosure about BEES-related risks and opportunities?’.
9. Within the four key areas of research, the staff was guided by the anchoring principles, including in work designed to leverage core activities and considerations of proportionality. Specifically, the staff considered areas of potential connectivity between the ISSB’s and International Accounting Standards Board’s (IASB) respective requirements and potential opportunities to pursue interoperability with other sustainability reporting standards or to build on jurisdictional standards and requirements where appropriate. Meanwhile, we engaged with a diverse range of stakeholders including to begin developing an understanding of the range of capabilities and preparedness of companies and investors around the world.

Summary of findings from phase 1

Evidence of investor interest

10. In the first phase of research, we engaged with 161 investors and other organisations in the investment value chain. We also obtained evidence of investor interest through a literature review covering a diverse set of over 100 sources. In September 2024, the ISSB also considered an investor perspective on its work plan, including the BEES

research project, presented by the vice-chair of the ISSB Investor Advisory Group (see Appendix A).

11. Our main findings from the investors we spoke to are:
- (a) most investors are interested in information about BEES-related risks and opportunities for various reasons including risk and return assessments, asset owner mandates and regulatory compliance.
 - (b) most investors are at an early stage of considering what BEES-related information is useful in investment decisions and how to use it.
 - (c) most investors view nature as more complex than climate with no universal indicator of risk exposure like greenhouse gas (GHG) emissions for climate. For example, to assess risk exposures to water investor may need to know by location an entity's water withdrawal, water consumption in comparison to baseline availability, water intensity, impact on water quality, and critical water dependencies, making an overall entity risk assessment difficult.
 - (d) BEES-related risks are localised, making data availability and aggregation a challenge.
 - (e) due to data and methodology challenges, there are few assessments at an integrated or holistic ecosystem level ie condition and integrity of an overall ecosystem.
 - (f) investors focus on specific aspects of nature such as water, pollution or land use or specific sectors or industries with high or moderate dependency or impact on nature when assessing BEES-related risks and opportunities.
 - (g) due to information challenges, many investors currently use multiple sources of information that is typically qualitative information. Most investors expressed a desire for more quantitative data including quantitative data linked to an entity's strategy and effects on its prospects.

Evidence of effects on an entity's prospects

12. In the first phase of research, we obtained evidence on effects of BEES-related risks and opportunities on an entity's prospects through a literature review covering publications and illustrative case examples. This was supplemented by the engagements with investors on their interest in BEES-related risks and opportunities.
13. Our main findings from the literature we reviewed are:
 - (a) available evidence suggests possible correlations between environmental or biodiversity risks and opportunities and entity prospects, but the market is still in early stages of assessing and understanding effects of BEES-related risks and opportunities on an entity's prospects.
 - (b) the effects of BEES-related risks and opportunities tend to vary by sector or industry, location and the specific BEES-related topic.
 - (c) understanding of effects of BEES-related risks and opportunities on an entity's prospects is more advanced for some topics, such as water, than it is for others.
 - (d) available evidence suggests that effects on entity prospects arise from both BEES-related transition risks as well as physical risks and related opportunities.
 - (e) evidence of BEES-related opportunities that affect an entity's prospects is more limited, but case examples show it often arising from efficiency and process improvements or new business initiatives.

Landscape of other standards and frameworks

14. In the first phase of research, we reviewed and analysed currently available disclosure standards and frameworks relating to BEES and assessed these standards and frameworks to identify disclosure elements that are similar to, different from or more specific than IFRS S1 and the SASB Standards. The disclosure standards and frameworks covered by the assessment are:

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- (a) Taskforce on Nature-related Financial Disclosures (TNFD) recommendations;
 - (b) Global Reporting Initiative Sustainability Reporting Standards (GRI Standards);
 - (c) European Sustainability Reporting Standards (ESRS); and
 - (d) Climate Disclosure Standards Board (CDSB) Framework application guidance.
15. We engaged with the technical staffs of TNFD, GRI and EFRAG during our assessment. In February 2025, the ISSB also received an overview of the TNFD’s work, presented by TNFD technical staff (see Appendix A).
16. Our main findings are:
- (a) the standards and frameworks have different target users of information. Some focus on the information needs of investors and others focus on information needs of multiple stakeholders including investors.
 - (b) requirements or recommendations of other BEES-related disclosure standards and frameworks are similar to the requirements in IFRS S1 and the SASB Standards with variations or additional disclosures concentrated in the areas of strategy, metrics and targets.
 - (c) similarities were particularly evident with disclosure elements in the governance and risk management core content of IFRS S1.
 - (d) similarities between the SASB Standards and the disclosure elements of the other BEES-related standards and frameworks related to the disclosure elements in the strategy, metrics and targets core content areas, particularly for those disclosure elements focused on specific topics.
 - (e) key areas of difference or greater specificity include information about:

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- (i) an entity's consideration of international agreements or related laws and regulations²;
 - (ii) the location of assets or activities associated with BEES-related risks or opportunities;
 - (iii) nature-related transition plans an entity may have;
 - (iv) an entity's use of the 'mitigation hierarchy'³ to manage nature-related impacts; and
 - (v) an entity's engagement with stakeholders in the risk identification and assessment process, such as with Indigenous Peoples and local communities.

Current state of disclosure

17. In the first phase of research, we conducted large-scale analyses of BEES-related information disclosed by more than 4,000 unique entities during the 2023 reporting cycle. One analysis covered reporting by a global sample of publicly traded entities headquartered in both developed and emerging markets, representing a diverse range of regions, sectors and market capitalisation. The other analysis focused on disclosures prepared in accordance with the SASB Standards.
18. Our main findings are:
 - (a) BEES-related information of various types is commonly disclosed by entities of all sizes, in all regions and in all sectors, however, the content and

² Noting that in IFRS S2 in the context of climate-related risks and opportunities, there are similarities with for example, information being required to be provided about whether an entity used, among its scenarios in undertaking its analysis of resilience, a climate-related scenario aligned with the latest international agreement on climate change. In addition, similarly to (d) IFRS S2 requires that information be provided about an entity's climate-related transition plans if they have them. This indicates that the specificity of the topic is an important distinction in comparing IFRS S1 with these other materials.

³ The mitigation hierarchy is usually applied at a project or landscape level to structure decisions about how the impacts of proposed activities on biodiversity and the environment might be mitigated. The hierarchy involves the steps of 1) avoidance, 2) minimisation, and 3) remediation on-site, and then if any residual impacts remain after the implementation of the first three steps, 4) biodiversity offsetting off-site. The steps are sequenced in order of preference from an environmental perspective. ([Convention on Biodiversity](#)).

presentation of BEES-related information varies significantly between entities and sectors.

- (b) entities disclose BEES-related information in a variety of locations, including, for example, annual reports, integrated reports, financial reports, regulatory filings and sustainability reports.
- (c) current disclosure practice is partially aligned to varying degrees with the requirements in IFRS S1, meaning that many of the details required in IFRS S1 are not commonly disclosed.
- (d) most entities referenced one or more disclosure standards or frameworks in their BEES-related disclosures but the degree of alignment or conformity with those standards or frameworks was not determined. The most frequently mentioned were the GRI Standards followed by the SASB Standards.⁴
- (e) information about pollution, waste and circularity, and water was commonly disclosed and consistently characterised throughout sectors.
- (f) information about other BEES-related topics, such as biodiversity, species and ecosystems, land use and land use change, resource use and extraction, tended to vary more significantly across sectors in terms of the percentage of companies disclosing information and the specific details or characteristics of the related risks and opportunities disclosed.

Interoperability and engagement with jurisdictions

19. In the first phase of research, we engaged the members of the Sustainability Standards Advisory Forum (SSAF) to help enhance our understanding of jurisdictional BEES-related disclosure requirements. In August 2024, we distributed a survey to SSAF members to further inform our initial research. SSAF members were also encouraged

⁴ The reports analysed are from the 2023 reporting cycle and therefore were published before the issuance of IFRS S1 and the release of other BEES-related standards and frameworks, such as the European Sustainability Reporting Standards (ESRS), the GRI Standard on biodiversity (*GRI 101: Biodiversity 2024*), and the disclosure recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD). These standards and frameworks are likely to have a significant influence on BEES-related disclosure practices.

to engage with their own relevant stakeholders to solicit a broader response, for example, through the regional bodies and through the International Organisation of Securities Commissions (IOSCO) who are also represented on the SSAF. The survey covered both existing and upcoming jurisdictional BEES-related disclosure requirements. Based on an analysis of the 26 responses to the survey, our main findings are:

- (a) most responding jurisdictions have BEES-related disclosure requirements in place;
 - (b) almost all of those requirements are mandatory and apply to entities across all sectors and industries;
 - (c) some jurisdictional requirements are focused solely on providing information to investors, while others are designed to provide information to a broad range of stakeholders; and
 - (d) the jurisdictional requirements cover a variety of BEES-related topics, with water, resource use (including waste), and biodiversity being the most common.
20. We continued to engage the SSAF throughout the first phase of our research providing members of the SSAF with updates on our research findings and soliciting feedback from SSAF members on our research.
21. In addition, we engaged with the technical staffs of the GRI and EFRAG to consider potential areas of opportunity for pursuing interoperability with the GRI and ESRS BEES-related standards, particularly as part of our review and analysis on other standards and frameworks (see paragraphs 14–16).

Connectivity

22. In the first phase of research, we collaborated with the IASB technical staff to assess information about BEES-related matters that might be presented or disclosed in

financial statements when applying IFRS Accounting Standards. The assessment was conducted as part of our work to assess the landscape of standards and frameworks.

23. Our main findings are:
- (a) there are limited IFRS Accounting Standards that when applied might result in information directly relating to BEES-related matters being presented or disclosed in financial statements. They include:
 - (i) requirements to present or disclose information directly relating to BEES-related matters; and
 - (ii) requirements to consider the effects of BEES-related matters in applying IFRS Accounting Standards to recognise and measure assets, liabilities, equity, income and expenses, which consequently might result in presentation or disclosure of information about BEES-related matters.
 - (b) the findings can help inform future phases of the BEES work as well as other areas of the ISSB's work plan.

Common themes in the four research areas

24. In considering the findings of the four research areas, including our activities relating to interoperability and connectivity, we have identified some initial, common themes on disclosure of information about BEES-related risks and opportunities. These common themes include:
- (a) while there is strong investor interest in information about BEES-related risks and opportunities, BEES is a relatively nascent sustainability topic that is complex. Investors are still in early stages of considering how to use BEES-related information in investment decisions including developing appropriate risk assessment methods and determining the risks and opportunities that affect an entity's prospects.

- (b) BEES-related risks and opportunities and investors' information needs related to those risks and opportunities vary by sector or industry, and by location and jurisdiction. There is variation both in the topics of interest, the aspects of the topics and the particular metrics or information about the topic.
- (c) the availability of information and investors' information needs vary by topic with some topics, for example water, being relatively more mature in terms of evidence of investor interest, evidence of effects on an entity's prospects and availability of information currently disclosed.
- (d) information on location of an entity's activities, while highly relevant in assessing BEES-related risks and opportunities, is difficult for investors to obtain at the present time and the type and amount of location information investors need is not clear.
- (e) BEES-related information is commonly disclosed by entities of all sizes, in all regions and in all sectors, but consistency and comparability are limited.
- (f) regulation is a driver of investor interest in BEES-related information as it creates transition risks and opportunities that affect an entity's prospects.

Next step

25. In concluding the first phase of the research project on BEES, we have developed our design and approach for the next phase of research. The design and approach is outlined in Agenda Paper 3A *Research design and approach—next phase*.

Questions for the ISSB

1. Do ISSB members have any comments or clarifying questions on this paper?
2. Are there any key takeaways from the first phase of research that ISSB members think we have overlooked, emphasised too much or too little, or mischaracterised in this paper?

Appendix A: Summary of previous ISSB meetings regarding human capital-related research

Date	Meeting
April 2024	<p>ISSB added BEES research project to its work plan. AP2: Projects to add to the work plan</p>
July 2024	<p>Staff provided the ISSB with an overview of the design and approach for the BEES research project. AP2B: Biodiversity, Ecosystems and Ecosystem Services and Human Capital research projects—Research design and approach</p>
September 2024	<p>The vice-chair of the ISSB Investor Advisory Group presented an investor view on the ISSB’s work plan, including the BEES project. ISSB meeting video</p> <p>Staff presented an overview of the content in the SASB Standards that is applicable to risks and opportunities associated with BEES. AP3A and AP4A: BEES and Human Capital-related risks and opportunities in the SASB Standards</p>
October 2024	<p>The ISSB discussed feedback from a survey on jurisdictional requirements related to BEES and how that feedback might inform the research, including assessments of existing standards and the current state of disclosure. AP3 and AP4: Overview—Jurisdictional survey on Biodiversity, Ecosystems and Ecosystem Services and Human Capital</p>
November 2024	<p>The staff presented some of its preliminary findings in three of the research areas—evidence of investor interest, evidence of effects on an entity’s prospects and existing standards and frameworks—and sought ISSB feedback on the remaining research. AP3: Cover note AP3A: Preliminary assessment of existing disclosure standards and frameworks AP3B: Preliminary assessment of evidence of investor interest AP3C: Literature review on the evidence of investor interest AP3D: Preliminary assessment of evidence of effects on an entity’s prospects</p>
January 2025	<p>The staff presented its complete findings regarding evidence of investor interest in BEES-related disclosure, along with an overview of how information about BEES-related matters might be presented or disclosed in financial statements when applying IFRS Accounting Standards. AP3: Evidence of investor interest in BEES-related risks and opportunities AP3A and AP4: IFRS Accounting Standards—Presentation or disclosure on BEES- and Human Capital-related matters</p>

February 2025	<p>The staff presented its complete findings on existing standards and frameworks. In addition, the Taskforce on Nature-related Financial Disclosures presented on their recommendations.</p> <p><u>AP3: Cover note</u> <u>AP3A: Background on other BEES-related standards and frameworks</u> <u>AP3B: Comparison of other BEES-related standards and frameworks to IFRS S1 and SASB Standards</u> <u>AP3C: Nature-related risks and opportunities—The TNFD recommendations</u></p>
March 2025	<p>The staff presented its complete findings in two of the research areas—evidence of effects on an entity’s prospects and current state of disclosure.</p> <p><u>AP3: Cover note</u> <u>AP3A: Evidence of effects on an entity’s prospects</u> <u>AP3B: Current state of disclosure—Background and methodology</u> <u>AP3C: Current state of disclosure of BEES-related information</u> <u>AP3D: Current state of disclosure of BEES-related information—Sector findings</u></p>