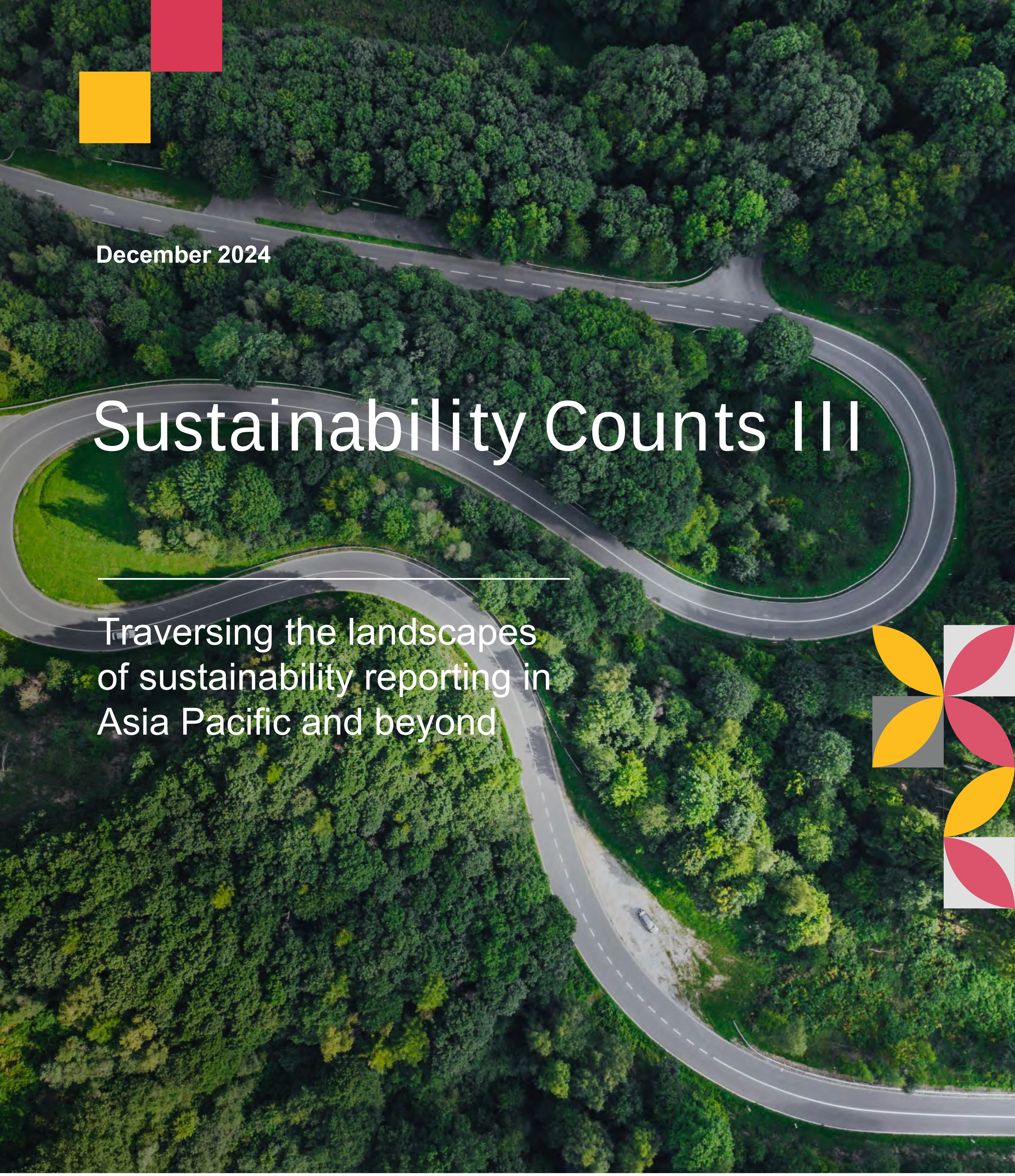

December 2024

Sustainability Counts III

Traversing the landscapes of sustainability reporting in Asia Pacific and beyond

pwc

NUS National University of Singapore | Centre for Governance and Sustainability NUS Business School

Contents

The contents in Section 2, 3 and the Appendices of this report are based on information available up to October 2024. The content of this document should be read in conjunction with the relevant standards, frameworks and guidance. This document is not intended to be a comprehensive guide to those standards, frameworks and guidance. The content of the study conducted in Section 4 is based on latest sustainability reports and annual reports available until May 2024.

A glossary of key terms, acronyms and abbreviations is included in the appendices.

Key highlights

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Key highlights

In collaboration with the National University of Singapore (NUS), PwC is pleased to present the third edition of Sustainability Counts. This report provides an in-depth review of the progress of sustainability reporting in Asia Pacific over the past year. It includes both global and regional developments in sustainability reporting, insights from sustainability leaders and other areas of interest.

Not losing sight of the big picture – The purpose of sustainability reporting standards

Amidst the complexity and demands of sustainability reporting standards and frameworks, which are now making its way into the mandatory requirements in different jurisdictions, it is important to stay focused on their core purpose. While this purpose may be described in different ways, it ultimately aims to benefit and impact different segments of our society and the environment.

For example, the International Sustainability Standards Board (ISSB) states that its purpose is to “empower capital market participants with the right information to support better economic and investment decision-making”. Meanwhile, the Corporate Sustainability Reporting Directive (CSRD) by the European Union (EU) seeks to “enable investors and other stakeholders to have access to the information they need to assess the impact of companies on people and the environment and for investors to assess financial risks and opportunities arising from climate change and other sustainability issues”.

Although there is greater clarity, consolidation and harmonisation in the global sustainability reporting landscape, it can still be challenging to navigate this complex landscape.

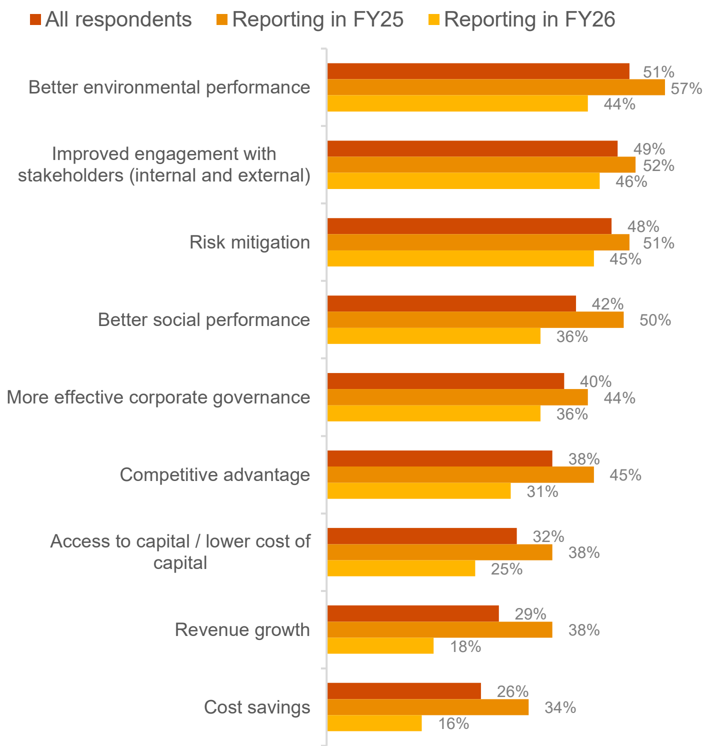
Sustainability Counts III aims to continue providing valuable updates on sustainability reporting in the following areas:

1. Insights on sustainability reporting updates globally (Section 2)
2. Insights into sustainability reporting and assurance requirements updates in Asia Pacific (Appendix I)
3. Perspectives on sustainability reporting from sustainability leaders (Section 1)
4. Insights into the state of sustainability reporting in Asia Pacific (through research conducted by NUS Business School) (Section 4)
5. Useful thought leadership and resources preparers and other stakeholders could leverage (Appendix IV)

Despite ongoing challenges, it is encouraging to see that companies are beginning to appreciate the benefits that stem from providing greater transparency and disclosure on sustainability. For example, respondents from PwC’s Global CSRD Survey 2024 shared that sustainability reporting resulted in better environmental performance, improved risk mitigation and corporate governance, greater access to capital, better revenue growth and enhanced cost savings. (Refer to chart on the right)

Amidst the growing reporting requirements, organisations should not lose sight of the bigger picture - sustainability reporting can not only help them to be more transparent and accountable but also drive growth and value. We will later outline how organisations can develop a strategic roadmap to enable compliance while enhancing their value.

Benefits of sustainability reporting implementation



Source: PwC Global CSRD Survey 2024

Sustainability reporting standards and frameworks – A time of implementation, interoperability and additional themes

EU CSRD

The EU is in the midst of implementing the CSRD. Wave 1 reporting entities will need to publish their reports in 2025 based on data from financial year (FY) 2024 while those in Wave 2 will need to do so in 2026 based on FY2025 data (refer to Section 2). According to PwC’s Global CSRD Survey 2024, respondents are generally confident about reporting under the CSRD, but still face challenges relating to data availability and quality, value chain complexity, staff capacity, timeframes, as well as software and technology systems.

As the CSRD will impact some companies in Asia Pacific, it is vital to assess this with urgency. Please refer to Section 2 for more information on the above.

Notable trends from our analysis

With a number of jurisdictions across Asia Pacific adopting or considering the ISSB Standards, we have highlighted several key trends in sustainability reporting against the four pillars of the ISSB Standards that have emerged from our research. Details on the research can be found in Section 4 of this report.

Governance

When it comes to sustainability, the importance of tone from the top cannot be overstated. When leaders prioritise sustainability, they signal to all employees, stakeholders, and partners that environmental and social responsibility are core values of the organisation. There has been a consistent improvement in companies' disclosure of board responsibility for sustainability.

86% of companies provided details on the boards's sustainability responsibilities, an improvement from 84% last year and from 67% the year prior.

One of the key indications of how important sustainability is within an organisation is reflected in its compensation structures.

42% disclosed linkage of top executive remuneration to sustainability performance or targets. This is a marked improvement from just 16% in 2022 and 33% in 2023.

This trend signifies a growing recognition of the importance of aligning executive incentives with sustainability goals, thereby driving more committed and effective leadership.

Risk management

Disclosures on risk management provide an understanding of an organisation's processes to identify, assess, prioritise and monitor sustainability-related risks and opportunities. Across Asia Pacific, there is an increase in the disclosure level of the process to manage climate-related risks and opportunities.

81% of companies studied have disclosed their process for managing climate-related risks and opportunities, an increase from 74% in 2023.

It is also important to incorporate sustainability-related risks and opportunities into the overall risk management process to provide a thorough evaluation of an organisation's risk profile. However, only

69% have disclosed how they integrate these risks into overall risk management.

This signals that risk management for sustainability is occurring separately and more needs to be done to further integrate it into the overall risk management process.

Strategy

Companies across Asia Pacific are setting more medium- to long-term targets, indicating a strategic pivot towards prioritising medium-term and long-term objectives. Setting timebound and quantified targets helps companies to be proactive in managing the short-, medium- and long-term risks, and in adjusting their strategies accordingly.

Disclosure of ESG targets under different timeframes

53%	63%	74%
Short-term (1 year)	Medium-term (2-5 years)	Long-term (>5 years)

When it comes to assessing the organisation's climate resilience, only

55% of companies have provided disclosures on climate scenario analysis in 2024.

Out of this, most disclosed only qualitative climate scenario analysis. This indicates that developing and disclosing a quantitative scenario analysis presents several challenges such as the lack of accurate and comprehensive data on climate impacts, emissions, and financial metrics, which may be difficult to obtain.

Metrics and targets

Companies across Asia Pacific are reasonably well prepared in disclosing metrics and targets for climate-related risks and opportunities.

75% of companies are disclosing targets to manage climate-related risks and opportunities, an increase from 70% last year.

77% of companies across Asia Pacific have disclosed metrics to manage climate-related risks and opportunities.

88% of companies disclosed their Scope 1 and 2 emissions and 63% for Scope 3. However, when it comes to providing a breakdown by category of their Scope 3 emissions*, most provided only a minimal level of disclosure, while 9% did not provide such details.

13%	33%	45%
carried out a comprehensive level of disclosure	carried out a moderate level of disclosure	carried out a minimal level of disclosure

* Minimal level of disclosure between 1-5 categories of Scope 3 emissions; Moderate level of disclosure between 6-10 categories of Scope 3 emissions; Comprehensive level of disclosure between 11-15 categories of Scope 3 emissions.

Sustainability reporting developments in Asia Pacific

We have observed a growing momentum in sustainability reporting across Asia Pacific. Several jurisdictions have already introduced ISSB-aligned disclosure requirements within their local sustainability reporting frameworks or are considering adoption of the ISSB Standards.

Take for example Malaysia and Taiwan, who have now required the adoption of the ISSB Standards. Australia, Hong Kong SAR and Singapore have required for IFRS S2 – Climate-related Disclosures ('climate-first') to be implemented. Other jurisdictions including Indonesia, Japan, South Korea and Thailand are in the process on consultation or have indicated consideration to explore alignment with the ISSB. The Chinese Mainland has also based its standards on the ISSB standards, with local considerations incorporated.

Similar to other regions in the world, some jurisdictions in Asia Pacific are moving faster in sustainability reporting requirements, and some jurisdictions are not 'starting from scratch' and have already required for frameworks such as the Task Force on Climate-Related Financial Disclosures (TCFD), which would be a useful step for meeting IFRS S2 requirements since elements of the TCFD can be found within the IFRS S2.

Results from a study conducted by PwC and the Centre for Governance and Sustainability (CGS) at the National University of Singapore (NUS) Business School (see details in Section 4 of this report) show that 84% of organisations have identified climate-related risks and opportunities.

In addition, 81% have also disclosed their management processes for these risks. However, only 70% have integrated these risks into overall risk management.

The study also revealed that the disclosure rate for Scope 1 and Scope 2 Greenhouse Gas (GHG) emissions rose to 88%, up from 80% in the previous year. While the disclosure rate for Scope 3 emissions is lower, it still improved to 63% from 50%. Despite this, there is still room for greater transparency. Organisations should consider how to leverage on the work they have already done to meet new jurisdictional requirements, while identifying and addressing any remaining gaps.

The Global Reporting Initiative (GRI) Standards remain one of the most widely adopted frameworks in Asia Pacific, with 81% of reporting entities doing so, according to our 2023 study. This will be a point of consideration in upcoming sustainability reporting.

In Section 3 of this report, we highlight a summary of sustainability reporting developments in Asia Pacific.

Interoperability developments

Given the multiple frameworks, standard setters are taking steps to provide more information on how they plan to achieve a greater degree of interoperability between the standards. (Refer to Section 2)

State of sustainability reporting standards and frameworks used in 2023

	GRI	SDG	ISO	TCFD	SASB	UNGC	CDP	IIRC
Overall (2021)	75%	76%	66%	36%	18%	23%	17%	20%
Overall (2022)	81%	78%	69%	57%	36%	28%	20%	20%
Australia	80%	80%	56%	86%	48%	34%	12%	8%
Chinese Mainland	76%	60%	70%	36%	8%	18%	8%	0%
Hong Kong SAR	80%	76%	86%	66%	28%	30%	22%	4%
India	84%	86%	64%	58%	50%	60%	50%	66%
Indonesia	80%	86%	78%	10%	18%	12%	12%	4%
Japan	80%	88%	88%	90%	44%	36%	20%	70%
Malaysia	84%	92%	78%	60%	18%	12%	22%	24%
New Zealand	44%	50%	48%	56%	12%	2%	30%	18%
Philippines	90%	94%	60%	36%	52%	18%	12%	16%
Singapore	98%	78%	74%	64%	34%	44%	10%	10%
South Korea	100%	82%	66%	92%	88%	48%	34%	20%
Taiwan	96%	92%	76%	90%	84%	36%	32%	20%
Thailand	86%	90%	68%	60%	22%	36%	22%	12%
Vietnam	50%	32%	54%	0%	2%	0%	0%	10%

0 to 25% of companies | 25% to 50% of companies | 50% to 75% of companies | >75% of companies

Source: Sustainability Counts II. Research focusing on the top 50-listed companies by market capitalisation across 14 selected jurisdictions across the Asia Pacific.
Note: The overall percentages are based on 13 jurisdictions in 2021, excluding South Korea.

Other standards and frameworks

The Taskforce on Nature-related Financial Disclosures (TNFD) adds another layer to the diverse sustainability reporting landscape. The TNFD published its final Recommendations for nature-related risk management and disclosures in September 2023. More recently, the Taskforce on Inequality and Social-related Financial Disclosures (TISFD) was launched in September 2024 to develop recommendations and guidance for businesses and financial institutions to understand and report on impacts, dependencies, risks and opportunities related to people. The International Public Sector Accounting Standards Board® issued draft of climate-related disclosures standard for the public sector in October 2024.

Transition planning frameworks

Climate transition plans do more than just establish emissions targets – they also outline the concrete actions that need to be taken to meet those goals. According to the ISSB, "If an entity has a particular plan or set of plans to respond to the expected transition to a lower-carbon economy, disclosure of that transition plan will help users of general-purpose financial reports assess the effects of climate-related risks and opportunities on the entity's cash flows, its access to finance and cost of capital." In June 2024, the ISSB announced that it plans to support work to streamline and consolidate frameworks and standards for disclosures about transition plans and will assume responsibility for the disclosure-specific materials developed by the Transition Plan Taskforce, whose disclosure framework and related guidance draws on components identified by the Glasgow Finance Alliance for Net Zero (GFANZ).

The European Sustainability Reporting Standards (ESRS) E1 Climate Change standards highlight that "The undertaking shall disclose its transition plan for climate change mitigation. The objective of this Disclosure Requirement is to enable an understanding of the undertaking's past, current, and future mitigation efforts to establish that its strategy and business model(s) are compatible with the transition to a sustainable economy, and with the limiting of global warming to 1.5°C in line with the Paris Agreement and with the objective of achieving climate neutrality by 2050". In April 2024, the European Financial Reporting Advisory Group (EFRAG) announced that it is preparing guidance to help companies disclose their transition plans in line with the ESRS standards.

In light of these developments, it is important for organisations to continue to focus on climate-related transition planning disclosures and understand the requirements, frameworks and guidance available. More details of climate transition planning can be found in Section 2.

Sustainability assurance

It is paramount in today's business landscape for consistent and transparent sustainability reporting that is aligned with corporate purpose and stakeholder needs. It drives meaningful communication by fostering trust, accountability and value proposition of the business.

According to PwC's Global Investor Survey 2024, 44% investors surveyed believe that to a large or very large extent, corporate reporting on sustainability performance contains at least some level of unsupported claims, often referred to as greenwashing. These perceptions of greenwashing may explain why investors are looking to regulators and standard setters to create clarity and consistency in companies' reporting. As a result, more jurisdictions are considering or starting to mandate assurance over sustainability-related information, some with plans to progress towards reasonable assurance in the near future. In November 2024, the International Auditing and Assurance Standards Board also published a standard for assurance on sustainability reporting International Standard on Sustainability Assurance (ISSA) 5000, *General Requirements for Sustainability Assurance Engagements*. ISSA 5000 provides more specificity for sustainability assurance engagements and aims to be the global baseline assurance standard for consistent and high-quality limited and reasonable assurance engagements and ultimately driving more reliable sustainability information.

With stakeholders such as investors and regulators increasingly seeking trusted information, companies are also progressively responding to the demand for trusted information from stakeholders including investors and regulators. The findings from the collaborative study between PwC and the Centre for Governance and Sustainability (CGS) at the National University of Singapore (NUS) Business School (see Section 4 of this report for details) showed a steady increase in companies seeking internal and external assurance for their sustainability reports.

- Across Asia Pacific, **33%** of companies have carried out internal assurance.
- For external assurance, the number is higher at **60%** as compared to only **49%** last year on selected sustainability indicators.
- However, **78%** of companies with external assurance have only sought limited or moderate (i.e. for AA1000) assurance.

In Section 3 of this report, we highlight a summary sustainability assurance developments in Asia Pacific.

Bringing everything together

Organisations in Asia Pacific and beyond have to navigate a growing set of sustainability reporting requirements, driven by regulations or stakeholder expectations. Beyond compliance, sustainability reporting can enable and safeguard value.

Below, we outline the key steps for developing your sustainability reporting roadmap and highlight the foundations you can establish to support your organisation in this area. This can include, but is not limited to, the following areas:

Phase 1: Assess

- Reporting obligation(s)
- Timeline
- Existing information to leverage

Roadmap for sustainability reporting and assurance
(includes but not limited to quick-wins, longer-term considerations, review and update of governance structures, capacity building, data controls, assurance readiness)

Phase 2: Design

- Governance and organisational structure
- Processes and controls
- Data and technology architecture

Phase 3: Implement

- Create sustainability reporting and identify opportunities for refinement
- Execute reporting and test the reporting function
- Implement reporting target operating model

Re-assess, design, implement where appropriate

Phase 4: Obtain independent assurance over sustainability information reported and seek stakeholders' feedback as part of continuous improvement

For more details, please refer to page 37-38.

Lessons from leaders: Proactive sustainability strategies in a dynamic regulatory environment

In the rapidly evolving landscape of regulatory changes, particularly within the Asia Pacific region, companies can adopt a strategic approach to sustainability.

Monitoring global trends, especially from more mature regions like Europe, can provide early indicators of regulations that may impact the Asia Pacific region. Singtel Group exemplifies this proactive approach, anticipating changes even when only draft standards or frameworks are available. For instance, Singtel Group was among the first companies globally to endorse the TCFD framework in 2017, building on earlier efforts in climate change adaptation, resilience planning, carbon disclosures, and other aspects of environmental risk management and reporting.

A significant component of Singtel Group's sustainability strategy involves forming cross-functional project teams. These teams, established for various sustainability-related initiatives, facilitate structured and collaborative efforts across different business units. This approach has facilitated broad-based engagement and education within the organisation, driving a unified move towards sustainability goals. The role of the board and senior management in driving sustainability initiatives has become increasingly critical. Strong advocacy and consistent education at the top levels have established deeper engagement and richer discussions on sustainability issues.

Effectively managing supply chain data, particularly Scope 3 emissions, can be complex and challenging, primarily due to data availability and accuracy. Singtel Group's initial efforts, such as the life cycle assessment conducted in 2015, provided a foundational understanding of our material emissions sources. Recognising that managing supply chain data is an iterative process, companies can begin with high-level industry averages and progressively refine data collection to gather more specific, primary data from suppliers. Engaging directly with key suppliers to obtain accurate data and educating them on the importance of environmental, social, and governance (ESG) matters is crucial. Adopting a multi-channel engagement strategy, including supplier forums and localised approaches for smaller suppliers, can help facilitate broad-based participation and data accuracy. Companies may also consider utilising third-party platforms like CDP as data sources and industry benchmarks.

Sustainability reporting should be seen beyond a compliance exercise. The practical benefits of sustainability efforts extend beyond compliance, driving a better understanding of how companies operate and what needs to change in the current operating environment. It can also enhance competitive positioning. There is increasing pressure from value chain players for companies to provide better sustainability-related information, particularly in this region, given the complexity of the value chain that companies are operating in. By integrating sustainability into the core strategic agenda, companies can uncover operational efficiencies, mitigate future risks, and enhance competitive positioning, leading to positive business outcomes.

In conclusion, the journey towards sustainability is an ongoing process requiring early engagement, iterative improvements, and strong leadership from the top. By leveraging global standards, fostering cross-functional collaboration, and maintaining a balance between short-term and long-term goals, organisations can navigate the complexities of sustainability and achieve meaningful progress.

The adoption of these strategies has enabled Singtel Group to stay ahead of the curve, allowing for a seamless transition when new regulations come into effect, enabling compliance and operational readiness.

Andrew Buay
Vice President, Group Sustainability
Singtel Group

Lessons from leaders: Adaptive sustainability – Strategy for long-term success

In a diverse and complex organisation like Jardine Matheson, the successful implementation of sustainability initiatives hinges on recognising that a one-size-fits-all approach will not apply to all business segments. Instead, tailored strategies and tools are essential for each Group company, all within a broadly aligned framework.

For sustainability to succeed, it must be deeply integrated into the core operations of each business. Each of Jardine Matheson's companies holds primary responsibility for driving sustainability initiatives, with the group sustainability team providing guidance, clarifying expectations and achieving alignment in line with the overall group strategy.

Balancing short-term business goals with long-term sustainability objectives is crucial. This involves setting clear, immediate actions that resonate with employees and stakeholders today, while also maintaining a roadmap for future goals. By focusing on both immediate and long-term targets, companies can promote sustainability as a fundamental part of their business strategy.

Embedding sustainability into business strategy requires a fit-for-purpose plan that is both agile and grounded in reality. Jardine Matheson's approach involves breaking down long-term goals into manageable pieces, allowing for flexibility and responsiveness to changes in the business environment. Companies should develop clear roadmaps with short-term milestones that align with their long-term sustainability objectives. This method not only makes goals more attainable but also maintains momentum by providing regular checkpoints and opportunities for adjustment.

Investment in resources is another critical factor. Over the past several years, Jardine Matheson has developed strong sustainability teams within each Group company comprising subject matter experts who can drive initiatives effectively. This investment in people and talent enables each company to have the expertise needed to meet its sustainability goals.

It is also important for Group companies to have a clear framework and tools to enable them to place a sustainability lens over all capital allocation decisions, to confirm their understanding and take into account the implications for their ability to achieve their sustainability strategy and targets.

One of the most important lessons from Jardine Matheson is the value of starting even if the plan isn't perfect. Waiting for a fully formed plan can delay progress. Instead, beginning with a solid foundation and refining the approach along the way can lead to continuous improvement. Jardine Matheson's experience shows that proactive steps, even if imperfect, can build momentum and drive engagement across the organisation. Companies should not be afraid to embark on their sustainability journey, knowing that the plan can be refined and improved over time.

Jonathan Lloyd
Group Head of Corporate Affairs and Sustainability
Jardine Matheson Group

Nadira Lamrad
Head of Sustainability
Jardine Matheson Group

Spotlight on developments in standards, frameworks and other trends

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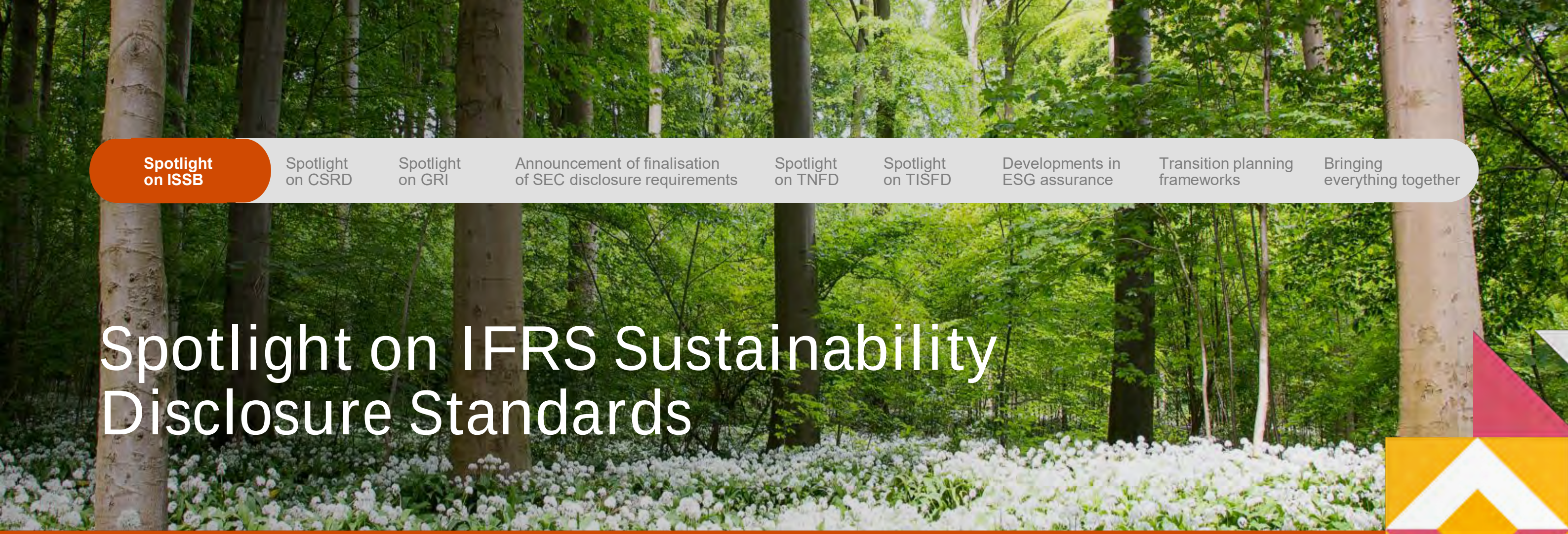


Spotlight on IFRS Sustainability Disclosure Standards

Overview

The ISSB issued its inaugural standards in June 2023. The first two IFRS Sustainability Disclosure Standards (ISSB Standards) issued are:

- **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**
  This sector-agnostic standard is applicable to all entities in scope, and to all sustainability-related risks and opportunities if not covered by a topical standard.

- **IFRS S2 Climate-related Disclosures**
  This is the first topical standard, covering climate-related disclosures.

The overall structure of the ISSB Standards is built upon the four-pillar structure taken from the TCFD.

Starting from 2024, the monitoring of progress on companies' climate-related disclosures has been transferred from the TCFD to the ISSB.

1 IFRS Foundation. 'Sustainability Knowledge Hub.'

2 IFRS Foundation. 'IFRS Sustainability Disclosure Taxonomy 2024.' 2024.

3 IFRS Foundation. 'Voluntarily applying ISSB Standards–A guide for preparers.' September 2024.

Supporting the implementation of the ISSB Standards

Following the issuance of the two standards, a number of resources have been made available to help companies apply IFRS S1 and IFRS S2, including:

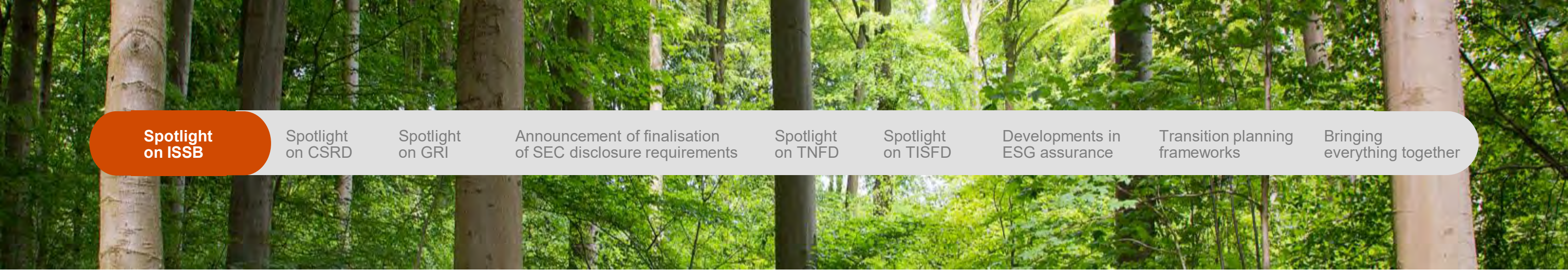
- **Enhancements to the SASB Standards**
  The SASB Standards are an important source of guidance for companies applying IFRS S1. Two SASB Standards enhancement projects have been completed – amendments to the SASB Standards to align the climate-related disclosure topics and metrics with IFRS S2 Climate-related Disclosures, and amendments to enhance their international applicability. The ISSB is also implementing a phased approach for enhancing the SASB Standards. The exposure draft for the initial set of enhanced SASB Standards is expected to be published in H1 2025.

- **Establishing the Transition Implementation Group on IFRS S1 and IFRS S2**
  This is a mechanism to address questions from stakeholders regarding the implementation of the ISSB Standards.

- **IFRS Sustainability knowledge hub**
  Launched at COP28, the knowledge hub[1] includes content curated by the IFRS Foundation and its partners and is a key component of the ISSB Capacity Building programme.

- **Issuance of IFRS Sustainability Disclosure Taxonomy**
  Published on 30 April 2024, the Taxonomy[2] enhances digital consumption and comparison of reports by tagging sustainability-related financial disclosures prepared applying ISSB Standards.

- **A guide for preparers**
  A voluntary application guide[3] was published by the ISSB in September 2024 to help companies who are preparing sustainability reporting based on the ISSB Standards in advance of or in the absence of jurisdictional regulation, which may specify or restrict the reporting that entities in a jurisdiction can do voluntarily.



Interoperability with other standards and frameworks

ISSB Standards and ESRS

The IFRS Foundation and the European Financial Reporting Advisory Group (EFRAG) jointly published interoperability guidance[4] on climate-related disclosures for sustainability reporting in May 2024. In summary:

- The definition of information that is considered material for users of general-purpose financial reports is aligned between ESRS and IFRS S1
- The two sets of standards include common defined terms
- There is a high degree of alignment of the climate-related disclosures. In particular, almost all the disclosures in the ISSB Standards related to climate are included in ESRS

ISSB Standards and GRI

The IFRS Foundation and the Global Reporting Initiative (GRI) jointly published interoperability considerations[5] for GHG emissions when applying GRI Standards and ISSB Standards. This document illustrates that the requirements in GRI 305 and IFRS S2 demonstrate a high degree of alignment.

In November 2023, the ISSB and GRI announced[6] the establishment of the Sustainability Innovation Lab (SIL) in Singapore, in collaboration with the IFRS Foundation. The SIL aims to bring together global and local partners to enhance reporting capabilities using both the GRI Standards and the ISSB Standards.

In May 2024, the GRI and IFRS Foundation announced[7] their collaboration to deliver full interoperability to optimise how the GRI and ISSB Standards can be used together, building on the memorandum of understanding signed in 2022. As an initial outcome of the collaboration, a methodology pilot will be developed, drawing on the recently published GRI 101 Biodiversity Standard and the ISSB's forthcoming project on Biodiversity, Ecosystems, and Ecosystem Services.

ISSB Standards and TCFD

Having built upon the TCFD Recommendations, the requirements in IFRS S2 are consistent with the four core recommendations and 11 recommended disclosures published by the TCFD. The ISSB published a comparison[8] of the requirements between the ISSB Standards and TCFD in July 2023.

ISSB Standards and TNFD

In June 2024, the ISSB announced[9] that in undertaking the research project on biodiversity, ecosystems and ecosystem services, the ISSB will consider how to build upon the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD).

The Institute of Singapore Chartered Accountant has developed '<u>Illustrative Sustainability Report: Based on the GRI Standards and IFRS Sustainability Disclosure Standards</u>' to illustrate how an entity might apply the IFRS S1 and IFRS S2 requirements concurrently with the GRI Standards.

4 IFRS Foundation. 'ESRS-ISSB Standards Interoperability Guidance.' May 2, 2024.

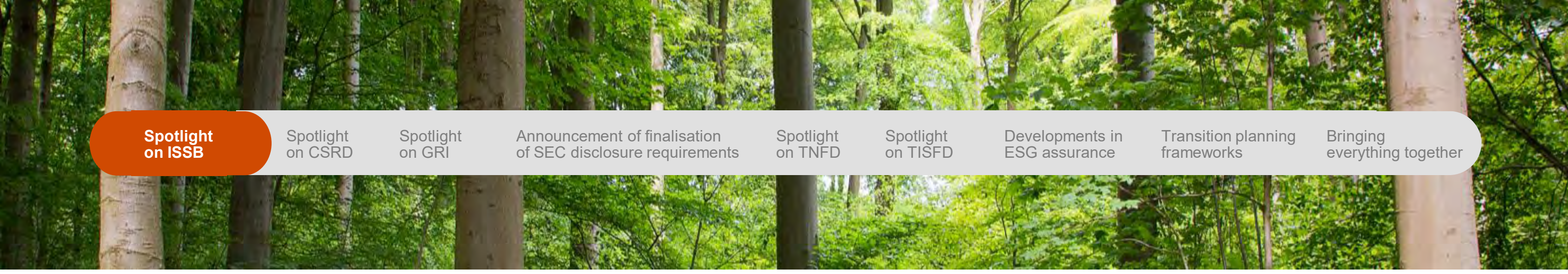
5 Global Reporting Initiative. 'Interoperability considerations for GHG emissions when applying GRI Standards and ISSB Standards.' January 2024.

6 IFRS Foundation. 'GRI establishes Sustainability Innovation Lab in coordination with the IFRS Foundation.' November 9, 2023.

7 IFRS Foundation. 'GRI and IFRS Foundation collaboration to deliver full interoperability that enables seamless sustainability reporting.' May 24, 2024.

8 IFRS Foundation. 'Comparison IFRS S2 *Climate-related Disclosures* with the TCFD Recommendations.' Republished November 2024.

9 IFRS Foundation. 'ISSB delivers further harmonisation of the sustainability disclosure landscape as it embarks on new work plan.' June 24, 2024.



Developments in other strategic relationships

Transition Plan Taskforce[10]

The IFRS Foundation will take over responsibility for the disclosure-specific materials developed by the Transition Plan Taskforce (TPT). The TPT disclosure framework and related guidance draws on components identified by the Glasgow Finance Alliance for Net Zero (GFANZ). The ISSB plans to tailor the materials for global applicability and full compatibility with IFRS S2.

CDP[10]

CDP is ISSB's key global climate disclosure partner. The 2024 questionnaire published by the CDP is aligned with IFRS S2.

GHG Protocol[10]

A memorandum of understanding was signed between the IFRS Foundation and GHG Protocol to put in place governance arrangements so that ISSB is actively engaged in updates and decisions made in relation to relevant GHG Protocol standards. A representative from the ISSB has been appointed as an observer on the GHG Protocol Independent Standards Board.

World Economic Forum's International Business Council

The World Economic Forum (WEF) published Illustrated Guidance: Making the Transition from World Economic Forum Stakeholder Metrics to ISSB Standards[11] in June 2024 to provide guidance to organisations preparing to transition from the voluntary reporting of the WEF's International Business Council's Stakeholder Metrics to the ISSB Standards.

World Bank Group and International Finance Corporation

In June 2024[12], the International Finance Corporation (IFC), a member of the World Bank Group signed a memorandum of understanding with the IFRS Foundation agreeing to a strategic partnership to strengthen sustainable capital markets by improving sustainability and climate reporting in emerging markets and developing economies (EMDEs).

Subsequently, in September 2024, the World Bank Group and IFRS Foundation announced[13] their commitment to further partnership towards adoption of ISSB Standards in EMDEs.

Adoption of the ISSB Standards

Similar to the process for adopting IFRS Accounting Standards, individual jurisdictions will determine if application of the ISSB Standards is required or permitted as a basis for sustainability reporting in their territories.

The IFRS Foundation released a guide[14] to help jurisdictions design and plan their journey to the adoption or other use of ISSB Standards.

Looking ahead

The ISSB shared its 2024 – 2026 work plan in June 2024[15]. This includes:
- Supporting implementation of IFRS S1 and IFRS S2
- Enhancing the SASB Standards with exposure draft due in Q1 2025
- Beginning new research and standard-setting projects about risks and opportunities related to biodiversity, ecosystems and ecosystem services and human capital
- Addressing emerging issues
- Pursuing interoperability with other standard-setting initiatives, connectivity with the International Accounting Standards Board, and stakeholder engagement

10 IFRS Foundation. 'ISSB Delivers Further Harmonisation of the Sustainability Disclosure Landscape as It Embarks on New Work Plan.' June 24, 2024.

11 World Economic Forum. 'Illustrated Guidance: Making the Transition from World Economic Forum Stakeholder Metrics to ISSB Standards.' June 2024.

12 IFRS Foundation. 'IFC and IFRS Foundation announce partnership to improve sustainability reporting in emerging markets.' June 27, 2024.

13 IFRS Foundation. 'World Bank Group and IFRS Foundation announce commitment to further partnership towards adoption of ISSB Standards in EMDEs.' September 26, 2024.

14 'The jurisdictional journey towards globally comparable information for capital markets.' IFRS Foundation, May 2024.

15 IFRS Foundation. 'ISSB Consultation on Agenda Priorities.' June 2024.

Spotlight on CSRD

Overview

In July 2023, the European Commission (EC) adopted the final delegated act of the ESRS. These standards underpin the CSRD and are intended to bring sustainability reporting on par with financial reporting. The ESRS came into effect on 1 January 2024 and imposes obligations on both EU and non-EU companies with relevant business activities in the EU through a phased approach, with disclosure requirements applicable as early as 2024 (filing in 2025).

As EU Member States transpose the CSRD into national law, companies should review the final legislation in the EU Member States where they have subsidiaries and take into account any country-specific local requirements established during the transposition process.

Scope extends beyond EU and includes companies in Asia

The wide scope of the CSRD means that sustainability reporting obligations will be imposed on approximately 50,000 companies in the EU[16].

The CSRD also extends to non-EU companies globally, including to many in Asia. In fact, it is expected to impact approximately 10,000 companies headquartered outside of the EU[17]. Depending on how companies are captured under the scope of the CSRD, the application date for first-time reporting may vary.

Finalised CSRD scope considerations and first-time application period

2025 (on the basis of 2024 reporting)

Companies that are subject to the Non-financial Reporting Directive (NFRD)
- Generally, the NFRD is applicable to large public interest entities (PIEs) (listed entities, insurance entities and banks) with over 500 employees
- However, Member States may have designated other entities as PIEs, so these entities will need to consider their own local requirements

2026 (on the basis of 2025 reporting)

Companies that are newly subject to the CSRD (both listed and large)
- Listed companies, large unlisted companies, and parents of large groups
- Here, large undertakings are defined as exceeding at least two of the three criteria over two consecutive financial years: (1) €25m in total assets; (2) €50m in net turnover; and (3) 250 employees

2027 (on the basis of 2026 reporting)

Listed SMEs
- Listed small and medium-sized enterprises are defined separately as small or medium undertakings.
- Collectively these entities must meet two of three criteria over two consecutive financial years: (1) more than €450,000 but less than €25m in total assets; (2) more than €900,000 but less than €50m in net turnover; and (3) an average of more than 10 employees but less than 250 employees

2029 (on the basis of 2028 reporting)

Non-EU groups that meet **both** of the following conditions:
- At least one EU entity within the group is in scope (i.e. has securities listed on an EU-regulated market or is a large undertaking) **or** at least one EU branch generates revenue of more than €40m in the preceding year; and
- Consolidated net turnover (revenue) generated in the EU exceeds €150m for each of the last two consecutive fiscal years

16 European Parliament. ‘Sustainable economy: Parliament adopts new reporting rules for multinationals.’ November 11, 2022.

17 PwC CEE. ‘CSRD is resetting the ESG value-creation agenda in CEE.’ February 8, 2024.

Overview of the ESRS

The ESRS includes 12 sector-agnostic standards, which span environmental, social and governance topics. All reporting undertakings are obliged to report on the cross-cutting ESRS 1 and ESRS 2. Companies report against the remaining 10 topical standards to the extent that the related sustainability matters are material.

The 12 finalised ESRS

Cross-cutting Standards

1 – General requirements
2 – General disclosures

Environment Standards

E1 – Climate
E2 – Pollution
E3 – Water and marine resources
E4 – Biodiversity and ecosystems
E5 – Resource use and circular economy

Social Standards

S1 – Own workforce
S2 – Workers in the value chain
S3 – Affected communities
S4 – Consumers and end users

Governance Standards

G1 – Business conduct

In its totality, the ESRS includes over 1,000 datapoints[18] which organisations may need to report on subject to materiality. Yet the standards are about much more than simply collecting and reporting data, with metrics and targets representing only one dimension of the four ESRS reporting areas. Other qualitative disclosures include, but are not limited to, governance structure and integration of sustainability-related performance in incentive schemes, the undertaking's strategy and key challenges to addressing its material impacts, risks and opportunities (IROs), as well as policies and actions related to managing these IROs.

[18] European Financial Reporting Advisory Group. 'List of ESRS datapoints.' May 2024.

The four reporting areas of the ESRS

Governance (GOV)

Sustainability governance and organisation

Strategy (SBM)

Identify and assess sustainability **impacts, risks and opportunities (IRO)**

How material impacts, risks and opportunities **interact with the strategy and business model**, the effect they have on strategy and decision-making, including the **financial effects** of material risks and opportunities

Impact, risk and opportunity management

Policies | **Action plans** and resource allocation | Whether opportunities are being **incorporated into the business strategy**

Metrics and targets

Measurable, time-bound, outcome-oriented **targets** → **Measurable progress** against targets

Companies under the scope of the CSRD should adopt a strategic mindset and consider 'how' information is reported, in parallel to 'what' information is reported. Whilst each reporting undertaking has a separate reporting obligation under the CSRD, dependent on the structure of the specific undertaking, there may be reporting exemptions with different implications:

- Artificial consolidation in the EU (a transitional provision granted until the beginning of 2030) – where if certain conditions are met, EU holdings and their subsidiaries form an artificial consolidation scope and only need to prepare one consolidated sustainability report.
- Group level consolidated report – an ultimate parent company reports at a global consolidated level. This requires meticulous preparation to consolidate all data and information from all entities within the group. Non-EU parents that are preparing a consolidated report will need to do so in accordance with the ESRS or in a manner deemed equivalent to these standards by the European Commission, including all subsidiaries of the parent (i.e. the full consolidated group). Note that no equivalent standards have been identified to date. Further, a non-EU parent may provide the reporting in a consolidated sustainability report; a management report is not required.

In determining the potential reporting exemptions available, a reporting undertaking should take note of any relevant conditions, such as the timing of publication, as governed by the local transposed law.

These exemptions are not, however, available to all entities. Exceptions may arise in the following two scenarios:

Entities not eligible for a reporting exemption

Large and listed entities

An entity that meets the following criteria is not eligible for any reporting exemptions and must report separately:

- is an issuer (it has debt or equity securities listed on an EU-regulated market), **and**
- meets the size thresholds to be large (see page 15)

Country-level requirements

As part of the CSRD transposition process, a country may decide to limit the availability of reporting exemptions and require country- or entity-level reporting on a standalone basis for all companies located there.

Companies should continue to monitor the transposition process for country-specific requirements.

In addition, the CSRD requires that sustainability reporting is included in a dedicated section of a company's management report, submitted based on the requirements of the relevant regulator and/or EU Member State, and that the management report is filed together with financial statements.

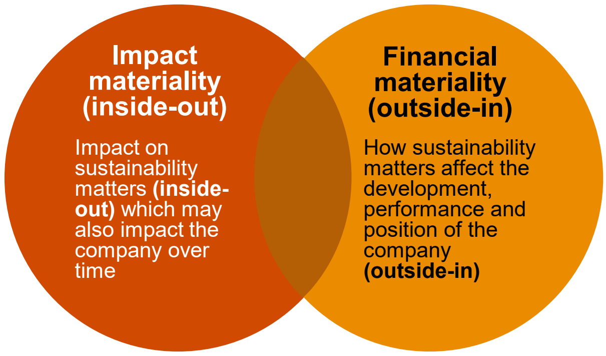
Depending on how a company is scoped into the CSRD, it may be subject to pending standards which are yet to be defined. Dedicated standards for non-EU headquartered companies are expected to be issued, with a deadline set for 30 June 2026. Whilst these standards have yet to be drafted, non-EU companies under the scope of the CSRD should continue to monitor developments closely given the extent of preparation which may be needed.

The CSRD also sets out requirements for third-party assurance, starting with limited assurance before expanding to reasonable assurance at a later date. While EU Member States will initially determine which assurance standards are to be applied, the European Commission is expected to adopt limited and reasonable assurance standards by October 2026 and October 2028 respectively, subsequent to the completion of an assessment to determine if reasonable assurance is feasible for auditors and for companies. Assurance is another component of the CSRD which reporting undertakings must inform themselves about and watch closely for relevant developments.

The concept of double materiality and consideration of a company's value chain

The CSRD embraces double materiality, requiring companies to report on both the impact the company has on sustainability matters (an inside-out perspective or impact materiality), in addition to how sustainability matters affect a company's business development, performance and position (an outside-in perspective or financial materiality).

Double materiality



Sustainability matters are material if they meet the criteria defined for impact materiality, financial materiality or both

The concept of materiality applies not only to a company's own operations, but also extends to its business relationships across its value chain

Impact materiality

A sustainability matter is material when:

- It pertains to the company's material actual or potential impacts on people or the environment
- The impacts may be positive or negative over the short-, medium- or long term
- The impact could be caused or contributed to by the company or **directly linked** to the company's operations, products, or services through its business relationships.

Financial materiality

A sustainability matter is material when:

- It triggers or could reasonably be expected to trigger material financial effects on the undertaking
- It generates risks or opportunities that could have a material influence on the company's financial position, financial performance and cash flows
- Risks and opportunities may derive from past or future events and may generate financial effects over the short-, medium-, and long-term time horizons.

This understanding of financial materiality is aligned with the definition of materiality in the IFRS Sustainability Disclosure Standards S1 and S2 issued by the International Sustainability Standards Board (ISSB). Therefore, the same financial materiality assessment process can support the identification of the risks and opportunities for both ISSB and ESRS purposes. In addition, the definition of information that is considered material for users of general purpose financial reports is aligned between both standards[19]. However, because double materiality considers both investors and other stakeholders, companies applying the ESRS will need to look beyond financial materiality and also take impact materiality into consideration. This means that although a disclosure may not be material in applying the ISSB Standards, it could still be material in applying the ESRS, to the extent that it satisfies the conditions for impact materiality.

In relation to impact materiality, there is a high level of interoperability between the ESRS and GRI Standards, with the ESRS impact materiality process aligning in substance with the GRI Standards[20]. However, as with the IFRS, the GRI Standards only capture one perspective of the ESRS definition of materiality, namely the impact perspective. Given this, despite the interoperability between ESRS and GRI in relation to impact reporting, companies must also consider financial materiality.

To determine what their material topics are, reporting undertakings will need to perform a double materiality assessment (DMA) considering the entire value chain. This includes their own operations in addition to their business relationships, aligned with the definition of value chain used by both the ISSB and GRI Standards[21]. For example, Singapore companies preparing for ISSB-aligned climate reporting under the ACRA-SGX recommendations, which will require disclosure of climate-related risks and opportunities across the value chain, may therefore be able to draw on value chain mapping exercises already completed or in the pipeline.

Depending on the size and structure of a company, a DMA and related value chain mapping can be a significant undertaking. Recognising this, PwC has devised a four-step process for the execution of a DMA, providing an indication of where companies should start.

Four-step process for the execution of a DMA

1 **Understand** the company's impacts throughout its value chain, considering the activities, resources and relationship the undertaking uses and relies on to create its products or services from conception to delivery, consumption and end-of-life.

2 **Identify** the company's positive or negative actual and potential impacts, in addition to the risks and opportunities that materially influence or may reasonably be expected to materially influence the company's financial development, performance and position.

3 **Assess** the actual and potential impacts, in addition to risks and opportunities, based on a method to measure impact materiality and financial materiality respectively.

4 **Determine** which matters are material by adopting thresholds which govern the impacts, risks and opportunities to be covered in the company's sustainability statements.

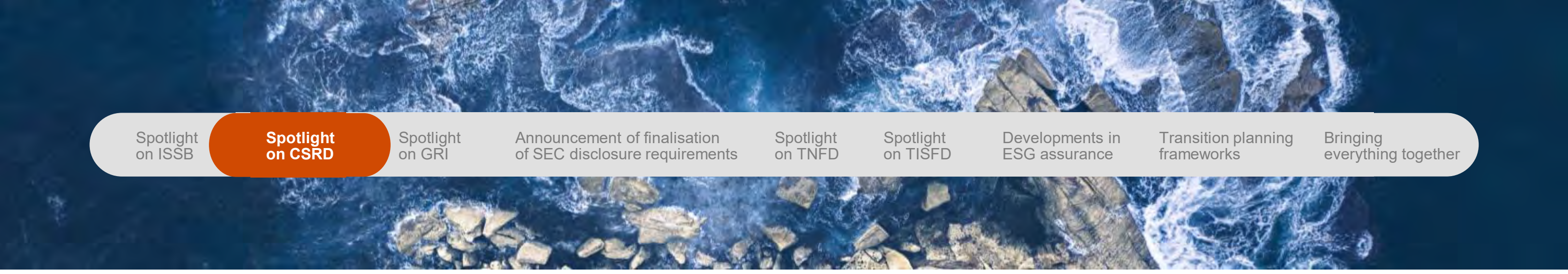
EFRAG Materiality Assessment Implementation

EFRAG Value Chain Implementation Guidance

19 IFRS Foundation. 'ESRS–ISSB Standards: Interoperability Guidance.' May 2, 2024.

20 Global Reporting Initiative 'EFRAG-GRI JOINT STATEMENT OF INTEROPERABILITY.' August 31, 2024.

21 European Financial Reporting Advisory Group. 'Implementation guidance on value chain.' December 2023.



Actions non-EU companies can take now to prepare for the CSRD

It may be tempting for non-EU companies to wait for the non-EU dedicated standards before preparing for CSRD requirements. However, on account of the complexities outlined in this section and the breadth of potential disclosures, there are certain actions non-EU companies can take now to facilitate sufficient time for data collection and reporting.

The Omnibus Simplification Package

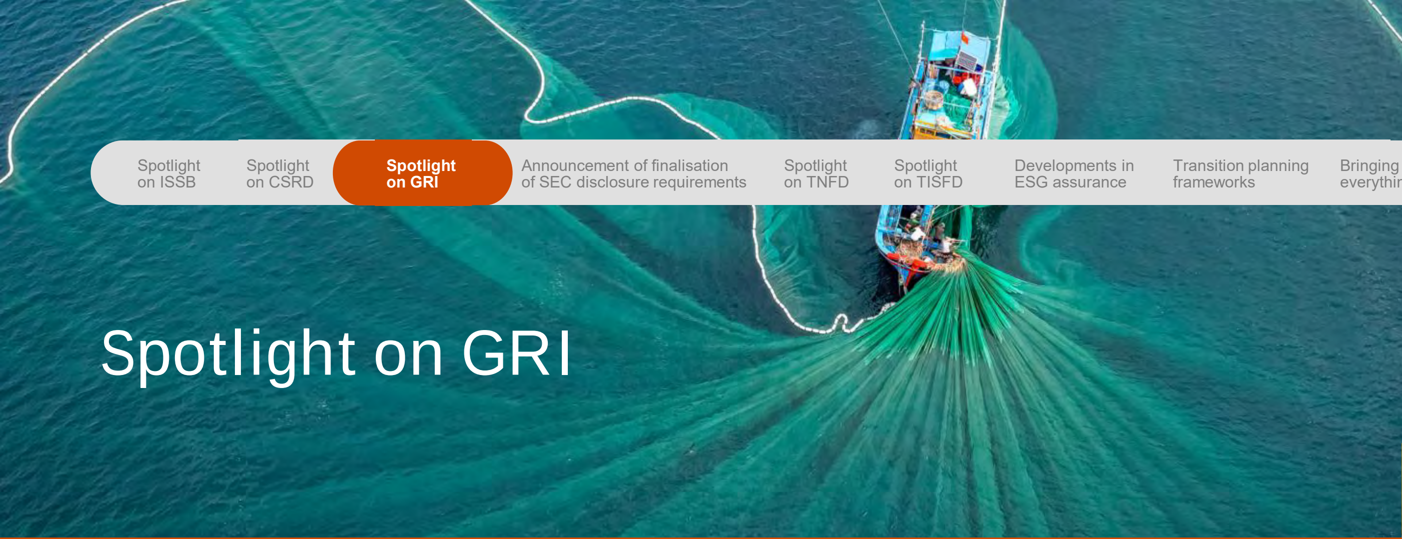
The EU intends to reduce companies' sustainability reporting obligations with the Omnibus Simplification Package. With legislation expected to be released in 2025, the EU intends to restructure the requirements of the EU Taxonomy, Corporate Sustainability Reporting Directive and the Corporate Sustainability Due Diligence Directive into a single regulatory requirement.

‘No-regrets’ actions

Conduct a **scoping exercise** to understand which entities are subject to reporting obligations, whether exception possibilities apply, the appropriate level of reporting, and timing of reporting.

Complete a **value chain mapping** exercise to understand where impacts, risks and opportunities may arise throughout the company’s own operations and business relationships.

Perform a **double materiality assessment** to identify the most material sustainability matters, considering both financial and impact materiality.



Spotlight on GRI

Overview

Over the past year, there have been several significant developments in the Global Reporting Initiative (GRI).

Sector Standards

Two Sector Standards came into effect for reporting from January 2024:
- Sector Standard for Coal published in March 2022
- Sector Standard for Agriculture, Aquaculture, and Fishing published in June 2022

Two new Sector Standards were published for reporting from January 2026:
- Sector Standard for Biodiversity published in January 2024
- Sector Standard for Mining published in February 2024

Interoperability with other standards and frameworks

GRI and ESRS

In November 2023, GRI and EFRAG published GRI-ESRS Interoperability Index[22]. The tool outlines the relationship between the disclosure requirements and data points in each set of standards, highlighting the significant commonalities already achieved and establishing a strong foundation for developing a reciprocal digital taxonomy. With the high interoperability achieved between the GRI and the ESRS, entities reporting under ESRS will be deemed reporting 'with reference' to the GRI Standards and existing GRI reporters will be able to leverage their current reporting efforts to prepare their ESRS 'Sustainability statement'.

GRI and ISSB Standards

For details, please refer to page 13.

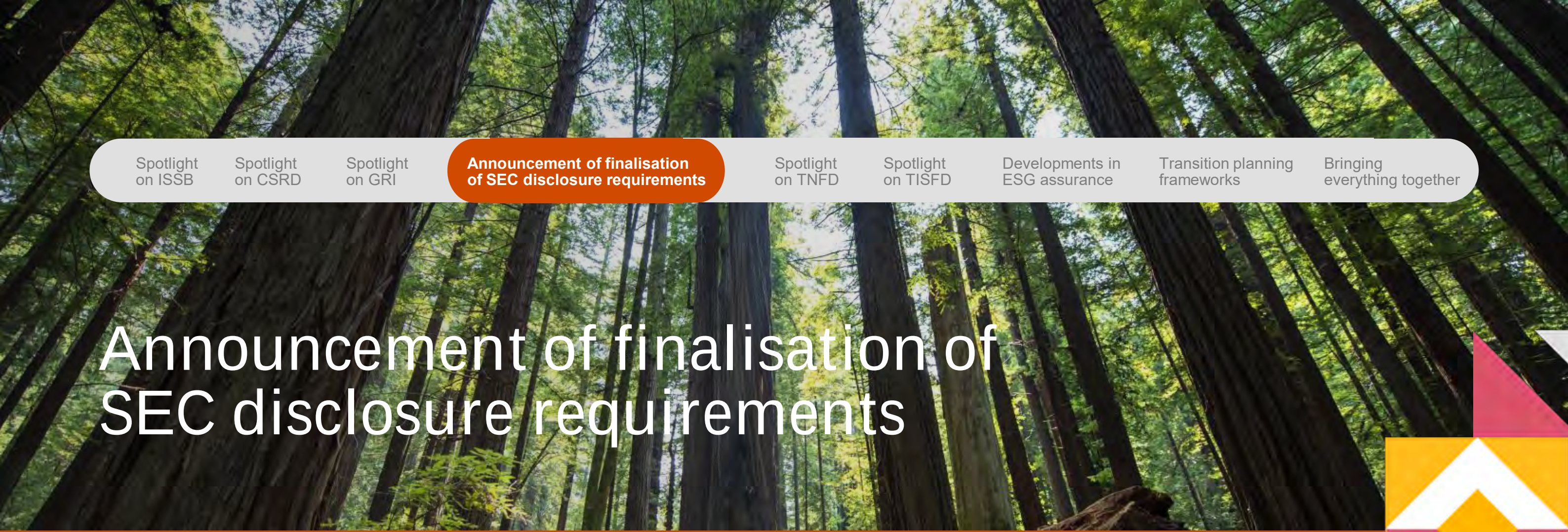
GRI and TNFD

GRI and TNFD published a joint interoperability mapping resource[23] in June 2024. The mapping shows a high level of alignment achieved between the TNFD Recommendations and metrics and the GRI Standards reporting requirements and datapoints. This includes:

- The consistent use of nature-related concepts and definition
- The incorporation and reference to the GRI's materiality approach, which focuses on impacts within the TNFD Recommendations and guidance
- Reflecting all disclosures in GRI 101: Biodiversity 2024 in the TNFD Recommendations. Conversely, all TNFD Recommendations are integrated into the GRI Standards, except for those specifically addressing nature-related risk and opportunity identification and assessment
- Strong consistency between the TNFD core global disclosure metrics and the corresponding metrics in the GRI Standards
- Referencing the TNFD LEAP approach in GRI 101
- The use of TNFD definitions and criteria by GRI 101 when considering an organisation's location in or near ecologically sensitive areas

22 Global Reporting Initiative. 'GRI-ESRS Interoperability Index.' November 30, 2023.

23 The Taskforce on Nature-related Financial Disclosures. 'Interoperability mapping between the GRI Standards and the TNFD Disclosure Recommendations and metrics.' July 29, 2024



Announcement of finalisation of SEC disclosure requirements

Overview

On 6 March 2024, nearly two years after it first proposed climate disclosure rules, the US Securities and Exchange Commission (SEC) finalised its disclosure rules. However, on 4 April 2024, less than a month since it finalised its disclosure rules, the US SEC has announced its decision to stay its climate disclosure rules, pending judicial review of its final rules. Should the rules be found to be consistent with applicable law, the stay will be lifted and the timeline for adoption may proceed as usual.

Key changes to the disclosure requirements and the rationale for doing so

Considering the 24,000 comment letters in response to the draft rules, the final rules have been modified in several ways from the original proposal. Overall, fewer companies will need to disclose their climate-related numbers and there is a reduced requirement for assurance on disclosures.

- **Reduction in the number of companies required to disclose their Scope 1 and Scope 2 emissions**
  Smaller reporting companies (SRCs) and emerging growth companies (EGCs) were exempted from needing to disclose their GHG emissions, in order to ease the great burden and cost that they would face in attempting to comply with the GHG emissions disclosure requirements. This exemption from the US SEC disclosure requirements is also consistent with the scaled disclosure approach that is occasionally adopted for SRCs and EGCs.

- **Added materiality thresholds for Scope 1 and Scope 2 emissions**
  Due to the potentially high cost of compliance associated with the proposed GHG emissions disclosure requirements, the US SEC is only requiring such disclosure if the emissions are evaluated to be material. This provides investors with the information they need to understand the overall impact of transition risk and related targets and goals on a registrant's business, without imposing an unnecessary cost on other registrants.

- **Removal of mandatory Scope 3 emissions reporting**
  Amidst the potentially large burden a Scope 3 emissions reporting requirement may impose, and an environment where obtaining reliable and robust data for Scope 3 emissions is difficult, the US SEC decided not to mandate reporting Scope 3 emissions.

- **Requires only large accelerated filers (LAFs) to obtain reasonable assurance, with a 7-year phased-in period**
  The US SEC implemented this requirement to improve the accuracy, comparability, and consistency of registrants' GHG emissions disclosure. However, due to the potential cost of obtaining assurance, the US SEC only requires LAFs to disclose, since they generally bear proportionately lower compliance costs, and some are already collecting and disclosing climate-related information. Due to the potential shortage in the current supply of assurance providers and the evolving state of assurance standards and methodologies, the phase-in period was instituted to give ample time for new assurance providers to enter the market.

The US SEC final rules released in March 2024 states that the applicability would be as follows for December year-end companies:

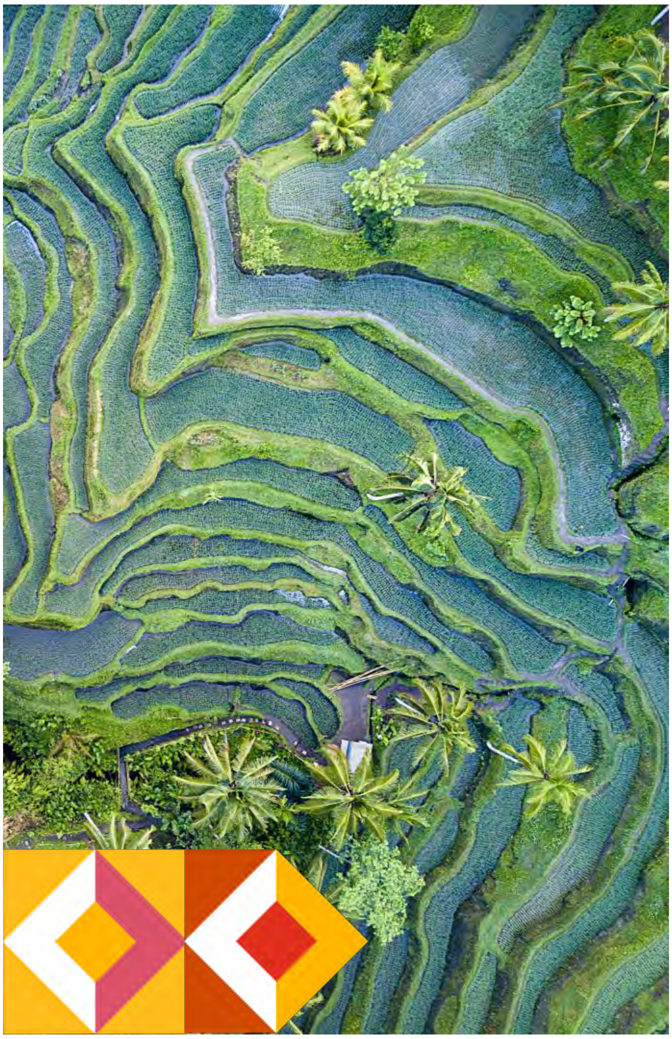
Registrant type	Disclosures, other than GHG emissions	Scope 1 and Scope 2 GHG emissions	Limited assurance	Reasonable assurance
LAFs	FYB* 2025	FYB 2026	FYB 2029	FYB 2033
Accelerated filers (other than SRCs and EGCs)	FYB 2026	FYB 2026	FYB 2031	Not applicable
SRCs, EGCs, and non-accelerated filers	FYB 2027	Not applicable	Not applicable	Not applicable

* 'FYB' refers to any fiscal year beginning in the calendar year listed.

What are the next steps for companies required to disclose

Companies required to disclose can take the following steps to prepare them for disclosure requirements:

- Engage relevant key internal and external parties:
  - **Internal and external accountant and auditor**: Implementing a new disclosure standard will likely require accumulating and handling untouched data, may require the gathering of new data or the structuring of old data.
  - **Legal and compliance:** To help establish that the drafted disclosure will meet the regulatory requirements and to mitigate any new legal risks that may emerge.
- **Conduct a readiness/gap assessment**, such as peer benchmarking to understand gaps and efforts required.
- **Prioritise actions** in relevant stakeholders' agenda.
- **Delineate roles and responsibilities** for each relevant party.
- Consider the **budget** in advance.



How the US SEC Final Rules tie in with other reporting frameworks

Major global sustainability reporting frameworks which include the Corporate Sustainability Reporting Directive (CSRD) in the EU, the International Sustainability Standards Board (ISSB) internationally, as well as the US SEC climate disclosure rules and California state legislature climate bills in the US, are all now final. Each requires expansive sustainability disclosure requirements, but their scopes and other details have several key variations summarised below:

Theme	CSRD	ISSB	US SEC	California
Topics in scope	Broad list of environmental, social, and governance topics	Climate and other sustainability risks (Thematic standards expected in the future)	Climate-related risks and financial effects of severe weather events and other natural conditions	Senate Bill (SB) 253: GHG emissions SB 261: Climate-related financial risks Assembly Bill (AB) 1305: Emissions claims, use or sale of carbon offsets
Entities in scope	Companies listed on EU-regulated markets and large (as defined in the directive) unlisted companies or groups in the EU	Subject to how standards are implemented in each jurisdiction	Companies with publicly traded securities registered with the SEC with the exception of certain Canadian registrants	US public and private companies including subsidiaries of non-US headquartered companies that do business in California (SB 261 and SB 253; AB 1305 applies to any entities who meet criteria)
Timing of application	Phased by type of entity; applicable beginning as early as 2024 (filing in 2025) for a large undertaking, that has securities listed on an EU-regulated market and/or >500 employees	Subject to how standards are implemented in each jurisdiction	Phased by specific disclosure and registrant type. Initial compliance dates begin as early as fiscal years beginning in 2025 for LAFs.	AB 1305: Effective 1 January 2024 SB 253: Initial reporting in 2026 on prior fiscal year SB 261: Initial reporting by 1 January 2026
Materiality	Based on double materiality, consisting of financial materiality and impact materiality	Based on factors that could reasonably influence decisions of the primary users	Based on the definition of materiality in existing securities laws. A 1% bright-line and de minimis thresholds would be applied for financial statement footnote quantitative disclosures	SB 253: References GHG Protocol SB 261: References TCFD AB 1305: No specified materiality
Climate-related risks and opportunities	Climate-related impacts, risks, and opportunities required	Climate-related risks and opportunities required	Climate-related risks required; opportunities are not required	SB 261: Climate-related risk and opportunities required
Scenario analysis	Required to assess resilience	Required to assess resilience	Not required, unless if used to assess impact and identifies a material climate-related risk	SB 261: Required to assess resilience

Theme	CSRD	ISSB	US SEC	California
Targets and goals	GHG emissions reduction targets would be required in five-year rolling periods	Climate-related targets set by the company	Climate-related targets or goals	SB 253[XX]: Certain information required SB 261[XX]: Targets used to manage climate-related risks and opportunities and performance against those targets
GHG emissions (Scope 1, 2 and 3)	Disclosure of gross Scope 1, 2, and 3 emissions for the parent and consolidated subsidiaries and entities over which it has operational control	Disclosure of gross Scope 1, 2, and 3 (including component categories) emissions for the consolidated group and separately for investees	Disclosure of gross Scope 1 and Scope 2 GHG emissions for large accelerated and accelerated filers; Scope 3 emissions not required	Disclosure of Scope 1, 2, and 3 emissions in compliance with GHG Protocol (SB 253) and TCFD framework (SB 261)
GHG Protocol	Consideration is required	Required unless a different method is required upon local adoption	Not required, but requires disclosure of the protocol or standard used	SB 253: Consideration is required SB 261: Allows use of GHG Protocol or another consistent national method
GHG emissions organisational boundary	Emissions of the parent and consolidated subsidiaries would follow the organisational boundaries of the consolidated financial statements Emissions of associates, joint ventures, and other unconsolidated arrangements would be presented based on operational control	Emissions would be reported using either a control or equity share approach (consistent with GHG Protocol guidance)	Disclosure of organisational boundaries, the method used to determine them, and explanation if they are materially different than the scope of entities and operations included in financial statements	SB 253: Requires alignment with GHG Protocol SB 261: Allows use of GHG Protocol or another consistent national method
Assurance, excluding GHG emissions	Initially subject to limited assurance, transitioning to reasonable assurance at a to-be-determined date	Subject to assurance based on the rules of the jurisdictions adopting the standards	Footnote disclosure subject to assurance through the financial statement audit and internal controls over financial reporting audit	AB 1305[XX]: No, although certain disclosures required about any independent third-party verification obtained
Assurance on GHG emissions	Same assurance requirements as other sustainability information	Subject to assurance based on the rules of the jurisdictions adopting the standards	Limited assurance on material Scope 1 and/or Scope 2 emissions for FY beginning in 2029 for LAFs and 2031 for certain accelerated filers; LAFs transition to reasonable assurance for FY beginning in 2033	Beginning in 2029 for LAFs and 2031 for certain accelerated filers; LAFs transition to reasonable assurance for FY beginning in 2033 SB 253: Limited assurance on Scope 1 and 2 emissions beginning with 2025 information and reasonable assurance on 2029 information; Scope 3 assurance requirements to be determined in 2026

24 SB 253, Wiener. Climate Corporate Data Accountability Act. October 10, 2023.

25 SB 261, Stern. Greenhouse gases: climate-related financial risk. October 10, 2023.

26 AB 1305, Gabriel. Voluntary carbon market disclosures. October 10, 2023. .

Spotlight on TNFD

Overview

The final recommendations released in September 2023

In the previous edition of Sustainability Counts, we briefly introduced the TNFD, covering its purpose and aims. Since its formation in July 2020, TNFD has released several beta versions of its framework and conducted market consultation with numerous organisations. It concluded its pilot testing two years later in June 2023. Feedback from over 200 pilot tests by market participants helped solidify the TNFD recommendations that were published in September of the same year. These recommendations were centred around the following four pillars:

Nature transition planning

Following the announcement made during COP16 in Cali, Columbia, in October 2024, TNFD also published a discussion paper that sets out draft guidance on nature transition planning for corporates and financial institutions developing and disclosing a transition plan in line with the TNFD recommended disclosures. The draft guidance is built on the work of the Glasgow Financial Alliance for Net Zero (GFANZ) and on the recommendations of the Transition Plan Taskforce (TPT).

Four pillars of the TNFD

Governance	Strategy	Risk & impact management	Metrics & targets
Disclose the organisation's governance of nature-related dependencies, impacts, risks and opportunities.	Disclose the effects of nature-related dependencies, impacts, risks and opportunities on the organisation's business model, strategy and financial planning where such information is material.	Describe the processes used by the organisation to identify, assess, prioritise and monitor nature-related dependencies, impacts, risks and opportunities.	Disclose the metrics and targets used to assess and manage material nature-related dependencies, impacts, risks and opportunities.
Recommended disclosures	**Recommended disclosures**	**Recommended disclosures**	**Recommended disclosures**
A. Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities. B. Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities. C. Describe the organisation's human rights policies and engagement activities, and oversight by the board and management, with respect to Indigenous Peoples, Local Communities, affected and other stakeholders, in the organisation's assessment of, and response to, nature-related dependencies, impacts, risks and opportunities.	A. Describe the nature-related dependencies, impacts, risks and opportunities the organisation has identified over the short, medium and long term. B. Describe the effect nature-related dependencies, impacts, risks and opportunities have had on the organisation's business model, value chain, strategy and financial planning, as well as any transition plans or analysis on the place. C. Describe the resilience of the organisation's strategy to nature-related risks and opportunities, taking into consideration different scenarios. D. Disclose the locations of assets and/or activities in the organisation's direct operations and, where possible, upstream and downstream value chain(s) that meet the criteria for priority locations.	A. (i) Describe the organisation's processes for identifying, assessing and prioritising nature-related dependencies, impacts, risks and opportunities in its direct operations. (ii) Describe the organisation's processes for identifying, assessing and priotising nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s). B. Describe the organisation's processes for managing nature-related dependencies, impacts, risk and opportunities. C. Disclose how processes for identifying, assessing, prioritising and monitoring nature-related risks are integrated into and inform the organisation's overall risk management processes.	A. Disclose the metrics used by the organisation to assess and manage material nature-related risks and opportunities in with its strategy and risk management process. B. Disclose the metrics used by the organisation to assess and manage dependencies and impacts on nature. C. Describe the targets and goals used by the organisation to manage nature-related dependencies, impacts, risks and opportunities and its performance against these.

Source: TNFD Recommendations

TNFD's relation to other guidelines

The TNFD builds upon the existing framework established by TCFD. This creates a similarity between the two which eases the adoption process for organisations already implementing TCFD recommendations. These similarities promote consistency and efficiency in the disclosure of material topics. However, it is important to note that the TNFD does branch off in a few ways. Notably, it adds on three new recommended disclosures.

1. Describe human rights policies and engagement activities, and oversight by the board and management, with respect to Indigenous People, Local Communities, affected and other stakeholders, in the organisation's assessment of, and response to, nature-related dependencies, impacts, risks and opportunities.
2. Disclose the locations of assets and/or activities in the organisation's direct operations and, where possible, upstream and downstream value chain(s) that meet the criteria for priority locations.
3. Describe the organisation's processes for identifying, assessing and prioritising nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s) (in addition to direct operation)

The inclusion of these three recommended disclosures reflects the TNFD's increased focused on nature and location-specific impacts compared to the TCFD.

GRI

The Global Reporting Initiative (GRI) has also updated biodiversity as a disclosure standard in 2023 to keep up with the new global initiatives and developments. During this process, it also collaborated with the TNFD, resulting in a high level of alignment in language, measurement, analysis, and others between the two.

CSRD

EFRAG and TNFD signed a cooperation agreement in December 2023. This adds on to ongoing collaborations between the two, with ESRS disclosures also based on the same four pillars as TNFD and TCFD.
The cooperation has led to a jointly published correspondence table, which provides additional clarity to the European companies currently disclosing under EFRAG, many of which are also considering aligning with TNFD. It also highlights the high degree of overlap between the two disclosure requirements, in particular with regards to the required assessment of impact on nature in direct operations and in the value chain.

For example, the ESRS, which was developed concurrently with the TNFD to facilitate a strong level of consistency in language, approach and definitions, addresses all 14 TNFD-recommended disclosures in its disclosure requirements of:

1. ESRS E1 Climate change
2. ESRS E2 Pollution
3. ESRS E3 Water and marine resources
4. ESRS E4 Biodiversity and ecosystems
5. ESRS E5 Resource use and circular economy

It has also resulted in the EU placing a high priority on limiting our collective impact on nature. This can be seen in the EU Deforestation Regulation (EUDR), which will come into effect on 30 December 2024. The Regulation is aimed at reducing the EU's impact on global deforestation and forest degradation, which will in effect bring down greenhouse gas (GHG) emissions and biodiversity loss.

ISSB

The ISSB has decided to adopt TNFD's recommendations in its future work, including in the commencement of research related to disclosure about risks and opportunities associated with biodiversity, ecosystems and ecosystem services. This represents a growing recognition that nature-related factors play an important role in financial decision analysis and in moving the world of ESG reporting closer to a standardised, transparent disclosure practice. In addition, the integration of TNFD recommendations provides guidance to businesses and investors relying on ISSB on how to effectively assess and disclose nature-related risks and opportunities.

Over 460 companies have adopted TNFD globally

As of Oct 2024, over 460 companies have committed to adopting the TNFD. These companies represent over 60 of 77 Sustainable Industry Classification System (SICS) sectors, including but not limited to Insurance, Real estate, and Processed foods. Japanese companies have taken the lead when it comes to TNFD adoption, with 125 companies reporting in accordance with TNFD.

The inclusion of the three recommendations is reflective of TNFD's increased focused on nature and location-specific impacts compared to the TCFD.

Early adopter – CDL

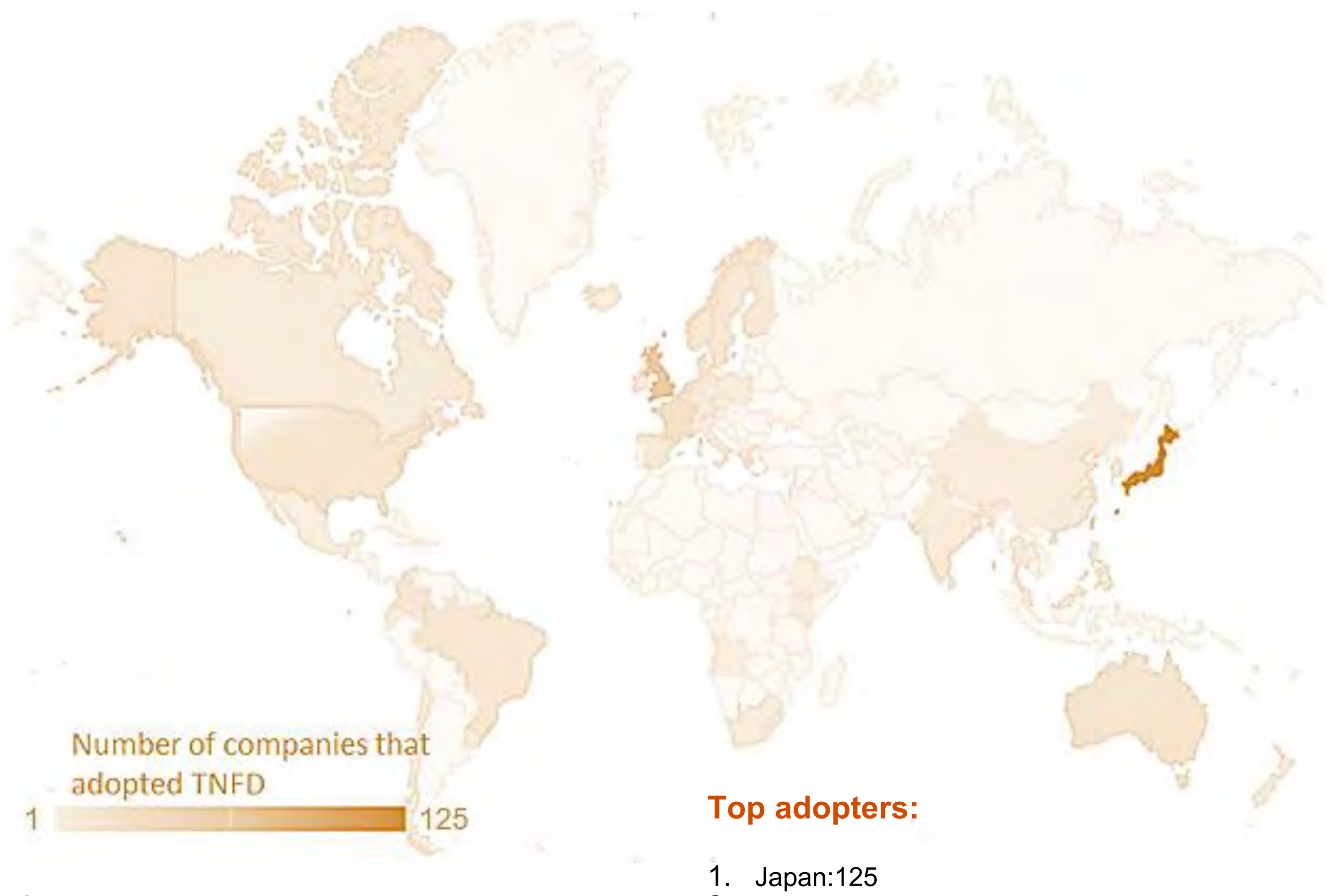
City Developments Limited (CDL) achieved a significant milestone in its 17th Integrated Sustainability Report for 2024 by becoming the first company in Singapore to publish disclosures aligned with the TNFD framework.

By adopting the TNFD recommendations into its assessment system, CDL was better able to identify nature-related risks and opportunities. It also revised its biodiversity policy in 2023 based on developments in international standards, such as the release of the final recommendations. Overall, its early adoption of TNFD and its alignment with frameworks such as the ISSB Standards, has enabled it to be well prepared for the increase in information demand from investors, as well as the more stringent regulations from governing bodies.

Early adopter – UBS

UBS is one of the earliest adopters of TNFD, leading its financial sector working group and contributing to the development of the recommendations that were released in September 2023. UBS has also utilised the framework set by the TNFD to help improve its activities and disclosures. This has enabled it to mobilise capital towards achieving the UN's Sustainable Development Goals (SDGs).

TNFD adoption globally



Source: TNFD Adopters List

Top adopters:

1. Japan:125
2. United Kingdom: 62

The LEAP approach helps to identify areas of concern

The TNFD provides a consistent framework to help identify and assess nature-related issues.

The LEAP approach which is a recommended first step can help companies to identify areas that may be of concern.

- Four phases of LEAP
- Benefits of LEAP
  - Using LEAP provides a more thorough view of the environmental impact of products as it considers additional factors like biodiversity.
  - It is also a framework for location-specific analysis, taking into account the specific environmental conditions of different regions. This allows companies to achieve a more targeted and relevant assessment.

Key steps for a company starting to report against TNFD

Drawing from experience with implementing the TNFD disclosures, these are the recommended steps to be taken when adopting them:

- Step 1: Understand positive and negative nature related Dependency, Impact, Risks and Opportunities (DIRO).
- Step 2: Start with most material impacts, set targets, and allocate capex to work towards the targets.
- Step 3: Disclose impacts to capital market and make an impact.
- Companies can start adopting TNFD on a voluntary basis while nature-disclosure standards develop further. TNFD in a Box[27] has been launched to get companies started on the TNFD process including the LEAP approach.

Various guidance and tools provided by TNFD to ease the adoption

The TNFD has collated a library of 382 publications to guide new adopters on how to report and integrate nature-related materiality topics into their ESG disclosures. It also holds events and collates tools on its website to educate organisations on TNFD reporting. These include:

- Charting a sustainable path: Nature-climate scenarios in financial decision-making (25 March 2024). In this event, attendees learnt:
  - The importance and benefits of a nature-climate integrated approach to risk analysis
  - The latest work on climate-nature scenario analysis
  - Modelling frameworks to support nature-integrated scenario development
- TNFD + TCFD integrated reporting (24 January 2024). This webinar:
  - Shared insights gained from Early Adopters and their process of getting started with TNFD
  - Showed attendees how a report disclosing with TNFD would look like
- TNFD in a Box is a downloadable capacity building tool that supports the adoption and implementation of the TNFD's disclosure recommendations, including considering nature as a strategic management issue.
- TNFD Tools Catalogue[28] provides an overview of nature-related data tools to help assess nature-related issues and aligned with the TNFD's LEAP approach.

Four phases of the LEAP approach

Locate the interface with nature

- L1: Span of the business model and value chain
- L2: Dependency and impact screening
- L3: Interface with nature
- L4: Interface with sensitive location

Evaluate dependencies and impacts

- E1: Identification of environmental assets, ecosystem services and impact drivers
- E2: Identification of dependencies and impacts
- E3: Dependency and impact measurement
- E4: Impact materiality assessment

Assess risks and opportunities

- A1: Risk and opportunity identification
- A2: Adjustment of existing risk mitigation and risk and opportunity management
- A3: Risk and opportunity measurement and prioritisation
- A4: Risk and opportunity materiality assessment

Prepare to respond and report

- P1: Strategy and resource allocation plans
- P2: Target setting and performance management
- P3: Reporting
- P4: Presentation

27 Taskforce on Nature-related Financial Disclosures. 'TNFD in a Box.' August 2024.

28 Taskforce on Nature-related Financial Disclosures. 'Tools Catalogue – TNFD.' November 12, 2024.

With so much material available for learning, readers should consider taking a structured approached to learning about TNFD. Our recommended approach can be found in the figure below:

A. The TNFD recommendations

- The fundamental text which sets out the recommendations for disclosing climate-related financial information

B. Getting started with the TNFD recommendations

- A practical guide and suite of resources that helps organisations get started

C. Guidance on the identification and assessment of nature-related issues: the LEAP approach

- A document providing guidance on the integrated approach developed by the TNFD to identify and assess nature-related issues

D. Guidance on biomes and additional sector guidance

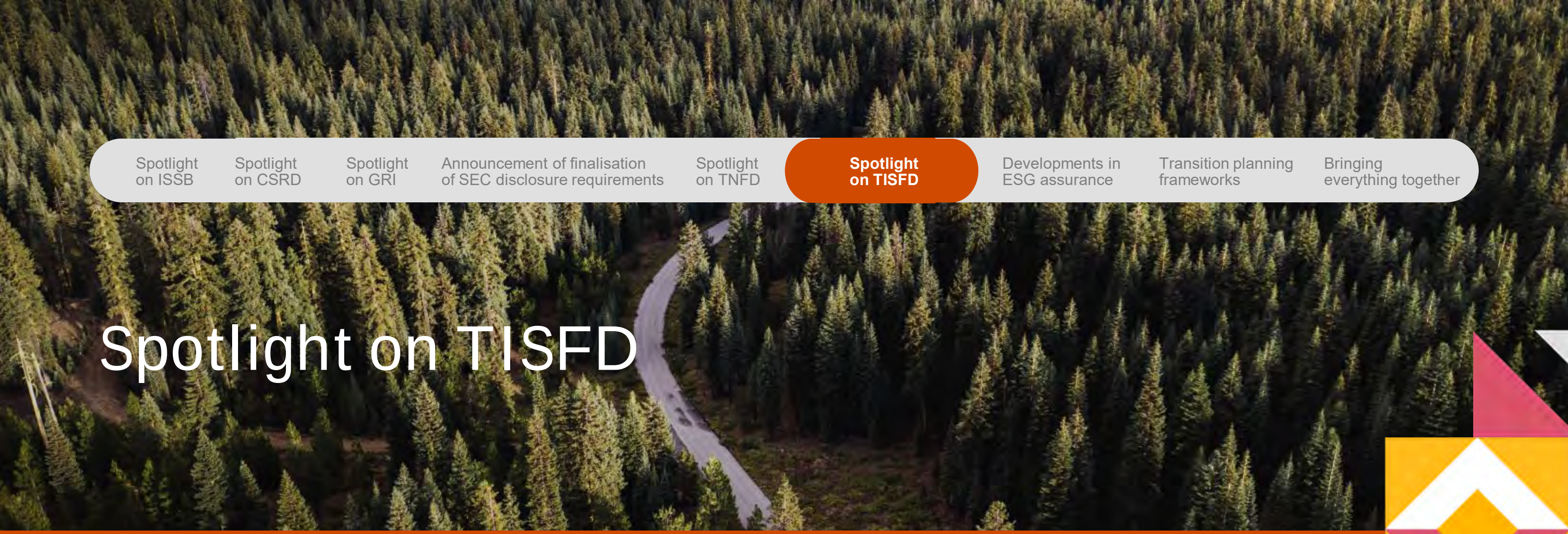
- A document that provides detailed guidance on the biome-specific impacts, dependencies, risks and opportunities
- The TNFD has sector-specific guidance in order to account for the differences across sectors

Guidance on biomes

Additional sector guidance

E. Guidance on scenario analysis, target setting and engagement with indigenous peoples

- Separate documents which guide readers on specific tools that may prove helpful in a company's assessment



Spotlight on TISFD

Overview

The Taskforce on Inequality and Social-related Financial Disclosures (TISFD) was launched in September 2024. It is an initiative to develop recommendations and guidance for businesses and financial institutions to understand and report on impacts, dependencies, risks and opportunities related to people.

Scope and approach

The Taskforce will consider the following factors to prioritise choices on the basis of relevance and interest of the information for its potential users given the broad scope of social issues and inequalities:

- Relevance for a large range of reporting organisations
- Significance of related impacts, dependencies, risks and opportunities (IDROs)
- Relevance to the effective management of entity-level IDROs by businesses and financial institutions
- Relevance to the management of system-level risks and opportunities

The disclosure recommendations that are compatible with both **a financial materiality and an impact materiality approach** will be developed. The intersections of information relevant to the materiality approaches considers different time horizons and acknowledges that impact-related information can also be financially material. This is because impacts frequently generate entity-level risks and/or contribute to system-level risks.

Proposed work plan

The TISFD outlined its indicative, high-level work plan consisting six key phases of work:

1

Phase 1 – Launch
In September 2024, the TISFD launched and announced its co-chairs to lead the Taskforce's Steering Committee to deliver its goal.

2

Phase 2 – Build stakeholder capacity
The objective of this phase is to equip stakeholders with the necessary knowledge to provide feedback on the TISFD's framework development.

3

Phase 3 – Define and refine
This phase involves developing the conceptual foundations of the disclosure framework and assembling evidence on financial and system-level risks.

4

Phase 4 – Develop and test framework
The development of a beta version of the framework is expected to start in late 2025. The structure will be closely aligned with the four-pillar structure of TCFD and TNFD.

5

Phase 5 – Publish
The release of the first public version is expected at the end of 2026 including its implementation guidance and recommendations.

6

Phase 6 – Implement and advocate
The Taskforce will work with standard-setters and jurisdictions to support implementation of the published recommendations.

Source: TISFD People in Scope

Developments in ESG assurance

Overview

External (independent) assurance is crucial in enhancing trust and confidence in financial and non-financial reporting. It is commonly obtained on limited aspects of information disclosed in the sustainability report. Based on the PwC Global Investor Survey 2024, 76% of respondents say that they place more trust in the sustainability information reported by the companies they invest in or cover if it has been assured. 73% of respondents are demanding a level of detail in assurance reports on sustainability information that is comparable to that of financial audits and say that the companies' narrative disclosures, sustainability metrics and KPIs should be assured at the same level as a financial statement audit (i.e. reasonable assurance). They want companies to obtain assurance on all material sustainability information, not on a subset that the company chooses (72%).

According to The State of Play: Sustainability Disclosure and Assurance[29] published by the International Federation of Accountants (IFAC) in February 2024, 69% of companies reviewed had obtained some level of assurance and in terms of level of assurance, 82% of the reports were based on limited assurance. This indicates a rising trend in percentage of companies that obtained assurance on their ESG reporting from 64% in 2021 to 69% in 2022.

In addition, almost 80% of respondents from PwC's Global CSRD Survey 2024[30] say they have engaged an assurance provider, that is their financial auditor (49%), a different audit firm (14%) or another third-party assurance provider (16%).

With the current and upcoming requirement for assurance under the various jurisdictions as summarised in pages 40 to 42 (refer to Section 2), these percentages are expected to increase.

Key findings of the IFAC study: 2019 | 2020 | 2021 | 2022

	2019	2020	2021	2022
reported some ESG information	91%	92%	95%	98%
assurance engagements conducted by audit firms	63%	61%	57%	58%
of firms applied ISAE 3000 (Revised)*	88%	94%	95%	92%
obtained some level of assurance	51%	58%	64%	69%
of assurance was limited	83%	82%	80%	82%
of other service providers applied ISAE 3000 (Revised)*	34%	39%	38%	38%

Source: Extracted from the IFAC's report on The State of Play: Sustainability Disclosure & Assurance published in February 2024.
* Including national assurance standards such as the AICPA's attestation standards that are at least as robust as ISAE 3000 (Revised), the percentage of firms that applied ISAE 3000 (Revised), or corresponding national standards, was 96% in 2019, 96% in 2020, and 99% in 2021.

29 International Federation of Accountants, Association of International Certified Professional Accountant. 'The State of Play: Sustainability Disclosure and Assurance.' February 2024

30 PwC's Global CSRD Survey 2024. June 13, 2024. https://www.pwc.com/gx/en/issues/esg/global-csrd-survey.html

International Standard on Sustainability Assurance 5000 (ISSA 5000)

The ISSA 5000 is a global sustainability assurance standard developed by the International Auditing and Assurance Standards Board (IAASB). It was published in November 2024, with a range of guidance and application materials planned for January 2025.

The ISSA 5000 'General Requirements for Sustainability Assurance Engagements' will serve as a comprehensive, standalone standard suitable for any sustainability assurance engagement. It will apply to sustainability information reported across any sustainability topic and can be applied irrespective of the reporting framework used.

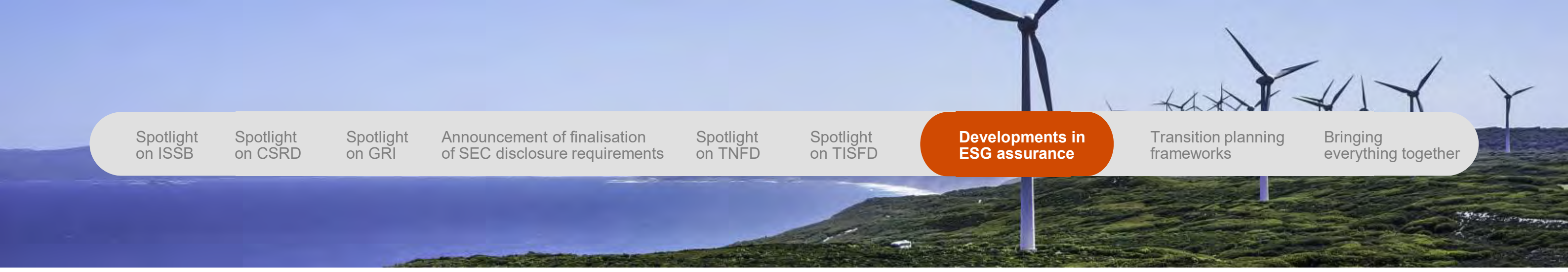
Applicable to both limited and reasonable assurance engagements, the standard is also profession agnostic. It can be used by both professional accountants and non-accountant assurance practitioners.

The adoption of ISSA 5000 is subject to jurisdictional adoption by policymakers, standards setters, and regulators. Some countries in Asia Pacific such as Australia, Singapore, and Hong Kong SAR are considering adopting this standard.

ISSA 5000 provides companies and their stakeholders with assurance standards that are focused on, and provide more specificity for, assurance on sustainability reporting. This reduces the risk of fragmentation in assurance standards globally and drives consistent, high-quality assurance engagements that enhance the degree of confidence of intended users about sustainability reporting. Companies can benefit from transparency and trust in their sustainability reporting.

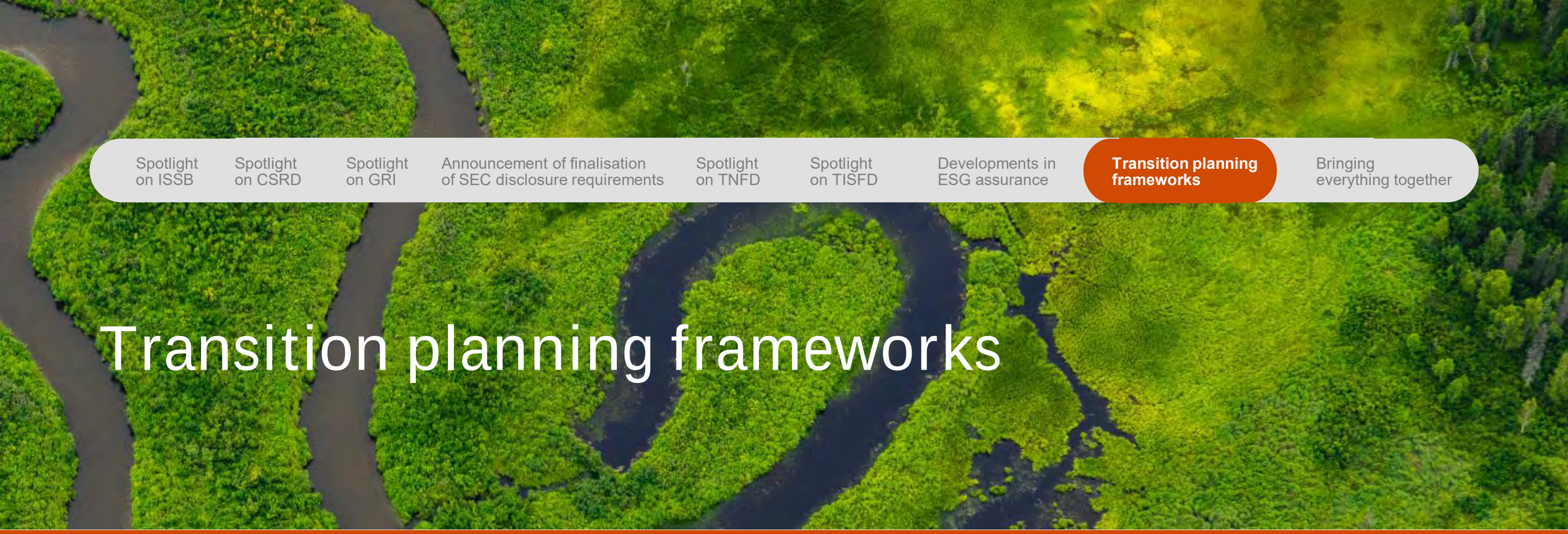
Key similarities and differences

Key principles and concepts	ISSA 5000	ISAE 3000 (Revised)	ISO14064-3
Nature and scope of the standard	• Suitable for use for assurance on sustainability information prepared using any framework criteria (ISSB, CSRD, ESRS, US SEC etc.), entity-developed criteria or a combination of both • Applicable to reporting on all sustainability topics and aspects of topics • The standard is designed to be suitable for assurance engagements on sustainability information regardless of the intended users • Applicable for use by both professional and non-professional accountant assurance practitioners, provided the fundamental premises set out in the standard regarding relevant ethical requirements and quality management are adhered to	• The ISAE covers assurance engagements other than audits or reviews of historical financial information, as described in the International Framework for Assurance Engagements • Where a subject-matter specific ISAE is relevant to the subject matter of a particular engagement, that ISAE applies in addition to this ISAE • This can be applied to any subject matter (including sustainability, until ISSA 5000 is effective) • Primarily designed for use by professional accountant assurance practitioners	• Applicable to organisation, project and product greenhouse gas (GHG) statements • The ISO 14060 family of standards is GHG programme neutral. If a GHG programme is applicable, requirements of that GHG programme are additional to the requirements of the ISO 14060 family of standards



Key similarities and differences

Key principles and concepts	ISSA 5000	ISAE 3000 (Revised)	ISO14064-3
Relevant ethical requirements	• Appointed practitioner will be subject to the provisions of the IESBA Code related to sustainability assurance engagements, and national requirements that are more restrictive or professional requirements, or requirements in law or regulation that an appropriate authority has determined to be at least as demanding as the provisions of the IESBA Code related to sustainability assurance engagements	• The practitioner shall comply with Parts A and B of the IESBA Code related to assurance engagements, or other professional requirements, or requirements imposed by law or regulation, that are at least as demanding as ISQM 1.	• The ISO 14060 family includes ISO 14066, Competence requirements for GHG validation teams and verification teams and ISO 14065, General principles and Requirements for bodies validating and verifying • ISO requirement under ISO 17029 requires to establish, document, implement and maintain a quality management system (QMS) which shall include at least the following: ◦ policies and responsibilities ◦ management review ◦ internal audits ◦ corrective actions ◦ actions to address risks and opportunities ◦ documented information
Quality management	• Practitioner performing the engagement is a member of a firm that is subject to ISQM 1, or professional requirements, or requirements in law and regulation, regarding the firm's responsibility for its system of quality management, that an appropriate authority has determined to be at least as demanding as ISQM 1	• Practitioner performing the engagement is a member of a firm that is subject to ISQM 1, or other professional requirements, or requirements in law and regulation, that an appropriate authority has determined to be at least as demanding as ISQM 1.	
Limited assurance and reasonable assurance engagements	• Applicable to both limited and reasonable assurance engagements	• Applicable to both limited and reasonable assurance engagements	• Applicable to both limited and reasonable assurance engagements
Groups or 'consolidated' sustainability information	• Sustainability information may be prepared for a single entity or may include 'consolidated' information from entities that are part of a group (i.e. same entities or business units included in the consolidated financial statements) or other entities in the reporting entity's value chain	• Not mentioned	• Not mentioned



Transition planning frameworks

Overview

In developing fit-for-purpose sustainability reporting, it is imperative to capture the unique impacts and strategic initiatives of the company, particularly in the face of rising GHG emissions, global temperature increases, and frequent climate disasters. Such reporting should provide a clear and detailed account of the company's specific footprint on the environment, while also highlighting its tailored strategies for climate mitigation and adaptation.

Ensuring that sustainability reporting is fit for purpose is crucial because it guarantees that the information presented is relevant and tailored to meet the specific needs of various audiences, from investors to regulators. This relevance and precision in reporting foster transparency, accountability, and informed decision-making, thereby enhancing the company’s credibility and commitment to addressing the critical challenges posed by climate change.

Results of the study conducted by PwC Singapore and the Centre for Governance and Sustainability (CGS) at the National University of Singapore (NUS) Business School (see details in Section 4 of this report) reveal that the disclosure rate for net zero targets across Asia Pacific stands at 53%. This indicates that there is still significant progress to be made in achieving climate targets. Worse, only 37% of those disclosing net zero targets have described their targets as science-based, while a mere 18% have had their net zero targets verified by the Science Based Targets initiative (SBTi). According to the CDP[31], while the number of organisations disclosing climate transition plans has increased, less than 1% are reporting against all key transition indicators and thresholds. This highlights the urgent need for more thorough and verified climate action reporting to meet global sustainability goals effectively.

Driving value through a climate transition plan to achieve net zero objectives

A well-crafted climate transition plan (CTP) can significantly drive value for an organisation by aligning its operations with ambitious climate science recommendations. According to the CDP, “a climate transition plan is a time-bound action plan that clearly outlines how an organisation will pivot its existing assets, operations, and entire business model towards a trajectory that aligns with the latest and most ambitious climate science recommendations”.

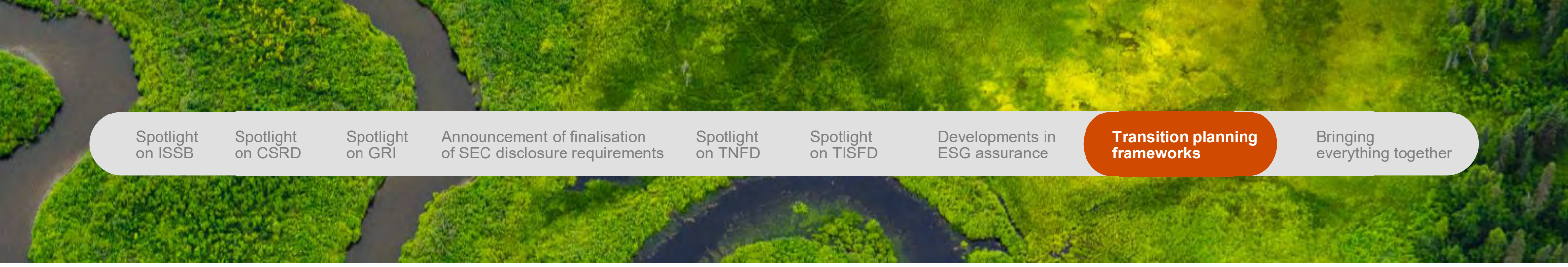
Many companies struggle with disclosing comprehensive CTPs, which are crucial for achieving net-zero targets and reducing carbon emissions.

The reliability of net-zero commitments can be questioned if emission reduction plans are not aligned with the country’s targets or are not backed by reliable data.

Sustainability reporting standards including the ISSB Standards and the ESRS also require disclosures around climate transition plans.

Numerous sets of guidance are available for current and future preparers of CTPs, ranging from those published by the UK Transition Plan Taskforce (TPT), to the Glasgow Financial Alliance for Net Zero (GFANZ). Common to all guidance is the importance of strategy. Effective disclosures should include details of how the publishing entity intends to achieve its desired climate ends, by engaging clients, peers, and the public sector.

31 CDP. ‘The State of Play 2023 Climate Transition Plan Disclosure.’ June 2024



What are the benefits in preparing a CTP?

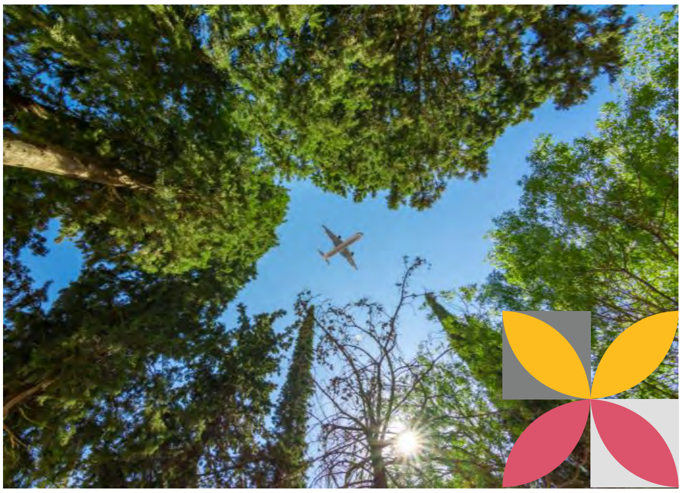
While the preparation of a CTP remains voluntary in many settings, some might see CTP preparation as little more than a promotion exercise. The publication of a CTP can provide tangible benefits for businesses. For example, under the CDP scoring methodology[32], obtaining so-called ‘A-list status’ is only possible where a company publishes a credible CTP. Further to this, companies looking to access ‘transition finance’ from the banking or wider investment community often need to have a readily available CTP. This is to demonstrate to the lender/investor how provision of such finance aligns with delivery of the borrower/investee’s overarching climate goals.

Most fundamentally, developing a CTP clarifies the necessary steps being taken by the business in pursuit of a decarbonisation objective, to both internal and external stakeholders. Such strategic planning can deliver real clarity of purpose and enhance the quality of delivery.

What are the range of disclosure requirements in regard to CTPs?

In 2021, the implementing guidance of the Task Force on Climate-related Financial Disclosures (TCFD) recommended that organisations disclose their CTPs, should they have them. The ISSB has since developed this position and now mandates in-scope companies to disclose their CTPs, where one is available. This is essentially the same position as seen in the relevant rules from the US SEC, and the EU’s Corporate Sustainability Reporting Directive.

This is a rapidly evolving space, however. In the UK, the Financial Conduct Authority is considering plans for introducing expectations for listed companies’ transition plan disclosures. Meanwhile, the Monetary Authority of Singapore (MAS) closed a consultative exercise in December 2023 regarding potential mandatory CTP requirements for banks, asset managers and insurers.



How do different CTP frameworks compare?

Guidance exists on the recommended information that high quality CTPs should contain and there is a reasonable degree of alignment across different standards. For example, both the GFANZ and TPT frameworks are centred around the same five pillars. These are:

1. Foundations
2. Implementation Strategy
3. Engagement Strategy
4. Metrics and Targets
5. Governance.

Not only do these five pillars apply to CTP preparation in the ‘real economy’, but they also extend to financial institutions – albeit with certain nuances.

As CTP preparation and disclosure moves from the voluntary to the mandatory space, it is possible we may see differences of approach emerging, considering national/regional circumstances. For example, in Singapore, the draft approach which was laid out by the MAS in late 2023, contained a greater emphasis on risk management than seen in voluntary frameworks released to date. This was due to the fact the draft MAS Transition Plan Guidelines represented an extension of the foundational Environmental Risk Management Guidelines released previously by the regulator.

What does a good climate transition plan disclosure look like?

In the real economy, the climate transition plan of Unilever is frequently mentioned as an illustrative example[33]. In line with the recommendations of the GFANZ and TPT, it provides detailed information on emissions and associated actions arising from its value chain (Scope 3) as well as operational emissions. Content is also provided on how progress will be measured via the credible use of metrics and targets, overseen by a dedicated governance structure.

In the financial sector, the transition plan of asset owner Phoenix[34] may serve as a useful reference, considering it contains extensive details on how the various levers available to the business are being pulled to help deliver net zero operational and financed emissions. Beyond this, its Appendix contains a mapping of how its contents align with the different requirements of both the GFANZ and TPT frameworks.

[32] CDP. ‘CDP Climate Change Scoring Essential Criteria 2024.’ June 14, 2024.

[33] Unilever. ‘Climate Transition Action Plan.’ 2024

[34] Phoenix Group Holdings. ‘Net Zero Transition Plan.’

What does the future hold for CTPs?

The general shape and content expected from CTPs appears set, to a certain extent. Despite regional or country-specific differences in core concepts, it is likely that preparing and disclosing CTPs will become mandatory for all companies. This means companies will need to create and disclose these plans, not merely report if they already have one. The actions taken by the MAS, which has consulted on making the preparation and disclosure of CTPs mandatory, indicate a broader global trend towards such requirements.

What should you be doing?

Businesses are recognising that having a CTP is rapidly moving from being a 'nice to have' to an essential precondition of communicating and delivering upon a coherent decarbonisation strategy, internally as well as externally.

At this stage we recommend taking a three-step approach to preparing for engaging the CTP agenda, if not already done so:

Ambition - What is your ambition from a sustainability perspective? If it is net zero 2050 delivery and you do not have a CTP, you should think critically about how preparing one can help guide your business more effectively on this journey.

Baseline - Clarify your carbon footprint. A solid grasp of your carbon footprint is needed if you are to prioritise engagement activities, particularly with clients, accordingly.

Capture - Capture opportunities wherever possible. There are various areas in which sustainability standards overlap. Identify where foundational standards underpinning sustainability reporting share features with CTP frameworks and go from there. It can help save time and resources when it comes to CTP preparation.

Developing a viable CTP may seem to be another huge task to complete on top of the increasingly complex sustainability reporting requirements. It requires a thorough approach involving comprehensive GHG measurement, strategic planning, stakeholder engagement, and continuous improvement. However, most of these steps are already part and parcel of developing a sustainability report. For example, the measurement of GHG emissions for sustainability reporting can be used to form the baseline of a net-zero target and to measure progress towards that target. In addition, engaging with stakeholders can clarify their expectations over the organisation's net-zero plan, as well as provide input on its viability. Organisations can harness efficiencies from leveraging the overall sustainability reporting process to develop a net-zero transition plan.

In conclusion, developing and disclosing a robust CTP is not just a regulatory requirement but a strategic imperative that can drive value for your organisation. By clearly outlining your path to decarbonisation, you can enhance stakeholder confidence, secure necessary financing, and position your business as a leader in sustainability. As the landscape of climate-related disclosures continues to evolve, staying ahead with a well-prepared CTP will enable your organisation to be not only compliant but also resilient and competitive in a low-carbon future.

In the horizon: Nature transition plans

In October 2024, the TNFD has developed draft guidance titled 'Discussion paper on Nature transition plans' to help organisations create and disclose nature transition plans, which are now critical for risk management and sustaining business models, and outlining proactive strategies to manage nature-related dependencies, impacts, risks, and opportunities. The draft guidance builds on market practices for climate transition planning.

In the same month, the GFANZ workstream on Nature in Net-zero Transition Plans also published a consultation paper titled 'Supplemental Guidance Nature in Net-zero Transition Plans workstream consultation paper' on the use of nature-related climate change mitigation actions in net-zero implementation and specifically in net-zero transition plans.

Both guidance are currently under consultation.

Bringing everything together

Organisations in Asia Pacific and beyond have to navigate a growing set of sustainability reporting requirements, driven by regulations or stakeholder expectations. Beyond compliance, our research shows that sustainability reporting can enable and safeguard value. Below, we outline the key steps for developing your sustainability reporting roadmap and highlight the foundations you can establish to support your organisation in this area. This can include, but is not limited to, the following areas:

Phase 1: Assess

1. **Assess if the organisation and/or its entities of the group will be subjected to sustainability reporting requirements in their jurisdiction**

2. **Assess if the organisation and/or entities within the group might be subjected to other sustainability reporting requirements including from other jurisdictions (e.g. EU CSRD)**

3. **Consider other aspects of sustainability reporting that the organisation would like to include based on its context and/or ambition**

This includes but is not limited to:

Other standards that the organisation may wish to use	Extent of GHG emissions (e.g. extent of Scope 3 GHG emissions)	Climate-first or beyond (under ISSB)
(Permanent) structural and (temporary) transitional reliefs	Limited or reasonable assurance	Double materiality

4. **Assess <u>when</u> the organisation and/or its entities will need to comply with aspects of sustainability reporting**

5. **Perform a gap analysis against requirements, expectations and ambitions**

6. **Assess the current state in relation to current governance structure, resourcing, policies, processes, and controls including technology and data set up**

Roadmap for sustainability reporting and assurance

(includes but not limited to quick-wins, longer-term considerations, review and update of governance structures, capacity building, data controls, assurance readiness)

Phase 2: Design

Design reporting target operating model across

1 Governance and organisational structure

- Design governance structure and define programme-level roles and responsibilities
- Integrate sustainability risks into the enterprise risk management framework

2 Processes and controls

- Design and document reporting policies and definition, including data elements and topic-level roles and responsibilities
- Design and document metric-level reporting processes and internal controls

3 Data and technology architecture

- Design future state technology architecture, including vendor assessment and selection of reporting technology

Phase 3: Implement

Implement

1 Create sustainability reporting and identify opportunities for refinement

- Establish and execute the necessary steps to draft the sustainability statement/report, including XBRL tagging (where applicable)
- Prepare for assurance
- Review the management report
- Design (or refine) a continuous improvement process as stakeholder demands change and regulation evolves

2 Execute reporting and test the reporting function

- Set up/refine reporting timelines, packages and guidelines
- Design (or refine) the report structure
- Plan and deliver training curriculum to upskill and develop self-sufficiency
- Test the reporting process and controls to verify they are operating as designed ('dry run')

3 Implement reporting target operating model

- Implement the governance and organisation design target operating model
- Implement the process and controls target operating model, including data elements and sources
- Implement new reporting systems/tools and integrate with existing as well as third party systems
- Implement the future state data and technology architecture

Re-assess, design, implement where appropriate

Phase 4: Building trust

Obtain independent assurance over sustainability information reported and seek stakeholders' feedback as part of continuous improvement

Sustainability reporting and assurance requirements across Asia Pacific – in summary

03

With the fast-paced, ever-changing landscape of sustainability reporting and assurance developments, as well as public commitments to achieve carbon neutrality, there has been a significant increase in sustainability reporting requirements by regulators across Asia Pacific jurisdictions.

Companies should keep themselves updated on both their local requirements, as well as the global standards. The following table provides an overview and summary of requirements relating to sustainability reporting in Asia Pacific:

		Current requirements		Upcoming requirements		
	Net zero/ Carbon neutral	**Sustainability reporting requirements***	**Mandatory assurance requirements?***	**Intention to adopt ISSB?***	**Mandatory assurance requirements?***	**Climate-related taxonomy**
Australia Initiative led by the Australian Government / Australian Securities Exchange (ASX)	2050	Corporate governance principles and recommendations for listed companies follows the 'comply or explain' approach.	No	The Australian Accounting Standards Board (AASB) released exposure drafts in October 2023 which are largely based on ISSB Standards with modifications. In September 2024, the Treasury Laws Amendment Bill was passed by the Parliament, where the climate reporting regime will come into effect on 1 January 2025.	The Australian Auditing and Assurance Standards Board (AUASB) released a consultation paper in April 2024, which proposed phasing in assurance over mandatory climate information, as early as financial years commencing 1 January 2025.	Developing Green Taxonomy.
Chinese Mainland Initiative led by the China Securities Regulatory Commission (CSRC) / Ministry of Finance	2060	Mandatory for listed companies (categorised as key pollutant emission units). In January 2022, the Shanghai Stock Exchange (SSE) issued guidance for Kechuang 50 Index companies, requiring the them to issue social responsibility reports.	No	The Ministry of Finance of the People's Republic of China published a consultation on 'Sustainability Disclosure Standard for Business Enterprises – Basic Standard' in May 2024, which are based on the ISSB Standards, tailored for the China context.	No	Issued the Green Bond Endorsed Projects Catalogue and the Green Industry Guiding Catalogue.
Hong Kong SAR Initiative led by the Hong Kong Stock Exchange (HKEX) / Hong Kong Institute of Certified Public Accountants	2050	Mandatory for listed companies from 2016 on a 'comply and explain' basis.	No	The HKEX published its New Climate Requirements in April 2024, which are developed based on IFRS S2 and the amended Listing Rules will come into effect on 1 January 2025.	No	Issued the Hong Kong Taxonomy for Sustainable Finance that seeks to align with the Common Ground Taxonomy.
India Initiative led by the Securities and Exchange Board of India (SEBI)	2070	Mandatory from FY2022-2023, applicable to top 1,000 listed companies by market capitalisation.	Yes	No announcement to date. However, the Reserve Bank of India issued the Draft Disclosure framework on Climate-related Financial Risks in February 2024, which includes references to the ISSB Standards.	N/A	Developing sustainable finance taxonomy.
Indonesia Initiative led by the Indonesian Financial Services Authority – Otoritas Jasa Keuangan	2060	Mandatory for banking corporations (from 2019) and listed companies (from 2020) in a phased approach.	No	In December 2024, the Institute of Indonesia Chartered Accountants (IAI) issued its roadmap for the adoption of sustainability disclosure standards that are based on IFRS S1 and S2. The roadmap is planned to be effective on 1 January 2027.	No	Issued Indonesia Green Taxonomy.

* Refer to Appendix for details of the sustainability reporting and assurance requirements.

		Current requirements		Upcoming requirements		
	Net zero/ Carbon neutral	Sustainability reporting requirements*	Mandatory assurance requirements?*	Intention to adopt ISSB?*	Mandatory assurance requirements?*	Climate-related taxonomy
Japan Initiative led by the Financial Services Agency in Japan (FSA)	2050	Requirement under Japanese securities laws (within the Annual Securities Report, which is the statutory report to be filed).	No	The Sustainability Standards Board of Japan (SSBJ) released exposure drafts in March 2024 which are largely based on the ISSB Standards with modifications. The drafts are expected to be finalised by March 2025. A working group of experts at the FSA are discussing the plan to adopt the ISSB Standards for Prime Listed Companies in phases from March 2027. Early adoption is expected to be permitted.	The working group of experts at the FSA are discussing the assurance requirements for sustainability information in the annual securities report, with adoption in phases for Prime Listed Companies starting from March 2028.	None noted.
Malaysia Initiative led by the Advisory Committee on Sustainability Reporting (ACSR)	As early as 2050	Mandatory for Main Market listed companies from 2016.	No	On 24 September 2024, the Advisory Committee on Sustainability Reporting (ACSR) released the National Sustainability Reporting Framework (NSRF), where listed companies on Bursa Malaysia's Main Market and ACE Market as well as large non-listed companies are required to adopt disclosures developed with ISSB as the baseline in phases, from 2025 onwards.	Yes. Subject to further consultation, reasonable assurance on Scope 1 and 2 GHG emissions are mandated in phases, as early as annual reporting periods beginning on or after 1 January 2027.	Issued Climate Change and Principle-based Taxonomy for FIs and Sustainable and Responsible Investment Taxonomy for the Capital Market.
New Zealand Initiative led by the New Zealand Government / New Zealand Stock Exchange (NZSX)	2050	The Aotearoa New Zealand Climate Standards are effective for climate reporting entities in New Zealand for reporting periods beginning on or after 1 January 2023.	Yes	The Aotearoa New Zealand Climate Standards have been developed based on TCFD requirements, with some considerations of the ISSB Standards. The External Reporting Board (XRB) will begin a post-implementation review by December 2025 and will determine if there is any need to modify the climate standards to further align with any existing or forthcoming requirements adopted by other relevant jurisdictions.	Yes. Limited assurance on GHG emissions from periods ending on or after 27 October 2024.	Developing sustainable finance taxonomy.
Philippines Initiative led by the Securities and Exchange Commission (SEC) Philippines	Not applicable	Mandatory for listed companies from 2019 reporting period on a 'comply or explain' approach (mandatory to comply from 2022 reporting period).	No	The Philippines SEC has scheduled the release of the Revised Sustainability Reporting Guidelines in 2024, which incorporates the ISSB Standards, from 2024 onwards, with reporting due in 2025.	No	Issued Philippine Sustainable Taxonomy Guidelines.

* Refer to Appendix for details of the sustainability reporting and assurance requirements.

	Current requirements			Upcoming requirements		Climate-related taxonomy
	Net zero/ Carbon neutral	Sustainability reporting requirements*	Mandatory assurance requirements?*	Intention to adopt ISSB?*	Mandatory assurance requirements?*	
Singapore Initiative led by the Singapore Exchange (SGX), Accounting and Corporate Regulatory Authority (ACRA) and Sustainability Reporting Advisory Committee (SRAC)	2050	Mandatory for listed companies from 2017 on a 'comply or explain' basis. Mandatory reporting on climate and diversity for listed companies from 2022. All FIs are required to have Environmental Risk Management disclosures.	No	In February 2024, ACRA and SGX RegCo provided details of mandatory climate reporting for listed issuers and large non-listed companies, where entities are required to report ISSB-aligned climate-related disclosures. In September 2024, SGX RegCo finalised the incorporation of the ISSB-aligned climate-related disclosures into SGX's sustainability reporting regime.	Yes. Subject to further consultation, limited assurance on Scope 1 and 2 GHG emissions 2 years after mandatory reporting is required.	Issued Singapore-Asia Taxonomy for Sustainable Finance.
South Korea Initiative led by the Financial Services Commission (FSC)	2050	Governance reports are mandatory for listed companies since 2019. The timeline for the mandatory disclosure of sustainability reports has not yet been determined.	No	The Korean Sustainability Standards Board (KSSB) released exposure drafts in May 2024 which are largely based on the IFRS Sustainability Standards.	Not announced.	Issued K-Taxonomy.
Taiwan Initiative led by the Taiwan Financial Supervisory Commission (FSC), Taiwan Stock Exchange (TWSE) and Taipei Exchange (TPEx)	2050	All listed companies are required to disclose sustainability information in the sustainability report, except for companies with paid-in capital of less than NT$2 billion which do not have to prepare the sustainability report until 2025.	Yes	The FSC's roadmap requires listed companies to report in accordance with the IFRS Sustainability Disclosure Standards in phases based on the paid-in capital of the company. Reporting may begin as early as FY2026, with reporting in 2027.	Yes. Only assurance on Scope 1 and 2 emissions is required.	Issued the first version of Taiwan Taxonomy for Sustainable Economic Activities in December 2022 and will issue the second version in December 2024.
Thailand Initiative led by the Thailand Securities and Exchange Commission (SEC)	Carbon neutrality by 2050 and net zero by 2065	Mandatory for listed companies to submit Form 56-1 One Report which includes sustainability information.	No	In November 2024, SEC Thailand published a consultation on the roadmap for the adoption of ISSB standards. Reporting may begin as early as 2026.	Yes. Limited assurance on greenhouse gas emissions was proposed in the consultation.	Issued Thailand Taxonomy Phase 1, focused on Energy and Transportation sector. Developing Thailand Taxonomy Phase 2, which will be focused on Manufacturing, Agriculture, Real estate, Construction and Waste management.
Vietnam Initiative led by the Ministry of Finance (MOF) Vietnam	2050	Public companies are required to disclose ESG information in annual reports or stand-alone sustainability reports (certain information are not mandatory for FIs).	No	Not announced.	N/A	Developing Green Taxonomy.

* Refer to Appendix for details of the sustainability reporting and assurance requirements.

The state of sustainability reporting in Asia Pacific: Insights

04

Sustainability reporting study

Overview

- Top 50 largest listed companies by market capitalisation of each selected jurisdictions (14 in scope)
- Analysed against sustainability reporting frameworks: GRI, TCFD and ISSB Standards
- Referenced to latest sustainability reports and annual reports until May 2024
- To provide insights on the status, in anticipation of upcoming sustainability reports

Methodology

Scope of study

This study focuses on the top 50 listed companies by market capitalisation across 14 jurisdictions in Asia Pacific, namely: Australia, Chinese Mainland, Hong Kong SAR, India, Indonesia, Japan, Malaysia, New Zealand, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. A total of 700 listed companies were studied, spanning across 11 industries[35]: communication services (6%), consumer discretionary (10%), consumer staples (10%), energy (4%), financials (18%), health care (5%), industrials (15%), information technology (9%), materials (7%), real estate (9%), and utilities (6%).

These companies are identified as those listed in the respective stock exchanges: Australian Securities Exchange (ASX), Bombay Stock Exchange (BSE), Bursa Malaysia (BM), Ho Chi Minh Stock Exchange (HOSE), Hong Kong Stock Exchange (HKEX), Indonesia Stock Exchange (IDX), Korean Exchange (KRX), New Zealand Stock Exchange (NZSX), Philippine Stock Exchange (PSE), Shanghai Stock Exchange (SSE), Shenzhen Stock Exchange (SZSE), Singapore Exchange (SGX), Stock Exchange of Thailand (SET), Taiwan Stock Exchange (TWSE), Tokyo Stock Exchange (TSE).

In the following chapters, we will delve deeper into the attributes of the sub-areas outlined in the framework and examine the state of sustainability reporting across the 14 selected jurisdictions.

Limitations of study

The companies included in the Sustainability Counts series may vary over the three-year period, as the top 50 companies in each jurisdiction are selected based on the most up-to-date market capitalisation at the start of each study. ***As a result, this may affect year-on-year comparability.***

The findings are likely not indicative of the overall state of reporting within each of the jurisdictions given that the study is restricted to the top 50 listed companies. All territories had a difference of more than 10% in composition of companies year-on-year.

Only companies with reports communicated in English are included in this study. Due to the recent implementation of climate reporting regulations in New Zealand and the typical financial year-end for companies there, the 2024 New Zealand results have been excluded from Figures 10 to 21, as they provide less meaningful data for analysis.

Companies whose financial year ends in March 2024 or later will likely not have their sustainability disclosure information included in the 2024 data[36]. Instead, their 2024 data will be based on 2023 reporting disclosures.

The information reviewed in the study was based on the latest sustainability reports and annual reports available in May 2024.

Year-on-year performance comparisons are available, corresponding to the publication year of the Sustainability Counts reports, specifically:
- Data for 2022 reflects information from reports published up to mid-2021
- Data for 2023 is based on reports published up to January 2023
- Data for 2024 includes information from reports published up to May 2024

Analysis pertaining to climate change and risk management covers the specific type of climate-related risks disclosed, and it does not include the specific types of climate-related opportunities. Additionally, the scenario analysis conducted by companies may not necessarily cover the organisation's value chain completely.

Where no comparative figures is presented, the figure represents data obtained in the study conducted in 2024.

35 The industry classification is based on the Global Industry Classification Standard (GICS).

36 This applies to most companies in India whose financial year ends in March 31.

Research framework

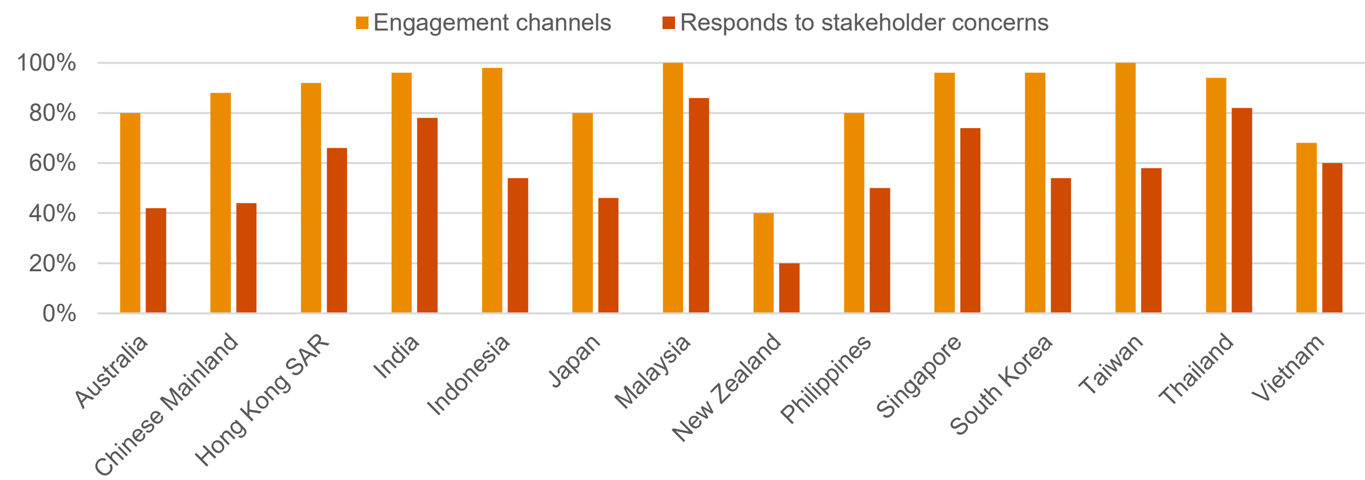
The assessment framework used within this study was developed with reference to the GRI and the ISSB Standards. The GRI was referenced in the development of our framework due to its broad adoption as a leading sustainability standard, while the ISSB was incorporated due to its growing and significant emphasis on climate change. Sustainability reports of the 700-listed companies were subsequently analysed against these attributes, covering six areas and 35 sub-areas:

Areas	Sub-areas
Materiality and stakeholder engagement	1. Disclosure of stakeholder engagement channels and response to stakeholders’ concerns 2. Identification of material environmental, social and governance (ESG) factors 3. Materiality assessment – types of selection approach
Strategy and targets	4. Disclosure of ESG targets with timeframes 5. Disclosure of ESG targets under different timeframes 6. Disclosure of net zero targets 7. Disclosure of net zero or carbon neutrality targets with specified timeframes 8. Disclosure of net zero or carbon neutrality targets with specified timeframes by industry 9. Disclosure of net zero targets based on Science Based Targets Initiative (SBTi) Corporate Net Zero Standard and net zero targets verified by SBTi
Climate change and risk management	10. Identification of climate-related risks and opportunities 11. Common timeframe defined for short-term risks 12. Common timeframe defined for medium-term risks 13. Common timeframe defined for long-term risks 14. Disclosure of the process for managing climate-related risks and opportunities 15. Disclosure of integrating climate-related risks into overall risk management 16. Disclosure of targets used to manage climate-related risks and opportunities 17. Disclosure of metrics used to assess climate-related risks and opportunities 18. Disclosure of climate scenario analysis 19. Disclosure of climate scenario analysis types 20. Disclosure of Scope 1, Scope 2, and Scope 3 greenhouse gas (GHG) emissions 21. Level of disclosure of Scope 3 GHG emissions
Governance and responsibility	22. Disclosure of board responsibility on sustainability 23. Disclosure of sustainability governance structure 24. Disclosure of board or management with sustainability training 25. Disclosure of remuneration linked to sustainability performance or targets 26. Disclosure of management remuneration linked to sustainability and climate-related performance 27. Disclosure of board diversity policy 28. Disclosure of board diversity aspects
Nature and biodiversity related disclosure	29. Disclosure on nature or biodiversity-related information 30. Disclosure on current and future Taskforce for Nature-related Financial Disclosure (TNFD) alignment by jurisdiction 31. Disclosure of current and future TNFD alignment by industry
Building trust	32. Disclosure of reporting scope 33. Disclosure of internal 34. Disclosure of external assurance 35. Disclosure of levels of assurance and type of assurance standards

Materiality and stakeholder engagement

Overview

Figure 1: Disclosure of stakeholder engagement channels and response to stakeholders' concerns



Why this matters

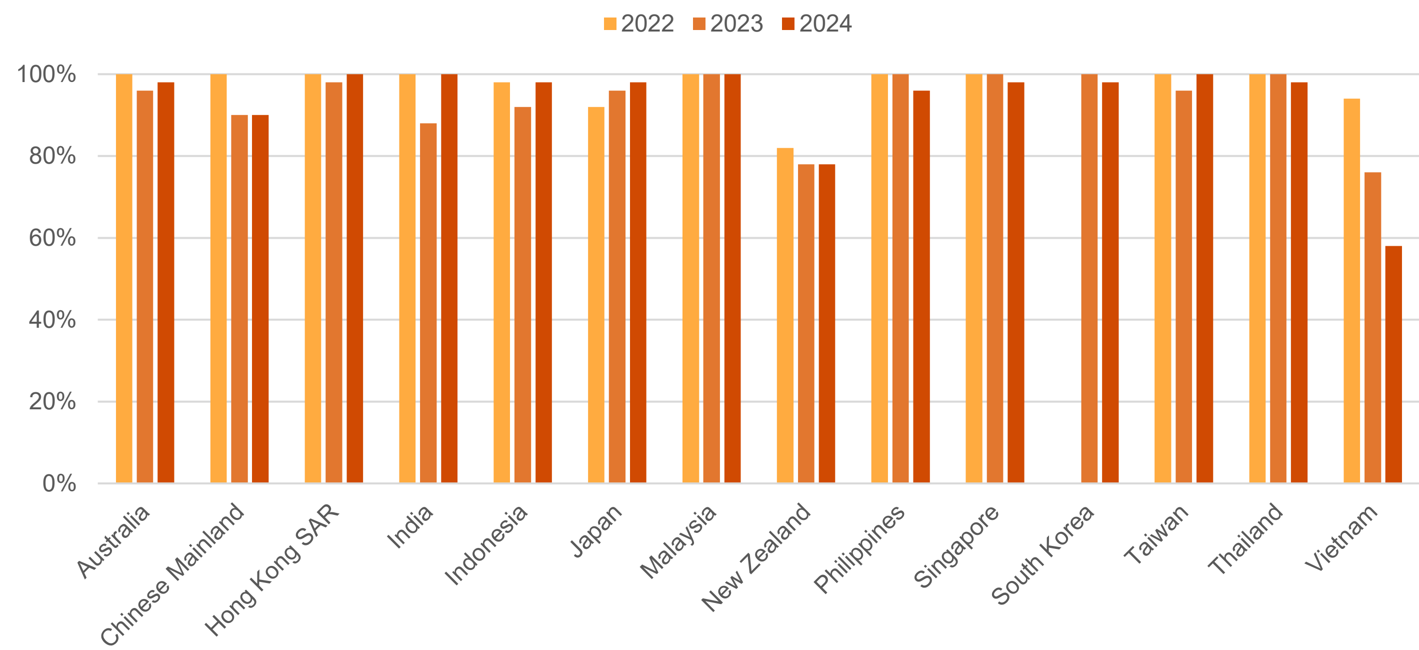
Stakeholder engagement encompasses an organisation's capacity to communicate and collaborate with both internal and external stakeholders. This process is essential for building strong, cooperative relationships, enabling companies to effectively communicate, comprehend, and prioritise stakeholder needs. Furthermore, engagement plays a critical role in integrating stakeholder input into the assessment of an organisation's impacts on the economy, environment, and society, as well as understanding the impacts of environmental, social, governance (ESG) factors on the organisation.

Stakeholders are often engaged during the materiality assessment process. There are different requirements in the sustainability reporting standards when it comes to stakeholder engagement. Under the ISSB Standards, there is no requirement to engage with capital providers to make a materiality judgement. Under the GRI Standards, given the diverse range of users with varying concerns beyond future cash flows, materiality assessment is an inductive process and requires input from stakeholders. The ESRS requires transparency on the organisation's consultation with affected stakeholders.

State of practice

- 86% of companies disclosed engagement channels with stakeholders, an increase from 83% that did so in the previous year.
- 58% of companies disclosed ways of addressing stakeholders' concerns, up from 54% in the previous year. Companies listed in Malaysia (86%), Thailand (82%), and India (78%) have comparably higher disclosure rate of responding to stakeholders' concerns.

Figure 2: Identification of material ESG factors



Note: 2022 data for South Korea is not available.

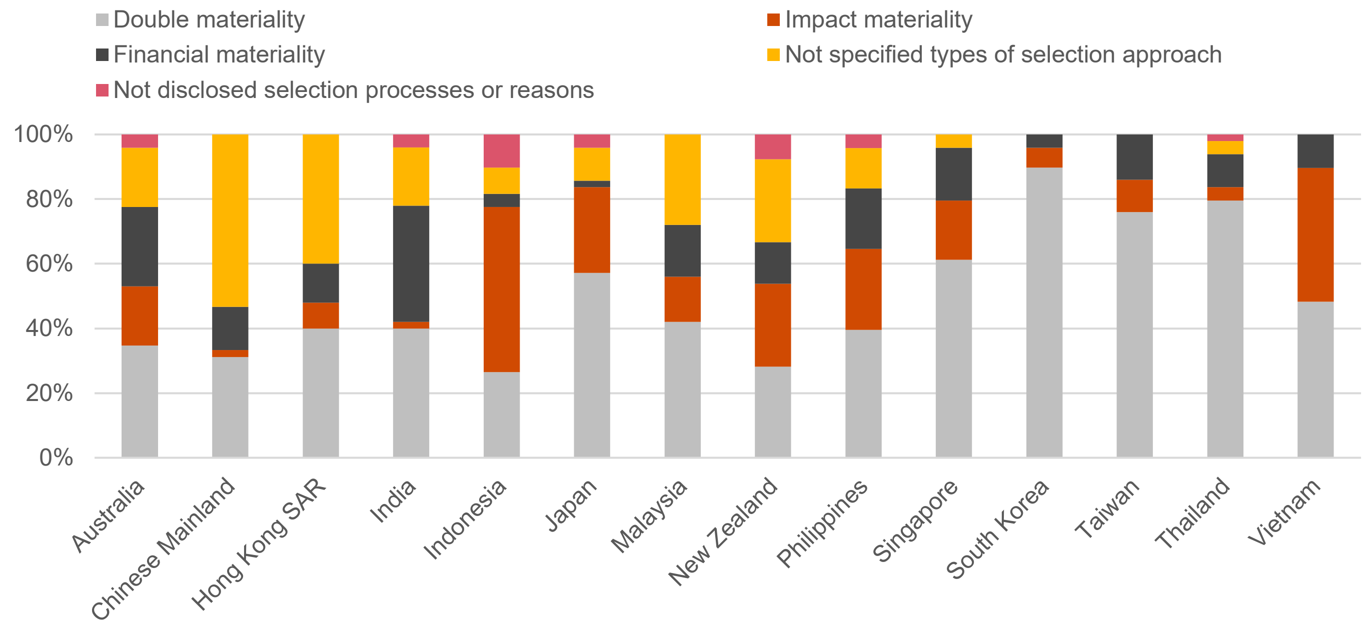
Why this matters

The identification of material ESG factors helps the organisation in prioritising strategies, targets and performance that are within its core business strategy and long-term value creation. This year's study examines further the materiality assessment approach, whether it is impact materiality, financial materiality or double materiality. Understanding the materiality assessment approach is crucial for aligning with varying stakeholders' interests and concerns, informing strategic decision making, complying with regulatory requirements as well as managing risks related to economic performance, environmental or social factors.

State of practice

- 94% of companies disclosed material ESG factors across Asia Pacific.
- The disclosure rate is 100% in Hong Kong SAR, India, Malaysia and Taiwan.
- It is notable that other than New Zealand and Vietnam, the disclosure rate of the remaining 12 jurisdictions is higher than 90%.

Figure 3: Materiality assessment – types of selection approach



Note: The information reported is based on description of approach disclosed which may not necessarily aligned to any specific standards and frameworks. Bases for 'materiality assessment' are the number of companies that disclosed material ESG factors.

Why this matters

A materiality assessment is a critical component of sustainability reporting as it helps organisations identify and prioritise the ESG issues that are most significant to their business and stakeholders.

- Impact materiality refers to the significance of an organisation's impacts on the environment, society, and economy.
- Financial materiality refers to the significance of ESG issues in terms of their potential impact on an organisation's financial performance and position.
- Double materiality is a concept that combines both impact materiality and financial materiality.

Understanding and applying these materiality concepts allows organisations to create more robust and meaningful sustainability reports. By considering both the external impacts and internal financial implications of ESG issues, they can better manage risks, seize opportunities, and demonstrate their commitment to sustainable development.

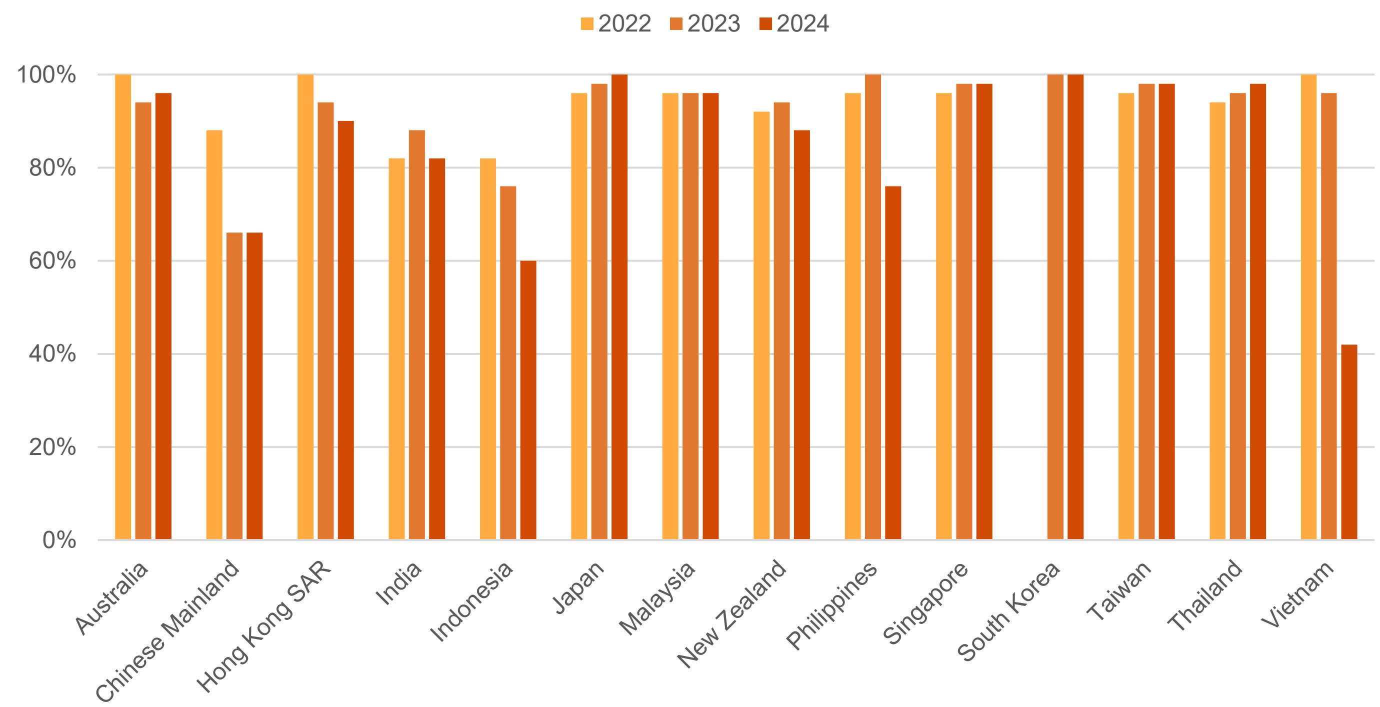
State of practice

- 97% of the companies specified selection processes or reasons for material ESG factors.
- Among those which have specified selection approaches, 51% of companies stated that they adopted the double materiality approach, followed by the impact materiality approach (18%), indicating that companies not only focus on their financial viability, but also their impact on the society and environment.
- Most listed companies in South Korea have adopted the double materiality approach (90%), followed by Thailand (80%) and Taiwan (76%).
- Most listed companies in Indonesia adopted the impact materiality approach (51%). However, 10% of Indonesia-listed companies didn't disclose any of the selection processes or reasons.
- Regardless of the selection approach, commonly mentioned material ESG topics are emissions, occupational health and safety, energy, climate change and local community.

Strategy and targets

Overview

Figure 4: Disclosure of ESG targets with timeframes



Note: 2022 data for South Korea is not available.

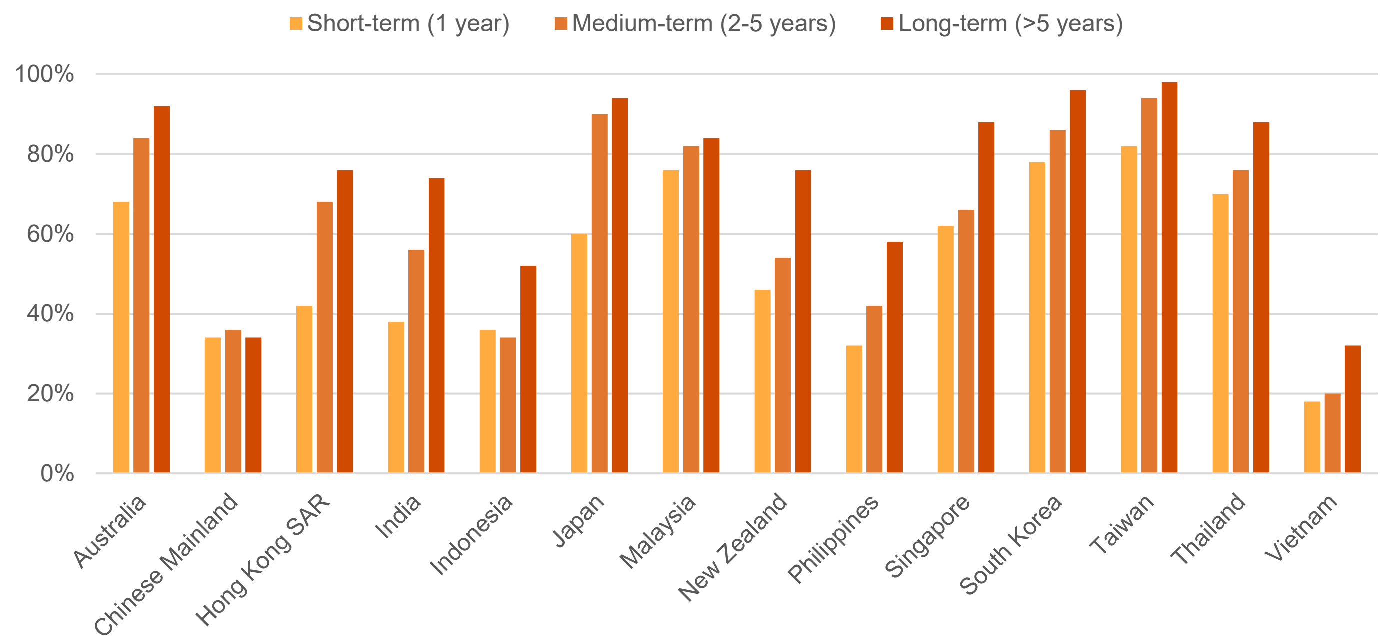
Why this matters

Disclosing ESG targets with specified timeframes is vital for enabling accountability, progress, building stakeholder trust, enabling effective performance tracking, and supporting strategic and regulatory objectives. It signals a company's commitment to sustainable development and responsible business practices.

State of practice

- Across Asia Pacific, 85% of companies have disclosed ESG targets with a specified timeframe, a drop from 92% of companies which did so the previous year.
- It is notable that South Korea has achieved a 100% disclosure rate for two consecutive years, together with Japan where all the listed companies had ESG targets with specified timeframe, setting a benchmark for excellence in sustainability reporting within the region.
- 6% of the assessed companies disclosed their ESG targets without specifying the timeframe. These companies could further improve their disclosure by including the time bound for the targets.

Figure 5: Disclosure of ESG targets under different timeframes



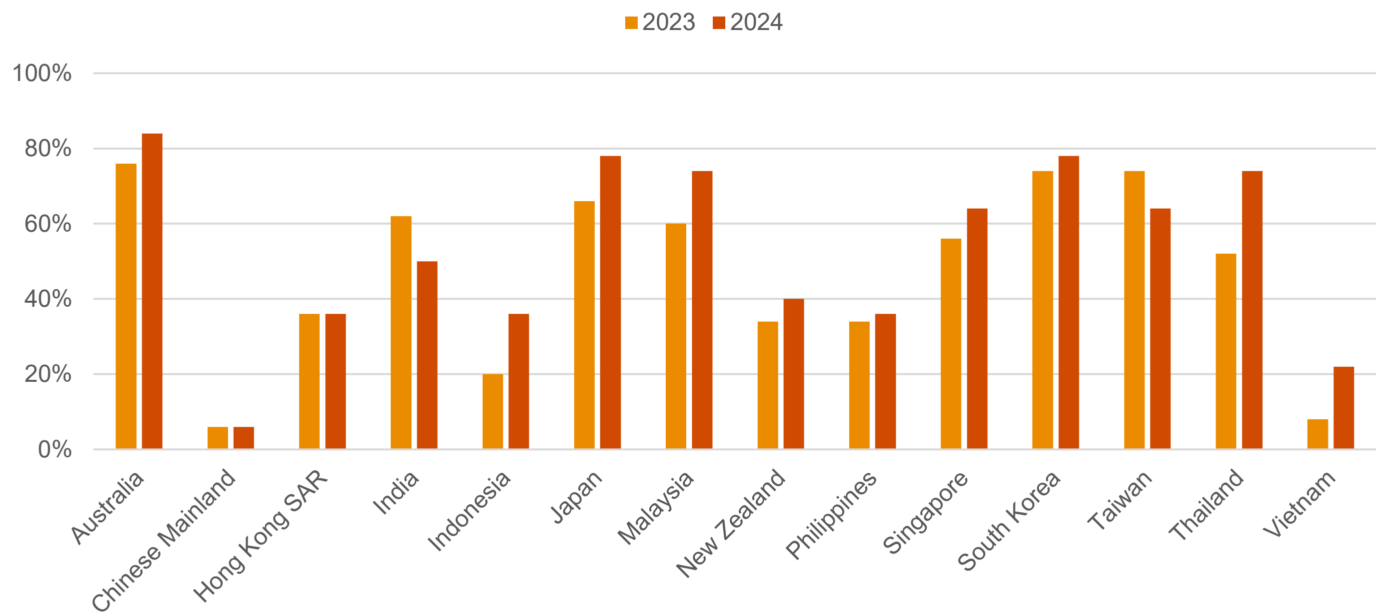
Why this matters

Target setting is crucial for companies to track their progress on identified material ESG factors and to refine their strategies, enabling timely corrective actions when needed. In addition, setting short-term and medium-term targets helps reduce the risk of not achieving long-term goals. This is becoming increasingly important as we see more companies recognising the difficulties in meeting their long-term targets such as Net Zero 2050.

State of practice

- Across Asia Pacific, the disclosure rate for short-term target was 53%, compared to 63% and 74% for medium-term and long-term targets respectively. This indicates a strategic pivot towards prioritising medium-term and long-term objectives.
- Of the medium-term and long-term targets disclosed, net zero emissions, carbon neutrality and renewable energy adoption were commonly cited.

Figure 6: Disclosure of net zero targets



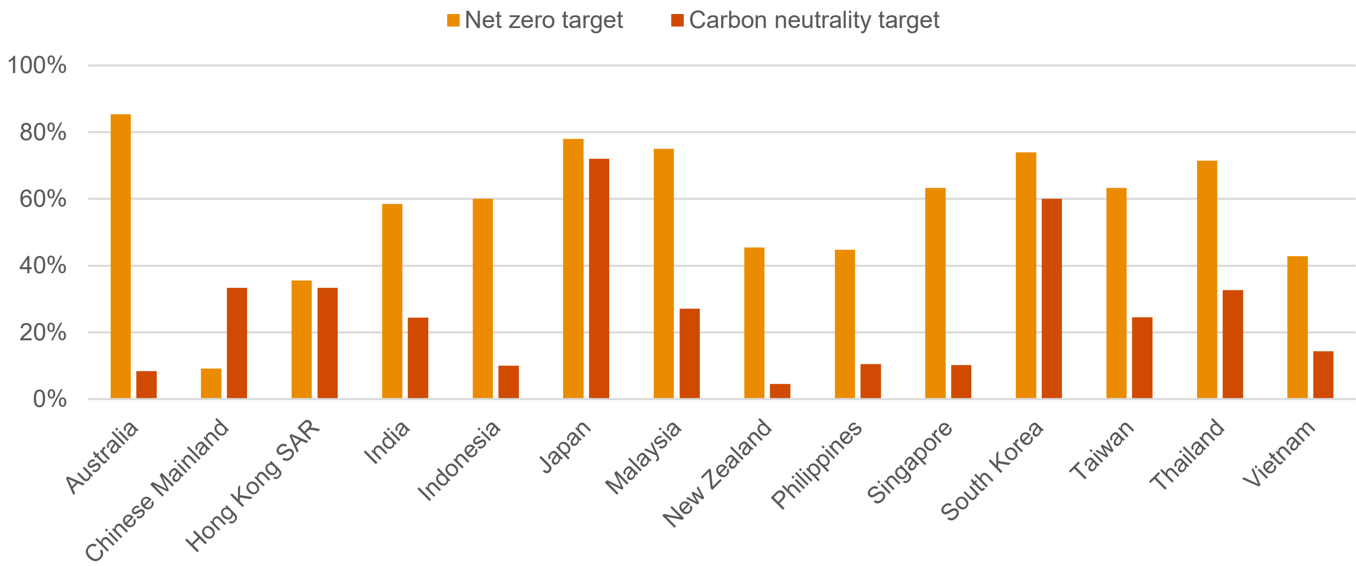
Why this matters

Setting net zero targets reflects the growing emphasis on sustainability and climate action. Through a net zero target, a company can demonstrate its commitment to climate action, building stakeholder trust, facilitating regulatory compliance, and enhancing overall business resilience and competitiveness. It positions the company as a responsible and forward-thinking leader in addressing climate change.

State of practice

- Across Asia Pacific, the disclosure rate for net zero target was 53%, indicating that over half of the assessed 700 companies have disclosed their commitment to net zero.
- Except for Chinese Mainland, Hong Kong SAR, India and Taiwan, it is notable that an increasing number of companies across the remaining 10 jurisdictions are disclosing their net zero targets.

Figure 7: Disclosure of net zero or carbon neutrality targets with specified timeframes



Note: The bases for 'disclosure of net zero or carbon neutrality targets with specified timeframes' are the number of companies that disclosed ESG targets within a specified timeframe.

Why this matters

Disclosing net zero or carbon neutrality targets within specified timeframes is essential for building trust, attracting investment, complying with regulations, engaging stakeholders, mitigating risks, strategic planning, and measuring performance.
It is also crucial for these reasons:

- Accountability and transparency - Time-bound targets enable the tracking of progress and accountability and demonstrate an organisation's commitment to mitigate climate change.
- Competitive advantage - Organisations that commit to and achieve net zero or carbon neutrality can differentiate themselves in the market, attracting environmentally conscious consumers and gaining a competitive edge.
- Long-term planning - Specified timeframes provide a clear roadmap for achieving climate goals, enabling organisations to integrate these targets into their overall business strategy.

State of practice

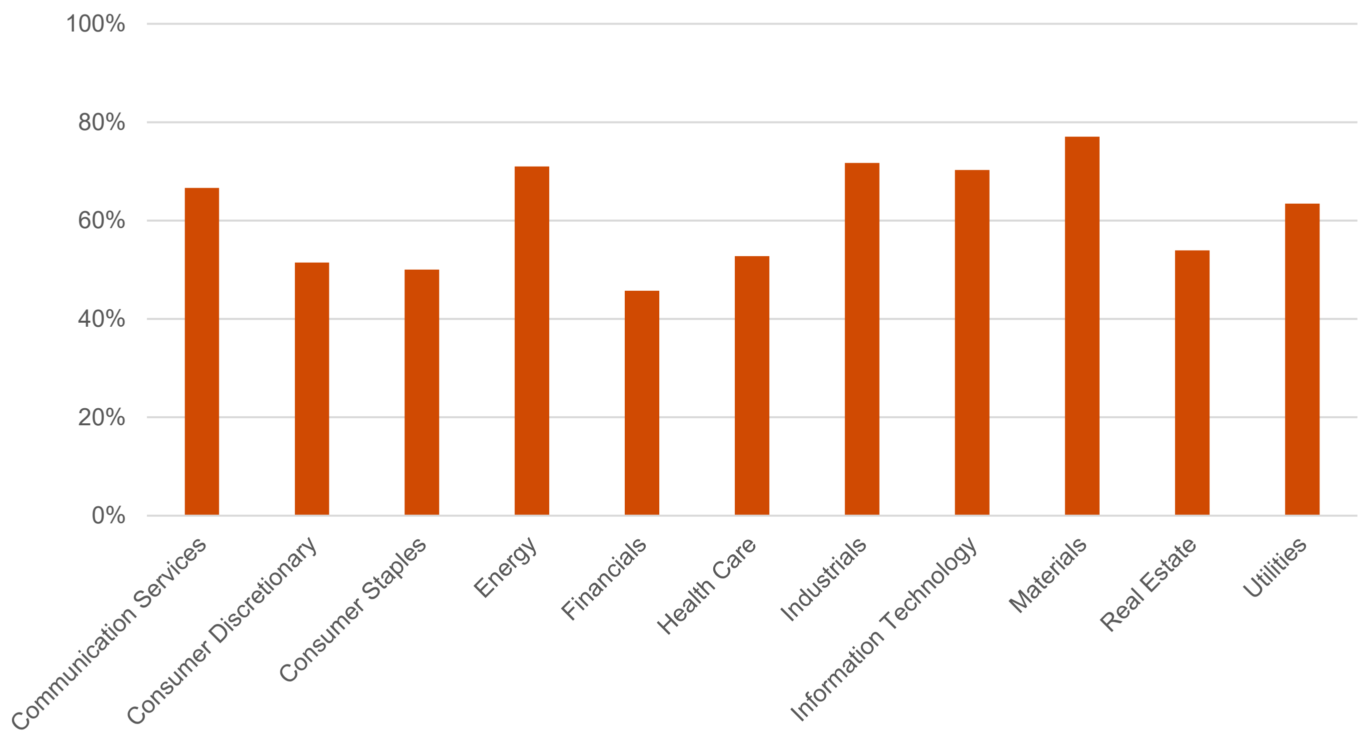
- Of the companies which disclosed ESG targets with specified timeframe, 60% have disclosed their net zero targets with a target year, while 28% have disclosed their carbon neutrality targets with a target year.
- Companies listed in Chinese Mainland disclosed more carbon neutrality targets than net zero targets. This could stem from the national commitment to reach carbon neutrality by 2060.
- Companies listed in Hong Kong SAR and Japan, on the other hand, have similar disclosure rates for both net zero targets and carbon neutrality targets.

What is the difference between 'carbon neutrality' and 'net zero'?

Carbon neutrality is commonly understood as a state where an organisation's emissions are 'balanced' or 'neutralised' by purchasing an equivalent volume of emissions offsets. Net zero at a global level in line with the Paris agreement refers to a balance of carbon sources and sinks to achieve temperature goals.

Refer to PwC's thought leadership on '**Enabling a Net Zero world**' which explores corporate decarbonisation ambitions and aspects of renewable energy procurement and carbon offsets in Southeast Asia.

Figure 8: Disclosure of net zero or carbon neutrality targets with specified timeframes by industry



Note: The base for "'disclosure of net zero or carbon neutrality targets with specified timeframe' (categorised by industry) is the number of companies with specified timeframe in 2024 by industry. In this study, the number of companies under different industries are as follows: Communication Services: 42 companies, Consumer Discretionary: 68, Consumer Staples: 72, Energy: 31, Financials: 129, Health Care: 36, Industrials: 106, Information Technology: 64, Materials: 48, Real Estate: 63, Utilities: 41.

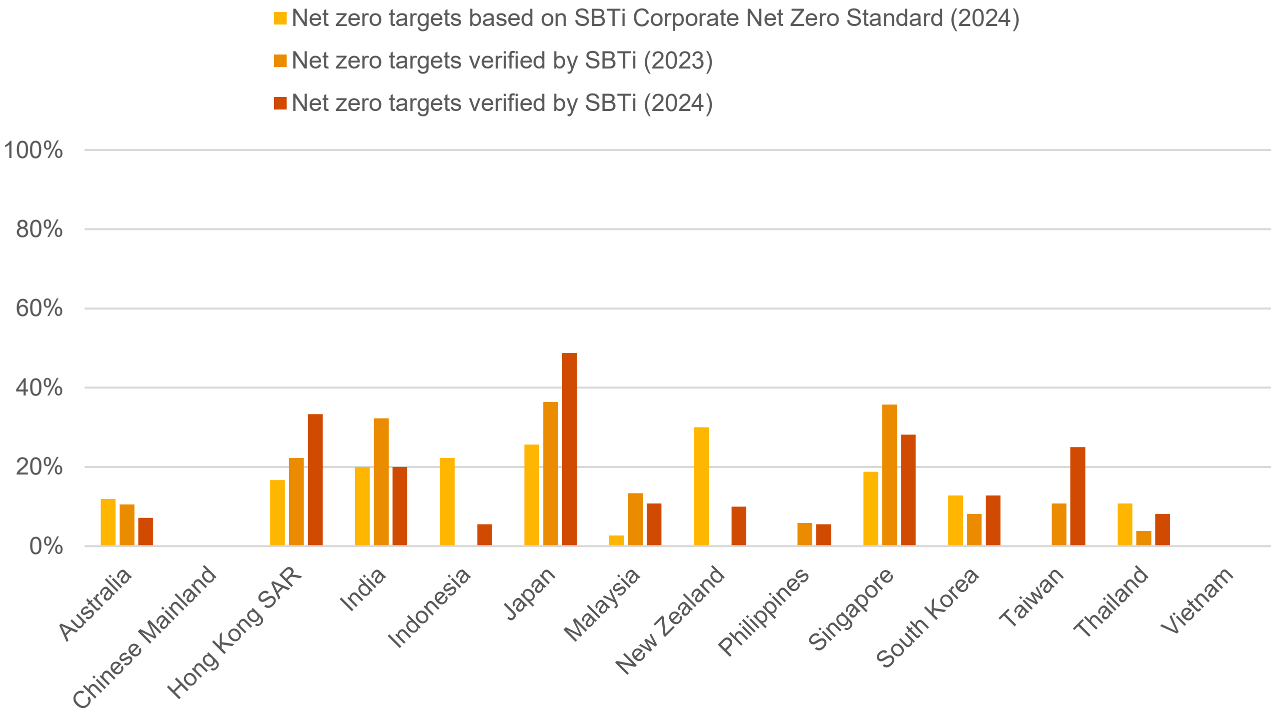
Why this matters

This provides information on how different industries are progressing. By highlighting which industries are leading the way and which ones need more support, policymakers and investors can allocate resources more effectively.

State of practice

- Companies in the materials industry have the highest disclosure rate of net zero or carbon neutrality targets (77%), followed by those in the industrials (72%), energy (71%), information technology (70%) and communication services (67%).
- Companies in the financial industry have the lowest disclosure rate for net zero or carbon neutrality targets (46%). This may be due to their ability to control emissions, as most companies in the financial sector focus on their operational emissions (Scope 1 and Scope 2) while majority of their carbon footprint arises from their lending and investment activities (Scope 3). The limited direct control over the financed emissions makes it challenging for companies in the financial sector to set net zero or carbon neutrality targets. Given the financials industry's potential role in driving the low-carbon transition, there is a growing expectation for these companies to increase their efforts towards achieving net zero targets.

Figure 9: Disclosure of net zero targets based on SBTi Corporate Net Zero Standard and net zero targets verified by SBTi



Note: 2023 data for net zero targets based on the SBTi Corporate Net Zero Standard is not available. The bases for 'net zero targets based on SBTi Corporate Net Zero Standard' and 'Net zero targets verified by SBTi' are the number of companies that have set net zero targets.

Why this matters

While the number of entities that has committed to achieve net zero has increased, not all net zero targets are science-based, align with the Corporate Net Zero Standards or verified by the Science Based Target initiative (SBTi). Science-based net zero targets are important as they provide a clearly defined pathway for companies to reduce their greenhouse gas emissions, aligning with the latest climate science to prevent the worst climate change impacts. Moreover, SBTi-verified net zero targets provide a structured, credible and consistent approach to decarbonisation, establishing that the organisation's commitment is in line with the Paris Agreement's goal of keeping planetary warming to 1.5°C.

State of practice

- Of the companies that have set net zero targets, New Zealand (30%) has the highest percentage of companies disclosing alignment with the SBTi Corporate Net Zero Standard, followed by Japan (26%) and Indonesia (22%).
- Companies listed in Chinese Mainland, the Philippines, Taiwan and Vietnam did not disclose alignment with the SBTi Corporate Net Zero Standard.
- Out of those companies that have set net zero targets, 37% described their targets as science-based, but only 18% have had their net zero targets verified by the SBTi. However, it is encouraging that the percentage of companies with their net zero targets verified by the SBTi increased in half of the jurisdictions from 2023 to 2024. The percentage of these companies more than doubled in Taiwan and Thailand.
- Japan reported the highest percentage of companies with net zero targets verified by SBTi across 2023 (36%) and 2024 (49%).

Climate change and risk management

Overview

Climate-related risks and opportunities

The Asia Pacific region is particularly vulnerable to climate change due to a combination of environmental, social, and economic factors. These include geographical vulnerability to rising mean temperatures and sea levels, weather extremes, socioeconomic impact of climate change, and rapid urbanisation, which increases energy and water demand[37] .

Climate risks affect organisations physically and financially through physical and transition risks.

According to the TCFD, transition risks are associated with extensive policy, legal, technology, and market changes during the transition to a low-carbon economy, while physical risks stem from event driven climate change or longer-term shifts in climate patterns[38].

On the other hand, organisations can identify and act on opportunities to adapt or mitigate climate change such as developing new low carbon products and services, access to new markets, and adoption of low emission energy sources. Identifying climate-related risks and opportunities is fundamental for organisations to protect themselves from the adverse effects of climate change, gain a competitive edge and position themselves to benefit from the emerging green economy[39].

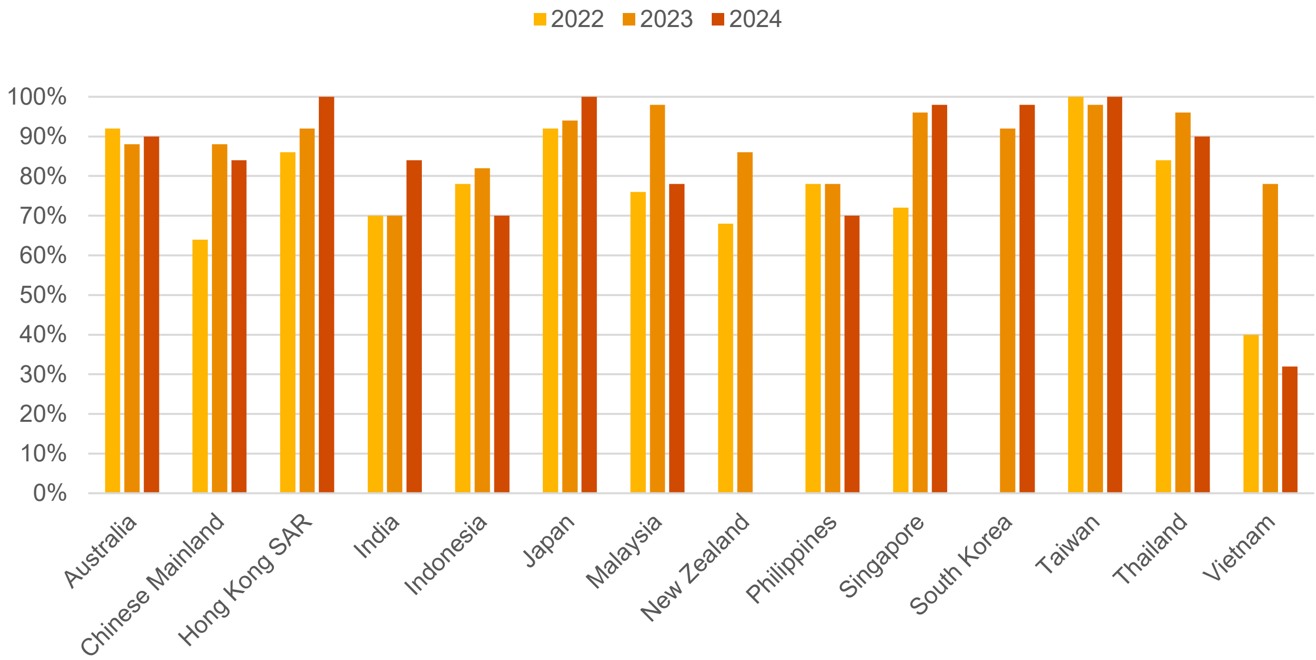
Organisations also benefit from identifying climate-related risks over different time horizons as the impacts of different physical and transition risks may vary across time periods. This would support organisations in longer term strategic planning and in the transition to a lower carbon economy.

[37] UNDP, Asia and the Pacific. ‘Climate change in Asia and the Pacific. What’s at stake?’ November 28, 2019.

[38] Task Force on Climate-related Financial Disclosures. ‘Recommendations of the Task Force on Climate-related Financial Disclosures.’ 2017, p.5-11.

[39] Huntriss, N. ‘Risk management and climate change: Identifying risks and opportunities.’ IRIS Intelligence, November 22, 2021

Figure 10: Identification of climate-related risks and opportunities



Note: 2024 data for New Zealand in this aspect has been excluded from the study. 2022 data for South Korea is not available.

Why this matters

The PwC Net Zero Economy Index 2024 reveals that the world must achieve a year-on-year decarbonisation rate of 20.4% from now until 2050, 20 times the rate in 2023, if we are to limit global warming to 1.5°C above pre-industrial levels.

Identifying climate-related risks and opportunities is increasingly crucial for companies. Climate-related risks, such as extreme weather events, can have significant financial impacts on companies through damage to assets, supply chain disruptions, and increased operational costs. Conversely, identifying climate-related opportunities can lead to cost savings, new revenue streams, and improved financial performance.

Governments and regulatory bodies are beginning to introduce more stringent climate-related regulations and disclosure requirements (i.e. IFRS S2). By proactively addressing emerging regulations, companies can not only navigate potential risks but also stay ahead of the curve and turn regulatory challenges into strategic advantages.

State of practice

- Across Asia Pacific, the percentage companies which identified climate-related risks and opportunities dropped from 88% in 2023 to 84% in 2024, although this remains above the 71% level reported in 2022.
- Listed companies in Hong Kong SAR, Japan and Taiwan have achieved a 100% disclosure rate in identifying climate-related risks and opportunities.

Table 1: Prevalence of types of risks disclosed

Jurisdiction	Physical risks						Transition risks			
	Cyclones/ hurricanes/ typhoons/ heavy storms	Heat or cold waves	Floods	Sustained higher temperatures (droughts, fire, heat)	Sea level rise	Changing precipitation patterns	Policy and legal	Technology	Market	Reputation
Australia	60%	52%	62%	58%	34%	38%	76%	58%	70%	64%
Chinese Mainland	32%	14%	32%	32%	18%	16%	56%	46%	54%	46%
Hong Kong SAR	82%	38%	80%	60%	38%	48%	94%	76%	86%	74%
India	50%	34%	54%	46%	34%	42%	60%	30%	40%	46%
Indonesia	24%	14%	48%	34%	20%	26%	38%	26%	32%	24%
Japan	90%	46%	90%	78%	54%	52%	96%	52%	82%	68%
Malaysia	24%	26%	52%	44%	34%	22%	66%	56%	56%	54%
Philippines	46%	8%	50%	36%	18%	10%	32%	22%	22%	18%
Singapore	52%	56%	70%	72%	42%	44%	88%	40%	68%	52%
South Korea	84%	54%	64%	72%	56%	36%	94%	76%	86%	74%
Taiwan	76%	8%	72%	74%	36%	36%	94%	62%	82%	52%
Thailand	42%	22%	70%	64%	32%	18%	74%	48%	58%	48%
Vietnam	10%	2%	12%	8%	2%	4%	10%	4%	2%	4%

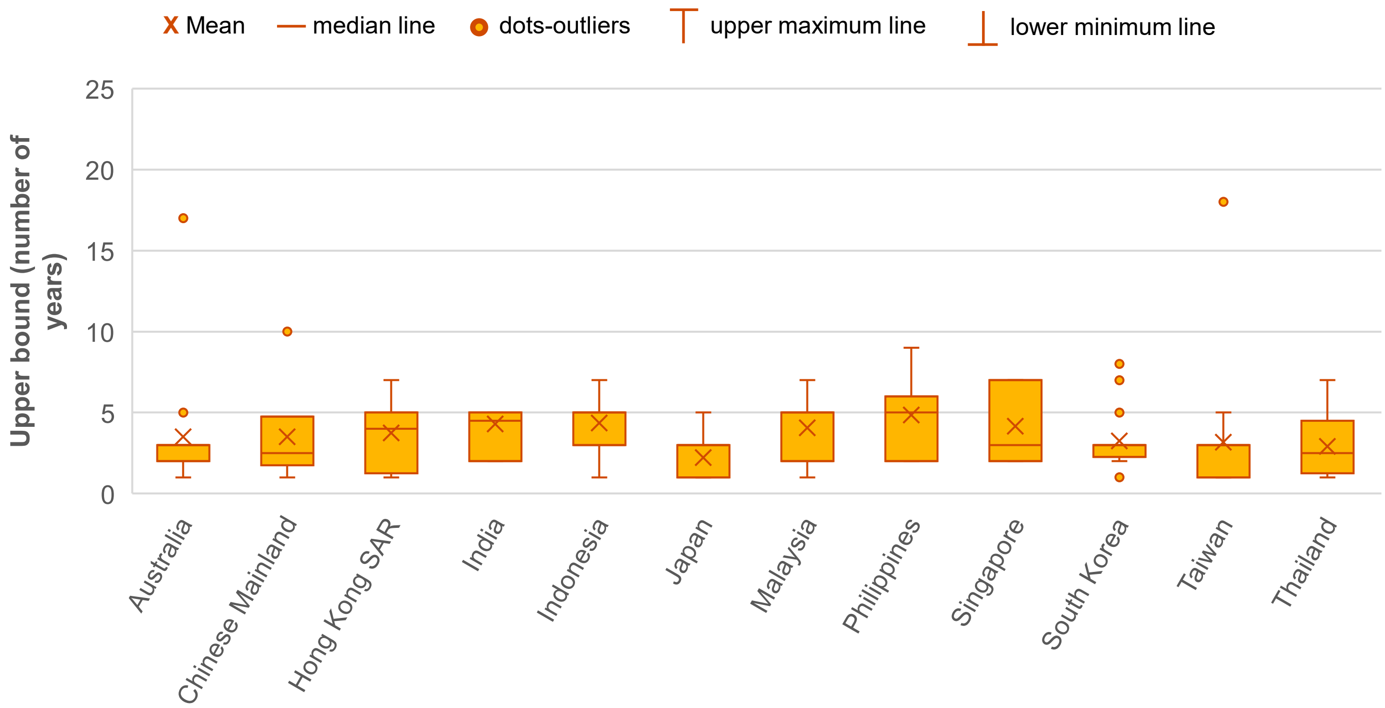
0-25% of companies | 25-50% of companies | 50-75% of companies | >75% of companies

State of practice

- Overall, 72% of companies across Asia Pacific identified at least one physical risk and 70% identified at least one transition risk.
- Across Asia Pacific, the most commonly disclosed physical risks were floods (58%), followed by sustained higher temperatures or droughts (52%), and heavy storms including cyclones, hurricanes and typhoons (52%). This trend is generally consistent with the findings reported in the IPCC's Sixth Assessment Report of Working Group II[40].
- For transition risks, policy and legal risk was the most identified (68%), followed by market risk (57%). The results are generally aligned with the regulatory environment in those jurisdictions. This alignment may influence how companies perceive the transition risks related to policy and legal factors.

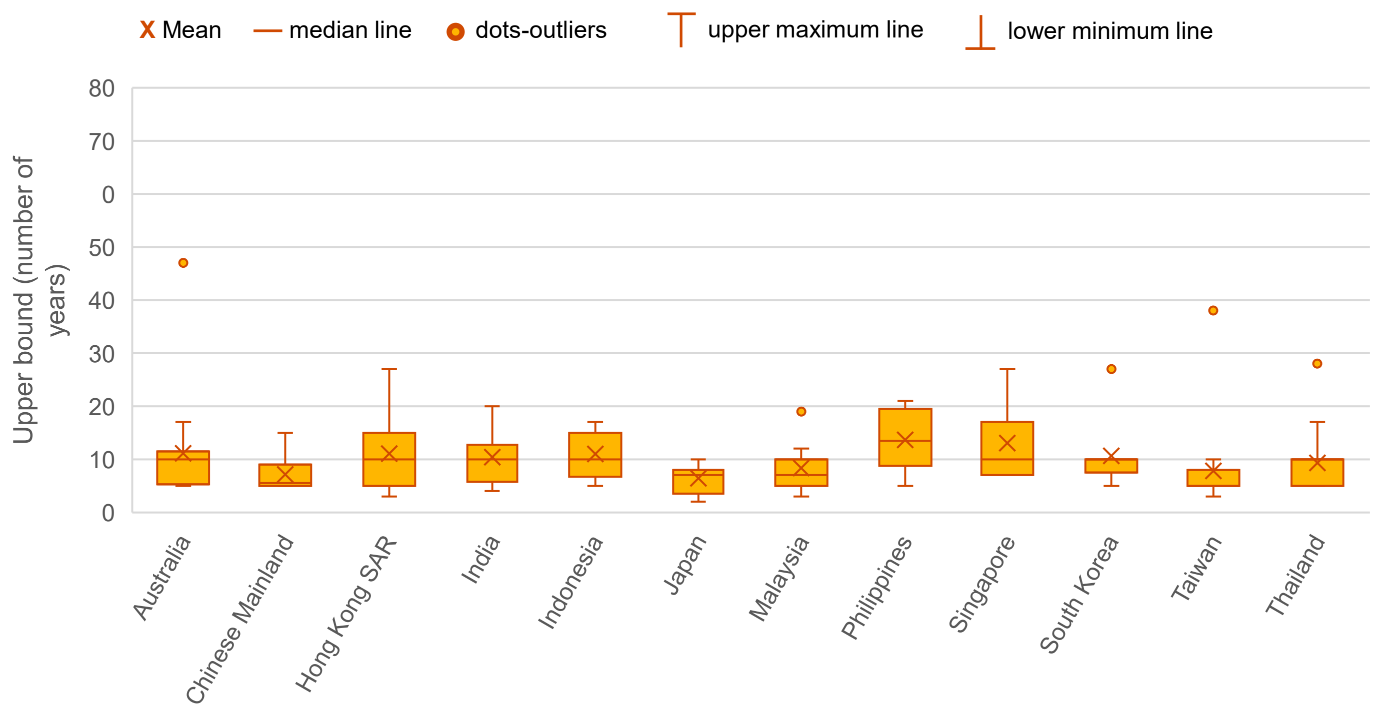
[40] IPCC Sixth Assessment Report Working Group II – Impacts, Adaptation and Vulnerability 'Fact sheet – Asia.' October 2022

Figure 11: Timeframe defined for short-term risks



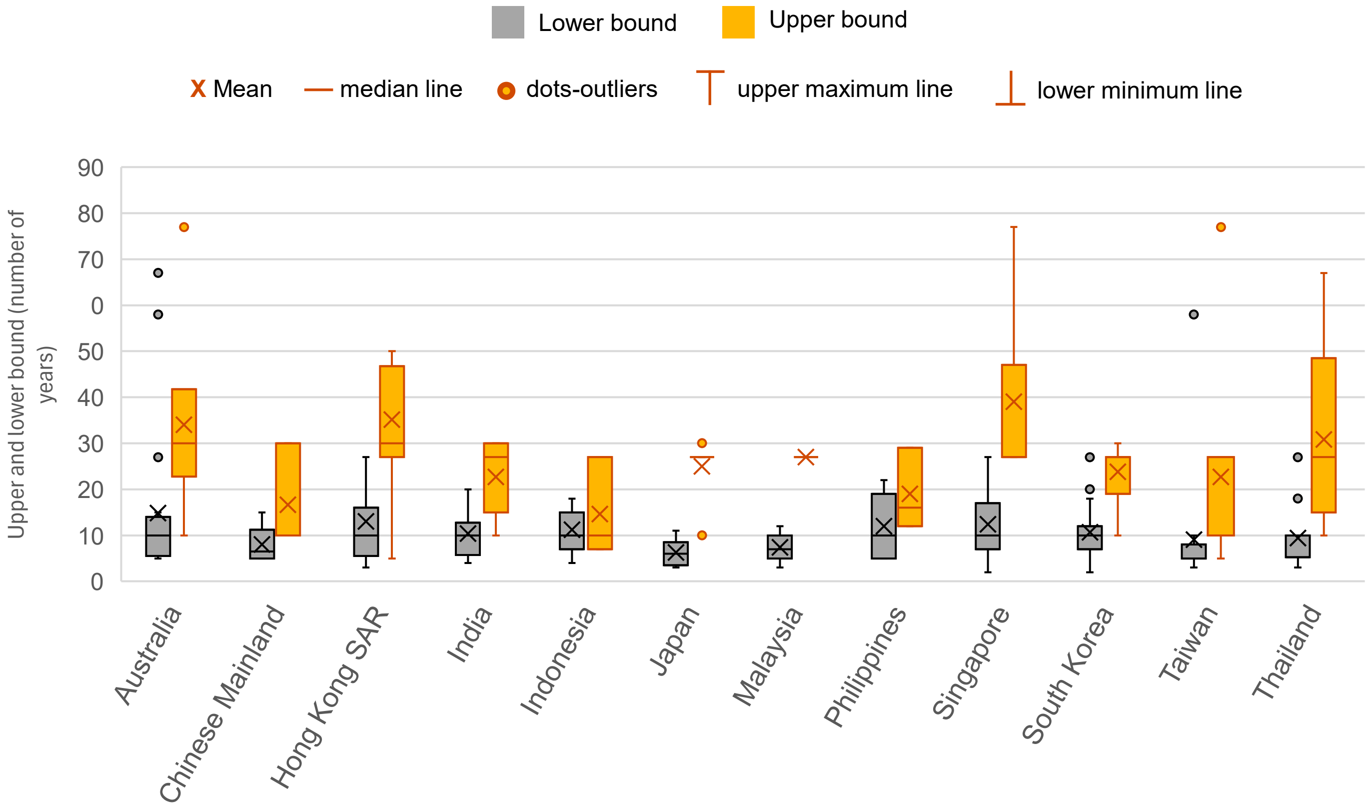
Note: 2024 data for New Zealand in this aspect has been excluded from the study, and Vietnam listed companies did not disclose timeframe for short-term risks in 2024.

Figure 12: Timeframe defined for medium-term risks



Note: 2024 data for New Zealand in this aspect has been excluded from the study, and Vietnam listed companies did not disclose timeframe for medium-term risks in 2024.

Figure 13: Timeframe defined for long-term risks



Note: 2024 data for New Zealand in this aspect has been excluded from the study, and Vietnam listed companies did not disclose timeframe for long-term risks in 2024.

Why this matters

Specifying timeframes for short-, medium-, and long-term climate-related risks is crucial for clear planning, proper resource allocation, and financial risk assessment. It helps companies align with internal risk management systems, fosters innovation by addressing immediate and future risks, and supports scenario planning for building resilience. By defining these periods, companies can better manage evolving climate risks and implement targeted, phased responses.

State of practice

- Of the 547 companies that identified climate-related risks, 223 (41%) have defined at least one time horizon used in their climate risk analysis.
- On average, short-term is defined as up to 3.5 years, medium-term up to 9.9 years and long-term from 10.2 years to 28.3 years.
- There is significant variation in the long-term time horizons used, with the shortest being two years and above, and the longest being 70 years and above.

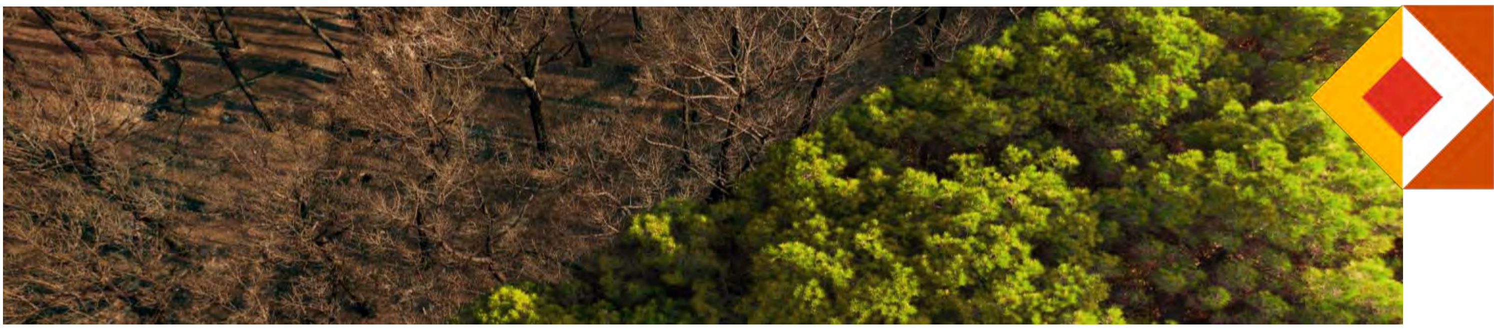
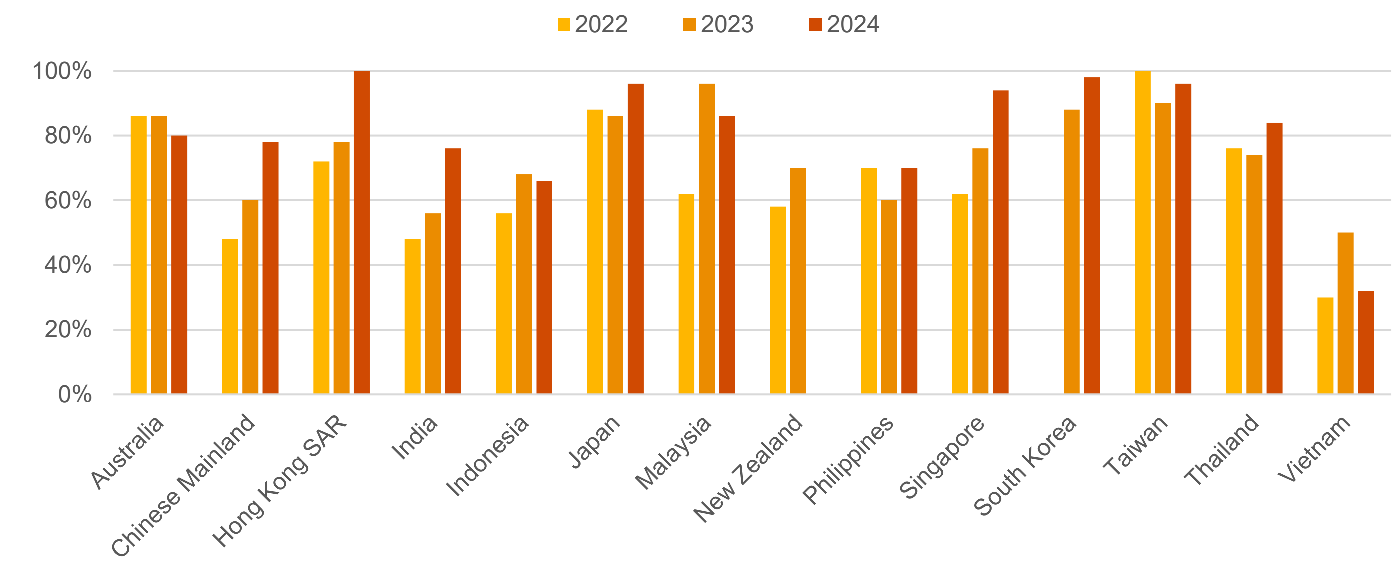


Figure 14: Managing climate-related risks/opportunities



Note: 2024 data for New Zealand in this aspect has been excluded from the study. 2022 data for South Korea is not available.

Why this matters

Disclosing the process for managing climate-related risks and opportunities is important for companies for several reasons beyond merely complying with frameworks like the Global Reporting Initiative (GRI), Task Force on Climate-related Financial Disclosures (TCFD), and International Sustainability Standards Board (ISSB).

Investors are increasingly factoring in climate-related risks and opportunities when making investment decisions. Clear disclosure helps investors to assess the company's long-term viability and resilience, leading to potentially greater access to capital and favourable investment terms.

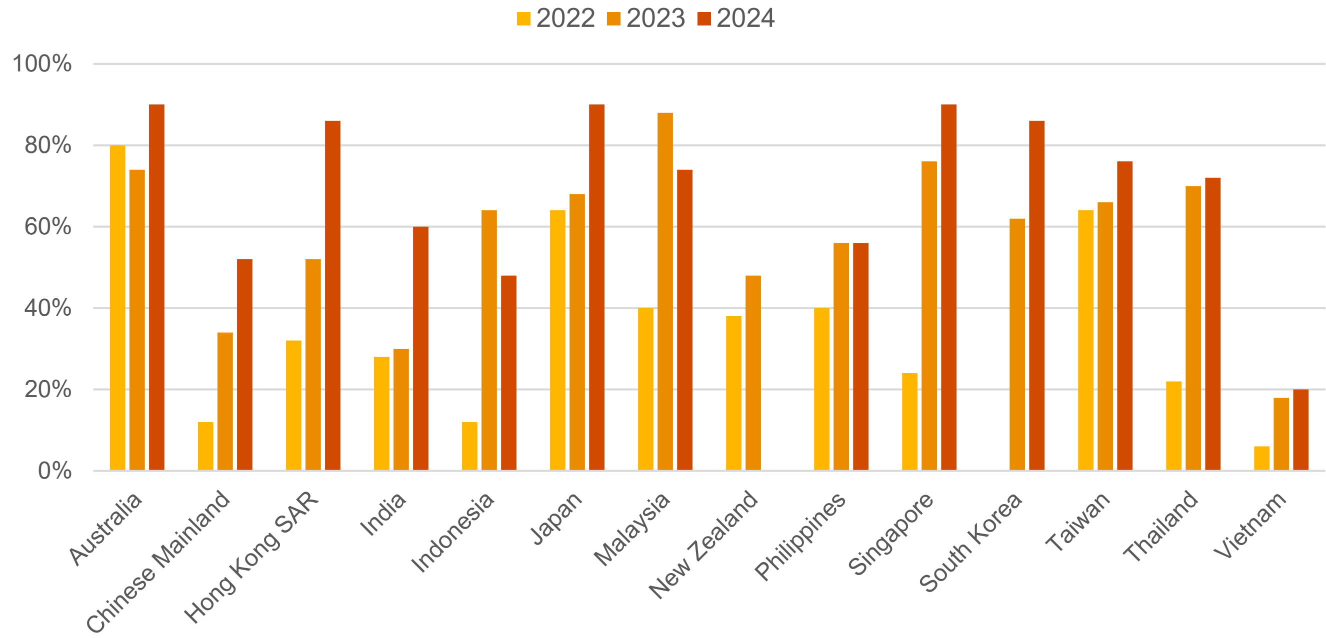
Disclosures can enhance engagement with a wide range of stakeholders by providing them with the information they need to understand the company's climate strategy. This can lead to stronger relationships and support from customers, employees, suppliers, and the community.

Ultimately, disclosing the process for managing climate-related risks and opportunities is about more than just compliance; it reflects a company's commitment to sustainability, resilience, and responsible business practices.

State of practice

- Across Asia Pacific, 81% of companies studied have disclosed their process for managing climate-related risks and/or opportunities in 2024, an increase from 74% in 2023.
- Out of 13 jurisdictions, 9 have seen an increase in disclosures of the process for managing climate-related risks and opportunities from 2023 to 2024. Australia and Indonesia saw a slight reduction in disclosures, while steeper reductions were seen in Vietnam.
- Hong Kong SAR experienced the most significant increase from 78% in 2023 to 100% in 2024, the only jurisdiction where all companies studied disclosed their process for managing climate-related risks and/or opportunities.
- After Hong Kong, the top jurisdictions with the highest disclosures of process for managing climate risks and opportunities in 2024 are South Korea (98%), Japan (96%), Taiwan (96%) and Singapore (94%). .

Figure 15: Integrating climate-related risks into overall risk management



Note: 2024 data for New Zealand in this aspect has been excluded from the study. 2022 data for South Korea is not available.

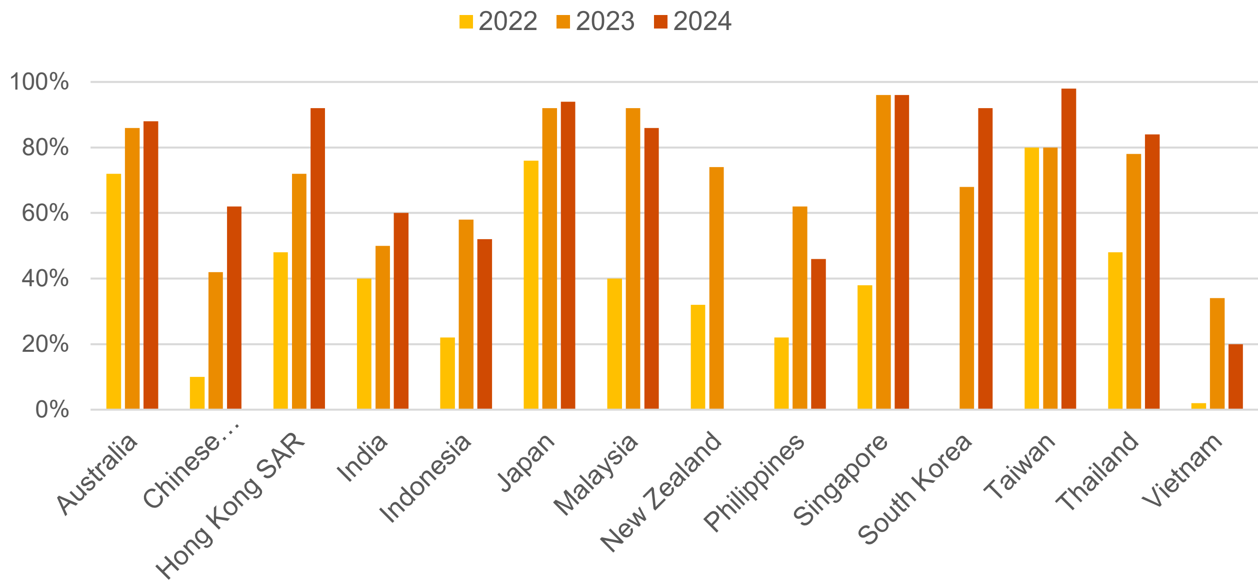
Why this matters

Companies need to disclose the integration of climate-related risks into their overall risk management to demonstrate how they identify, assess, and manage these risks alongside other business risks. This transparency helps stakeholders understand the company's preparedness for climate challenges, promotes accountability, and supports informed decision making by investors and regulators who increasingly prioritise sustainability and long-term resilience.

State of practice

- In 2024, 81% of companies studied disclosed their process for managing climate-related risks, but only 69% had disclosed how they integrated these risks into overall risk management.
- It is encouraging to see a steady increase in the disclosure rate from 33% of companies studied across 13 jurisdictions (excluding South Korea) in 2022 to 58% of companies studied across 14 jurisdictions in 2023, and further to 69% of companies across 13 jurisdictions in 2024. Despite the general improvement, Indonesia (from 64% in 2023 to 48% in 2024) and Malaysia (from 88% in 2023 to 74% in 2024) have shown a decline in disclosure rates.
- The top five jurisdictions with companies disclosing their integration of climate-related risks into overall risk management in 2024 are Australia (90%), Japan (90%), Singapore (90%), Hong Kong SAR (86%) and South Korea (86%). Notably, Hong Kong SAR showed the most significant increase among all 14 jurisdictions, from 52% in 2023 to 86% in 2024.

Figure 16: Targets to manage climate-related risks/opportunities



Note: 2024 data for New Zealand in this aspect has been excluded from the study. 2022 data for South Korea is not available.

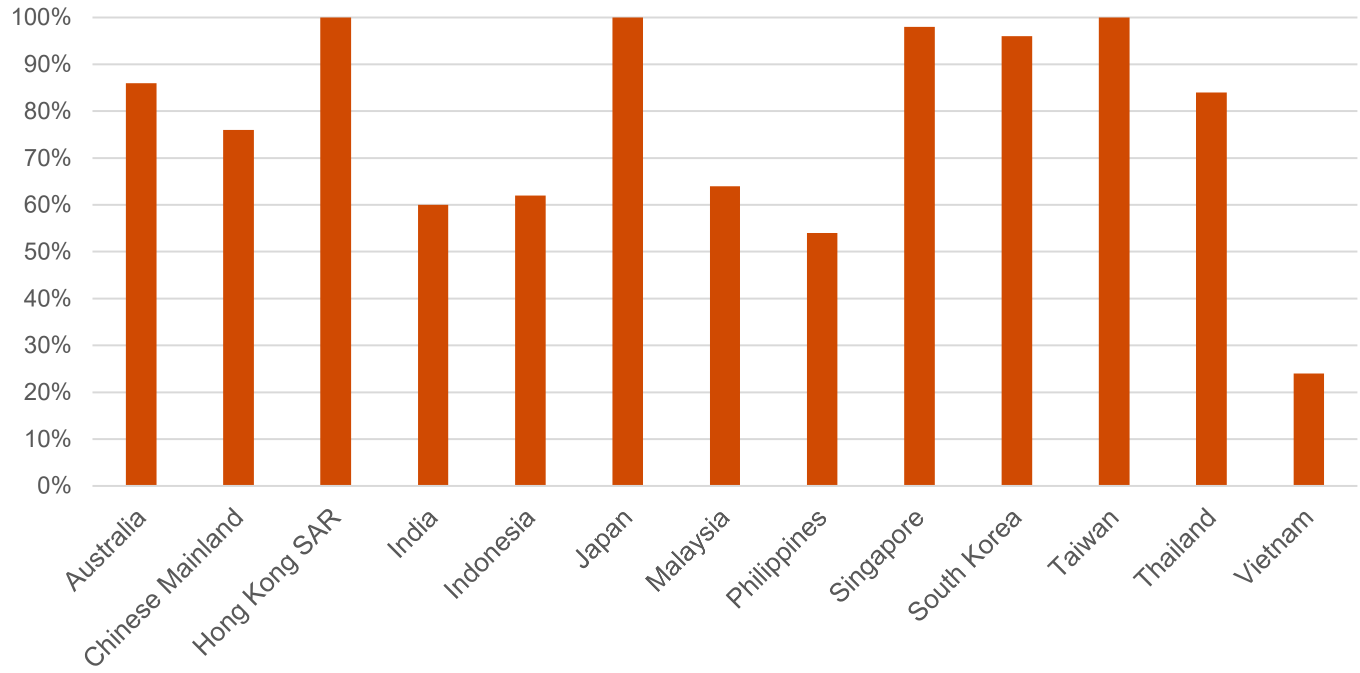
Why this matters

Disclosing targets and tracking progress on climate-related risks and opportunities are essential to demonstrate commitment, enhance accountability, and drive continuous improvement. It provides a robust framework for managing climate impacts and creating long-term value for organisations and their stakeholders.

State of practice

- Across Asia Pacific, the percentage of companies disclosing targets to manage climate-related risks and opportunities increased modestly from 70% in 2023 to 75% in 2024, compared to the larger increase from 38% in 2022.
- While most jurisdictions saw an increase in disclosures from 2023 to 2024, the disclosure of targets has decreased in Indonesia, Malaysia, Philippines and Vietnam, although the rate of disclosure remains higher than in 2022 in all jurisdictions.
- Chinese Mainland, Hong Kong SAR and South Korea have the most significant improvement in disclosure of targets from 2023 to 2024, while Australia, Japan and Singapore maintained consistently high rates of disclosure from 2023 to 2024.
- Taiwan takes the lead in disclosure rates for climate-related targets in 2024 (98%), a significant increase from a high starting point of 80% in 2023.

Figure 17: Metrics to manage climate-related risks/opportunities



Note: 2024 data for New Zealand in this aspect has been excluded from the study.

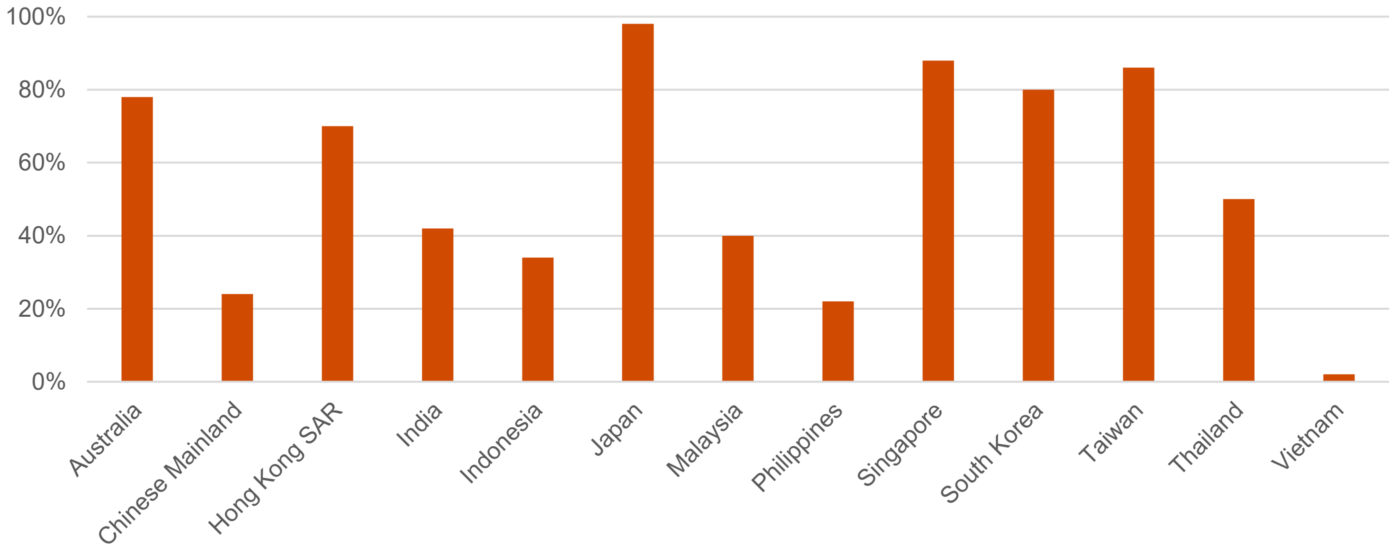
Why this matters

Metrics enable companies to benchmark their performance against industry standards and best practices. They also facilitate the tracking of progress over time, helping companies understand how well they are managing climate-related risks and opportunities. In addition, metrics offer a data-driven basis for decision-making. Companies can use these metrics to assess the effectiveness of their strategies and make informed adjustments to improve outcomes.

State of practice

- 77% of companies across Asia Pacific have disclosed metrics to manage climate-related risks and opportunities, higher than the 75% which disclosed targets to manage climate-related risks and opportunities. This difference could be due to companies that have only just started tracking these metrics, helping to establish a baseline to inform future target-setting.
- While most jurisdictions have higher disclosure rates for metrics than targets (see Figure 16), Australia and Malaysia show the opposite trend.
- In Hong Kong SAR, Japan and Taiwan, 100% of companies studied have disclosed metrics to manage climate-related risks and opportunities. Singapore (98%) and South Korea (96%) have the next highest disclosure rate for metrics. These top five jurisdictions in metrics disclosure also lead in disclosing targets to manage climate-related risks and opportunities.

Figure 18: Climate scenario analysis disclosure performed and disclosed



Note: 2024 data for New Zealand in this aspect has been excluded from the study.

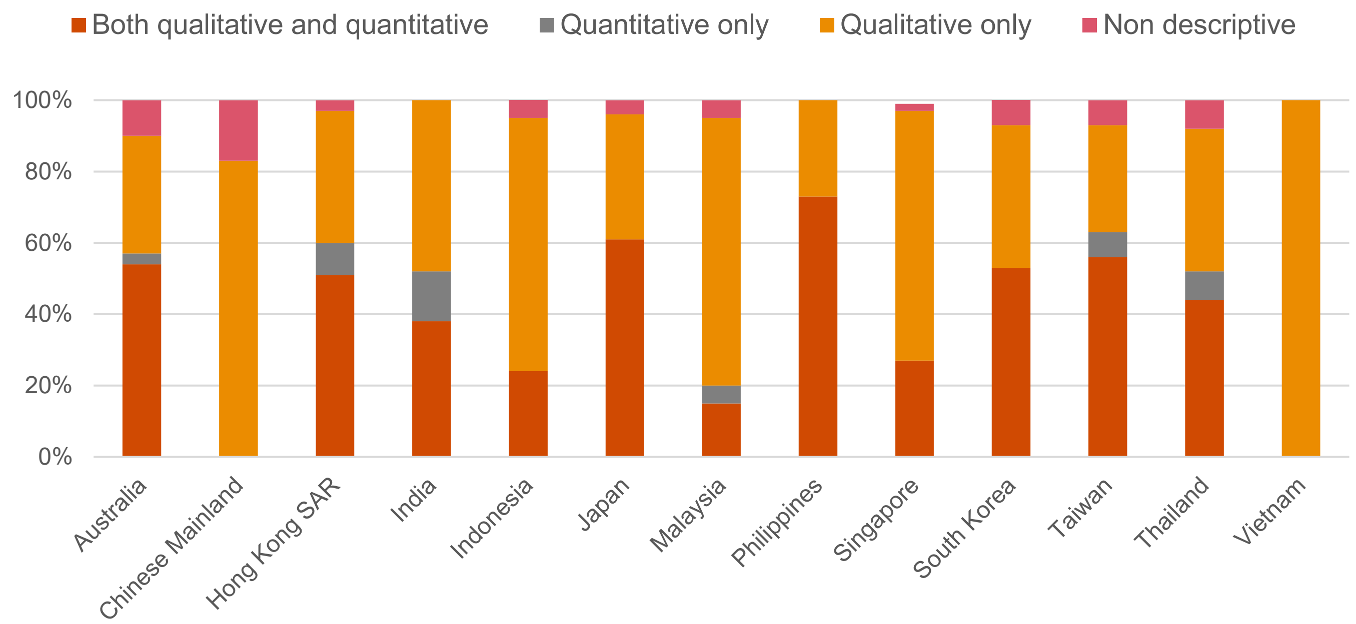
Why this matters

Climate scenario analysis is recommended for organisations to anticipate and prepare for various potential future climate conditions. This method helps investors and stakeholders understand and quantify the risks and uncertainties associated with different hypothetical futures. Scenario analysis can be both quantitative, using numerical data and models, and qualitative, through descriptive narratives. Often, a combination of both methods provides the most thorough insights.

State of practice

- While IFRS S2 Climate-related disclosures have yet to be adopted across the Asia Pacific region, slightly over half (55%) of the companies studied have provided disclosures on climate scenario analysis in 2024. This trend could indicate that some companies may rely on a multi-year analysis, given the significant effort required to conduct these analyses on an annual basis.
- Although there is a spectrum of approaches to scenario analysis, there needs to be greater consistency in producing high-quality quantitative scenarios.

Figure 19: Type of climate scenario analysis



Note: Non-descriptive refers to companies that have disclosed conducting scenario analysis but did not provide further details to determine whether the analysis was qualitative or quantitative. Bases for 'types of scenario analysis' are the number of companies that disclosed climate scenario analysis. In addition, 2024 data for New Zealand in this aspect has been excluded from the study.

Why this matters

There is a growing focus and demand for companies to quantify the impacts of potential climate scenarios, in addition to providing qualitative analysis. This is driven by the need for greater precision, reliability, and transparency in assessing climate risks and opportunities. This supports better decision-making, enhances stakeholder confidence, and aligns with evolving regulatory and market expectations.

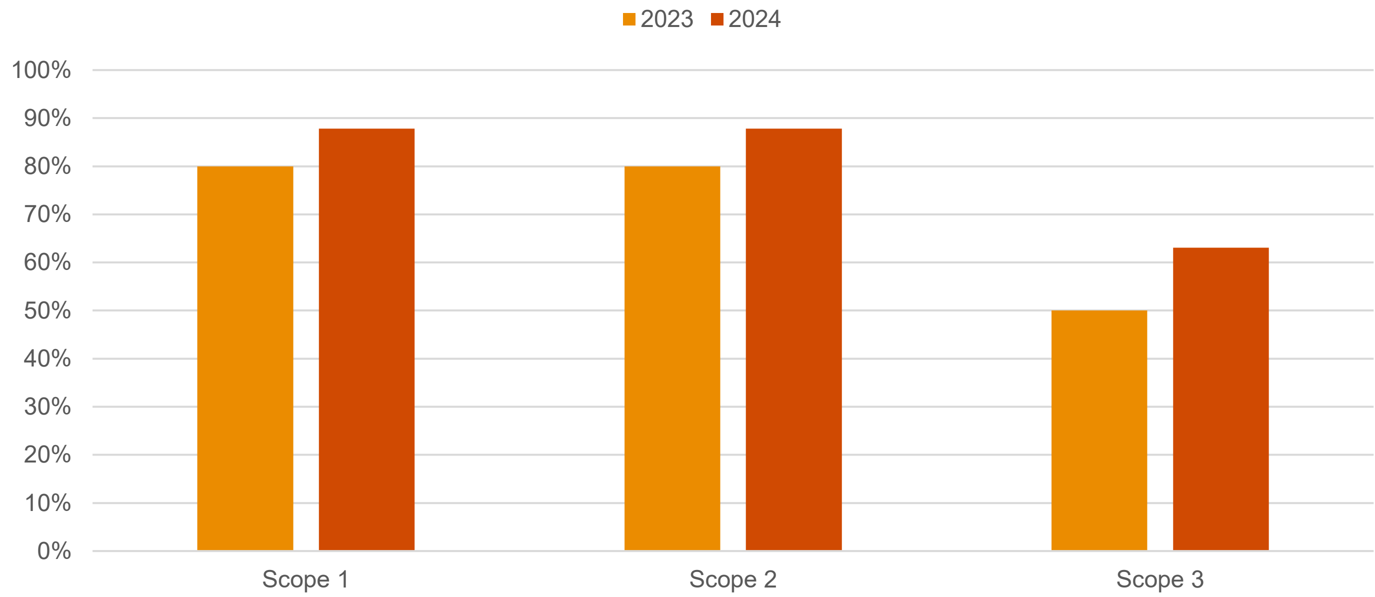
Developing and disclosing a quantitative scenario analysis comes with a set of challenges where accurate and comprehensive data on climate impacts, emissions, and financial metrics may be lacking or difficult to obtain. In addition, climate models are complex and require specialised knowledge to interpret correctly. This is on top of evolving regulatory requirements and standards for climate-related disclosures, leading to inconsistencies.

To overcome these challenges, companies should adopt a head start by engaging climate scientists and experts to help interpret and apply climate models. They should rely on reputable third-party services and tools designed for corporate climate scenario analysis.

State of practice

- Most of the companies that carried out climate scenario analysis have only disclosed a qualitative climate scenario (46%), while 45% disclosed both quantitative and qualitative scenarios.
- Common quantitative scenarios were presented from the analysis of climate modelling with a heat map showing areas of physical risks or numerical financial impacts arising from the physical or transition risks.

Figure 20: Disclosure of Scope 1, Scope 2 and Scope 3 GHG emissions



Why this matters

While Scope 1 and 2 emissions focus on direct operations and energy use, Scope 3 emissions reveal deeper insights into climate risks and opportunities beyond a company's immediate control, such as supplier practices or product lifecycle impacts.

Take for example two companies within the same industry and with similar levels of business operations, one company might choose to purchase raw materials (captured under Scope 3), while another might opt to manufacture the raw materials internally (captured under Scope 1 and 2). If only Scope 1 and 2 emissions are reported, the total emissions of these two companies would not be comparable, as the emissions from their supply chains would be overlooked.

With more jurisdictions adopting IFRS S2 Climate-related Disclosures, companies will need to provide more granular Scope 3 data aligned with the Greenhouse Gas Protocol. Scope 3 emissions are critical because they often represent the largest share of an organisation's total greenhouse gas emissions, encompassing indirect emissions from activities across the entire value chain, such as suppliers and customers.

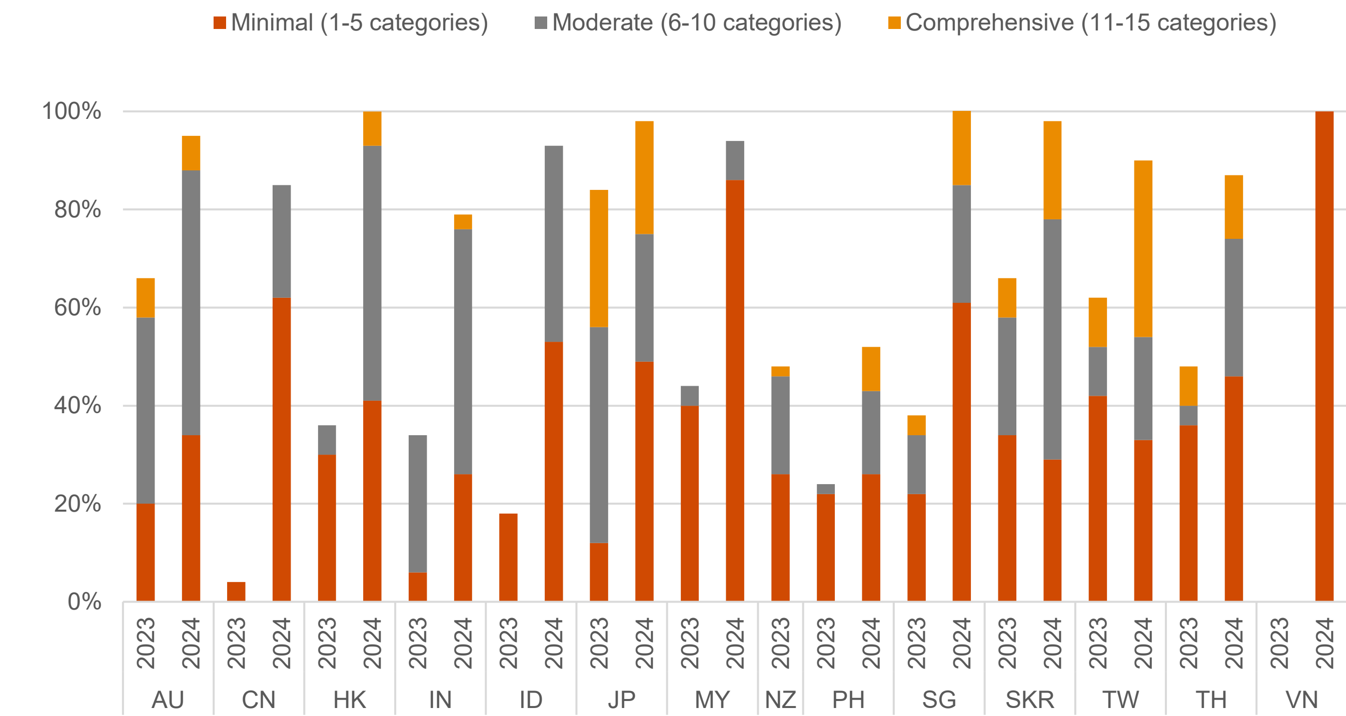
This approach enables investors and stakeholders to have a clearer, more comparable understanding of a company's full climate exposure, leading to better risk management and decision-making. There are guidance and frameworks available to support organisations that want to improve their processes for measuring and disclosing Scope 3 emissions, such as those provided by the GHG Protocol and other organisations[41].

State of practice

- There is a slight increase in overall disclosure in Scope 1, Scope 2 and Scope 3 GHG emissions.
- Both Scope 1 and Scope 2 GHG emissions disclosures have increased from 80% in 2023 to 88% in 2024.
- Although many companies claim that they are still in the process of measuring and managing Scope 3 GHG emissions, there is already a positive increase in percentage of companies that have done so, from 50% in 2023 to 63% in 2024.

[41] Bhatia, P., Cummis, C., Brown, A., Rich , D., Draucker, L., Lahd, H. 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard.' World Resources Institute, World Business Council for Sustainable Development, 2011.

Figure 21: Scope 3 GHG emissions level of disclosure



Note: 2024 data for New Zealand in this aspect has been excluded from the study.

Why this matters

Measuring and reporting Scope 3 emissions will be mandatory in many jurisdictions moving forward, as pressure to make it mandatory is increasing. This is further evidenced by the IFRS Sustainability Disclosure Standards' requirement for companies to begin disclosing relevant Scope 3 GHG emissions categories.

Scope 3 emissions often constitute the majority of a company's total GHG emissions. Under the GHG Protocol, there are 15 categories of Scope 3 emissions. To date, many companies have only reported on a selection of Scope 3 activities, often relating to less complex activities and easier-to-access information such as business travel. Without assessing all 15 categories, companies may overlook the most pertinent Scope 3 emissions. Providing a thorough Scope 3 disclosure demonstrates a more accurate assessment of risks within the value chain and enhances the comparability of disclosures among industry peers.

In addition, frameworks like the Task Force on Climate-related Financial Disclosures (TCFD) and the Carbon Disclosure Project (CDP) are encouraging more detailed and comprehensive emissions reporting, including Scope 3. Aligning with these frameworks can enhance a company's credibility and comparability.

State of practice

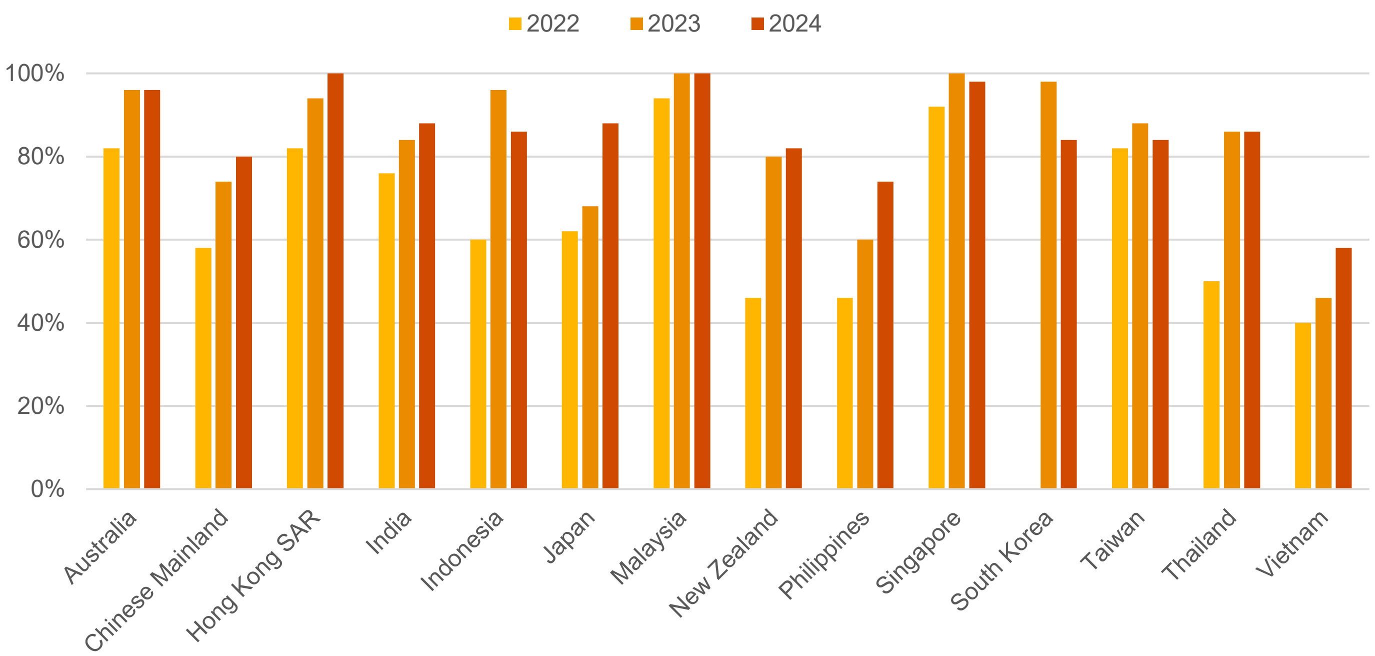
- Among companies that disclosed Scope 3 GHG emissions, 45% carried out minimal level of disclosure of Scope 3 GHG emissions calculation; 33% carried out moderate level of disclosure, and 13% carried out a comprehensive level of disclosure[42].
- 9% of companies did not disclose categories contributing to Scope 3 GHG emissions although these companies disclosed overall Scope 3 GHG emissions.

[42] Minimal level of disclosure of Scope 3 GHG emissions are companies that disclosed between 1-5 categories of Scope 3 emissions; Moderate level of disclosure of Scope 3 GHG emissions are companies that disclosed between 6-10 categories of Scope 3 emissions; Comprehensive level of disclosure of Scope 3 GHG emissions are companies that disclosed between 11-15 categories of Scope 3 emissions.

Governance and responsibility

Overview

Figure 22: Disclosure of board responsibility on sustainability



Note: 2022 data for South Korea is not available.

Why this matters

Governance in sustainability helps to establish a top-down oversight on organisations in implementing sustainability strategies, cultivating greater synergy across the organisation and providing confidence to stakeholders that the material ESG factors are prioritised. There is increasing regulatory pressure on boards to oversee environmental and climate risks, whether mandated by respective territorial corporation acts or code on corporate governance. In addition to board oversight, a well-established sustainability governance structure is also essential for the management to have well defined roles and responsibilities in leading the sustainability initiatives across the organisation.

State of practice

- There has been a consistent improvement in companies' disclosure of board responsibility for sustainability. In 2024, 86% of the 700 companies studied across 14 jurisdictions provided details on the board's sustainability responsibilities, up from 84% in 2023. This marks a significant increase from 2022, when only 67% of 650 companies studied in 13 jurisdictions (except South Korea) disclosed this information.
- In 2024, more than 90% of companies in four jurisdictions disclosed the board’s responsibility on sustainability: Australia (96%), Hong Kong SAR (100%), Malaysia (100%) and Singapore (98%).

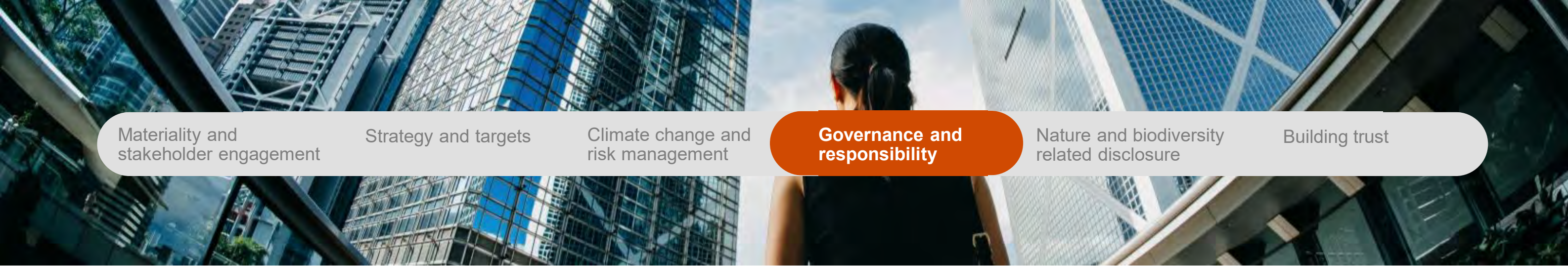
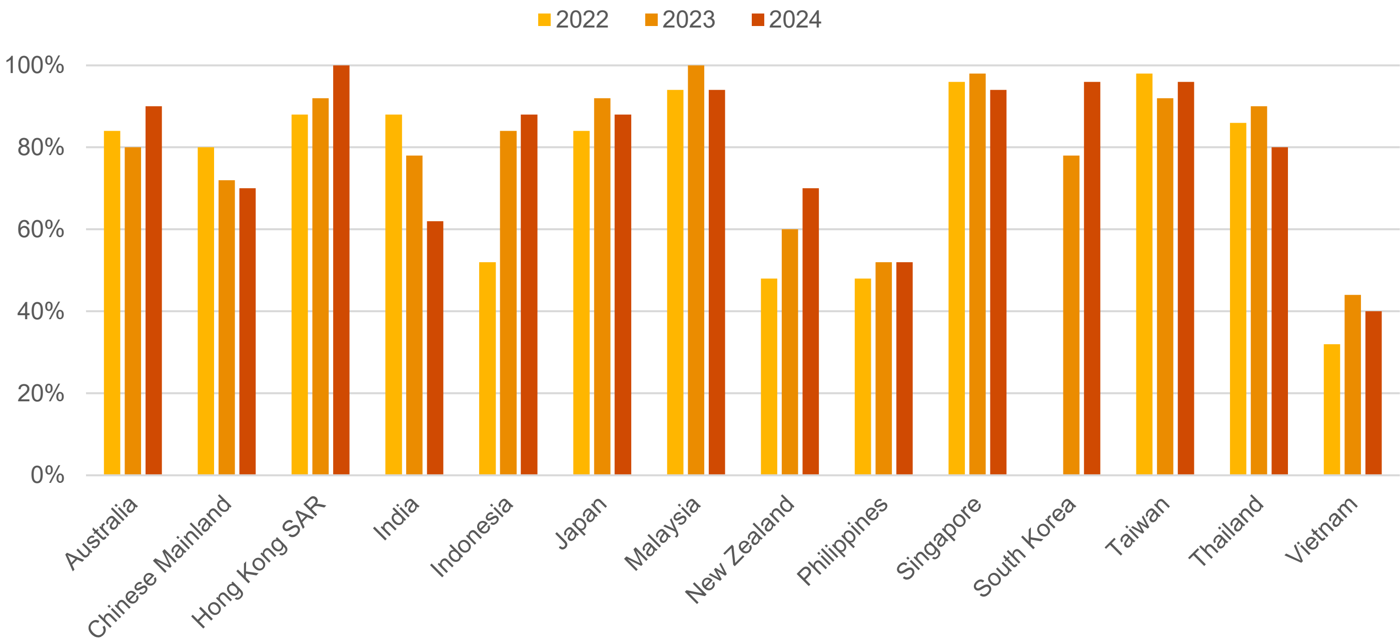


Figure 23: Disclosure of sustainability governance structure



Note: 2022 data for South Korea is not available.

Why this matters

Disclosing a company's sustainability governance structure is important for several key reasons:

- Transparency and accountability
- Stakeholder trust and confidence
- Informed decision making
- Regulatory compliance
- Risk management

There is an increased focus from investors on ESG criteria when making investment decisions. Disclosing a sustainability governance structure can attract ESG-focused investors by demonstrating that the company has robust mechanisms in place to manage sustainability issues. It also enables stakeholders to understand how sustainability is integrated into the company's overall strategy. This shows that sustainability is not an afterthought but a component of the company's strategic planning. Additionally, it demonstrates how the highest governance body delegates responsibility to management and senior executives.

State of practice

- 80% of companies studied across 14 jurisdictions have disclosed their sustainability governance structure, a slight increase from 79% in 2023 and 75% of companies across 13 jurisdictions (except South Korea) in 2022.
- More than 90% of companies in six jurisdictions disclosed their sustainability governance structure: Australia (90%), Hong Kong SAR (100%), Malaysia (94%), Singapore (94%), South Korea (96%), Taiwan (96%).
- On the other hand, companies listed in Philippines and Vietnam are found to require more effort in disclosing their sustainability governance structures.

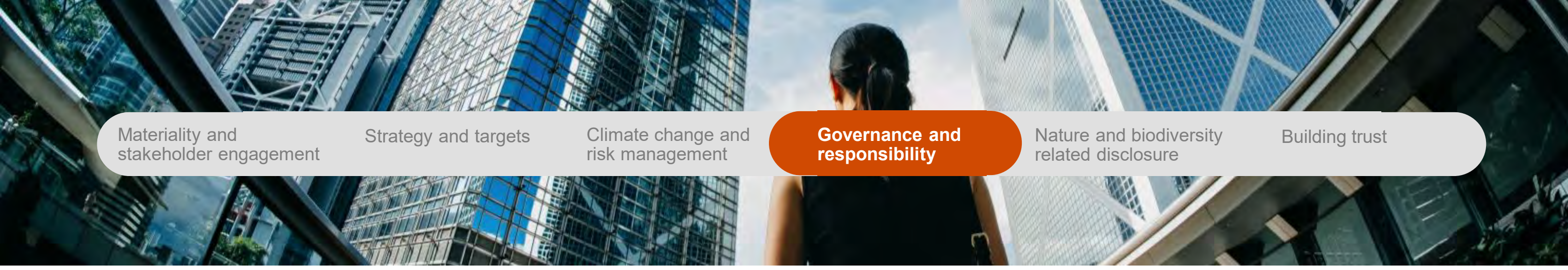
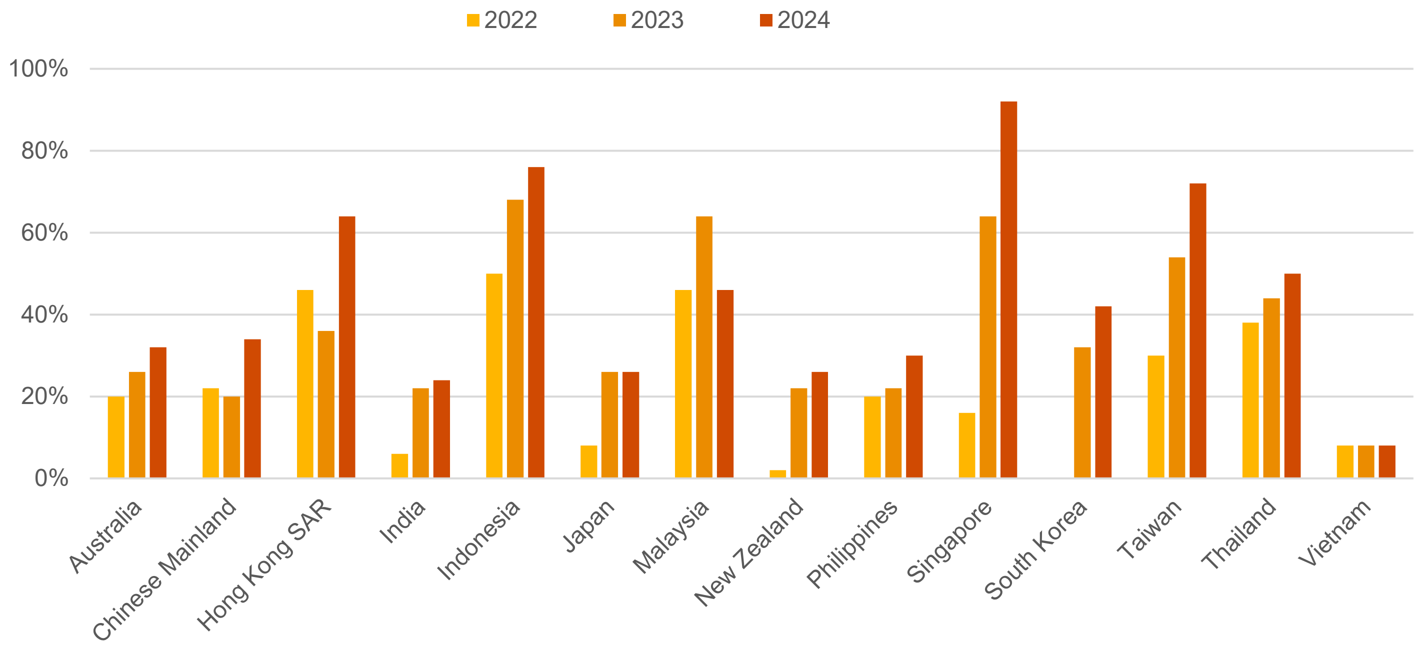


Figure 24: Disclosure of board and management with sustainability training



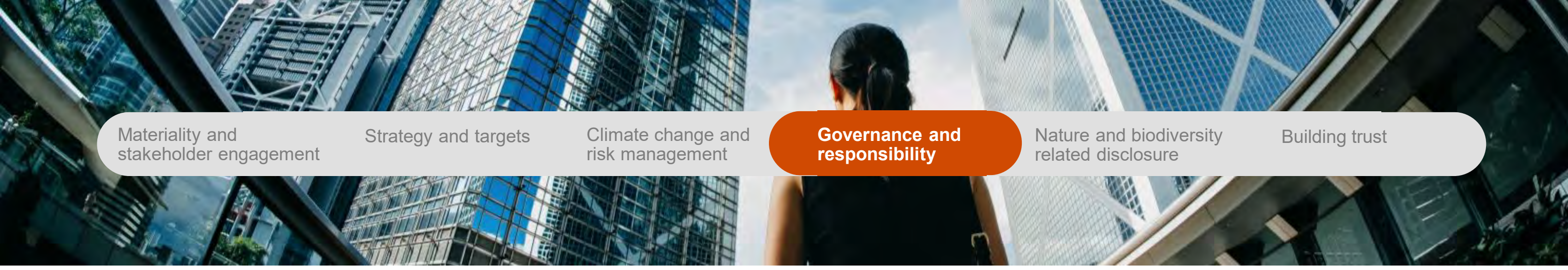
Note: 2022 data for South Korea is not available.

Why this matters

Sustainability training equips board members and management with the knowledge and skills needed to make informed decisions regarding ESG issues. Disclosing this training assures stakeholders that the leadership is adequately equipped with the necessary skills and competency to manage sustainability risks and opportunities effectively.

State of practice

- Across Asia Pacific, there has been a gradual increase in board or management who have received sustainability training to effectively carry out their roles in overseeing the companies' sustainability progress. There has been an increase in the percentage of companies sending their board or management for sustainability training, rising from 36% in 2023 to 44% in 2024.
- It is notable that both Hong Kong SAR and Singapore have shown a significant increase in percentage of listed companies with sustainability trained board or management, from 36% in 2023 to 64% in 2024 for Hong Kong SAR, and from 64% in 2023 to 92% in 2024 for Singapore.

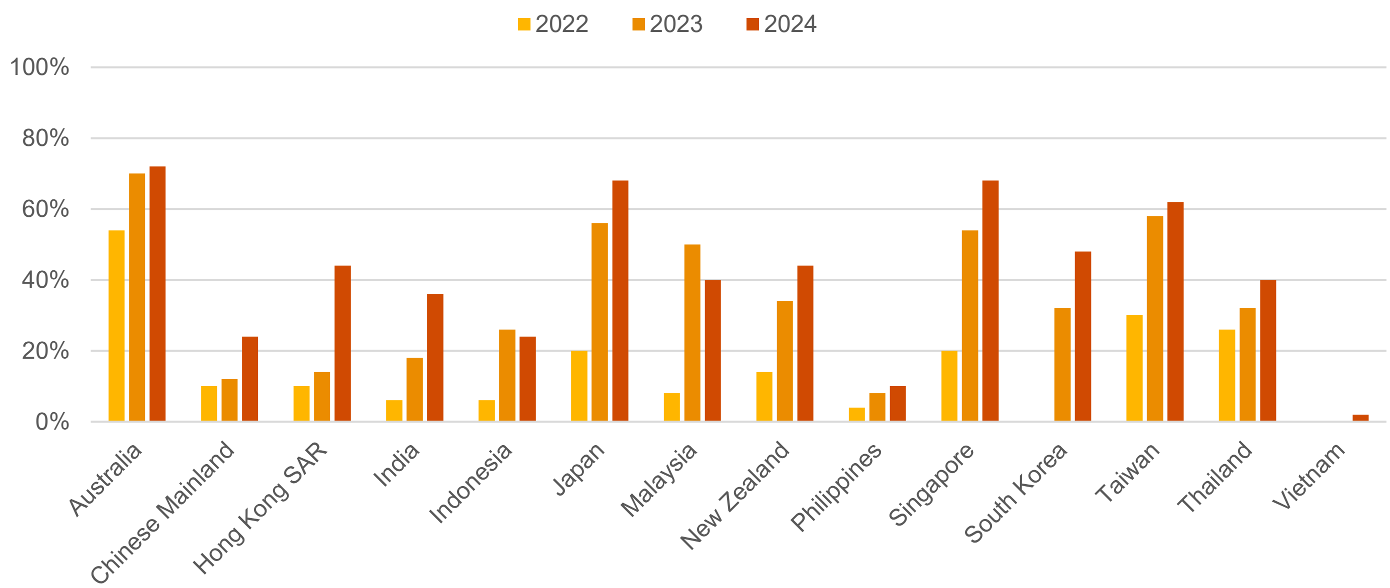


Sustainability and climate-related remuneration

Incorporating sustainability and climate considerations into executive performance-related remuneration can be an effective strategy to incentivise top executives to align organisational goals with sustainability and climate-related targets. Sustainability and climate key performance indicators (KPIs) should be measurable as well as relevant to the material ESG factors and sustainability strategies [43].

IFRS S2 requires organisations to disclose whether and how the climate-related considerations are factored into executive remuneration and the percentage of remuneration recognised in the current period that is linked to climate-related considerations.

Figure 25: Disclosure of remuneration linked to sustainability performance or targets



Note: 2022 data for South Korea is not available.

Why this matters

Investors are increasingly interested in ESG criteria when making investment decisions. By linking remuneration to sustainability performance or targets, it fosters accountability. It also helps establish that sustainability is integrated into the company's strategy, operations, and culture, ultimately contributing its overall success and positive impact on society and the environment.

State of practice

- Over the past three years, the disclosure rate linking top executive remuneration to sustainability performance or targets has gradually increased, from 16% of companies across 13 jurisdictions (except South Korea) to 33% and 42% of companies across 14 jurisdictions in 2023 and 2024 respectively.
- Other than Indonesia and Malaysia, the remaining 12 jurisdictions saw an increase in the disclosure rates linking top executive remuneration to sustainability performance or targets. Notably, Hong Kong SAR saw the largest increase, with the disclosure rate rising from 14% in 2023 to 44% in 2024.

[43] Cook, M., Savage, K., & Barge, F. 'Linking executive pay to sustainability goals'. Harvard Business Review, February 7, 2023.

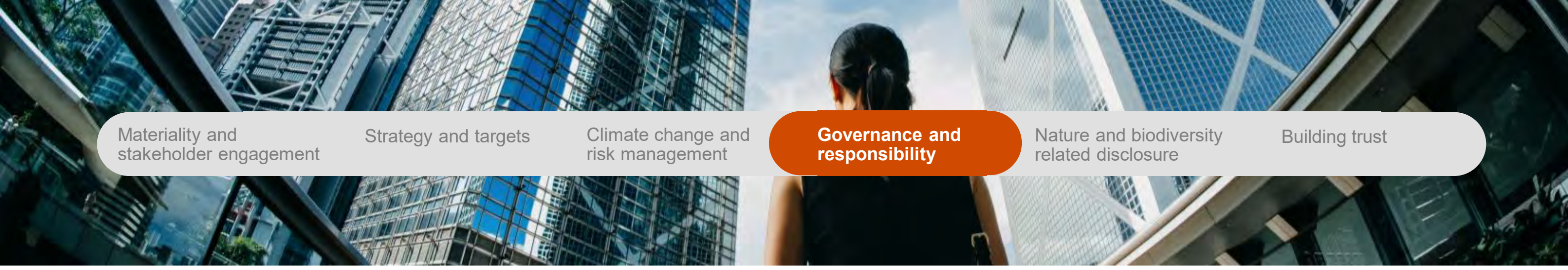
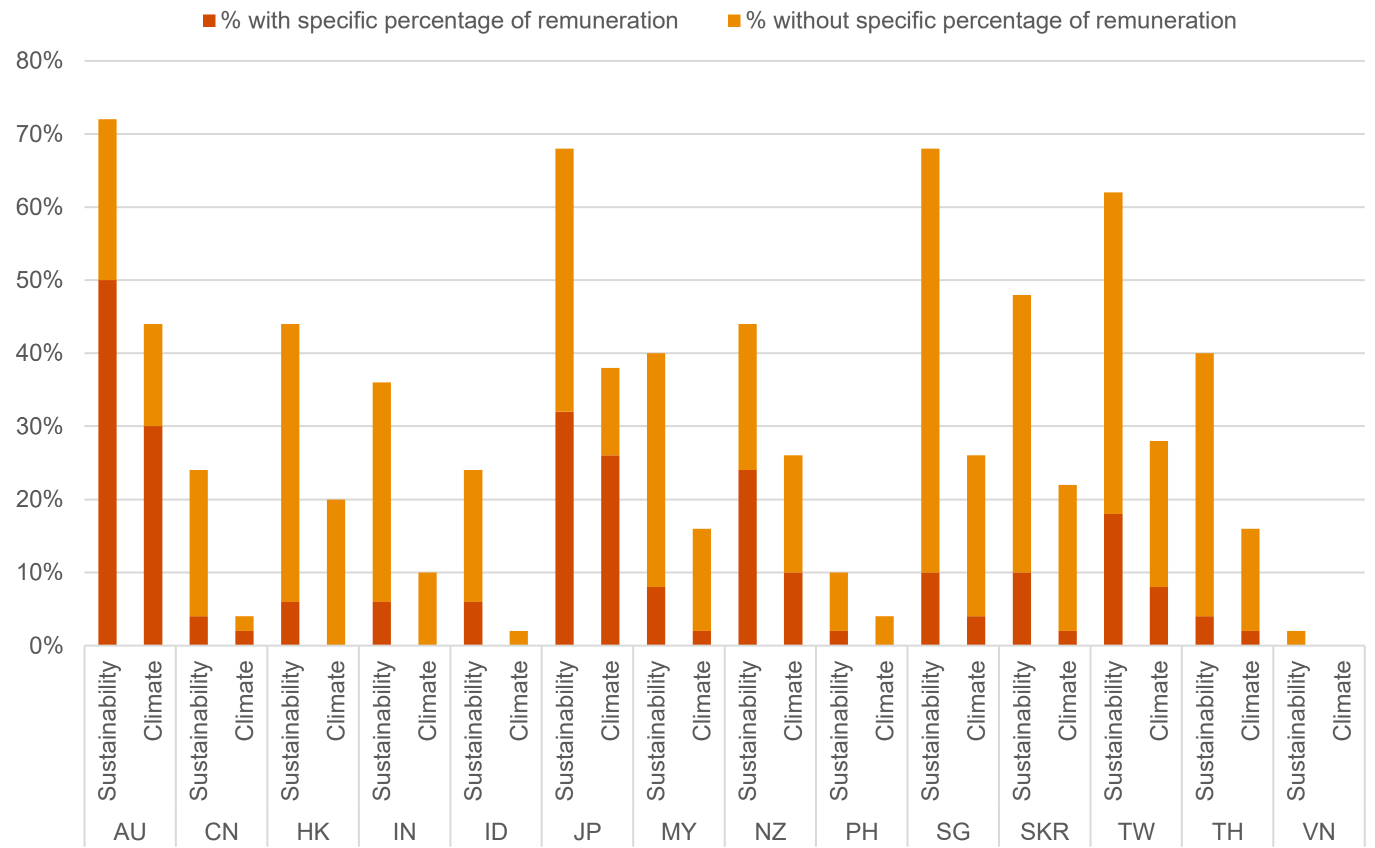


Figure 26: Disclosure of management remuneration linked to sustainability and climate-related performance



Note: Jurisdiction name presented as short-form due to lack of space. AU- Australia, CN - Chinese Mainland, HK- Hong Kong SAR, IN- India, ID- Indonesia, JP- Japan, MY- Malaysia, NZ- New Zealand, PH- Philippines, SG- Singapore, SKR- South Korea, TW- Taiwan, TH- Thailand, VN- Vietnam

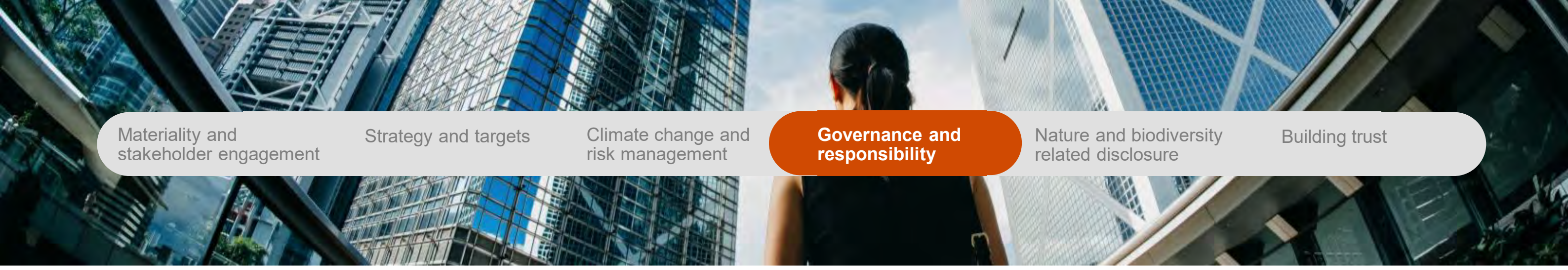
Why this matters

Disclosing how a company links remuneration to sustainability and climate-related performance is important for fostering transparency and accountability and to align interests. It helps to build trust with stakeholders, improve performance and create long-term value, ultimately supporting the company's sustainability objectives and overall success. This can also lead to better risk management and more resilient business strategies in the face of climate change.

In addition to disclosing the linkage between remuneration and sustainability and/or climate performance/target, companies should further specify the percentage of the remuneration. This provides a measurable way to track progress and motivate leadership and employees to prioritise sustainability practices. Regulators may gradually require disclosure of specific percentage as well based on IFRS S2.

State of practice

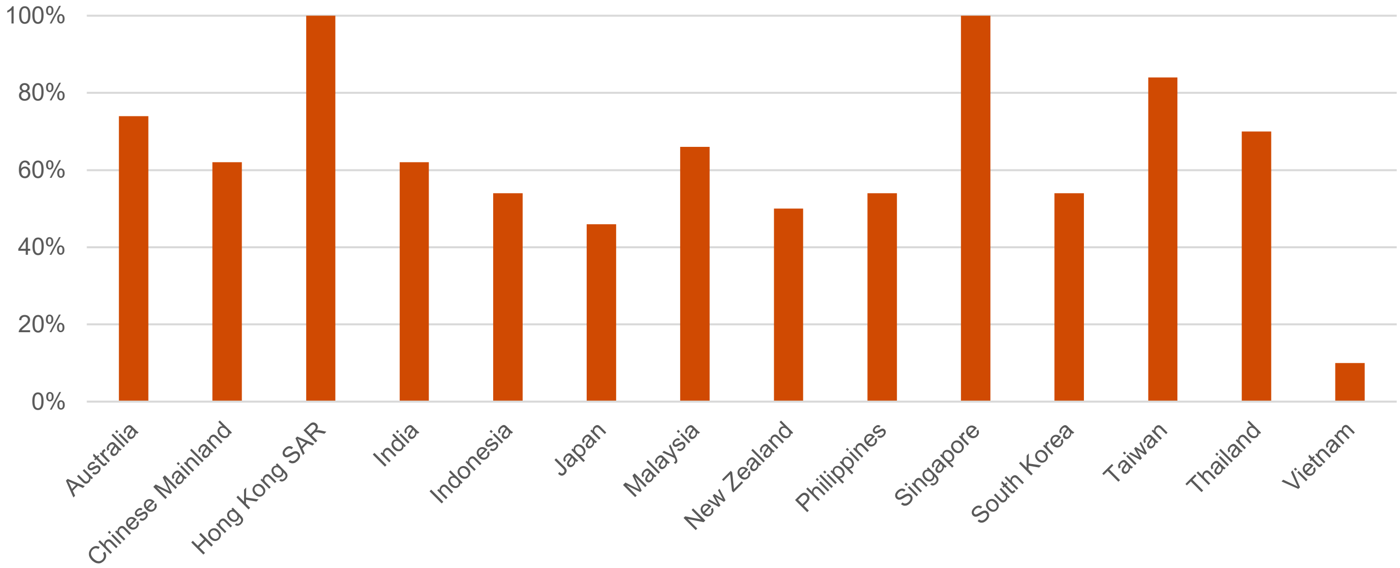
- Across Asia Pacific, the percentage of companies that have disclosed the specific percentage of remuneration linked to sustainability or climate-related performance is still low, which is 13% for sustainability performance or targets and 6% for climate-related performance or targets.
- Among the companies that have disclosed the linkage between remuneration with sustainability or climate-related performance or targets, about one-third have provided specific percentages regarding this linkage.
- It is notable that half of the Australia-listed companies have disclosed specific percentage of remuneration linked to sustainability performance or targets while 30% have disclosed specific percentages of remuneration linked to climate-related performance or targets - the highest among all 14 jurisdictions.



Board diversity

A diverse board composition provides a holistic and fresh perspective to the boardroom and organisation as thoughts and leadership of the individuals stem from varying aspects such as gender, age, culture, experience and expertise.

Figure 27: Disclosure of board diversity policy



Why this matters

At present, disclosing a board diversity policy is not mandatory across the countries in Asia Pacific.

Disclosing a board diversity policy is crucial for several reasons, particularly in the context of promoting sustainability and helping to establish effective governance. Formalising a company's commitment on board diversity in a policy can set a tone of inclusivity throughout the organisation and signal to stakeholders that diversity is a priority.

With a policy in place, it holds the board and the organisation accountable for making progress on diversity. It also establishes benchmarks and metrics that can be tracked and reported, promoting that diversity initiatives are not merely aspirational but actionable.

State of practice

- Across Asia Pacific, 63% of companies have disclosed that they have a board diversity policy.
- All companies listed in Hong Kong SAR and Singapore have disclosed a board diversity policy, as a result from local regulations about board diversity.
- According to the Singapore Exchange Listing Rule 710A, effective from 1 January 2022, the SGX requires issuers to set a board diversity policy and describe the policy and details such as diversity targets, plans, timelines and progress in the annual reports[44] . According to the HKEX Main Board Listing Rule 13.92, the nomination committee (or the board) shall have a policy concerning diversity of board members and shall disclose the policy on diversity or a summary of the policy in the corporate governance report. The HKEX further requires issuers with a single gender board to appoint at least a director of a different gender on the board no later than 31 December 2024[45] .

44 Singapore Exchange. '711A | Rulebook', January 1, 2022.
45 Hong Kong Exchange. (n.d.). '13.92 | Rulebook'. Retrieved 23 July 2024

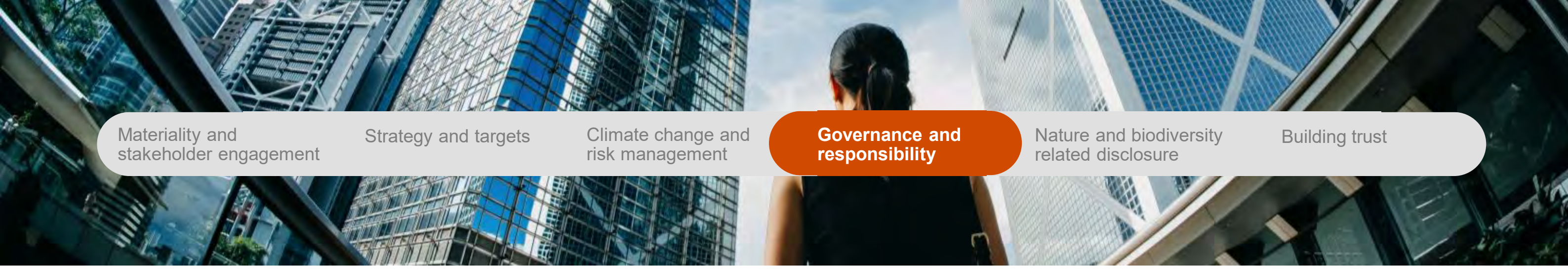
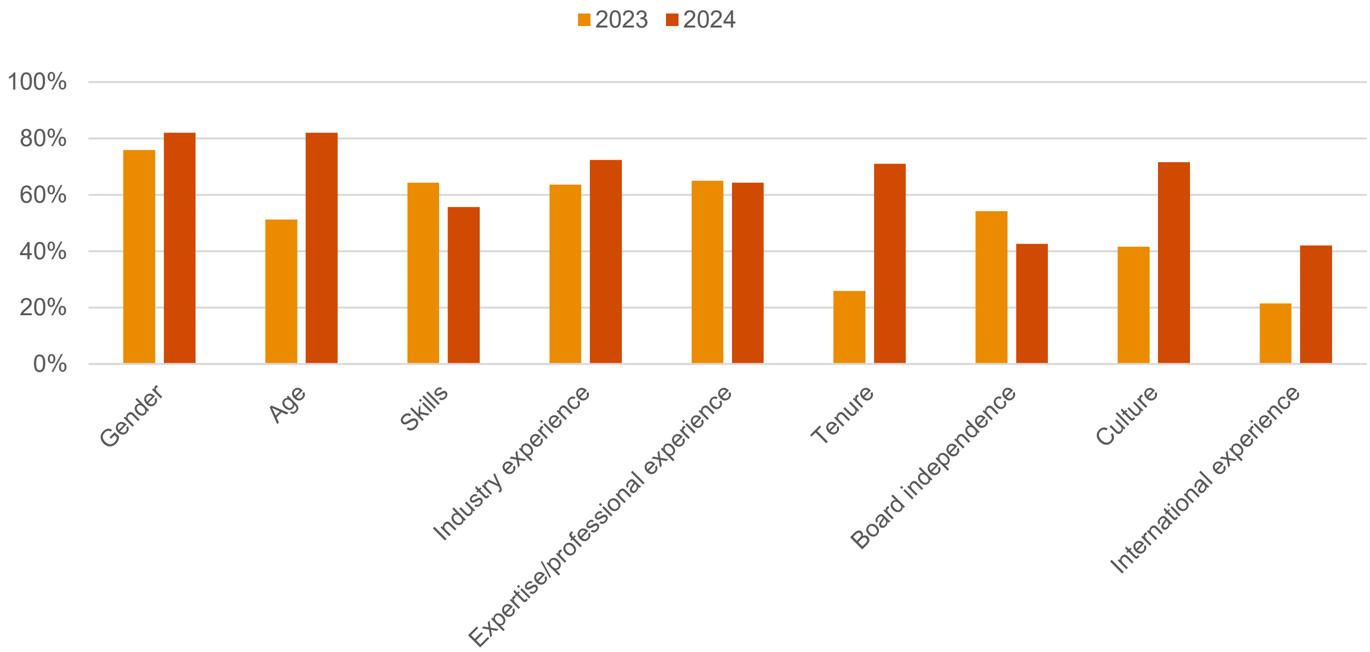


Figure 28: Disclosure of board diversity aspects



Why this matters

The disclosure of board diversity aspects signals a company's commitment to inclusivity and ethical governance practices, which are key components of sustainability.

Based on the Singapore Board Diversity Review 2024 published by the Council for Board Diversity, there is a notable increase in women being appointed to board leadership roles. This dispels notions of tokenism, as boards, in serving their organisation's strategic ambitions, should appoint the most-suitable candidate with the requisite competencies for leadership regardless of gender.

Diverse boards are often better equipped to understand and respond to the needs and concerns of a broader range of stakeholders, including employees, customers, suppliers, and communities. This can enhance the organisation's reputation and trustworthiness.

State of practice

- Across Asia Pacific, 90% of companies have disclosed at least one aspect of board diversity no matter whether a board diversity policy is in place.
- Compared to last year, more companies are disclosing the board's tenure composition (71% vs 26% in 2023, age composition (82% vs 51% in 2023), culture composition (72% vs 42% in 2024) and international experience composition (42% vs 21% in 2023).

Nature and biodiversity related disclosure

Overview

Why this matters

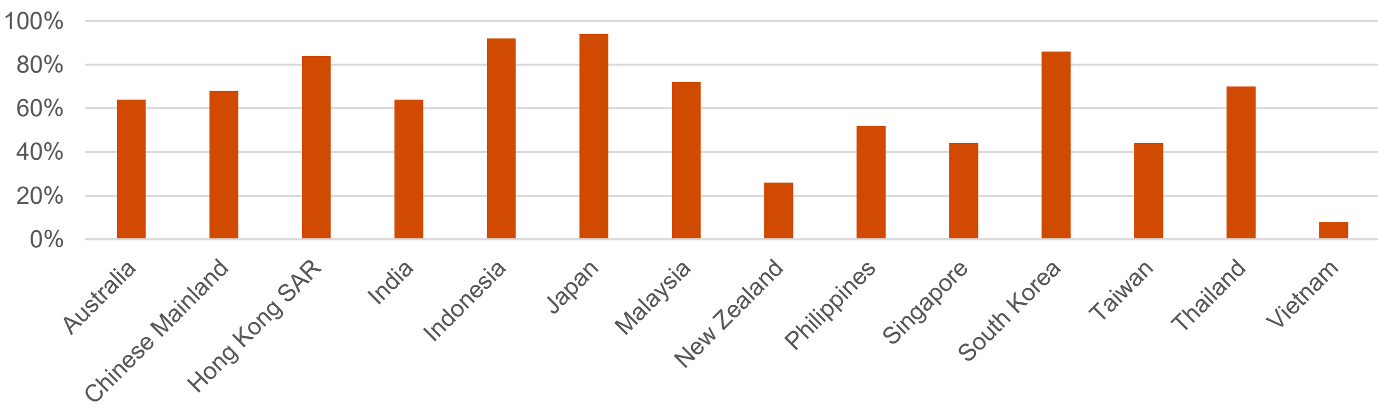
Nature and biodiversity issues are increasingly important as part of an organisation's non-financial disclosures, especially as the link between nature and climate is better understood. This emphasises the growing importance of nature-related disclosures, driven by the recognition of how biodiversity and ecosystems are interconnected with climate risks. Common framework and standards organisations can refer to when disclosing nature and biodiversity issue include GRI 101 Biodiversity, International Union for Conservation of Nature (IUCN), Network for Greening the Financial System (NGFS), United Nations Sustainable Development Goal (Goal 14: Life Below Water and Goal 15: Life on Land), and Taskforce for Nature-related Financial Disclosure (TNFD).

Nature and biodiversity related disclosure is picking up following the release of TNFD in September 2023[46], GRI 101: Biodiversity in January 2024[47], European Sustainability Reports Standards (ESRS) in June 2024[48] and the recent press release from ISSB in commencing nature-related research. This is the first year where Sustainability Counts has started to delve into the state of nature and biodiversity disclosure in Asia Pacific. The study results provide a broad overview of current state and insights to the future alignment of organisations' nature and biodiversity reporting with TNFD.

State of practice

- Across Asia Pacific, over half (62%) the companies have sections in their sustainability report on nature and biodiversity, which may be part of their materiality, sustainability strategies or corporate social responsibility initiatives.
- It is notable that listed companies in Indonesia (92%), Japan (94%) and South Korea (86%) had the top three highest disclosure rates on nature and biodiversity issues.

Figure 29: Nature and biodiversity related disclosure



46 Taskforce on Nature-related Financial Disclosures. 'Recommendations of the Taskforce on Nature-related Financial Disclosures'. 2023.
47 Global Reporting Initiative. 'GRI 101: Biodiversity 2024.' January 2024.
48 Taskforce on Nature-related Financial Disclosures . 'TNFD-ESRS Correspondence Mapping'. 2024.

Figure 30: Current and future TNFD alignment by jurisdiction

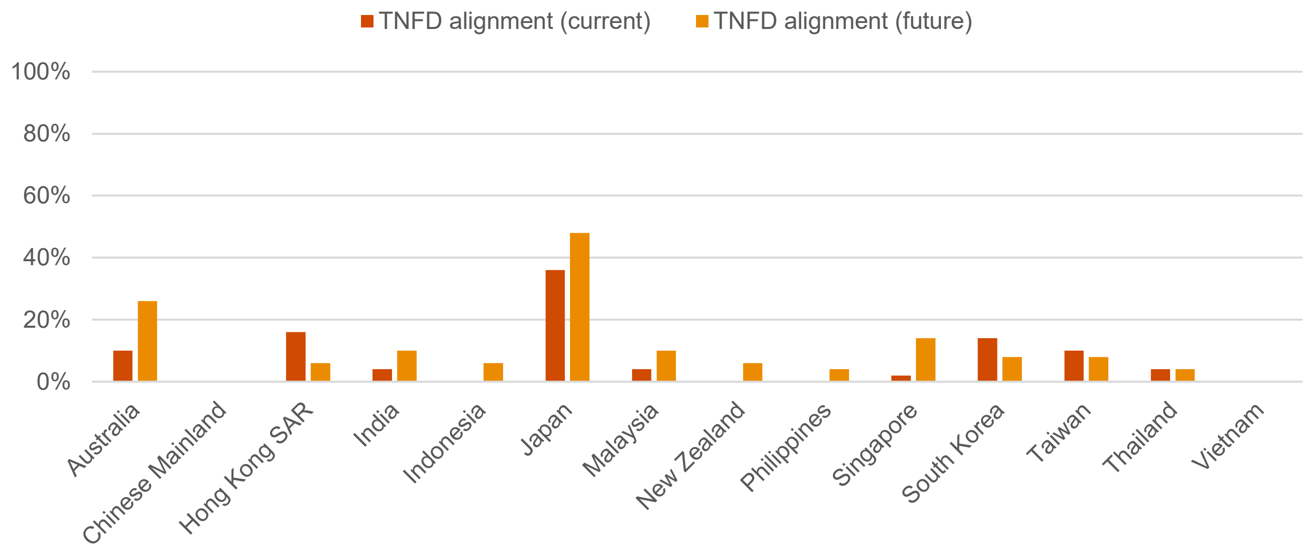
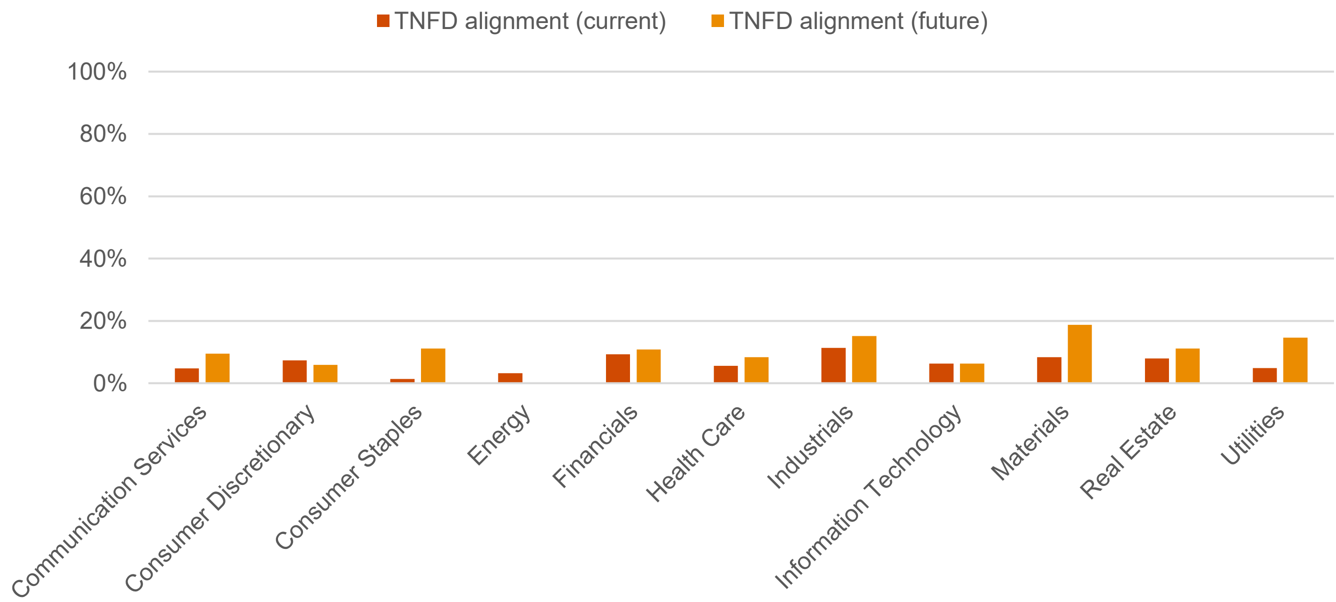


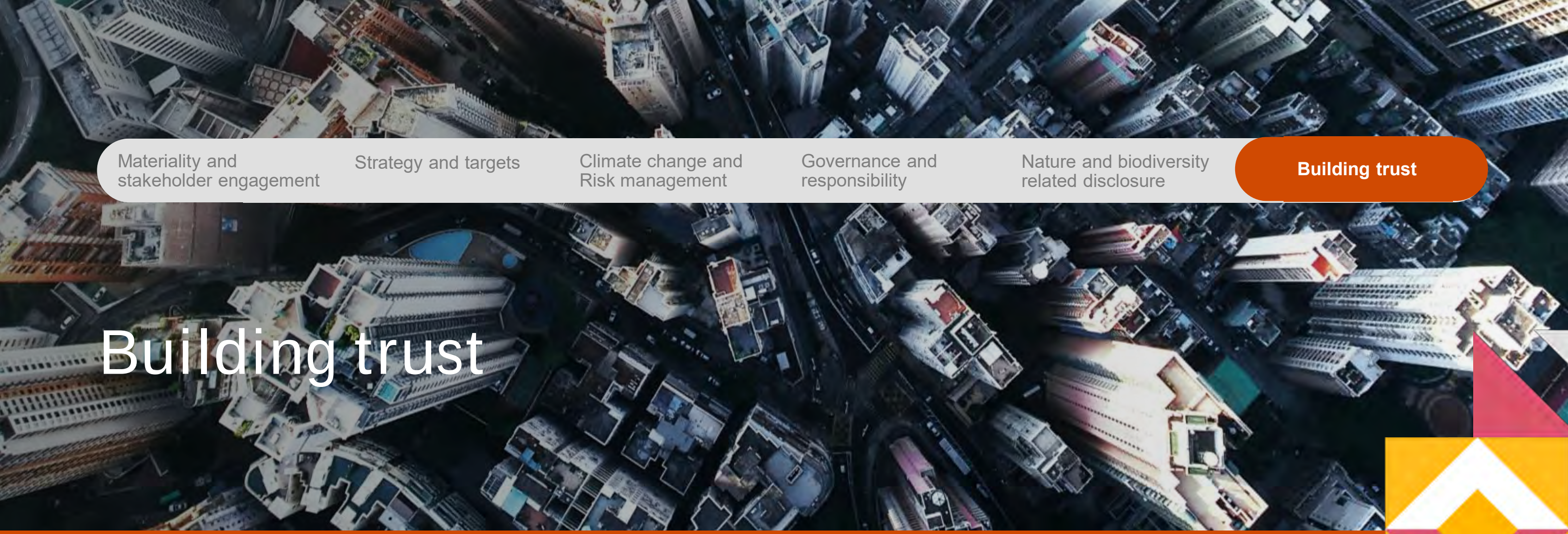
Figure 31: Current and future TNFD alignment by industry



Note: Bases for ‘Current and future TNFD alignment (categorised by industry)’ are number of companies under different industry.

State of practice

- Across Asia Pacific, only 7% of companies disclosed that they refer to the TNFD for their nature and biodiversity reporting currently while 11% of companies disclosed that they plan to align with it in the future.
- In 2024, Japan had the highest percentage of listed companies (36%) referring to TNFD, followed by Hong Kong SAR (16%), South Korea (14%), Australia (10%) and Taiwan (10%).
- While 14% of Korea-listed companies currently refer to TNFD, only 8% of Korea-listed companies mentioned that they plan to align with it in the future.
- By industry, Industrials (11%), Financials (9%), Materials (8%), and Real Estate (8%) industries currently have the highest percentage of companies that currently refer to the TNFD, while close to a fifth of companies in the Materials (19%) industry plan to align with it in the future.



Building trust

Overview

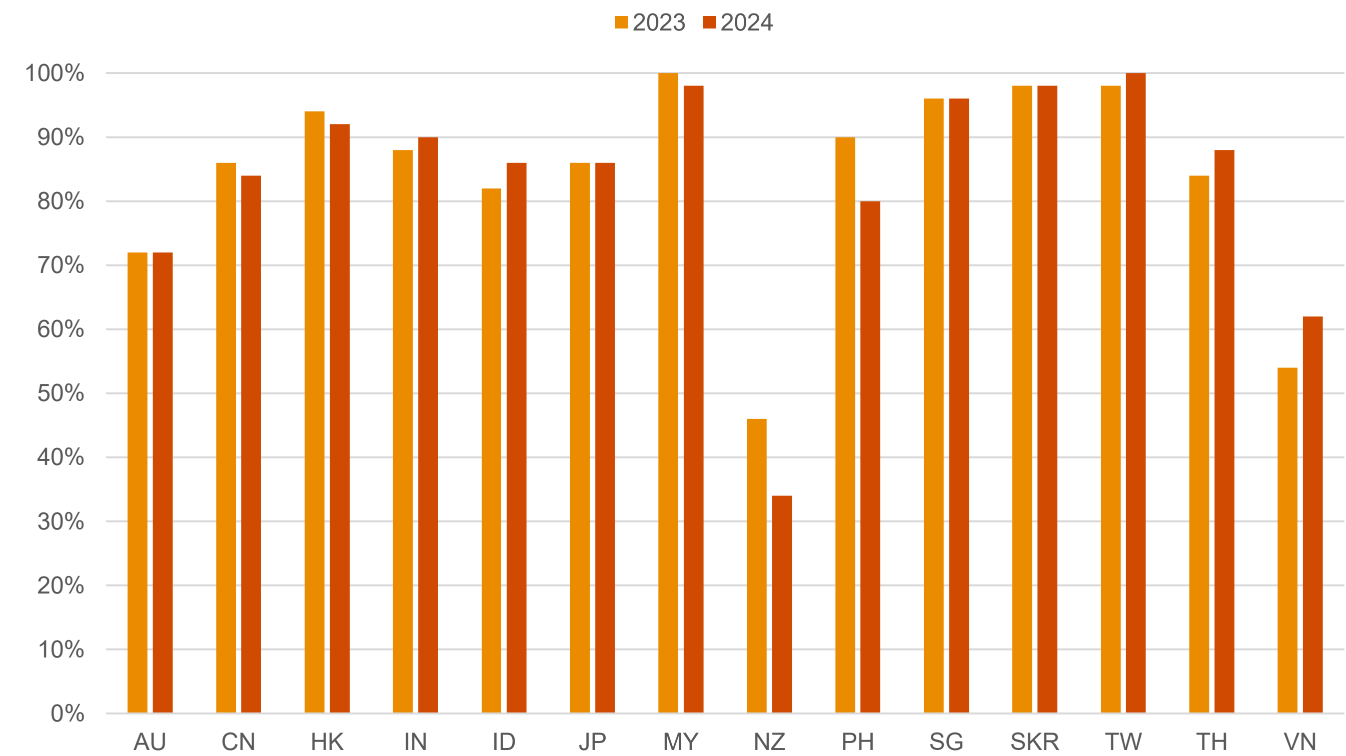
Why this matters

The reporting scope is crucial for investors and other stakeholders who read the organisations' sustainability reports. It offers insights into what is covered in the report including whether any operating sites, industry assets or activities.

State of practice

- Across Asia Pacific, there has been a slight drop in overall percentage of companies that disclosed their reporting scope from 84% in 2023 to 83%% in 2024.

Figure 32: Disclosure of reporting scope



Note: Jurisdiction name presented as short-form due to lack of space. AU- Australia, CN- Chinese Mainland, HK- Hong Kong SAR, IN- India, ID- Indonesia, JP- Japan, MY- Malaysia, NZ- New Zealand, PH- Philippines, SG- Singapore, SKR- South Korea, TW- Taiwan, TH- Thailand, VN- Vietnam

Sustainability reporting assurance

Sustainability reporting assurance helps enhance the credibility and reliability of information presented in the sustainability report. The assurance can reduce risks associated with inaccurate disclosures, which might result in financial or non-financial penalties and sanctions of the respective jurisdictions.

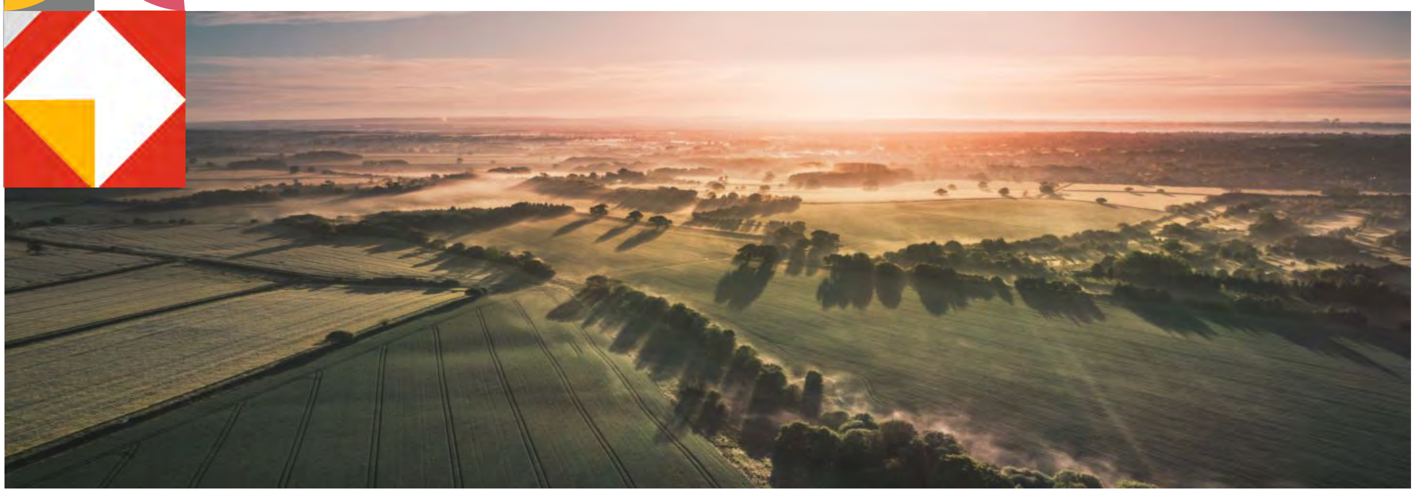
For organisations that have sought external assurance, some may opt for different levels of assurance on different sustainability component disclosures. The procedures in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Currently, external assurance of sustainability reports is predominantly voluntary in Asia Pacific but in the European Union, the Corporate Sustainability Reporting Directives (CSRD) has mandated an external assurance obligation starting with limited assurance and potentially expanding to reasonable assurance over a four-year period[49].

In India, reasonable assurance has been mandated for top 1,000 listed companies by market cap, starting with top 150 companies for reporting year 2023-24, and going up to top 1,000 companies by reporting year 2026-27.

State of practice

- Across Asia Pacific, 33% of companies have carried out internal assurance where the internal audit of company has affirmed the components in the sustainability report are accurate, relevant and complete.
- There has been a steady increase in companies that sought external assurance for their sustainability reports (60% in 2024 vs 49% in 2023).
- South Korea reported the highest percentage of companies with external assurance (98%), followed by Taiwan (96%) and Japan (84%).
- Of the companies which sought external assurance, 78% sought limited assurance, while 6% sought reasonable assurance.
- 14% of companies with external assurance have sought both limited or moderate and reasonable or high external assurance. This applies to companies that chose to seek different levels of assurance on different sustainability components in their report.
- 2% of companies studied did not indicate or specify the level of assurance obtained.
- The most common assurance and/or verification standards used were ASAE/ISAE/SSAE 3000 (60%), followed by AA1000 (33%) and ISO 14064 (26%). Other assurance standards that were used to perform external assurance included ASAE/ISAE/SSAE 3410.



49 PwC. 'CSRD was adopted—New sustainability reporting obligations in the EU start.' November 30, 2022.

Figure 33: Disclosure of internal assurance

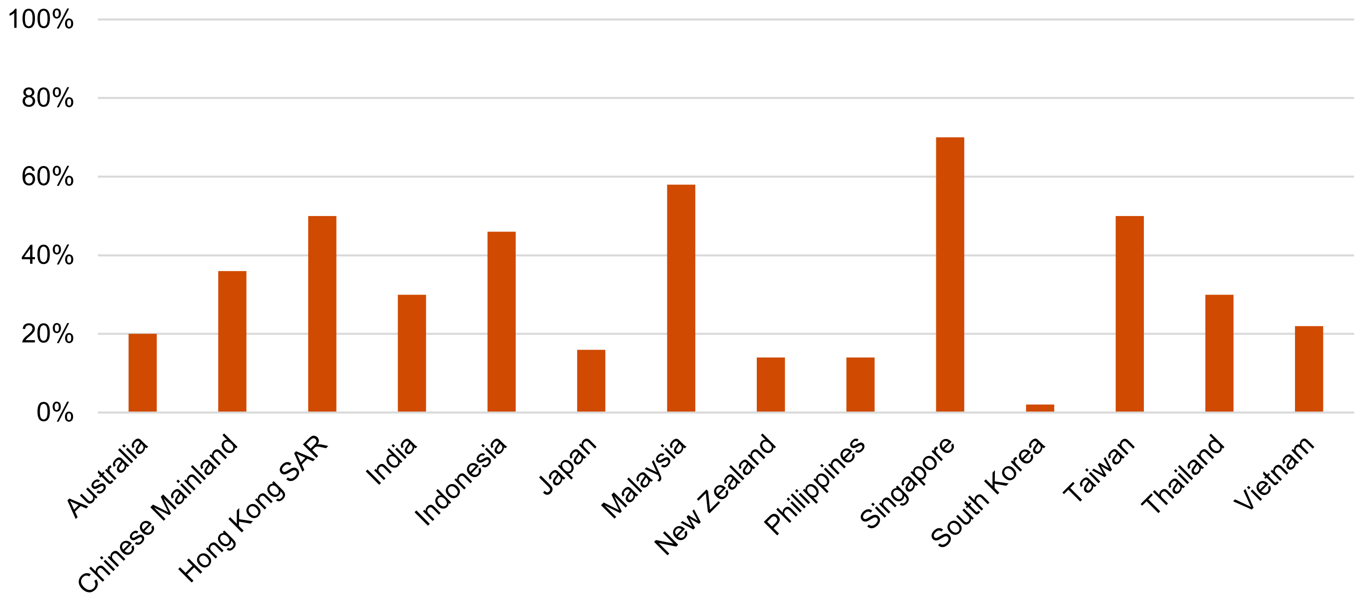
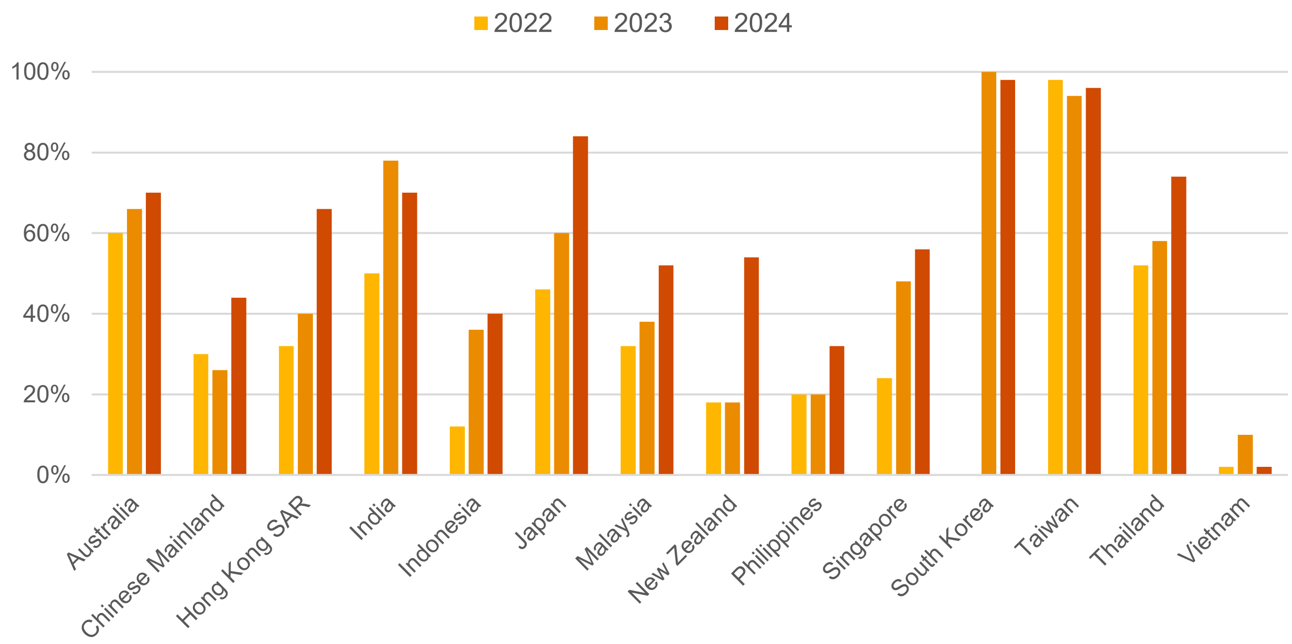


Figure 34: Disclosure of external assurance



Note: 2022 data for South Korea is not available.

Table 2: Disclosure of levels of external assurance

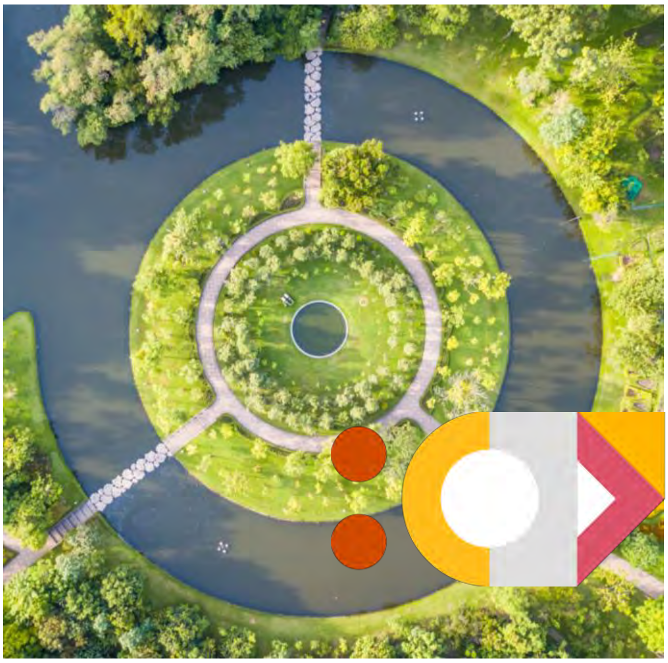
Jurisdiction	Obtained both lower/limited and higher/reasonable level of assurance and/or verification	Obtained lower/limited level of assurance and/or verification only	Obtained higher/reasonable level of assurance and/or verification	Level of assurance and/or verification not specified*
Australia	20%	77%	0%	3%
Chinese Mainland	0%	82%	14%	4%
Hong Kong SAR	15%	73%	12%	0%
India	11%	80%	9%	0%
Indonesia	0%	85%	5%	10%
Japan	0%	96%	2%	2%
Malaysia	0%	96%	0%	4%
New Zealand	26%	59%	11%	4%
Philippines	6%	94%	0%	0%
Singapore	7%	89%	4%	0%
South Korea	45%	55%	0%	0%
Taiwan	19%	64%	17%	0%
Thailand	8%	92%	0%	0%
Vietnam	0%	100%	0%	0%

0-25% of companies
25-50% of companies
50-75% of companies
>75% of companies

(Note: The base for 'disclosure of level of external assurance and/or verification' is the number of companies that have sought external assurance and/or verification for their sustainability reporting components.)

Lower level of assurance and/or verification includes limited assurance under International Standard on Assurance Engagements 3000 (Revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000), International Standard on Assurance Engagements 3410 - Assurance Engagements on Greenhouse Gas Statements (ISAE 3410) or ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements (ISO 14064-3) and moderate assurance under AA1000 Assurance Standard (AA1000AS). Here, lower level assurance and/or verification provides users with a relatively lower level of confidence. The procedures conducted are less extensive and vary in nature and timing compared to those in reasonable or high assurance and/or verification engagements.

Higher level of assurance and/or verification includes reasonable assurance under ISAE 3000, ISAE 3410 or ISO 14064-3 and high assurance under AA1000AS. Here, higher level assurance and/or verification offers users a relatively high level of confidence, akin to that of a financial statement audit, though not absolute. This level of assurance and/or verification requires more detailed procedures and a deeper understanding of the underlying processes and controls.



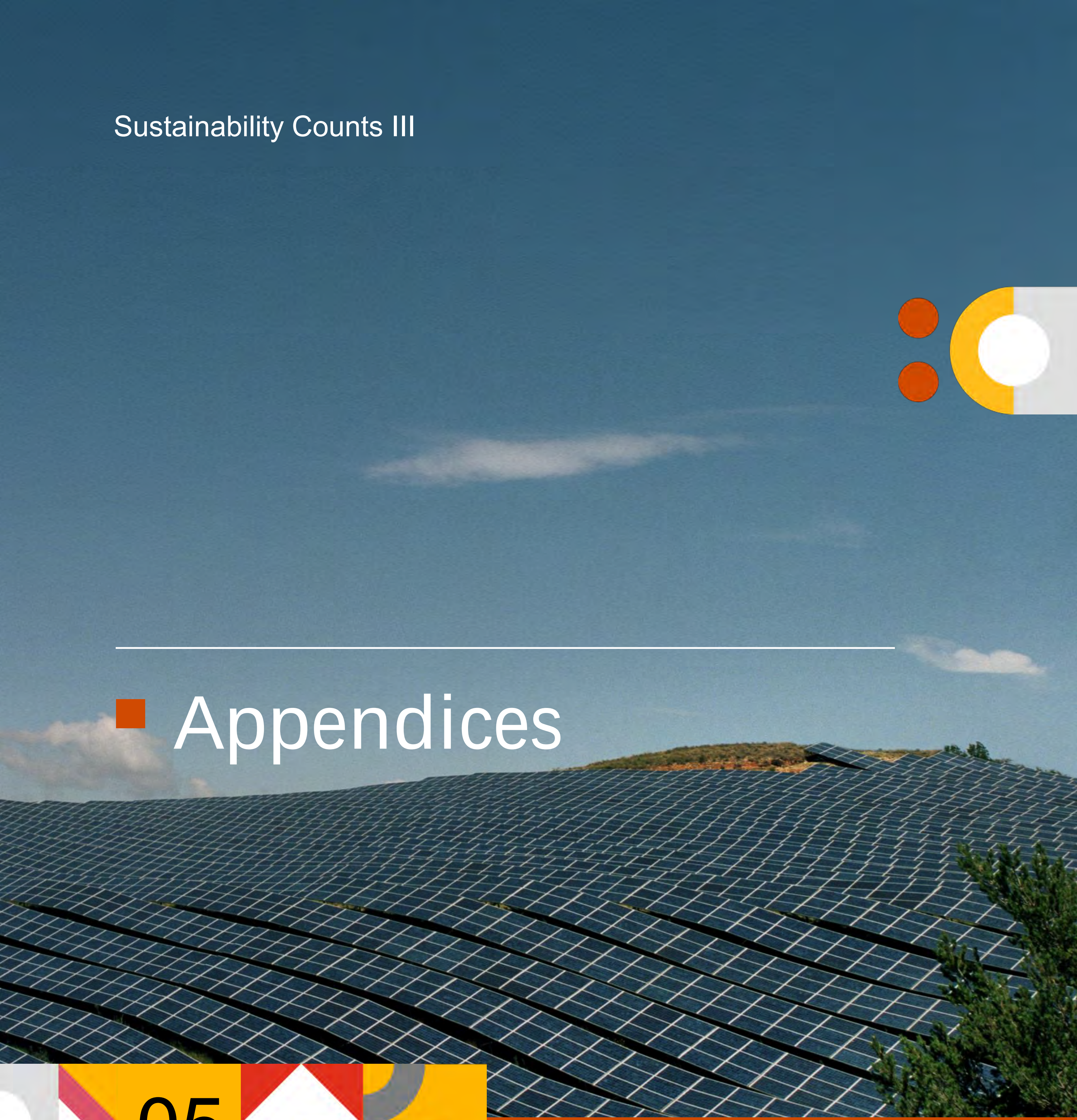
* The assessment of assurance levels is limited to information obtained from the sustainability report.

Table 3: Disclosure of type of assurance standards

Jurisdiction	ASAE/ISAE/SSAE 3000	ASAE/ISAE/SSAE 3410	AA1000	ISO14064
Australia	91%	57%	0%	0%
Chinese Mainland	59%	0%	36%	9%
Hong Kong SAR	82%	24%	12%	18%
India	89%	34%	14%	3%
Indonesia	35%	10%	65%	10%
Japan	76%	45%	5%	55%
Malaysia	77%	8%	8%	4%
New Zealand	44%	59%	0%	33%
Philippines	31%	0%	19%	0%
Singapore	89%	39%	4%	11%
South Korea	27%	10%	86%	65%
Taiwan	42%	2%	73%	56%
Thailand	43%	24%	59%	11%
Vietnam	100%	0%	0%	0%

0-25% of companies
25-50% of companies
50-75% of companies
>75% of companies

(Note: The base for ‘disclosure of type of assurance and/or verification standards’ is the number of companies that have sought external assurance and/or verification for their sustainability reporting components.)



Appendices

05

Sustainability Counts III

Appendix I

Sustainability reporting and assurance requirements across Asia Pacific

Sustainability reporting requirements across Asia Pacific (present and upcoming)

While many jurisdictions in Asia Pacific have no prescribed standard for sustainability reporting currently, we noted that many jurisdictions have demonstrated their intention to adopt the ISSB Standards in the coming years.

Jurisdiction	Present	Upcoming
Australia	• There is currently no mandatory sustainability reporting. • However, corporate governance codes recommend disclosure of environmental and social risks for public-listed companies (PLCs). The basis of corporate governance principles and recommendations follows an 'if not, why not' approach. • Australian legal requirements require certain entities to disclose non-financial information related to specific federal acts, such as the Modern Slavery Act, the Workplace Gender Equality Act, or the National Greenhouse and Energy Reporting Act. • The Australian Sustainable Finance Initiative (supported by Australian Prudential Regulation Authority (APRA) and the Australian Securities & Investments Commission (ASIC) issued the Australian Sustainable Finance Roadmap in 2020, listing out 37 recommendations across different timeframes.	• The Australian Accounting Standards Board (AASB) released draft Australian Sustainability Reporting standards, and the consultation period ended on 1 March 2024. The draft standards focus on climate-related disclosures and consider other Australian-specific modifications to the ISSB Standards IFRS S1 and IFRS S2. • The Australian Treasury introduced the Treasury Laws Amendment Bill, proposing a new climate reporting regime in Australia, which would affect both listed and non-listed companies in phases. On 9 September 2024, the bill was passed by Parliament, which will be effective for financial years beginning on or after 1 January 2025. The key change from the initial proposal was the introduction of a requirement that scenario analysis disclosures will need to consider two scenarios, being a scenario where global average temperature increase is limited to no more than 1.5 degrees and a scenario where the global average temperature increase well exceeds 2 degrees. • The Australian Auditing and Assurance Standards Board (AUASB) issued a consultation paper on Assurance over Climate and Other Sustainability Information, outlining the pathway for phasing in assurance requirements over time. The consultation period ended on 3 May 2024. The proposal suggests mandating limited and reasonable assurance in phases over different topic areas, starting as early as the financial years commencing 1 January 2025 to 30 June 2025.

Jurisdiction	Present	Upcoming
Chinese Mainland	• The China Securities Regulatory Commission (CSRC) announced new guidelines in June 2021 for PLCs to add 'Environmental and Social Responsibility' sections in their semi-annual and annual reports. • The CSRC encourages companies to voluntarily report their carbon emissions, carbon reduction measures, impacts on biodiversity, risk posed by social issues, poverty alleviation and rural revitalisation. • In December 2021, the Ministry of Ecology and Environment of People's Republic of China released the 'Measures on the Management of Environmental Information Disclosure for Companies' regulation which came into force on 8 February 2022. The measures apply to key pollutant emission sources / corporates and companies with requirements for clean production audit. • Some local authorities, such as those in Shanghai and Shenzhen, have also issued guidance on corporate sustainable development and social responsibility. • Announced in January 2022, the Shanghai Stock Exchange (SSE) issued new guidance for Kechuang 50 index companies, requiring the 50 component companies to issue social responsibility reports. • In May 2022, the State-Owned Assets Supervision and Administration Commission (SASAC) issued the 'Work Plan for Improving the Quality of Listed Companies Controlled by Central Enterprises', requiring listed companies to promote their high-quality development, explore and establish a comprehensive ESG management system.	• The Ministry of Finance of the People's Republic of China is a member of the ISSB's Jurisdictional Working Group and has provided significant input to the ISSB's standard-setting process. The MOF is also a member of Sustainability Standards Advisory Group alongside standard-setters of other jurisdictions. • In April 2024, the Shanghai Stock Exchange (SSE), the Shenzhen Stock Exchange (SZSE) and the Beijing Stock Exchange issued their respective Guidelines on Self-Regulation of Listed Companies – Sustainability Report (Trial), where there will be approximately 450 companies that fall within the scope for mandatory reporting. Other listed companies that do not fall within the scope are encouraged to disclose on a voluntary basis. The Guidelines cover a total of 21 environmental, social and governance (ESG) topics and have significant differences with the IFRS S2. It will be effective from the financial year commencing 1 January 2025. • In May 2024, the MOF published a consultation on the Sustainability Disclosure Standard for Business Enterprises – Basic Standard. The comment period ended on 24 June 2024. The standards are expected to be finalised by 2027, with the aim to establish a national sustainability disclosure standards system by 2030. • In November 2024, the SSE, the SZSE and the Beijing Stock Exchange issued the Self-Regulatory Guidelines for Listed Companies - Preparation of Sustainability Report (Draft for Public Comments) to the market for public comments. The guideline aims to provide an understanding and explanation of the preparation of sustainability reports and to standardise the disclosure of sustainability information by listed companies. The comment period ended on 21 November 2024.

Jurisdiction	Present	Upcoming
Hong Kong SAR	• HKEX listing rules include the ESG Reporting Guide. There are two levels of disclosure obligations: (a) mandatory disclosure requirements; and (b) comply or explain provisions. • The largest update, effective for financial years commencing on or after 1 July 2020, requires companies to disclose additional ESG information. • The HKEX requires listed companies to include ESG-related risks in the enterprise risk management assessment with effect from 1 January 2022. • The strategic framework for the development of green finance in Hong Kong SAR was first announced in 2018. In 2019, the Securities and Futures Commission (SFC) completed and published the results of the 'Survey on Integrating ESG Factors and Climate Risks in Asset Management'. • In August 2021, the SFC published the consultation conclusions on the management and disclosure of climate-related risks by fund managers. Collective fund managers are required to comply with the requirements set out in the guideline 'Management and Disclosure of Climate-related Risks by Fund Managers' issued by the SFC (earliest effective date August 2022). Disclosures on climate-related risks are required if conditions are met. • Banks are required to integrate climate risk considerations into their enterprise risk management framework in accordance with the requirements set out in the Supervisory Policy Manual GS-1 Climate Risk Management issued by the Hong Kong SAR Monetary Authority, effective 31 December 2022. Banks are required to publish their first TCFD report by mid-2023 and be fully aligned with the TCFD by 2025.	• In April 2024, the HKEX published its New Climate Requirements which are developed based on IFRS S2 and the amended Listing Rules will come into effect on 1 January 2025. • Disclosure of Scope 1 and Scope 2 GHG emissions are mandatory for all listed companies from financial years commencing on or after 1 January 2025. • Disclosures other than Scope 1 and Scope 2 GHG emissions will be effective in phases with: ▪ LargeCap issuers required to 'comply or explain' for financial years commencing on or after 1 January 2025 before becoming mandatory for financial years commencing 1 January 2026 ▪ Main Board issuers (non-LargeCap) required to 'comply or explain' for financial years commencing on or after 1 January 2025 ▪ GEM board issuers to disclose on a voluntary basis for financial years commencing on or after 1 January 2025 • In December 2024, the HKICPA approved and issued the HKFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and HKFRS S2 Climate-related Disclosures ('Hong Kong Standards'). These requirements mirror those of IFRS S1 and IFRS S2 and will be effective in August 2025. • The Hong Kong government issued a roadmap on sustainability disclosures in Hong Kong in December 2024. The HKEX will conduct a review in 2027 on the New Climate Requirements in the Listing Rules. Subject to stakeholders' comments and feedback, relevant financial regulators will require listed companies and financial institutions carrying a significant weight in Hong Kong to apply the Hong Kong Sustainability Reporting Standards no later than 2028. They will also seek feedback on mandating assurance for all or part of the sustainability disclosures.

Jurisdiction	Present	Upcoming
India	• The Securities and Exchange Board of India (SEBI) requires the top 1,000 listed entities by market capitalisation to prepare a Business Responsibility and Sustainability Report (BRSR) in respect of reporting on ESG. • Key mandates include: ▪ A reasonable assurance on limited set of Key Performance Indicators (KPIs) (called the BRSR Core) for the top 150 listed entities (by market capitalisation) from FY 2023-24 which shall be gradually extended to top 1,000 listed entities by FY 2026-27. ▪ ESG disclosures and assurance for the BRSR core will be introduced for the value chain of listed companies, with certain specified thresholds. ▪ Disclosure and assurance for the value chain will be applicable for the top 250 listed companies (by market capitalisation) on a comply or explain basis from FY 2024-25 and FY 2025-26 respectively.	• In February 2024, the Reserve Bank of India (RBI) issued draft guidelines on 'Disclosure Framework on Climate-related Financial Risks, 2024'. The framework mandates disclosure by regulated entities on four key areas of governance, strategy, risk management and metric and targets. These guidelines are applicable to all scheduled commercial banks (excluding local area banks, payments banks and regional rural banks), tier-IV primary (urban) co-operative banks, All-India Financial Institutions, and top and upper layer non-banking financial companies. Other entities may voluntarily make these disclosures.

Jurisdiction	Present	Upcoming
Indonesia	• The Otoritas Jasa Keuangan (OJK) requires FIs and PLCs to publish sustainability reporting through POJK 51/POJK.03/2017, gradually starting from 2019. • Sustainability reporting is mandatory in the following phased manner: ▪ Financial service institutions (large banks and foreign banks) (from 2019) ▪ Financial service institutions (smaller banks, other non-bank financial service institutions, and listed companies) (from 2020) ▪ Large credit unions and securities companies, public listed companies with medium-scale assets (from 2022) ▪ Smaller credit unions, pawnbrokers, guarantee institutions and Islamic guarantee institutions, securities companies that do not administer customers' securities account, and public listed companies with small-scale assets, (from 2024) ▪ Pension fund (from 2025) • There are eight principles of sustainable finance in Indonesia stipulated by OJK: responsible investment; management of environmental and social risks; informative communications; development of priority sectors; sustainable business strategy and practice; governance; inclusivity; and coordination and collaboration. • Guidelines for sustainability reporting are stipulated under SEOJK 16/SEOJK.04/2021 to help companies report their ESG performance. • Besides sustainability reporting, banks are required to publish a Sustainable Finance Action Plan, that includes their short-term plan (one year) and long-term plan (five year) annually. • In early 2024, the OJK released Version 2 of the Green Taxonomy, providing updated guidelines for sustainable finance in Indonesia and requirements for Indonesian banks to conduct climate-risk stress testing.	• The Indonesia Stock Exchange (IDX) became a TCFD supporter in June 2021 as part of its ambition to support sustainability in Indonesia’s capital market. • In November 2023, the Institute of Indonesia Chartered Accountants (IAI) established a new governance structure for sustainability, comprising the Monitoring Board of Sustainability Standards (Dewan Pemantau Standar Keberlanjutan/DPSK) and the Sustainability Standards Board (Dewan Standar Keberlanjutan/DSK). The DPSK is responsible for providing strategic direction and overseeing the DSK, while the DSK is tasked with developing sustainability disclosure standards. • In December 2024, the IAI issued its roadmap for the adoption of sustainability disclosure standards that are based on IFRS S1 and S2. Mandatory reporting will begin with climate-related disclosures and disclosures outside of climate-related disclosures are voluntary. The roadmap is intended to be effective on 1 January 2027, with the option to implement earlier. IAI has also included in the roadmap its plan to develop the capacity and competence of Indonesia, with respect to the preparation, assurance and supervision of sustainability reports. Based on the roadmap, assurance is not currently mandated.

Jurisdiction	Present	Upcoming
Japan	• The Revised Corporate Governance Code requires after 4 April 2022: ▪ All companies listed on the Tokyo Stock Exchange (TSE) are required to comply with the CGC for general requirements or explain why they are not in compliance ('comply or explain' approach). ▪ Companies listed on the Prime and Standard Markets need to comply with the new principles or explain why they do not by the time they submit a corporate governance report after 4 April 2022. ▪ Companies listed on the Prime Market must meet the TCFD requirements after 4 April 2022. ▪ Companies listed on the Prime Market should enhance the quality and quantity of disclosures based on the TCFD recommendations or an equivalent framework. • Japan's Financial Services Agency (FSA) published the finalised amendments to the 'Cabinet Office Order on Disclosure of Corporate Affairs' and other relevant and applicable cabinet office orders after public consultation on 31 January 2023. The amendment requires mainly listed companies in Japan with a fiscal year end of 31 March 2023 or later to additionally disclose corporate initiatives regarding sustainability in their Annual Securities Report.	• The Sustainability Standards Board of Japan (SSBJ) under the Financial Accounting Standards Foundation (FASF) was established to develop Japanese sustainability disclosure standards (Japanese SDS). • In March 2024, the SSBJ released the exposure drafts of the Japanese SDS which aims to incorporate all requirements in ISSB Standards with jurisdictional specific options the entity may choose to apply. The final standards are expected to be issued by the end of March 2025. • While no formal decision has been made yet, FSA is expected to adopt Japanese SDS and make mandatory disclosure rule for the Annual Securities Report. • A working group of experts at FSA is discussing the plan to adopt ISSB Standards for prime-listed companies in phases from as early as fiscal year ending Mach 2027. Early adoption is expected to be permitted. ▪ Prime-listed companies with a market cap of 3 trillion yen and above will be required from the fiscal year ending March 2027 ▪ Prime-listed companies with a market cap of 1 trillion yen and above will be required from the fiscal year ending March 2028 ▪ Prime-listed companies with a market cap of 500 billion yen and above will be required from the fiscal year ending March 2029 ▪ Other prime-listed companies will be required from sometime in the 2030s

 89

<table>
<tr><th>Jurisdiction</th><th>Present</th><th>Upcoming</th></tr>
<tr>
<td>Malaysia</td>
<td>

ESG reporting is required as a listing rule i.e. to disclose narrative statements of the management of material economic, environmental, and social risks and opportunities in annual reports.
Bursa Malaysia (BM) issued the Sustainability Reporting Guide in 2015 (first edition), 2018 (second edition) and 2022 (third edition).
The Malaysian Code on Corporate Governance was updated in 2021. One of the key updates is the guidance to strengthen board oversight and the integration of sustainability considerations in the strategy and operations of companies.
In 2021, Bank Negara Malaysia (BNM) released the Climate Change and Principle-based Taxonomy (CCPT) to encourage the adoption of ESG principles among financial institutions (FIs).
In June 2022, the Joint Committee on Climate Change released the TCFD Application Guide for FIs.
In September 2022, BM enhanced its sustainability reporting framework with a requirement for climate change reporting for companies on the Main and ACE markets, with implementation in a phased manner beginning financial year ending on or after 31 December 2023.
The Securities Commission Malaysia (SC) unveiled the Principles-Based Sustainable and Responsible Investment Taxonomy for the Malaysian Capital Market (SRI Taxonomy) in December 2022. It is aligned with the ASEAN Taxonomy for Sustainable Finance, Version 1 (ASEAN Taxonomy), released in November 2021.
Version 2 of the Asean Taxonomy for Sustainability Financing released in March 2023 was updated for feedback and suggestions received, and was effective from 19 February 2024.

</td>
<td>

On 24 September 2024, the SC of Malaysia has published the National Sustainability Reporting Framework (NSRF) which addresses the use of the standards issued by the International Sustainability Standards Board (ISSB) as the baseline for sustainability reporting in Malaysia.
Listed issuers on Bursa Malaysia’s Main and ACE Markets, as well as large non-listed companies (NLCos) with annual revenue of RM2 billion and above will have to comply with the new reporting requirements in a phased approach:

Group 1: Large-listed issuers on the Main Market with market capitalisation of RM2 billion and above will be required to report from FY2025.
Group 2: Other Main Market listed issuers will be required to report from FY2026.
Group 3: Listed issuers on the ACE Market and large NLCos will be required to report from FY2027.

Subject to further consultation, the proposed timing for reasonable assurance on Scope 1 and Scope 2 GHG emissions are as follows:

<table>
<tr><td>Group</td><td>Reasonable assurance for annual reporting periods beginning on or after</td></tr>
<tr><td>Group 1</td><td>1 January 2027</td></tr>
<tr><td>Group 2</td><td>1 January 2028</td></tr>
<tr><td>Group 3</td><td>1 January 2029</td></tr>
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Jurisdiction	Present	Upcoming
New Zealand	• The External Reporting Board (XRB) issued the Aotearoa New Zealand Climate Standards, which are effective for climate reporting entities in New Zealand for reporting periods beginning on or after 1 January 2023. The climate-related disclosure framework is structured around four thematic areas that represent core elements of how organisations operate – governance, strategy, risk management, and metrics and targets. • Climate reporting entities include: ▪ All registered banks, credit unions, and building societies with total assets of more than NZ$1 billion ▪ All managers of registered investment schemes (other than restricted schemes) with greater than NZ$1 billion in total assets under management ▪ All licensed insurers with greater than NZ$1 billion in total assets or annual premium income greater than NZ$250 million ▪ Listed issuers of quoted equity securities with a combined market price exceeding NZ$60 million ▪ Listed issuers of quoted debt securities with a combined face value of quoted debt exceeding NZ$60 million ▪ Crown Financial Institutions with greater than NZ$1 billion in total assets under management ▪ Issuers listed on growth markets are excluded from the climate reporting entity definition	• Disclosures relating to greenhouse gas emissions (which includes Scope 1, 2 and 3 emissions) will be required to have independent assurance for accounting periods ending on or after 27 October 2024.

Jurisdiction	Present	Upcoming
Philippines	• Publicly listed companies (PLCs) are required to report on their contributions to sustainability topics either through a sustainability report that adheres to internationally recognised sustainability reporting frameworks and standards or through the Securities and Exchange Commission (SEC) Philippines' reporting template. These reports should be submitted together with the companies' annual report. • The SEC Philippines followed a comply and explain approach from the 2019 reporting period. • However, beginning 2023 (2022 reporting period), all PLCs are mandated to comply with the Sustainability Reporting Guidelines set by the regulator. It is important to note that while reporting is mandatory, sustainability reporting assurance is not yet mandated.	• In February 2024, the Bangko Sentral ng Pilipinas (BSP) approved the use of a new sustainable finance taxonomy for banks. Banks can use the Philippine Sustainable Taxonomy Guidelines (STFG) to identify whether an economic activity is environmentally and socially sustainable to guide their funding appropriately. This is in addition to the Sustainable Finance Guiding Principles which was developed in 2021 as part of the BSP's Sustainable Finance Roadmap. • In October 2023, the SEC Philippines issued an exposure draft on the Revised Sustainability Reporting Guidelines for Publicly Listed Companies, which would consider the IFRS S1 and IFRS S2, among other global frameworks. In December 2023, the SEC Philippines confirmed that they would release the Revised Sustainability Reporting Guidelines for PLCs in 2024, and is looking at making compliance applicable to data covering the year 2024, with reporting due the following year or on 2025.

Jurisdiction	Present	Upcoming
Singapore	• All companies listed on the Singapore Exchange (SGX) are required to comply with sustainability reporting on a 'comply or explain' basis (effective from 2017). • Climate and diversity reporting is mandatory for Singapore-listed companies (effective from 2022). Climate reporting is aligned to the TCFD framework. The SGX recommends a list of 27 core ESG metrics for issuers to use as a starting point for sustainability reporting. Issuers are required to subject the sustainability reporting process to internal review. Issuers have to disclose their board diversity policy and details such as diversity targets, plans, timelines and progress. All directors must go through prescribed sustainability training courses. • In September 2022, the Monetary Authority of Singapore (MAS) and SGX launched the ESGenome Disclosure Portal to streamline sustainability reporting and enhance investor access to ESG data. • MAS requires all FIs in Singapore to have Environmental Risk Management disclosures (effective June 2022).	• In February 2024, the Accounting and Corporate Regulatory Authority (ACRA) and Singapore Exchange Regulation (SGX RegCo) provided details of mandatory climate reporting for listed issuers and large non-listed companies. The key requirements include: ▪ Mandatory climate-related disclosures (CRDs) for listed issuers from FY2025, for large non-listed companies (NLCos) from FY2027. Large NLCos are defined as those with annual revenue of at least S$1 billion and total assets of at least S$500 million, for the two FYs immediately preceding the current FY. ▪ A review will be conducted in 2027 with the view to mandate climate reporting for smaller NLCos. ▪ A large NLCo is exempted from reporting and filing if its parent (local or foreign) reports prescribed CRDs or equivalent (e.g. ESRS) and its activities are included. For a transitional period of three years (FY2027 to FY2029, both years inclusive), a large NLCo whose parent company reports CRD using other international standards and frameworks (e.g. GRI, TCFD) will be exempted from reporting and filing. ▪ Both listed issuers and large non-listed companies should report CRDs using the local prescribed standards that mirror the requirements of the ISSB Standards. For a transitional period of three years (FY2027 to FY2029, both years inclusive), large NLCos that report CRDs using other international standards and frameworks such as the GRI and TCFD will be exempted from reporting using the local reporting standard.

Jurisdiction	Present	Upcoming
Singapore	(Cont'd) • In December 2023, MAS launched the Singapore-Asia Taxonomy for Sustainable Finance, which sets out detailed thresholds and criteria for defining green and transition activities that contribute to climate change mitigation across eight focus areas.	(Cont'd) ▪ Allow for concurrent use of other standards or frameworks (e.g. GRI) in the same report. ▪ Reporting on Scope 3 emissions will not be required of Large NLCos any time earlier than FY2029. ▪ Companies subjected to mandatory climate reporting should obtain external limited assurance on GHG Scope 1 and Scope 2 emissions from FY2027 for all listed issuers and FY2029 for large NLCos. ▪ CRDs should have the same reporting and filing timelines as financial statements to facilitate timely communications to shareholders and other stakeholders. • In September 2024, SGX RegCo finalised the incorporation of the ISSB Standards in respect of climate-related disclosures as part of the Listing Rules. ▪ Larger issuers by capitalisation will be prioritised to report on Scope 3 GHG emissions from FY2026. ▪ Listed issuers are encouraged to obtain independent external assurance on the sustainability report, with a transitional measure in FY2026, where companies who obtained external assurance are allowed to issue their sustainability report no later than 5 months after the end of the financial year. If external assurance is not obtained, they will be required to issue the sustainability report at the same time as the annual report.

Jurisdiction	Present	Upcoming
South Korea	• Disclosure of ESG-related matters is carried out through: ▪ Korea Exchange Governance Reports (mandatory for large listed companies) ▪ Environmental Information Reports (mandatory for large listed companies) ▪ Sustainability Reports (voluntary) • According to the Framework Act on Low Carbon, Green Growth, companies which are subject to the national greenhouse gas target management system, are required to issue a report which includes disclosure of GHG emissions and energy volume on a regular basis. • Disclosure of the Governance report has been mandatory for listed corporations on the securities market since 2019. • In December 2021, the Ministry of Environment announced the Korean Green Classification System (K-Taxonomy) Guidelines.	• In May 2024, the Korea Sustainability Standards Board (KSSB) published an exposure draft (ED) proposing sustainability disclosure standards based on IFRS S1 and IFRS S2. The comment period for the ED ended on 31 August 2024. • The timeline for mandatory disclosure within the legal framework or listing rules will be determined by the Korean government. • The Financial Services Commission announced that the mandatory requirements for companies listed on the Korean stock exchanges to issue ESG disclosures, which was originally set for 2025, will be pushed to a later date after 2026.

<table>
<tr><th>Jurisdiction</th><th>Present</th><th>Upcoming</th></tr>
<tr><td>Taiwan</td><td>

The Taiwan Stock Exchange Corporation Rules and Taipei Exchange Rules require all listed companies to prepare and file the sustainability report referring to the latest GRI Standards published by GRI. However, listed companies with paid-in capital less than NT$2 billion do not have to prepare the sustainability report until 2025.
Listed companies in the food industry, chemical industry, financial and insurance industry or deriving no less than 50% of operating revenue from food and beverage shall strengthen the disclosure of sustainability metrics according to the industry they belong to and obtain an assurance opinion from a Certified Public Accountant (CPA).
The listed companies in the cement industry, plastics industry, iron and steel industry, oil, electricity, and gas industry, semiconductor industry, computer and peripheral equipment industry, optoelectronics industry, telecommunications and network industry, electronic components industry, electronic distribution industry, and other electronics industries with paid-in capital of NT$2 billion or more shall strengthen the disclosure of sustainability metrics according to the industry they belong to. The assurance opinion is not required.
The timeline for the listed companies to disclose Scope 1 and Scope 2 GHG emissions and obtain an assurance opinion is as follows:

Steel industry, cement industry, or companies with paid-in capital of NT$10 billion or more shall disclose the parent (consolidated) company data starting from 2023 (2025) and obtain an assurance opinion starting from 2024 (2027).
Companies with paid-in capital of NT$5 billion or more but less than NT$10 billion shall disclose the parent (consolidated) company data starting from 2025 (2026) and obtain an assurance opinion starting from 2027 (2028).
Companies with paid-in capital of less than NT$5 billion shall disclose the parent (consolidated) company data starting from 2026 (2027) and obtain an assurance opinion starting from 2028 (2029).

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The Financial Supervisory Commission requires listed companies to adopt IFRS Sustainability Disclosure Standards (SDS) to prepare their annual reports starting from 2026, based on the amount of the paid-in capital of the listed company.

Phase I: Companies with paid-in capital of NT$10 billion or more are required to adopt ISSB Standards to prepare 2026 information and file in 2027.
Phase II: Companies with paid-in capital of NT$5 billion or more and less than NT$10 billion are required to adopt ISSB Standards to prepare 2027 information and file in 2028.
Phase III: Other companies are required to adopt ISSB Standards to prepare 2028 information and file in 2029.

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Jurisdiction	Present	Upcoming
Taiwan	(Cont'd) • Bank and insurance industries are required to disclose climate-related financial information from 2023. • Based on the paid-in capital, a securities firm or a futures commission merchant that is neither listed on the Taiwan Stock Exchange (TWSE) nor listed on the Taipei Exchange (TPEx) shall prepare and file the sustainability report from 2023 or later.	
Thailand	• The SEC Thailand Corporate Governance Code requires sustainability reporting with choices of framework, however GRI is a commonly used sustainability reporting framework following SET guidance. • In 2022, it is mandatory for all PLCs to report their ESG performance via Form 56-1 One Report (effective from the financial period ended 31 December 2021). The submission must be within three months from the end of the financial report.	• In November 2024, SEC Thailand published a consultation on the roadmap for adoption of IFRS SDS standards. The proposed timeline for the adoption is as follows: ▪ 2026: Companies listed in the SET50 group, for reporting in 2027. ▪ 2027: Companies listed in the SET100 group, for reporting in 2028. ▪ 2029: All other listed companies in the SET and new issuers in the SET, for reporting in 2030. ▪ 2030: All listed companies in the MAI, REIT, IFF and the Infra Trust and Property Fund, for reporting in 2031. • They have also proposed for limited assurance on greenhouse gas emissions.
Vietnam	• The Ministry of Finance of Vietnam requires public companies to publicly disclose social and environmental impacts and governance in their annual reports or stand-alone sustainability reports (certain information are not mandatory for FIs). • Public companies are encouraged to apply the globally accepted reporting and disclosure standards in preparing their sustainability reports.	• In Decree 06/2022/ND-CP, the government has laid out a roadmap to build a national carbon market and has provided a framework for reporting on GHG emissions to build a database of GHG inventory. • The Vietnam Ministry of Natural Resources and Environment (MoNRE) was assigned to develop the green taxonomy, and it is in the final stage of the process.

Sustainability Counts III

Appendix II

Managing complex supply chain data

Managing complex supply chain data

As companies gain sophistication in the information that they provide to stakeholders and progress to tackling more advanced topics, a number of new challenges have emerged. Sustainability in supply chains is an increasingly critical concern for businesses globally. However, achieving sustainability goals often involves navigating through several data-related challenges. These challenges can multiply quickly when a complex value chain is involved. Respondents from PwC's Global CSRD Survey 2024 identified data availability and value chain complexity as the top two obstacles that companies face in the implementation of the CSRD.

13% of companies in Asia Pacific that disclosed Scope 3 GHG emissions are disclosing more than 10 categories.

Results from the study that PwC and the Centre for Governance and Sustainability (CGS) at the National University of Singapore (NUS) Business School collaborated on (see details in Section 4 of this report), show that there has been a positive increase in companies disclosing Scope 3 GHG emissions from 50% in 2023 to 63% in 2024. However, only 13% of those are disclosing more than 10 categories. This suggests that the complexity of the value chain is a major obstacle to the availability of sustainability reporting data.

Some common supply chain data challenges for sustainability include:

- **Data visibility** – Gaining visibility into the practices and performance of suppliers, especially small and medium enterprises, can be challenging. Suppliers may be unwilling or unable to share detailed sustainability data, or there may be a lack of technology to facilitate this data sharing.
- **Scope and boundary** – Many companies have extensive and complex value chains, making it difficult to identify all relevant sources of Scope 3 emissions. In addition, companies with a diverse business operation globally are also often impacted with multi-tiered value chains. Determination of boundaries for Scope 3 GHG emissions requires a thorough assessment. Prioritising and categorising different emissions sources based on their relevance and impact, can vary significantly across industries and companies. Value chains can also change over time.
- **Resource intensive** – Collecting and managing supply chain data can be resource-intensive and time-consuming. Often, companies do not have the necessary resources, skills and capabilities to do so, for example in assessing Scope 3 GHG emissions which requires specialised knowledge in areas such as supply chain management and emissions accounting. Smaller companies or those with limited budgets may not have the financial resources to invest in the necessary tools, technologies, and expertise. Keeping up with evolving standards, regulations, and best practices in emissions reporting can be difficult without dedicated expertise.
- **Real-time data availability** – Real-time data is crucial for timely decision-making in sustainability efforts. However, many organisations struggle with real-time data collection and processing due to outdated systems or lack of appropriate technologies.
- **Measuring intangible factors** – Some aspects of sustainability, such as social and ethical practices, are less tangible and harder to measure quantitatively. Developing reliable metrics and methodologies for these factors can be complex.

Addressing these challenges requires a strategic approach that includes investing in advanced technologies, fostering collaboration among supply chain partners, and continuously improving data governance practices.

Steps that companies can take:

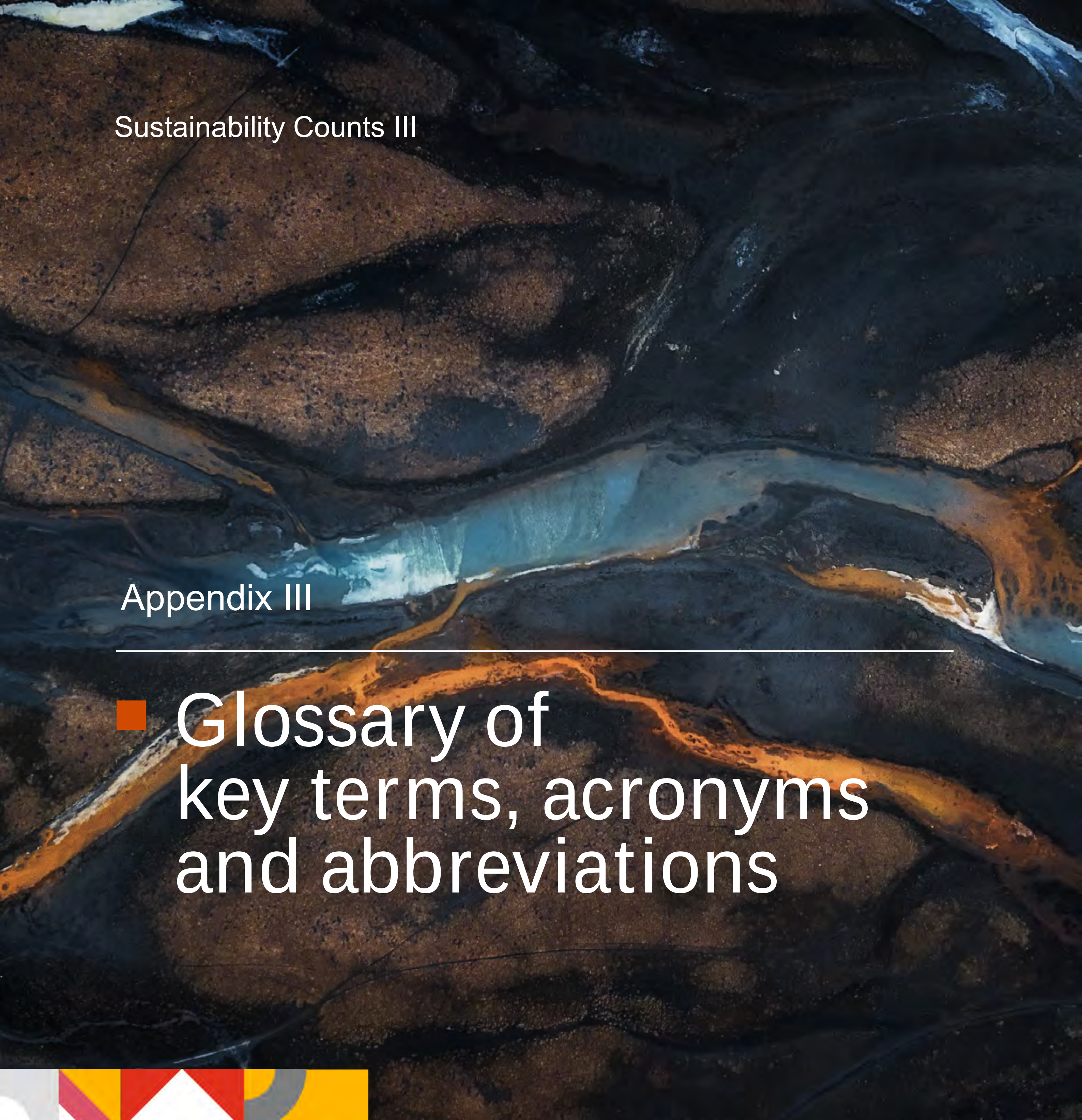
Start early, prioritising progress over perfection: Companies should begin data collection efforts early, focusing on incremental improvements rather than waiting for perfect data.

Identify your focus areas: Narrowing down the most crucial data would make the process more manageable. Double materiality and gap analysis can help to identify the most impactful data and suppliers to prioritise, enabling a focus on the greatest risks, opportunities and value creation outcomes.

Collaboration across functions: Effective data collection requires collaboration across various functions within the organisation as relationships with suppliers, customers and other supply chain partners are often held in various pockets within the organisation. This facilitates thorough data collection and an integrated perspective.

Two-way stakeholder engagement: Engaging investors, customers, suppliers and other supply chain partners in the data collection process builds trust and helps to establish that the data collected is relevant and useful, fostering transparency and accountability. Through engaging and understanding the needs of your sustainability report users, new business opportunities may be identified. This, in turn, may also create resilience and long-term growth through business model reinvention.

By effectively managing supply chain data, companies can identify inefficiencies and areas for improvement, leading to cost savings and enhanced operational performance. Real-time data availability supports timely decision-making, which is crucial for maintaining a competitive edge. Moreover, transparent supply chain practices can enhance brand reputation and customer loyalty, driving long-term value.



Appendix III

Glossary of key terms, acronyms and abbreviations

Glossary of key terms, acronyms and abbreviations

Abbreviation	Definition
AA	AccountAbility
AASB	Australian Accounting Standards Board
ACRA	Accounting and Corporate Regulatory Authority
ACSR	Advisory Committee on Sustainability Reporting
AI	Artificial intelligence
APRA	Australian Prudential Regulation Authority
ASAE	Australia Standard on Assurance Engagements
ASIC	Australian Securities & Investments Commission
ASX	Australian Securities Exchange
AUASB	Australian Auditing and Assurance Standards Board
BM	Bursa Malaysia
BNM	Bank Negara Malaysia
BRSR	Business Responsibility and Sustainability Report
BSE	Bombay Stock Exchange
BSP	Bangko Sentral ng Pilipinas
CCPT	Climate Change and Principle-based Taxonomy
CDSB	Climate Disclosure Standards Board
CGS	Centre for Governance and Sustainability
COP	Conference of the Parties
COP28	The 28th meeting of the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Dubai, the United Arab Emirates
CPA	Certified Public Accountant
CRDs	Climate-related disclosures
CSRC	China Securities Regulatory Commission
CSRD	Corporate Sustainability Reporting Directive
CTP	Climate transition plan
DMA	Double materiality assessment
EC	European Commission
ED	Exposure draft
EFRAG	European Financial Reporting Advisory Group
EGCs	Emerging growth companies
EMDEs	Emerging markets and developing economies
ESG	Environmental, social and governance
ESRS	European Sustainability Reporting Standards
EU	European Union
EUDR	EU Deforestation Regulation
FASF	Financial Accounting Standards Foundation
FCA	Financial Conduct Authority
FI	Financial institution
FSA	Financial Services Agency
FSC	Financial Supervisory Commission
FY	Financial year

Abbreviation	Definition
GFANZ	Glasgow Finance Alliance for Net Zero
GHG	Greenhouse gas
GRI	Global Reporting Initiative
HKEX	Hong Kong Stock Exchange
HOSE	Ho Chi Minh Stock Exchange
IAASB	International Auditing and Assurance Standards Board
IAI	Institute of Indonesia Chartered Accountants
IDROs	Impacts, dependencies, risks and opportunities
IDX	Indonesia Stock Exchange
IESBA	International Ethics Standards Board for Accountants
IFAC	International Federation of Accountants
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
IFRS S1	IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information
IFRS S2	IFRS S2 Climate-related Disclosures
IIRC	International Integrated Reporting Council
IROs	Impacts, risks and opportunities
ISAE	International Standard on Assurance Engagements
ISO	International Organisation for Standardisation
ISQM	International Standard on Quality Management
ISSA	International Standard on Sustainability Assurance
ISSB	International Sustainability Standards Board
IUCN	International Union for Conservation of Nature
JC3	Joint Committee on Climate Change
KPIs	Key performance indicators
KRX	Korea Exchange
KSSB	Korean Sustainability Standards Board
LAFs	Large accelerated filers
MAS	Monetary Authority of Singapore
MOF	Ministry of Finance
MoNRE	Ministry of Natural Resources and Environment
NFRD	Non-financial Reporting Directive
NGFS	Network for Greening the Financial System
NLCos	Non-listed companies
NSRF	National Sustainability Reporting Framework
NUS	National University of Singapore
NZSX	New Zealand Stock Exchange
OJK	Otoritas Jasa Keuangan
PIE	Public interest entity
PLC	Publicly listed company
PSE	Philippine Stock Exchange
QMS	Quality management system
RBI	Reserve Bank of India
SASAC	State-owned Assets Supervision and Administration Commission
SASB	Sustainability Accounting Standards Board
SBTi	Science Based Targets initiative
SC	Securities Commission Malaysia
SDG	Sustainable Development Goal
SDS	Sustainability Disclosure Standards
SEBI	Securities and Exchange Board of India
SEC	Securities and Exchange Commission
SET	Stock Exchange of Thailand
SFC	Securities and Futures Commission

Abbreviation	Definition
SGX	Singapore Exchange
SICS	Sustainable Industry Classification System
SME	Small and medium-sized enterprise
SRAC	Sustainability Reporting Advisory Committee
SRCs	Smaller reporting companies
SSAE	Singapore Standard on Assurance Engagements
SSBJ	Sustainability Standards Board of Japan
SSE	Shanghai Stock Exchange
STFG	Sustainability Taxonomy Guidelines
SZSE	Shenzhen Stock Exchange
TCFD	Task Force on Climate-related Financial Disclosures
TISFD	Taskforce on Inequality and Social-related Financial Disclosures
TNFD	Taskforce on Nature-related Financial Disclosures
TPEx	Taipei Exchange
TPT	Transition Plan Taksforce
TSE	Tokyo Stock Exchange
TWSE	Taiwan Stock Exchange
UNGC	United Nations Global Compact
US SEC	United States Securities and Exchange Commission
WEF	World Economic Forum
XRB	External Reporting Board

Appendix IV

PwC sustainability-related thought leadership publications

PwC sustainability-related thought leadership publications

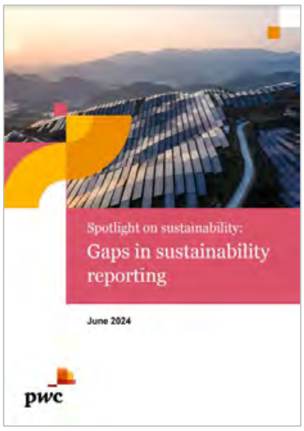
01 [PwC's Global CSRD Survey 2024]

02 [Net Zero Economy Index 2024]

03 [Nature at a tipping point: How investors in Asia Pacific can manage nature-related risks]

04 [Climate risks to nine key commodities]

05 [Hidden opportunities: Creating value through climate action]



06 [Gaps in sustainability reporting]

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About Centre for Governance and Sustainability, NUS Business School

Founded in 2010, the Centre for Governance and Sustainability (CGS) is housed at the National University of Singapore Business School. Our research empowers leaders, organisations and regulators in making informed decisions related to corporate sustainability and corporate governance. We bridge knowledge with industry needs, enabling organisations in the Asia Pacific, including ASEAN and Singapore, to go further in their sustainability journeys.

Our research pillars are as diverse as they are profound, covering initiatives in sustainability reporting, climate and nature-related reporting, the Singapore Governance and Transparency Index, the ASEAN Corporate Governance Scorecard and more. Visit https://bschool.nus.edu.sg/cgs/ to find out more about our work.

Founded in 1965, the same year that Singapore gained independence, NUS Business School stands among the world's leading business schools today. We are distinctive for offering the best of global business knowledge with deep Asian insights, preparing students to lead Asian businesses to international success and to help global businesses succeed in Asia.

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