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Korea Sustainability Standards Board

Research Report

Biodiversity, Ecosystems and Ecosystem Services (BEES) Disclosure Practices: Observations in Australia and Korea

A Joint AASB-KSSB Project

September 2025

AASB Research Report 26
KSSB Research Report 58

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Any errors or omissions remain the responsibility of the principal authors.

AASB Research Report Series

The AASB Research Centre publishes the AASB Research Report Series, which promotes thought leadership in external reporting standard-setting and policy making through in-depth analysis of financial reporting issues and related empirical research.

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Foreword

The Australian Accounting Standards Board (AASB) and the Korea Sustainability Standards Board (KSSB) are pleased to jointly present this research report on biodiversity, ecosystems and ecosystem services (BEES) disclosure practices. This collaborative study reflects the shared commitment of both the AASB and KSSB to support the International Sustainability Standards Board's (ISSB) ongoing research into BEES as part of its 2024–2026 work plan, offering jurisdiction-specific insights on BEES grounded in empirical analysis.

By analysing BEES-related reporting trends in Australia and Korea—two countries with distinct industrial structures, regulatory environments and disclosure frameworks—this study highlights commonalities and differences across sectors on the topic of BEES-related disclosures.

Both the AASB and the KSSB remain committed to supporting evidence-informed standard-setting and actively engaging in global dialogue on nature-related disclosures. While this research is exploratory in scope, it contributes jurisdiction-specific analysis that we hope will contribute meaningful input to the ISSB's ongoing technical work.

September 2025

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Executive Summary

This study analyses annual and/or sustainability-related reports (i.e. corporate reporting) from 2021 to 2023, covering 110 publicly listed entities across 11 Global Industry Classification Standard (GICS) sectors in Australia and Korea.[1] It identifies biodiversity, ecosystems and ecosystem services (BEES)-related keywords mentioned in these reports. This approach enables a high-level, preliminary assessment of the potential disclosure of BEES-related topics in corporate reporting across sectors and regions within these two countries.

This study provides exploratory evidence that Australian and Korean entities are increasingly including some form of BEES-related information in their corporate reporting. Over the sample period from the financial year 2021 to 2023, Australian entities exhibited a high overall number of BEES-related counts (defined as the frequency of specific terms or BEES-related keywords appearing in corporate reports), particularly within the Materials and Financial sectors. In contrast, while Korean entities demonstrated an increasing year-on-year trend in BEES-related keyword counts, most of these were made by Consumer Staples and IT entities.

In addition, the results show that entities disclose a wide range of BEES-related keywords and often reference reporting frameworks such as the Taskforce on Nature-related Financial Disclosures (TNFD). The most common topics mentioned were those relating to air, water and waste. Biodiversity and pollution keywords were also increasingly mentioned across both jurisdictions.

As this study focuses on the frequency of BEES-related topic counts, it offers an exploratory view of how BEES-related information is incorporated within corporate reporting. To build on these findings, further research is required to examine the depth, quality and substance of BEES-related information disclosed. Future studies could also explore whether the information provided by entities aligns with or is responding to the changing needs of investors and other users of corporate reporting.

1 In this report, ‘Korea’ is used as a shorthand reference for South Korea, the Republic of Korea (ROK) and all equivalent terms.

1 Introduction

In April 2024, the International Sustainability Standards Board (ISSB) added a research project on risks and opportunities associated with biodiversity, ecosystems and ecosystem services (BEES) (IFRS Foundation 2024).[2] This decision was informed by stakeholder feedback received through its 2023 Request for Information *Consultation on Agenda Priorities*, which included input from investors who indicated they are increasingly factoring BEES-related considerations into their investment decision-making.[3] The ISSB research project aims to build a foundational understanding of information on BEES-related risks and opportunities (ISSB 2023a).

The ISSB, in their Request for Information, describes the three topic areas under BEES—that is, biodiversity, ecosystems and ecosystem services—as intrinsically linked. It states that:

> **Biodiversity** is a foundational characteristic of natural systems and it is a proxy for functional, productive and resilient **ecosystems** which are then able to provide the **ecosystem services** upon which life on earth relies. Examples of **ecosystem services** are, among others, climate regulation (for example, through carbon sequestration), provision of raw materials and water, pollination and pest and flood control (ISSB 2023a:21).

The Request for Information further defines the three components of BEES in the following manner (ISSB 2023a:21):

- **Biodiversity** is the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems.
- **Ecosystems** are a dynamic complex of plant, animal and microorganism communities and the non-living environment, interacting as a functional unit.
- **Ecosystem services** are the contributions of ecosystems to the benefits that are used in economic and other human activity.

This research report adopts the ISSB's approach to describing BEES and explores BEES-related disclosures in Australia and Korea.[4]

The topic of BEES is also attracting increased attention in individual jurisdictions, such as Australia and Korea. In Australia, the introduction of the Nature Positive Plan published by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) demonstrates a national commitment to biodiversity conservation and sustainable practices (DCCEEW 2022).[5] The plan sets forth the government's intention to reform existing environmental laws to support nature-positive outcomes and deliver on the targets of the Kunming-Montreal Global Biodiversity Framework (GBF), of which Australia is a signatory. This is further supplemented by Australia's National Strategy for Nature 2024-2030 (DCCEEW 2024).[6] This National Biodiversity Strategy and Action Plan outlines several national targets designed to support the achievement of the GBF.

2 See the ISSB Update April 2024 (Accessed: 19 May 2025)
3 See the ISSB's Request for Information *Consultation on Agenda Priorities* (Accessed: 19 May 2025).
4 In this report, 'Korea' is used as a shorthand reference for South Korea, the Republic of Korea (ROK) and all equivalent terms.
5 See the Nature Positive Plan (Accessed: 19 May 2025).
6 See Australia's Strategy for Nature 2024–2030 (Accessed: 19 May 2025).

Similarly, in Korea, initiatives such as the Environmental Information Disclosure System (KEITI) require comprehensive nature-related disclosures, extending beyond climate issues.[7] In particular, the KEITI system encourages firms to address a broader range of environmental topics, including those related to BEES, aligning corporate practices with international expectations.

There is a growing body of academic literature on BEES. Research has examined the extent of BEES-related disclosures in China (Sun and Lange 2022), New Zealand (Schneider et al. 2014), South Africa (Mansoor and Maroun 2016; Maroun et al. 2018; Usher and Maroun 2018), Sweden (Rimmel and Jonäll 2013), the United Kingdom (Maroun and Ecim 2024) and across Fortune Global companies (Hassan et al. 2020), with these studies suggesting that globally, BEES-related disclosures are limited. In the Australian context, Adler et al. (2017) and Bhattacharyya and Yang (2019) document that, although firms are increasingly reporting on BEES-related topics, disclosures are mainly concentrated among large metals and mining firms. Additional literature has examined the association between BEES-related impacts and performance on firms' economic value (Biber et al. 2024; Elsayed 2023) and investors' decision-making (Bassen et al. 2025; Garel et al. 2024). Despite the increasing body of literature on BEES-related disclosure, a bibliometric analysis of over three hundred articles in accounting, economics and finance journals by Guer et al. (2024) indicated that research on this topic of BEES is underrepresented in the Asia-Pacific region.

To contribute to the existing literature on this subject and support the Australian Accounting Standards Board's (AASB) strategic objective to actively influence international accounting and external reporting standards (e.g. those developed by the ISSB), while also demonstrating thought leadership and enhance key international relationships, staff from the AASB and Korean Sustainability Standards Board (KSSB) staff initiated this collaborative research project.

This study analyses 110 listed entities from Australia and Korea using keyword count analysis to provide a high-level overview of the frequency and prevalence of keywords commonly associated with BEES-related disclosures. It identifies trends across sectors and examines the count of keywords commonly associated with BEES-related disclosures to explore whether there is preliminary evidence of emerging trends in word use between the two jurisdictions.

1.1 Sample

The sample for this research comprises a total of 110 entities listed in the Australian Stock Exchange (ASX) and Korea Exchange (KRX) across the 11 Global Industry Classification Standard (GICS) industry sectors (i.e. 55 Australian entities and 55 Korean entities, with five entities from each of the 11 GICS industry sectors) across the financial years ending 2021 (FY21), 2022 (FY22) and 2023 (FY23). The samples were selected based on market capitalisation on 30 June 2024 for Australian firms and 31 December 2023 for Korean firms.[8]

The reports for the keyword frequency analysis were selected based on various factors, including report titles, disclosure locations and financial year-end differences between the two jurisdictions, detailed in the subsections below.

1.1.1 Financial Year End Differences and Sample Period

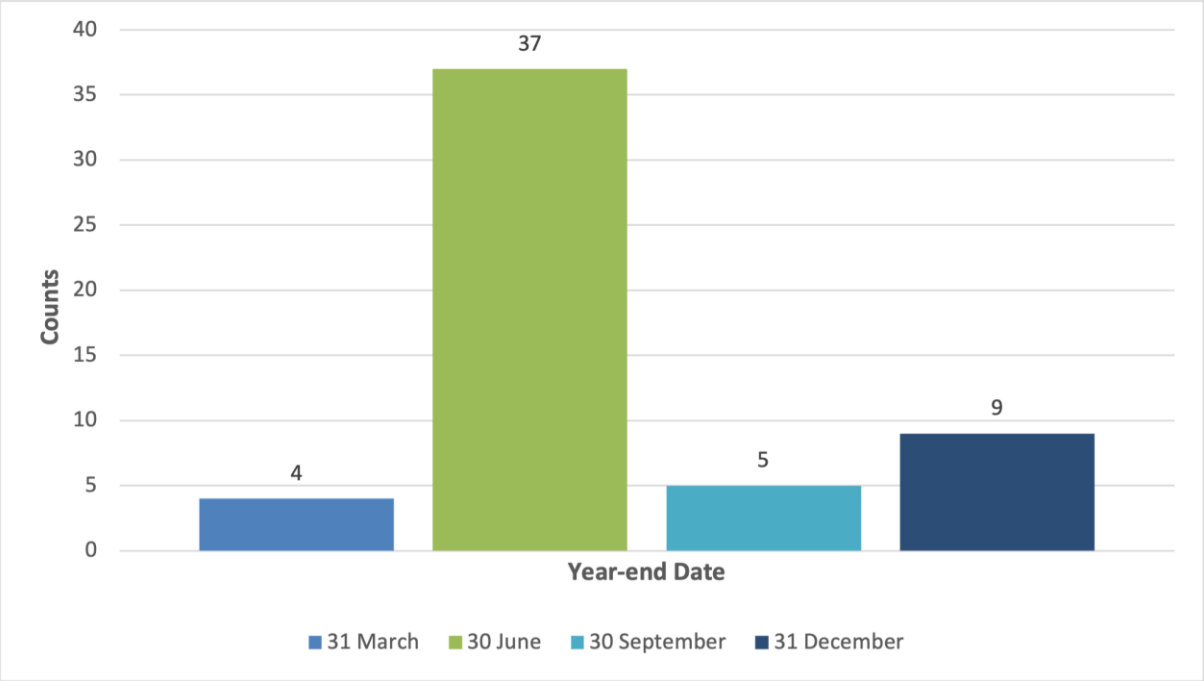
Entities in Korea operate with a standardised financial year-end (FYE) date, with all sampled firms having a financial year-end on 31 December.

7 See Korea's Environmental Information Disclosure System (Accessed: 19 May 2025).

8 The selection of firms is based on the assessment of their market capitalisation on 30 June 2024 for Australian firms and 31 December 2023 for Korean firms (the last standard financial year for each jurisdiction at the time of analysis).

Although most Australian entities have a 30 June financial year-end, some have an alternative FYE date. As shown in Figure 1, among the 55 Australian sampled entities, four entities have a financial year-end on 31 March, five entities have a financial year-end on 30 September and nine of them have a financial year-end on 31 December.

Figure 1: Financial Year-end Dates for the Australian Sample



At the time of collecting data (in the fourth quarter of 2024), it was observed that some firms in the Australian sample had already published their reports for the financial year ending 2024 (FY24). However, reports for Korean firms were not yet available for FY24 (given that a standard year-end of 31 December is adopted in Korea). To ensure consistency between the two jurisdictions, the analysis was confined to FY21, FY22 and FY23. The decision to begin the sample period in FY21 aligns with research by Garel et al. (2024), which highlighted a growing trend of investors penalising firms for biodiversity-related impacts—a shift that became evident only after the Kunming Declaration at the UN Biodiversity Conference (COP15) in October 2021.

Beginning the sample period from FY21 onwards aims to provide a sufficient timeframe for meaningful within-jurisdiction analysis. This approach captures recent developments in both jurisdictions' sustainability reporting landscapes, enabling the examination of year-on-year changes in sustainability reporting practices and cross-jurisdictional comparisons between Australia and Korea.

1.1.2 Report Titles and Location of Disclosure

In Korea, there is a high level of consistency in the titles and naming conventions of the reports that provide sustainability-related information. All 55 sample firms maintained the same report title for three consecutive years.

The sustainability-related reports of Korean entities are prepared voluntarily. Entities listed on the Korea Composite Stock Price Index (KOSPI) can choose to comply with the *Enforcement Rules of KOSPI Market Disclosure Regulation* to disclose information that would inform investors about matters pertaining to the sustainable management information such as green

management and greenhouse gas emission permits transactions (KRX 2025:13).[9] With very few exceptions,[10] Korean entities primarily disclose sustainability-related information within dedicated Sustainability Reports or Environmental, Social and Governance (ESG) Reports, rather than incorporating it into their Annual Reports.[11]

In contrast to the uniform approach observed in Korea, Australian firms demonstrated variability in their approach to sustainability report naming conventions during the sample period (FY21 to FY23). Some ASX-listed firms included sustainability-related information in their annual report, while others disaggregated it into stand-alone reports.

Australian entities that issued separate financial and sustainability reports used varied approaches to presenting sustainability information. For instance, some entities used different titles for their sustainability-related reports, organised content in varying ways and/or published information at inconsistent intervals. Sustainability disclosures most commonly appeared in a Sustainability Report, though some opted to present them in a Climate Report, Sustainability Review, or ESG Supplement instead. Some firms, particularly those with higher market capitalisations, also provided supplementary sustainability data packs in the form of a spreadsheet.

An example of fragmented sustainability reporting is an ASX-listed entity within the Consumer Staples sector. Rather than publishing a comprehensive sustainability report, this company issued several separate documents that were released non-uniformly (i.e. not consistently across consecutive years), including:

- Climate Statement
- Greenhouse Gas (GHG) Emissions Inventory Report
- Sustainability Accounting Standards Board (SASB) Standards Report
- Task Force on Climate-related Financial Disclosures (TCFD) Index and Report
- Sustainable Development Goals (SDG) Alignment Report

In addition, inconsistent naming conventions across financial years were sometimes observed. Reports often changed names, were discontinued or had their content redistributed across other documents without clear explanation or justification. For instance, the aforementioned ASX-listed entity published a GHG Inventory Report for FY23 but not for FY24. Instead, the comparative information for FY24 was incorporated into the company's 2024 Climate Statement.

As Korean entities typically issue a standard annual report that focuses primarily on financial information and a separate sustainability-related report that contains most sustainability-related disclosures, only the sustainability-related report (i.e. the Sustainability Report or ESG Report) was included in the analysis for Korean firms.[12]

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9 Paragraph 7(e) of the Enforcement Rules of KOSPI Market Disclosure Regulation (Accessed: 19 May 2025).

10 The rare exceptions identified in the sample include the integrated reports of 3 firms and the annual report of 1 firm.

11 Although the terms Sustainability and ESG are nuanced in their meanings, their usage in non-English-speaking regions like Korea often lacks differentiation.

12 In Korea, certain sustainability-related matters may be included in Business Reports (i.e. Annual Reports submitted via the Data Analysis, Retrieval and Transfer (DART) system), either to comply with regulatory requirements or for investor relations purposes. However, the level of information disclosed in such reports is typically minimal and rarely includes substantive sustainability content. Given that Korean entities tend to consolidate sustainability-related disclosures within standalone Sustainability or ESG Reports, the analysis in this research was limited to these dedicated reports to ensure consistency and comparability

To minimise the inconsistency and non-uniformity in the content and naming conventions of sustainability reports in the Australian context, we limited our analysis of Australian sample firms to a maximum of two reports per entity with the following specifications:

- For ASX-listed entities, only the annual report was included in the sample of reports *if* the firm adopted a singular report approach (i.e. the firm entirely disclosed all non-financial, sustainability information in the annual report rather than in a separate report).
- In all other circumstances, the annual report and the report containing the most relevant sustainability- or BEES-related information[13] were selected for analysis.

1.1.3 Entities Listed on Alternative Stock Exchanges

Although a proportion of sample entities were, and in most cases still are, dual-listed on other exchanges (as presented in Table 1),[14] during the sample period of FY21-FY23, there were no mandatory sustainability-related disclosure requirements for these firms across the stock exchanges on which they were listed. Consequently, this report did not consider firms' dual-listing characteristics as a relevant factor for analysis.

Table 1: Number of Sampled Entities Dual-listed on Alternative Stock Exchange/s[15]

Korea		Australia	
Alternative Stock Exchange	**Count**	**Alternative Stock Exchange**	**Count**
NYSE	7*	NZX	7
SGX	1**	PNGX	1
		LSE	3[16]
		NYSE	5***
		SEHK	1
		NASDAQ	1
		JSE	1

* One of the seven entities listed on the NYSE is an indirect listing through a depositary receipt.
** This entity is an indirect listing through a depositary receipt.
*** Four out of these five entities are indirectly listed through a depositary receipt.

across the Korean sample. Furthermore, since Business Reports are officially provided only in Korean, excluding them from the keyword analysis helped to avoid potential inconsistencies arising from language translation and differences in terminology.

13 The most relevant sustainability- or BEES-related report was, in most cases, the Sustainability Report. However, in the case that a firm did not issue a Sustainability Report, the 'most relevant' sustainability- or BEES-related report was assessed based on the length or brevity of the report and the topic of the report. To facilitate consistency in the assessment criteria applied, all climate-related reports, such as those related to the TNFD and greenhouse gas emissions, were excluded.

14 Note that for the Australian sample, some firms were dual-listed on multiple stock exchanges.

15 The full names of the relevant stock exchanges are as follows: Johannesburg Stock Exchange (JSE); London Stock Exchange (LSE); National Association of Securities Dealers Automated Quotations (NASDAQ); New York Stock Exchange (NYSE); New Zealand's Exchange (NZX); Papua New Guinea National Stock Exchange (PNGX); Stock Exchange of Hong Kong (SEHK); and Singapore Exchange (SGX).

16 One of the 3 dual-listed entities, one formally delisted from the LSE after the sample period; however, for the sample period of FY21 to FY23, the entity was dual-listed on the ASX and LSE.

1.2 Methodology

The objective of this research report is to understand the current landscape of reporting on BEES-related disclosures in Australia and Korea. To do so, an analysis of keywords commonly used in BEES-related topics in annual reports and relevant sustainability reports was undertaken across a sample of the top five listed entities (based on market capitalisation) in each of the 11 GICS industry sectors in Australia and Korea from FY21 to FY23.

1.2.1 Keyword Identification

The keyword identification process involved a combination of unstructured and structured approaches to ensure both comprehensiveness and relevance of selected terms. The following procedure was applied for the keyword identification process:

(a) Initial Identification Through Unstructured Analysis

Keywords were initially identified using an unstructured, data-driven approach. A text mining tool was employed to analyse disclosure documents and reports from selected firms across the two jurisdictions, Australia and Korea. The tool extracted and ranked the most frequently mentioned words related to BEES. This process captured emerging patterns and context-specific terminology (including keywords or topics that may not be explicitly outlined in existing frameworks).

(b) Alignment with Existing Disclosure Frameworks

The list of keywords generated from the unstructured analysis was then compared to key themes and disclosure items outlined in established sustainability reporting standards and frameworks, such as the IFRS Sustainability Disclosure Standards, the Sustainability Accounting Standards Board (SASB) Standards and the Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations.

(c) Final Selection and Categorisation

A refined list of keywords was established, including terms frequently mentioned in corporate disclosures as well as those consistent with established frameworks. Keywords were grouped into thematic categories to facilitate the analysis of trends and comparisons across jurisdictions.

This dual approach allowed our analysis to leverage the flexibility of unstructured data exploration and simultaneously maintain the rigour and relevance provided by alignment with global standards. The process ultimately ensured that the resulting keywords were empirically grounded and meaningful within the broader context of sustainability disclosure practices.

1.2.2 Keyword Analysis

Following the keyword identification process, a keyword analysis was conducted to identify the trend of BEES-related keywords mentioned in each jurisdiction. For each of the keywords collated via the keyword identification process described above, the number of times a particular keyword was mentioned in a given report was counted. The types of reports for which the keyword frequency analysis was completed included Australian entities' annual reports as well as relevant sustainability-related reports from firms in Australia and Korea (see 1.1.2 Report Titles and Location of Disclosure). The keyword frequency count was facilitated using Python and R, and a manual cross-check and validation of 10 randomly chosen keywords across 10 randomly selected firm reports was undertaken to ensure accuracy in coding outputs.[17]

17 Please see 1.3 Limitations for an explanation of potential bias in the keyword search tool and outputs.

1.3 Limitations

While this research provides insights into the prevalence of BEES-related disclosures, its findings should be interpreted in light of the following limitations.

Firstly, the sample drawn may not be fully representative of the broader market, as it is skewed toward entities with larger market capitalisations (entities were selected on the basis of their market capitalisation within their respective industry sector).

Secondly, and more critically, although the analytical procedures used for this report were designed to ensure as much impartiality and comparability as possible between the two jurisdictions, the results of the keyword analysis may still be subject to unintentional bias. This is because the count of individual keyword frequencies is based solely on the absolute number of times a particular keyword appears, without consideration of whether it is used in a BEES-related context or not. Evaluating whether a keyword is used in a BEES-related context would improve and enhance subjectivity but would also potentially obscure the results of the keyword analysis. Given the preliminary nature of this research, a more simplistic approach was employed via an absolute keyword count. This approach was taken to minimise any human-induced bias in the findings of this report but does limit the research findings in that identified keyword usage by sample entities may not necessarily relate directly to the BEES-related disclosures being made.

Moreover, the keyword frequency count program is case-insensitive and identifies terms even when embedded within other words. For instance, 'ESRS' in the context of this report is short for 'European Sustainability Reporting Standard(s)'; however, the keyword count tool registers 'ESRs' as a count for 'ESRS', despite 'ESRs' standing for 'Employee Share Rights'—a completely different concept from BEES. In other instances, the formatting of the report instead prevented the keyword count tool from identifying and thus counting a particular keyword or phrase (though most keywords or phrases were captured).

Simplifying assumptions were also made to facilitate the keyword frequency analysis, such as selecting only sustainability-related reports for the Korean firm sample based on the understanding that disclosures in Korean entities' annual reports are typically limited only to the financial statements and related financial matters. In contrast, both the annual report and, in some cases, a secondary sustainability-related report were selected for each firm in the Australian sample (see 1.1.2 Report Titles and Location of Disclosure).

The analysis undertaken may also have expanded to include topics related to the broader scope of nature. Although the ISSB has identified a set of common disclosure topics encompassing air, biodiversity and ecosystems, land, resource use, waste and circularity, water and others (see Section 2.5), these include topics that existing standards and frameworks may categorise as 'nature-related'. Consequently, there may be instances where BEES overlaps with topics classified as nature-related or nature/natural capital.[18]

Lastly, although this study examines trends in the frequency of certain keywords or terms in entities' reports, an increase in such references may reflect general shifts in the use of language rather than substantive changes in entities' operations, processes, or approaches. Given that practice often lags behind changes in language use, further thematic analysis is needed to explore whether counts of specific keywords or terms correspond with actual changes in entities' practices.

18 For example, the GRI standard on biodiversity, GRI 101: Biodiversity 2024 describes biodiversity as being 'an essential characteristic of nature' (Accessed: 20 May 2025).

2 Findings

2.1 Sample Descriptives

Table 2 shows the total market capitalisation of the sampled Australian and Korean entities by GICS industry sector at the last standard financial year-end date for each jurisdiction.[19] The comparison below shows the differing economic structures between the two jurisdictions.

Table 2: Total Market Capitalisation of the Sampled Australian and Korean Entities by Industry Sector

	Australia		Korea	
Sector	**Total Mkt Cap (AUD billion)**	**Portion of the Sample**	**Total Mkt Cap (AUD billion)**	**Portion of the Sample**
Communication Services	97.24	5.07%	95.16	6.16%
Consumer Discretionary	128.56	6.71%	141.92	9.19%
Consumer Staples	88.11	4.60%	36.67	2.37%
Energy	101.29	5.29%	33.36	2.16%
Financials	583.17	30.43%	91.82	5.95%
Health Care	214.07	11.17%	113.62	7.36%
Industrials	105.57	5.51%	198.75	12.87%
Information Technology	74.53	3.89%	698.55	45.24%
Materials	361.89	18.88%	112.47	7.28%
Real Estate	110.20	5.75%	4.74	0.31%
Utilities	51.84	2.70%	17.03	1.10%
Total	**1,916.47**	**100%**	**1,544.09**	**100%**

The economic structures of Australia and Korea, as shown above, are distinctly different. For the Australian sample, the Financials and Materials sectors are the largest, with average market capitalisations of AUD 116.63 billion and AUD 72.38 billion,[20] respectively. In the Korean sample, the Information Technology (IT) and Industrials sectors are the two largest industry sectors, with average market capitalisations of AUD 139.71 billion and AUD 39.75 billion, respectively.

There are also notable differences in the Real Estate industry sectors across both countries. In Australia, the Real Estate sector consists of larger entities, with an average market capitalisation of AUD 22.04 billion. In contrast, the average market capitalisation of Real Estate entities in Korea is considerably lower at AUD 0.95 billion.

19 For the Australian sample, this was 30 June 2023. For the Korean sample, this was 31 December 2023.
20 These figures reflect *average* market capitalisation across firms in the respective sectors, in contrast to total market capitalisations outlined in Table 2.

Out of the 55 Korean entities analysed, only 12 (22%) were not found to be affiliated with large, often family-run, conglomerates or business groups (colloquially referred to as Chaebol groups). In Korea, a significant portion of entities with higher market value are affiliated with Chaebol groups, with only 22% of sampled entities classified as non-Chaebol entities. As at the end of FY23, the average market value was approximately AUD 7.78 billion for non-Chaebol groups and AUD 33.33 billion for Chaebol groups. This means that, on average, the market value of Chaebol groups is approximately 4.28 times higher than that of non-Chaebol groups.

The 12 entities that are not part of Chaebol groups consist primarily of the commercial banks in the Financials sector (3 entities), which are legally prohibited from being affiliated with Chaebol groups under domestic regulations and the Utilities sector (4 entities), which are owned by the Korean government as public enterprises.[21] In Korea, due to legal restrictions, the Financials (e.g. commercial banks) and Utilities industry sectors are structured in such a way that prohibits ownership by large conglomerates. This reflects regulatory efforts to limit Chaebol influence, resulting in firms in these industries being largely free from Chaebol ownership,[22] in line with the intent to protect public interest and ensure market stability.

2.2 Reference to International Sustainability Disclosure Standards and Frameworks

Table 3 presents the number of entities that mentioned the various international disclosure standards and frameworks from FY21 to FY23 among the Australian and Korean samples.[23] The examined international disclosure standards and frameworks include the ESRS, Global Reporting Initiative (GRI), IFRS Sustainability Disclosure Standards,[24] SASB, TCFD and TNFD.

It should be noted that the sample period from FY21 to FY23 coincides with the early stages of the ISSB's development in November 2021, when the ISSB had only recently been established and no draft standards had yet been released. As a result, the counts for the selected terms and keywords used to reflect the ISSB Standards (i.e. the IFRS Sustainability Disclosure Standards) in the table below may capture references made in anticipation of the Standards or in response to the formation of the ISSB itself, rather than in direct reference to the final set of IFRS Sustainability Disclosure Standards. Accordingly, the results in Table 3 should be interpreted with caution, in light of this context (see Footnote 24 for further details.)

21 The full breakdown of the number of non-Chaebol groups in each sector is as follows: Communication Services – 1 firm, Energy – 1 firm, Financials – 3 firms, Healthcare – 1 firm, Real Estate – 2 firms and Utilities – 4 firms.

22 The principle of separation of industrial and financial capital in Korea is implemented through the Banking Act to prevent industrial capital from dominating the Financials sector and vice versa.

23 Appendix A shows the percentage of sample firms referring to each of the international disclosure standards in Australia and Korea.

24 We investigated mentions of the keywords COP26, ISSB, IFRS S1 (short for IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information*), IFRS S2 (short for IFRS S2 *Climate-related Disclosures*), IFRS Sustainability Disclosure Standard and International Sustainability Standards Board, to gauge awareness among stakeholders regarding the international baseline standards (i.e. IFRS S1 and IFRS S2), even prior to the release of the Exposure Draft or the issuance of IFRS S1 and IFRS S2. This approach was adopted because the ISSB was established by the IFRS Foundation in November 2021 during COP26 in Glasgow and the IFRS Sustainability Disclosure Standards (IFRS S1 and IFRS S2) were introduced in June 2023. Although IFRS S1 and IFRS S2 were not issued until June 2023, some earlier reports referred to the ISSB in anticipation of the global sustainability standards.

Table 3: Count of Entities Referencing International Sustainability Disclosure Standards and Frameworks by Jurisdiction and Financial Year						
	AUS			KOR		
Standards/ Frameworks	FY21	FY22	FY23	FY21	FY22	FY23
ESRS	0	0	0	0	7	30
GRI	38	43	42	48	46	47
ISSB	10	15	32	8	18	29
SASB	16	23	24	43	45	45
TCFD	47	50	47	42	45	44
TNFD	1	13	21	5	11	16

In Australia, there were no counts of the ESRS in entities' reports across the three sample years. However, the GRI was mentioned by 42 entities referring to it for sustainability-related reporting in FY23 (1 less than in FY22). The TCFD was the most frequently referenced framework, with over 85% of the sampled entities referring to it (47 in FY21, 50 in FY22 and 47 in FY23, respectively). Approximately half of the entities in the Australian sample mentioned the SASB Standards across the sample period (i.e. 16 in FY21, 23 in FY22 and 24 in FY23, respectively). The number of entities referencing the TNFD notably increased from one in FY21 to 21 in FY23, while entities mentioning the IFRS Sustainability Disclosure Standards (i.e. IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* [IFRS S1] and IFRS S2 *Climate-related Disclosures* [IFRS S2], issued by the ISSB) rose from 10 in FY21 to 32 in FY23.

In Korea, the ESRS was increasingly mentioned across entities, with 30 entities referencing it in FY23 (compared to zero entities in FY21). Like Australia, the GRI Standards were prominently mentioned among the Korean sample across the sample period, with over 80% of sample entities referencing GRI in their sustainability-related reports (48 in FY21, 46 in FY22 and 47 in FY23). The TCFD framework was the second most popular amongst the six international sustainability disclosure standards and frameworks, with 42, 45 and 44 entities mentioning it in their FY21, FY22 and FY23 reports, respectively. The number of entities referencing the IFRS Sustainability Disclosure Standards in corporate reporting trended upward, increasing from eight entities in FY21 to 29 in FY23. The SASB standards were mentioned more widely in the Korean sample than in the Australian sample, with 45 entities mentioning them in their reports for FY22 and FY23.

As illustrated in Table 4 and Table 5, references to international sustainability disclosure standards and frameworks were spread across the 11 industry sectors in both Australia and Korea, with the exception of the Real Estate sector in Korea, where there are few listed Real Estate entities.

Table 4: Count of Entities Referencing International Sustainability Disclosure Standards and Frameworks among the Australian Sample across FY21–23 by GICS Industry Sector						
Industry Sector	**ESRS**	**GRI**	**ISSB**	**SASB**	**TCFD**	**TNFD**
Communication Services	0	12	3	9	15	2
Consumer Discretionary	0	6	2	1	12	2
Consumer Staples	0	12	7	3	15	4
Energy	0	11	8	6	15	2
Financials	0	11	8	7	14	8
Health Care	0	10	0	6	8	0
Industrials	0	11	7	8	12	3
IT	0	8	0	4	9	0
Materials	0	15	9	9	15	6
Real Estate	0	13	10	2	14	6
Utilities	0	14	3	8	15	2

Table 5: Count of Entities Referencing International Sustainability Disclosure Standards and Frameworks among the Korean Sample across FY21–23 by GICS Industry Sector						
Industry Sector	**ESRS**	**GRI**	**ISSB**	**SASB**	**TCFD**	**TNFD**
Communication Services	0	14	8	14	13	2
Consumer Discretionary	5	14	5	13	13	1
Consumer Staples	5	15	6	15	13	7
Energy	5	14	3	10	13	2
Financials	5	15	9	15	15	10
Health Care	2	14	5	13	12	2
Industrials	5	15	8	14	13	3
IT	6	15	4	15	14	1
Materials	3	13	4	13	13	4

Table 5: Count of Entities Referencing International Sustainability Disclosure Standards and Frameworks among the Korean Sample across FY21–23 by GICS Industry Sector						
Industry Sector	**ESRS**	**GRI**	**ISSB**	**SASB**	**TCFD**	**TNFD**
Real Estate	0	0	0	0	0	0
Utilities	1	12	3	11	12	0

The relatively higher number of counts for ESRS and SASB-related words in the Korean sample compared to the Australian sample could reflect a stronger intention to establish a presence in the United States (US) and European markets. Korea's reliance on exports to these regions (UN 2022, 2023; European Commission 2025a, 2025b)[25] may create a greater incentive for its entities to align with these markets' preferred reporting standards. By adopting SASB—which originated in the US—and ESRS—designed for entities operating in the European Union (EU)—Korean entities may be better positioned to meet stakeholders' expectations in these key markets. This strategic alignment could enhance their competitiveness and position them to comply with evolving regulatory and market-driven sustainability requirements in the US and EU.

The TCFD and GRI were the most widely mentioned amongst the selected frameworks and standards for both the Australian and Korean samples. This trend could be due to the relative maturity of the TCFD and GRI. The TCFD was established in December 2015 and published its final recommendations in June 2017. The GRI was established in 1997, making it one of the most established sustainability disclosure frameworks. The longer history of the TCFD and GRI (relative to the other frameworks and standards examined) and widespread adoption could be what has contributed to their recognition in both jurisdictions.

The other framework and two standards examined were formed more recently:

- The TNFD was established in 2021, with its final recommendations published in September 2023.
- The formation of the ISSB was announced in November 2021, at the United Nations Climate Change Conference (COP26) in Glasgow. The standard-setting procedure for the IFRS Sustainability Disclosure Standards began shortly after. The final standards, IFRS S1 and IFRS S2, were published in June 2023 and became effective for use commencing from 1 January 2024.
- The ESRS, initiated in 2020 as part of the European Green Deal, were finalised in July 2023.

25 According to the United Nations International Trade Statistics Yearbook (Volume 1) for 2021 and 2022, the United States was Korea's second top destination for merchandise exports, representing 13.3% and 14.4% of total exports for each respective year. The United Nations International Trade Statistics Yearbooks are available at https://comtradeplus.un.org/Publication/ITSY (Accessed: 29 May 2025). The European Commission identifies Korea as the EU's eighth-largest trading partner for goods. On the other hand, the EU is Korea's third-largest trading partner in goods. See https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/south-korea_en and https://webgate.ec.europa.eu/isdb_results/factsheets/country/details_south-korea_en.pdf (Accessed: 29 May 2025).

2.3 Reference to Other Global Initiatives

In addition to the sustainability disclosure standards and frameworks outlined in Section 2.2, this report also examines whether the sampled entities refer to any of the five emerging global initiatives identified below. These initiatives highlight the increasing focus on BEES-related challenges, providing essential frameworks to align corporate and national efforts with broader international sustainability objectives. The initiatives include:

(a) Kunming-Montreal Global Biodiversity Framework (GBF)[26]

The GBF, established under the Convention on Biological Diversity (CBD), is a global framework aimed at reversing biodiversity loss by 2030 (CBD 2022). Its key targets include:

- protecting 30% of the world's land and ocean areas by 2030 (known as the '30×30' target);
- halting species extinction rates and restoring degraded ecosystems; and
- promoting sustainable use of biodiversity and equitable sharing of its benefits.

(b) International Union for Conservation of Nature (IUCN)[27]

The IUCN is a global organisation dedicated to promoting the conservation and sustainable use of natural resources. Founded in 1948, the IUCN is the global authority on the status of the natural world and the measures needed to safeguard it. It leads biodiversity conservation, providing data and insights critical for safeguarding the natural world (IUCN n.d.). IUCN has:

- developed the *IUCN Red List of Threatened Species*, a widely recognised tool for assessing the global risk of species extinction;
- supported the development of biodiversity strategies for governments, non-governmental organisations (NGOs) and businesses; and
- promoted conservation policies that integrate ecological, social and economic factors.

(c) Partnership for Biodiversity Accounting Financials (PBAF)[28]

The PBAF focuses on helping financial institutions measure and report their biodiversity-related impacts (PBAF n.d.). Its objectives include:

- establishing standardised methodologies for biodiversity accounting;
- encouraging financial institutions to assess and reduce biodiversity loss resulting from investments and loans; and
- aligning with global frameworks such as the GBF.

(d) The Ramsar Convention[29]

The Ramsar Convention is an international treaty focused on the conservation and sustainable use of wetlands, recognising their critical role in biodiversity and climate regulation (Convention on Wetlands Secretariat 1987). The key goals of the Ramsar Convention include:

- identifying and conserving wetlands of international importance;
- ensuring sustainable wetland use to support biodiversity, water management and climate adaptation; and

26 More information on the GBF is available at https://www.cbd.int/gbf (Accessed: 28 April 2025).
27 More information on the IUCN is available at https://iucn.org/about-iucn (Accessed: 28 April 2025).
28 More information on the PBAF is available at https://pbafglobal.com/about-pbaf (Accessed: 28 April 2025).
29 More information on the Ramsar Convention is available at https://www.ramsar.org/about-convention-wetlands (Accessed: 28 April 2025).

- fostering international collaboration for wetland protection.

(e) Science-Based Targets for Nature (SBTN)[30]

The SBTN provides guidance for entities to set science-based, measurable targets that mitigate nature-related risks and impacts (SBTi n.d). The initiative emphasises:

- the integration of nature-positive goals into corporate strategies;
- alignment with broader frameworks such as the TNFD; and
- addressing biodiversity, freshwater, land use, oceans and ecosystems through measurable actions.

Table 6 presents the number of entities that mentioned these five global initiatives between FY21 and FY23 among the Australian and Korean samples, respectively.[31]

Table 6: Count of Entities Referencing Global Initiatives by Jurisdiction and Financial Year

	AUS			KOR		
Global Initiatives	**FY21**	**FY22**	**FY23**	**FY21**	**FY22**	**FY23**
GBF	0	2	3	0	1	5
IUCN	6	16	26	15	26	26
PBAF	0	0	0	0	2	2
Ramsar Convention	0	0	0	2	1	0
SBTN	0	1	3	0	1	7

When comparing the Korean data to the Australian data for the same period, several trends emerge. In both jurisdictions, the IUCN was the most frequently referenced global initiative across entities during the sample period. Korean entities demonstrated a steady trend in referencing the IUCN over the sample period, with an increase from 15 entities in FY21 to 26 in FY22 and no changes from FY22 to FY23. The Australian sample exhibited a slightly more dynamic pattern, as the number of entities referencing the IUCN rose by 10 entities from FY21 to FY22 and by another 10 from FY22 to FY23.

The entities referencing the five global initiatives seem to be concentrated in specific industries. As illustrated in Table 7, the IUCN was mentioned the most by entities in the Materials sector in Australia, though entities in the Consumer Staples, Energy, Industrials, Real Estate and Financials sectors also referenced the IUCN to nearly the same extent. As shown in Table 8, in Korea, the IUCN was mentioned the most by entities in the Industrials sector, closely followed by entities in the Financials and IT sectors. In contrast, the PBAF was mentioned only by entities within the Financials sector.

30 More information on the SBTN is available at https://sciencebasedtargets.org/about-us/sbtn (Accessed: 28 April 2025).

31 Appendix B shows the percentage of sample firms referring to each of the initiatives in Australia and Korea.

Table 7: Count of Entities Referencing Global Initiatives among the Australian Sample for the Full Sample across FY21–23 by GICS Industry Sector					
Industry Sector	**GBF**	**IUCN**	**PBAF**	**Ramsar Convention**	**SBTN**
Communication Services	0	2	0	0	0
Consumer Discretionary	0	2	0	0	0
Consumer Staples	0	7	0	0	1
Energy	1	7	0	0	0
Financials	1	6	0	0	1
Health Care	0	1	0	0	0
Industrials	0	7	0	0	0
IT	1	0	0	0	0
Materials	1	8	0	0	0
Real Estate	1	7	0	0	2
Utilities	0	1	0	0	0

Table 8: Count of Entities Referencing Global Initiatives among the Korean Sample for the Full Sample across FY21–23 by GICS Industry Sector					
Industry Sector	**GBF**	**IUCN**	**PBAF**	**Ramsar Convention**	**SBTN**
Communication Services	0	5	0	0	0
Consumer Discretionary	0	7	0	0	1
Consumer Staples	1	7	0	0	2
Energy	1	5	0	0	1
Financials	2	8	4	2	1
Health Care	0	7	0	0	1
Industrials	1	9	0	0	1
IT	0	8	0	0	0
Materials	1	5	0	1	1

Table 8: Count of Entities Referencing Global Initiatives among the Korean Sample for the Full Sample across FY21–23 by GICS Industry Sector					
Industry Sector	**GBF**	**IUCN**	**PBAF**	**Ramsar Convention**	**SBTN**
Real Estate	0	0	0	0	0
Utilities	0	6	0	0	0

2.4 References to Terms and Concepts in TNFD Recommendations

Table 9 presents the counts of nature-related terms included in TNFD recommendations among the Australian and Korean samples, respectively.[32]

Table 9: Count of Mentions of Concepts in TNFD Recommendations by Jurisdiction and Financial Year						
	AUS			**KOR**		
Concepts in TNFD	**FY21**	**FY22**	**FY23**	**FY21**	**FY22**	**FY23**
Impact pathway	0	0	0	20	2	15
LEAP	0	0	1	0	0	20
Natural capital	15	45	78	18	52	267
Natural capital accounting	0	0	9	0	0	0
Nature positive	3	27	37	0	0	2
Nature-related dependencies	0	0	4	0	4	34
Nature-related impact	0	1	11	0	0	1
Nature-related opportunities	0	0	1	0	0	1
Nature-related risks	1	13	43	2	16	68

The most mentioned concept was ‘natural capital’, with a total mention of 138 and 337 in Australia and Korea over the FY21–23 sample period, respectively. The two jurisdictions both showed an upward trend in the absolute count of mentions of ‘natural capital’, with a more pronounced trend in Korea, especially in FY23. In Australia, counts of ‘natural capital’ rose from 15 in FY21 to 78 in FY23, while in Korea, there was a larger increase from 52 counts in FY22 to 267 in FY23.

32 Appendix C shows the percentage of sample firms referring to each of the terms and concepts in Australia and Korea.

'Nature-related risks' was the second-most observed concept (in terms of absolute frequency counts) across sample entities, particularly in FY23. Over the three-year period, there were 57 mentions in Australia (up from one in FY21 to 43 in FY23) and 86 in Korea (increasing from two in FY21 to 68 in FY23).

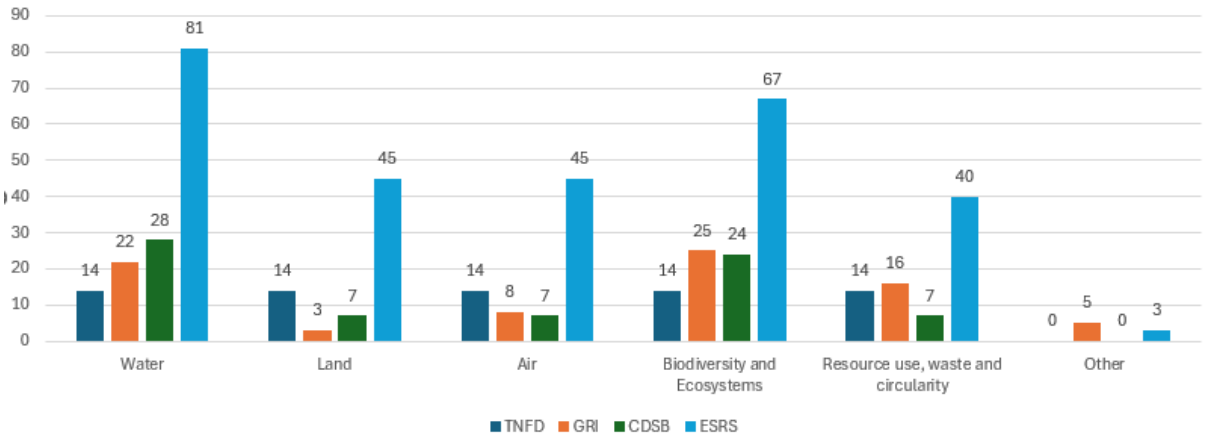
There is a notable difference between the Australian and Korean samples regarding 'nature positive'. This phrase was mentioned more frequently by Australian entities, with 27 mentions in FY22 and 37 in FY23. Conversely, this was mentioned only twice in the Korean sample in FY23.

The LEAP approach, *Locate, Evaluate, Assess and Prepare*, is TNFD's recommended assessment process that involves locating, evaluating, assessing and preparing for nature-related risks and opportunities. As expected, the 'LEAP' approach was not mentioned in FY21 or FY22, since the TNFD Recommendations were released only in the second half of 2023. This could also explain why only one Australian firm referred to 'LEAP'. Since most Australian entities have a financial year-end of 30 June, they likely did not have the opportunity to incorporate this concept into their reports for FY23. By the time the TNFD Recommendations were published, many of these entities had already released their Annual Reports. A similar observation of zero counts in FY21 and FY22 was noted for Korea. In contrast, 20 entities in Korea mentioned the 'LEAP' approach in their FY23 reports. This rise could be attributed to Korea's standardised year-end date of 31 December.

2.5 BEES-related Keywords Included in the ISSB Research

As part of their research project on BEES, the ISSB considered the total number of disclosure requirements for BEES-related topics, including water, land, air, biodiversity and ecosystems, resource use, waste and circularity in select global disclosure standards and frameworks such as the TNFD, GRI, Climate Disclosure Standards Board (CDSB) and ESRS. The results are presented in Figure 2 below (Stehm and Recanati 2024).[33]

Figure 2: Topical Coverage (Number of Disclosure Requirements in Global Standards and Frameworks)[34]



33 Appendix D contains tables with the absolute numerical count of the number of counts or mentions of each of the subtopics under the topics of water, land use, air, biodiversity, waste and pollution as well as the proportion of firms referencing each of the BEES-related topics.

34 Figure 2 originates from ISSB staff paper AP3A: Preliminary assessment of existing disclosure standards and frameworks from the November 2024 ISSB meeting, details of which are available at https://www.ifrs.org/news-and-events/calendar/2024/november/international-sustainability-standards-board/ (Accessed: 28 April 2025).

The total number of disclosure requirements per topic was found to vary across different standards and frameworks. The topic of water was the most frequently mentioned disclosure requirement among the four global standards and frameworks and was covered in 81 disclosure requirements from the ESRS, 28 disclosure requirements from the CDSB, 22 disclosures from the GRI Standards and 14 disclosure requirements from the TNFD. Overall, this reflects a strong emphasis on water-related issues in sustainability reporting.

The second most popular disclosure topic across the standards and frameworks was biodiversity and ecosystems, which was covered in 67 disclosure requirements from the ESRS, 25 disclosure requirements from the GRI Standards, 24 disclosure requirements from CDSB and 14 disclosure requirements from the TNFD.

The third most referenced disclosure topic was resource use, waste and circularity. This topic was covered in 40 disclosure requirements from the ESRS, 16 disclosure requirements from the GRI Standards, 14 disclosure requirements from the TNFD and seven disclosure requirements from the CDSB.

The second-least mentioned disclosure topic was land, covered in 45 disclosure requirements from the ESRS, 14 disclosure requirements from the TNFD, seven disclosure requirements from the CDSB and three disclosure requirements from the GRI Standards.

Finally, the topic of air was covered across 34 disclosure requirements from the ESRS, 14 disclosure requirements from the TNFD, eight disclosure requirements from the GRI Standards and seven disclosure requirements from the CDSB.

Together, these results highlight the varying degrees of emphasis on different topics across existing standards and frameworks, with water, biodiversity and land-related disclosure requirements particularly prominent in the ESRS. Other disclosure topics, such as resource use, waste and circularity and air, were more evenly distributed across the analysed reporting standards and frameworks.

The following figure, Table 10, presents the absolute number of times a particular BEES-related keyword was mentioned in sample entities' reports across Australia and Korea.[35]

35 For example, the count for the topic of air captures all the keywords related to air (sub-topic keywords shown in Table D1 in Appendix D).

Table 10: Count of BEES-related Keywords by Jurisdiction and Financial Year						
	AUS			KOR		
BEES-related Keywords	FY21	FY22	FY23	FY21	FY22	FY23
Air	15,542	16,291	15,835	914	1,181	1,294
Biodiversity	342	659	685	374	949	1,586
Circular economy	205	160	175	270	202	499
Ecosystem services	3	12	15	0	4	68
Land use	61	84	72	11	14	10
Mineral	1,055	1,234	1,392	102	151	124
Pollution	82	126	81	645	967	1,102
Resource efficiency	30	50	37	27	31	49
Waste	1,409	1,729	1,918	2,651	3,230	3,476
Water	2,761	3,062	3,074	2,820	3,625	4,321

The following sections provide the keyword count results for each BEES-related topic, categorised by jurisdiction, financial year and GICS industry sector.

As the sustainability-related reports from sample entities in Korea's Real Estate sector contained zero instances of selected keywords, the Korean Real Estate sector is excluded from the following industry-level analyses presented throughout the remainder of this report.

Air

As depicted in Figure 3, Australia had 47,668 counts of air-related keywords across the three sample years, with counts remaining relatively consistent—from 15,542 in FY21 to 15,835 in FY23. While the Financials sector accounted for the highest number of counts of air-related keywords, there was a relatively even distribution among other sectors.

In contrast, Figure 4 shows that Korea's mentions were lower at 3,389, though some growth was shown, with references increasing from 914 in FY21 to 1,294 in FY23. In Korea, the Consumer Discretionary sector had the highest number of air-related references, totalling 492 mentions across the three sample years. In contrast to the Australian sample, where the Financials sector frequently mentions air-related keywords, entities in the Financials sector in Korea mentioned the keyword of air the least.

Figure 3: Count of Air-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

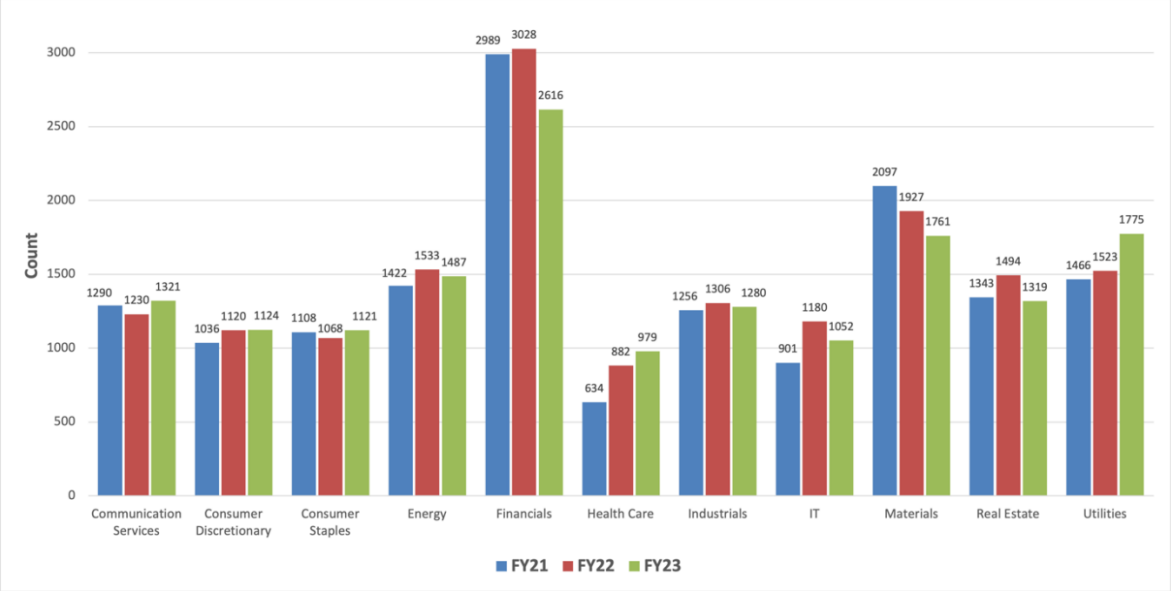


Figure 4: Count of Air-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector

Biodiversity

Figure 5 shows that in Australia, counts of biodiversity-related keywords totalled 1,686, increasing from 342 in FY21 to 685 in FY23.

In Korea, Figure 6 shows that mentions totalled 2,909, increasing from 374 in FY21 to 1,586 in FY23. The Korean sample exhibited a more even distribution of counts of biodiversity-related keywords across sectors, with there generally being an upward trend across most sectors.

Figure 5: Count of Biodiversity-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

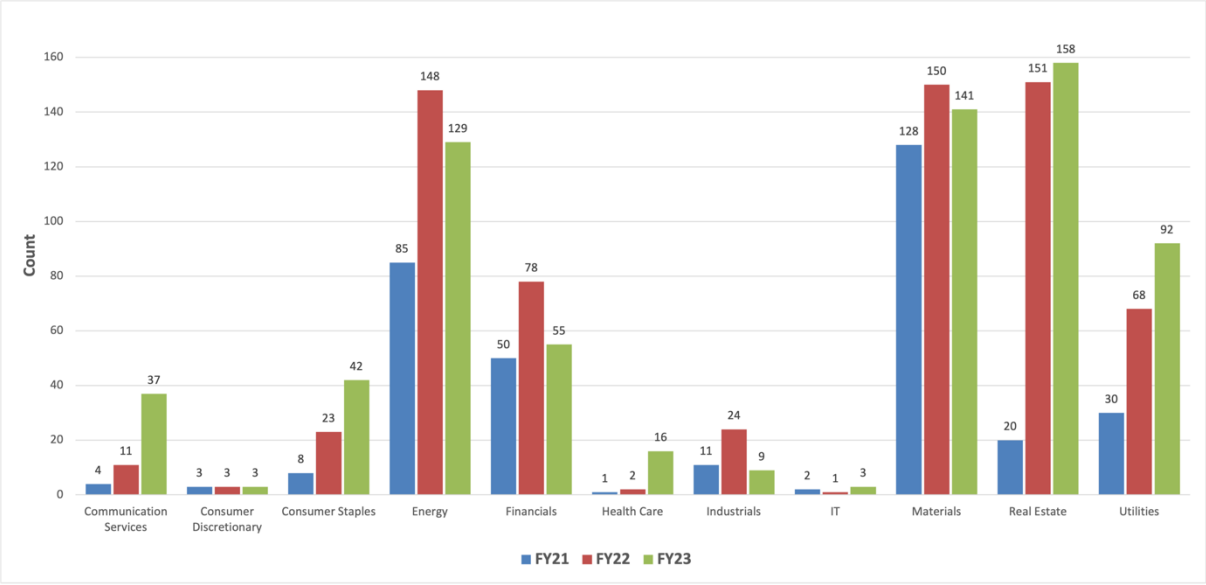
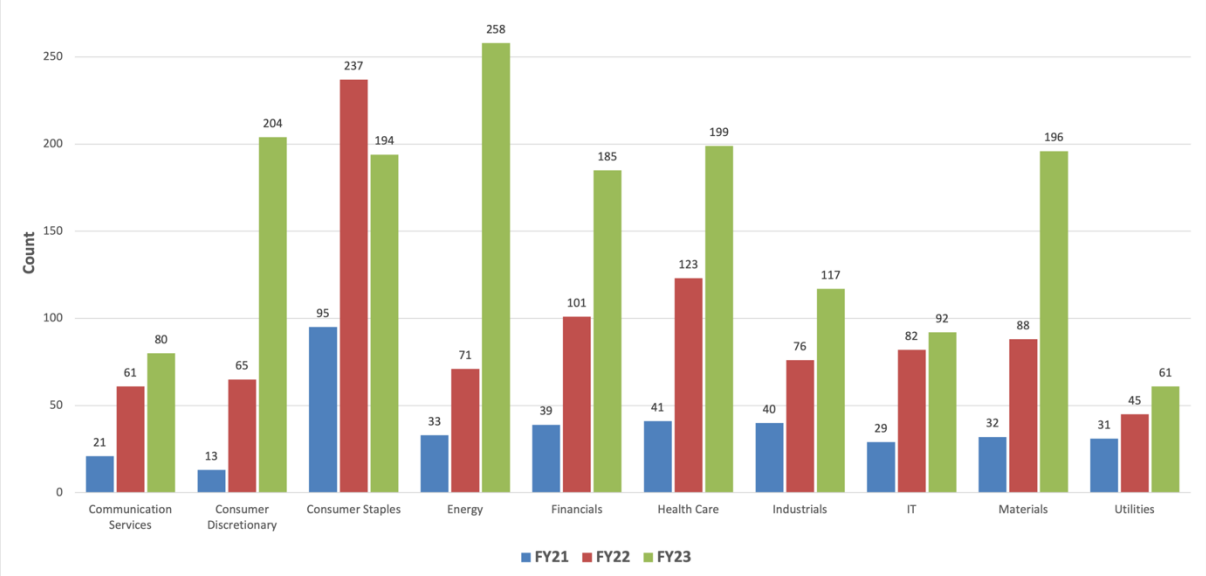


Figure 6: Count of Biodiversity-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



Circular Economy

Australia recorded 540 counts of 'circular economy' over the three-year sample period, as shown in Figure 7. The number of mentions dipped slightly from 205 in FY21 to 175 in FY23. The Consumer Discretionary sector had the most mentions in FY21 at 109 mentions; however, this decreased significantly to 18 in FY23.

As shown in Figure 8, Korea's mentions summed to 971, increasing from 270 in FY21 to 499 in FY23. This upward trend appears to be driven by increases in references to circular economy-related keywords in the Communication Services, Consumer Staples and Materials sectors.

Figure 7: Count of Circular Economy-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

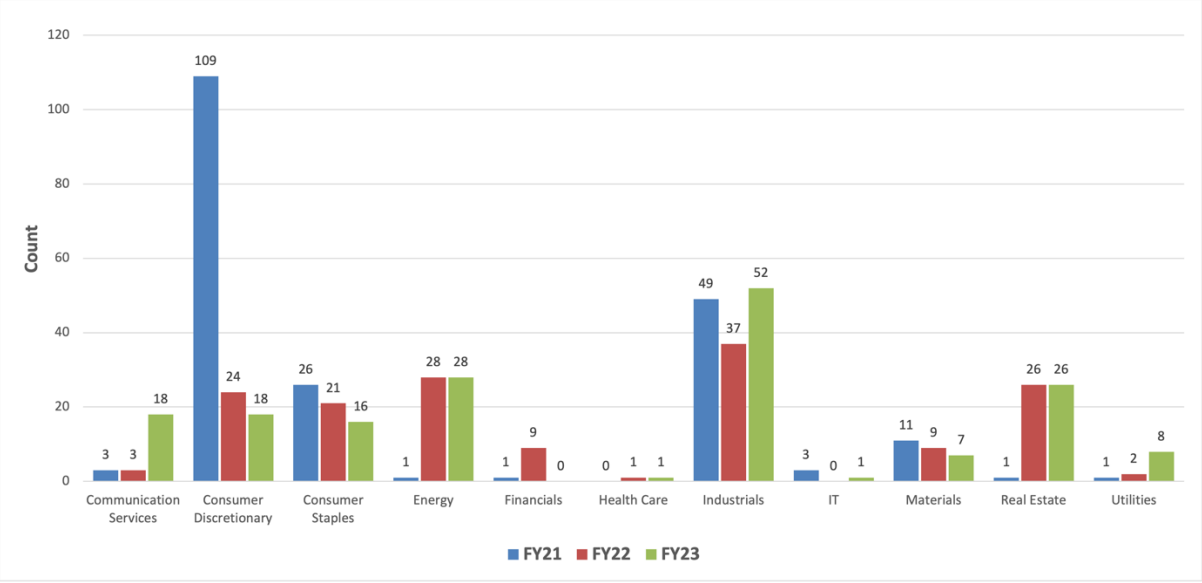
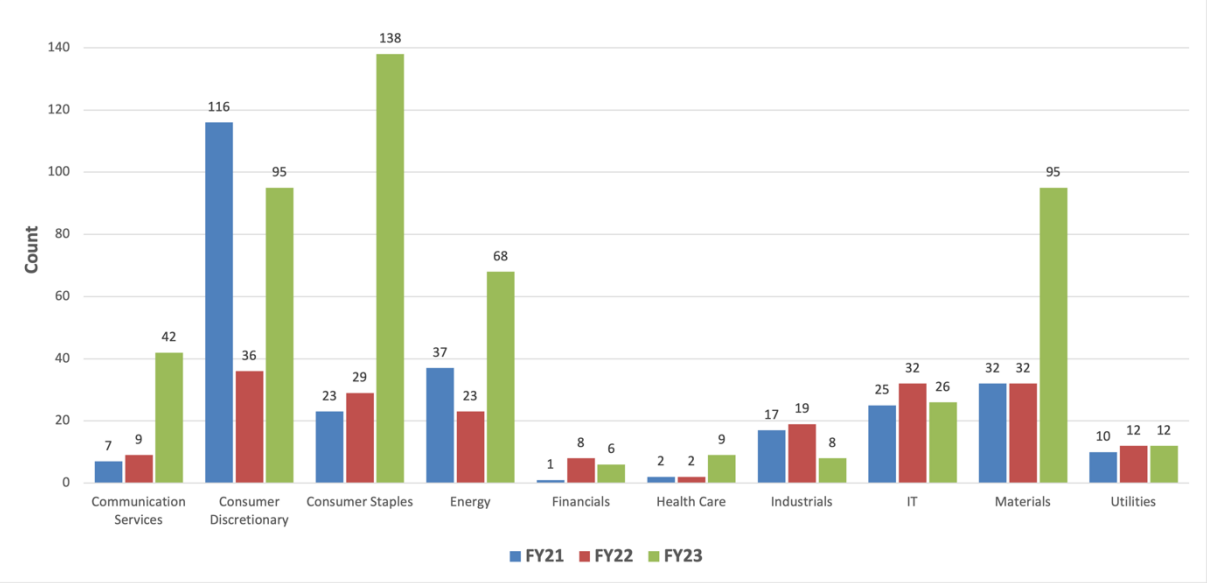


Figure 8: Count of Circular Economy-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



Ecosystem Services

As shown in Figure 9, counts of ecosystem services-related keywords in the Australian sample were minimal, totalling 30 over three years. This may suggest limited engagement with the concept, which may be an emerging area of focus.

Figure 10 shows that mentions of ecosystem services-related keywords in the Korean sample were comparatively higher at 72, with none in FY21, four in FY22 and 68 in FY23. Most counts came from the Financials (34 counts) and Consumer Discretionary sectors (14 counts) in FY23.

Figure 9: Count of Ecosystem Services-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

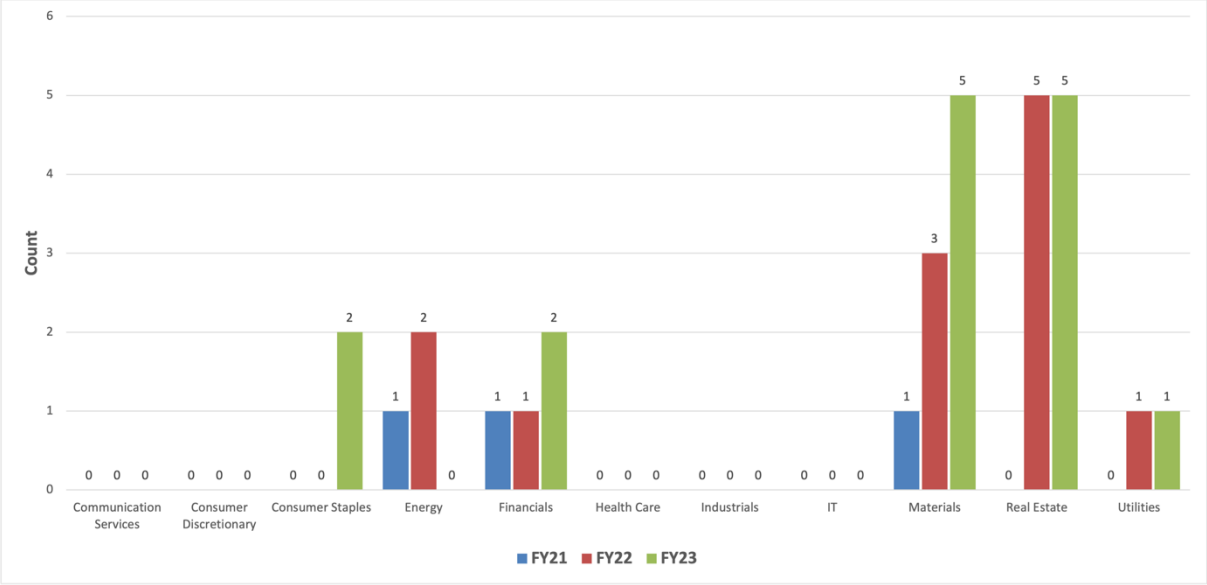
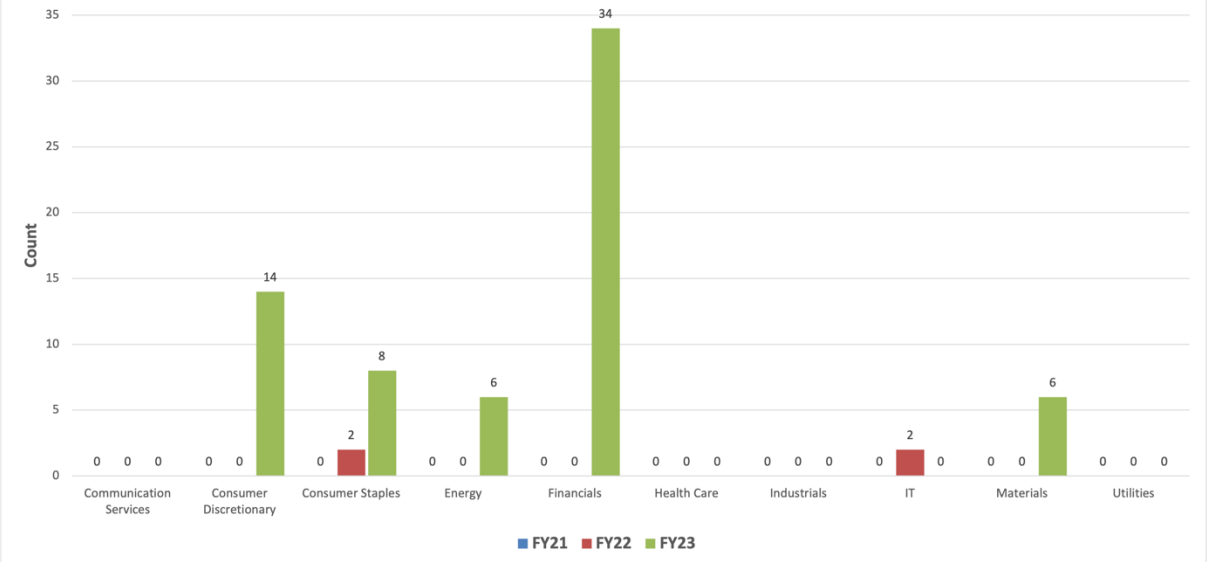


Figure 10: Count of Ecosystem Services-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



Land Use

In Australia, counts of land use-related keywords totalled 217, with 61 counts in FY21, a peak at 84 in FY22 before decreasing to 72 in FY23 (see Figure 11). The mentions of land use-related keywords in Australia mainly came from the Materials, Energy and Real Estate sectors.

On the other hand, Figure 12 indicates that Korea's mentions were much lower, totalling just 35 and declining from 11 in FY21 to 10 in FY23. There were limited counts across all 10 examined GICS Industry Sectors.[36]

Figure 11: Count of Land Use-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

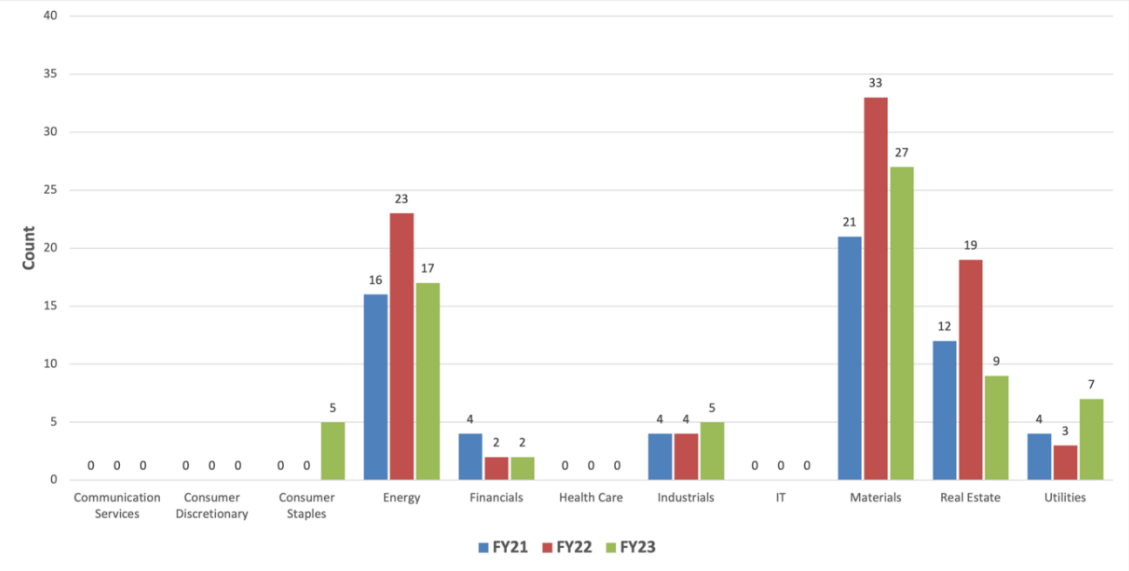
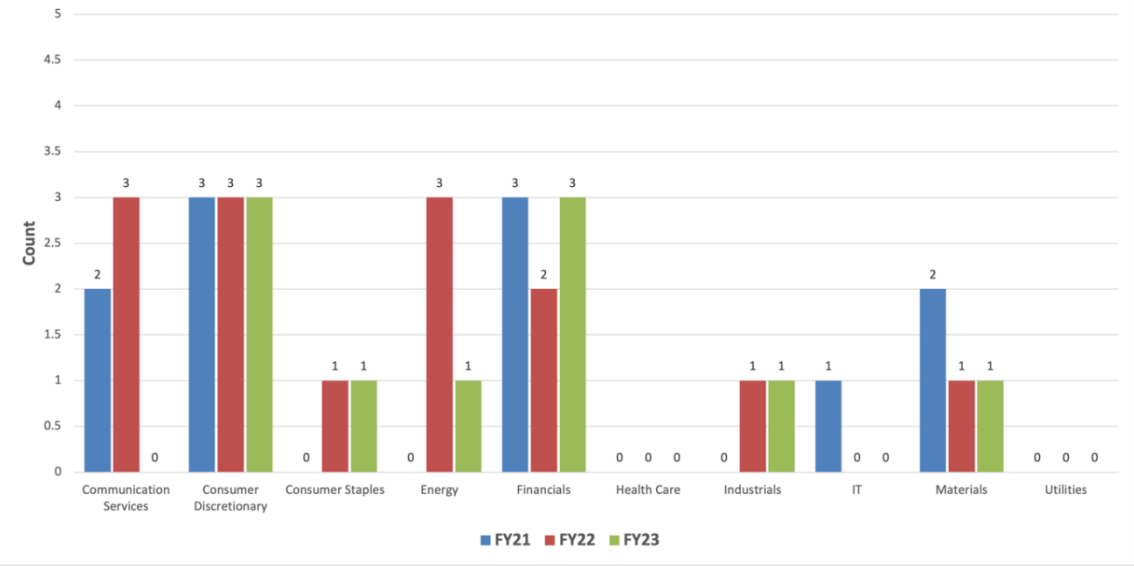


Figure 12: Count of Land Use-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



36 Due to Korea's relatively smaller Real Estate sector, no keyword counts were available for the selected sustainability-related reports of the sample firms in this industry sector.

Minerals

Figure 13 shows that in Australia, minerals-related mentions totalled 3,681, with a slight increase from 1,055 in FY21 to 1,392 in FY23. Entities from the Materials industry sector accounted for the majority of these counts.

Conversely, Figure 14 illustrates that mentions for the Korean sample were comparatively smaller, with only 377 mentions across the three sample years. Counts of mineral-related keywords were heavily focused in the IT sector, which could be reflective of not only the country's emphasis on IT but also its focus on IT-related products and manufacturing (as opposed to IT services).

Figure 13: Count of Mineral-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

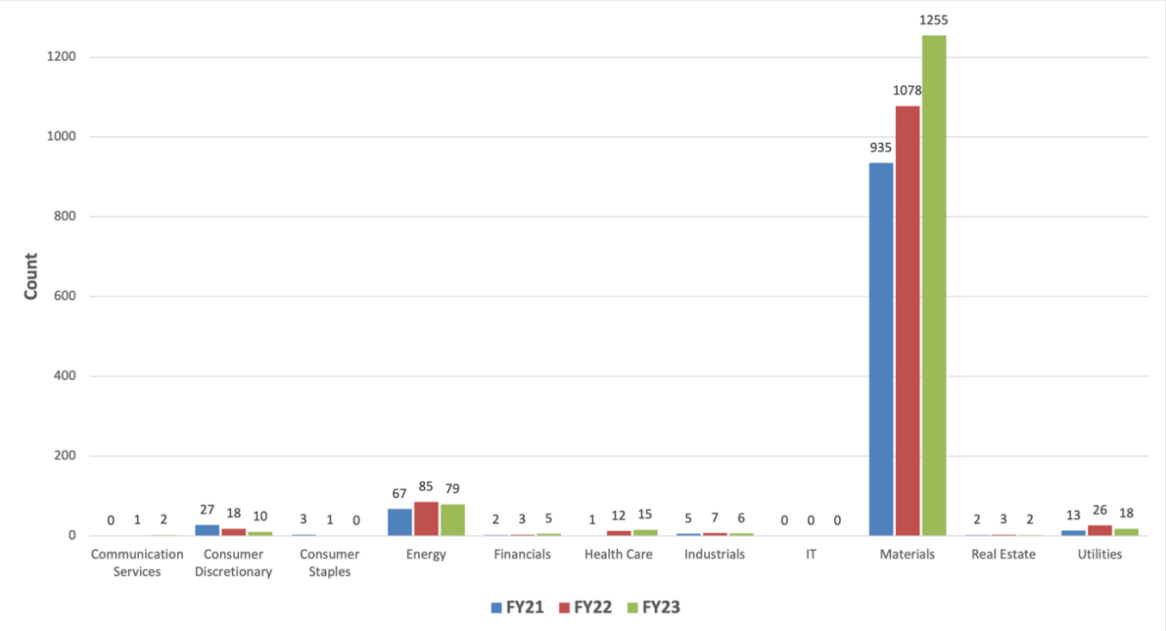
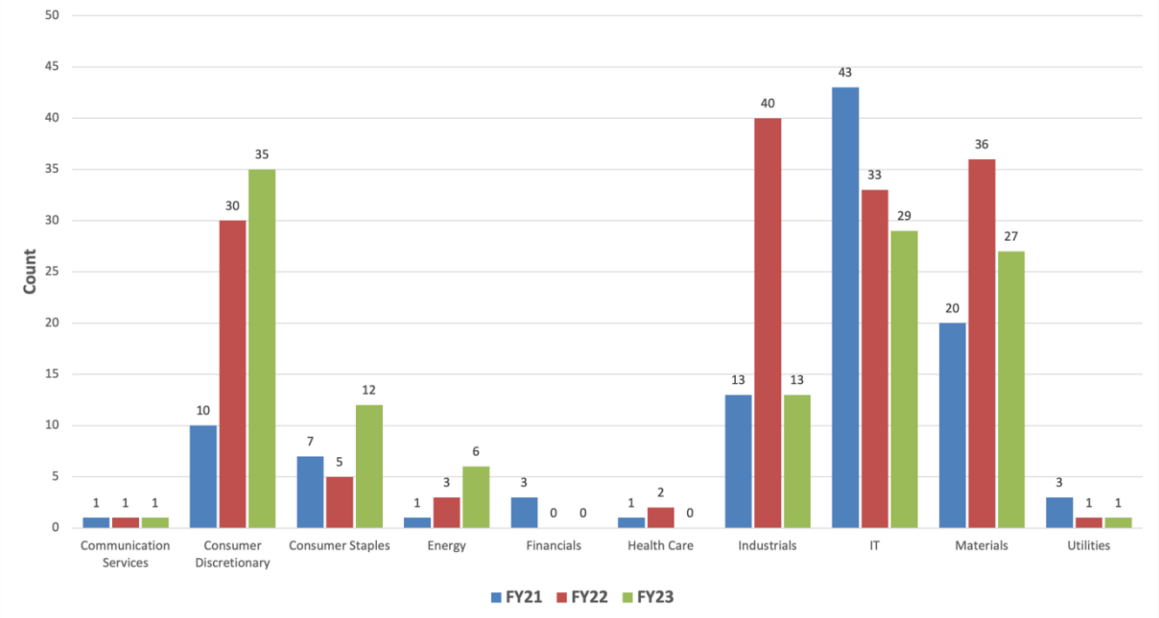


Figure 14: Count of Mineral-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



Pollution

Figure 15 shows that pollution-related counts (including pollutant-related mentions) were relatively low for the Australian sample, totalling 289 across the sample period. There was no clear trend over time, with there being 82 counts for FY21, 126 for FY22 and 81 for FY23.

Figure 16 shows that Korea's pollution-related mentions were comparably higher, with a combined total of 2,714. Counts of pollution-related terms increased steadily across the sample period, from about 645 in FY21 to 1,102 in FY23. The sectors with the largest increases in pollution-related mentions were the Energy and Consumer Discretionary sectors, respectively.

Figure 15: Count of Pollution-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

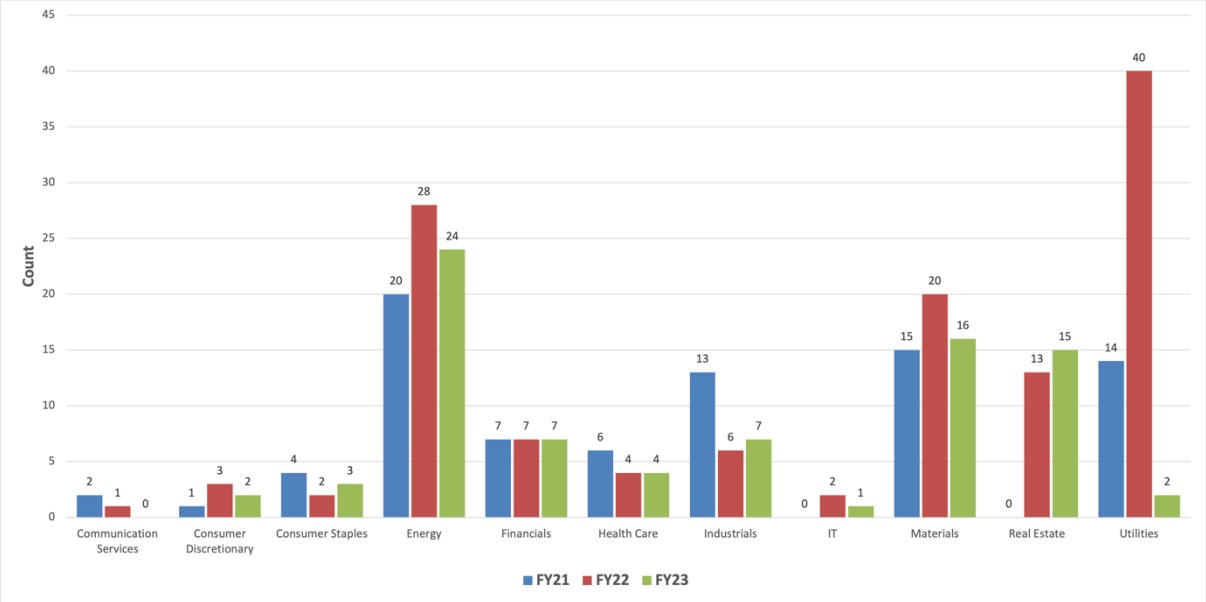
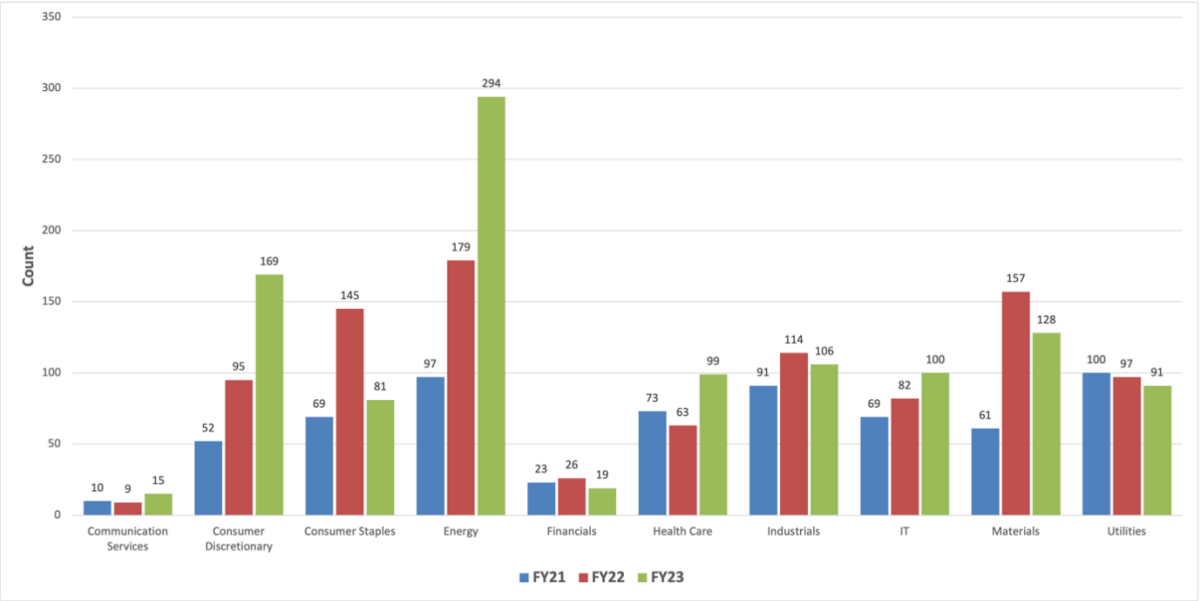


Figure 16: Count of Pollution-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



Resource Efficiency

In Australia, mentions of resource efficiency were limited, totalling 117 over the sample period, as shown in Figure 17. There was no clear trend in the number of mentions across the three financial years examined, with 30 counts in FY21, an increase to 50 in FY22 and then a decrease to 37 in FY23.

As for the Korean sample, Figure 18 shows a similar trend with 107 mentions. However, unlike Australia, Korea showed a slight year-on-year rise, with 27 mentions in FY21, 31 in FY22 and 49 in FY23.

Across both Australia and Korea, mentions of resource efficiency were minimal, which could suggest that this BEES-related topic currently receives limited attention. Notably, both the Energy and Utilities sectors in Australia and Korea disclosed close to, if not zero, mentions during the sample period.

Figure 17: Count of Resource Efficiency-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

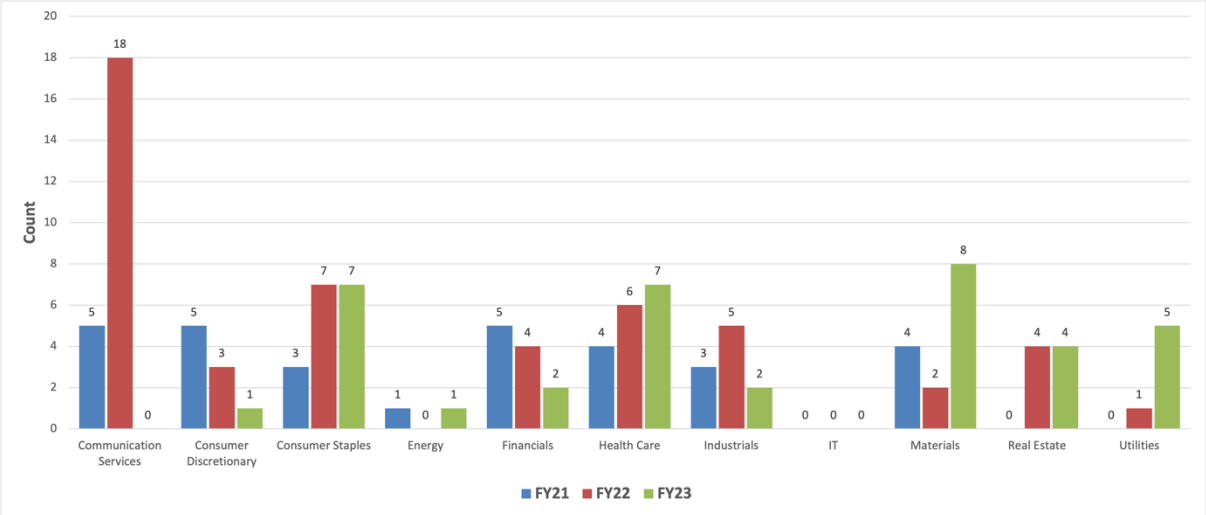
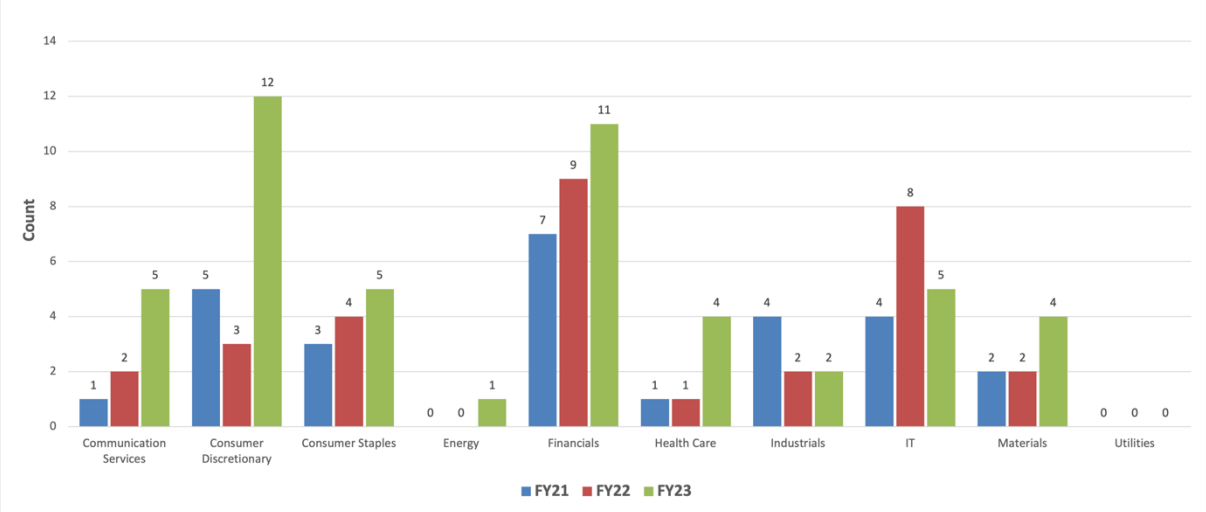


Figure 18: Count of Resource Efficiency-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



Waste

Figure 19 shows that in Australia, waste-related mentions totalled 5,056, reflecting a gradual increase from 1,409 in FY21 to 1,918 in FY23. The Consumer Staples sector saw a large increase in waste-related mentions from FY21 (192 counts) to FY23 (314 counts).

In comparison, Figure 20 indicates that waste-related keyword counts in Korea were much higher at 9,357, growing consistently each year from 2,651 in FY21 to 3,476 in FY23. This pattern could indicate a stronger emphasis on waste management in Korea. The sectors contributing the most to these mentions include IT, Consumer Staples, Energy and Consumer Discretionary, with the latter showing the most notable increase from FY21 to FY23.

Figure 19: Count of Waste-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector

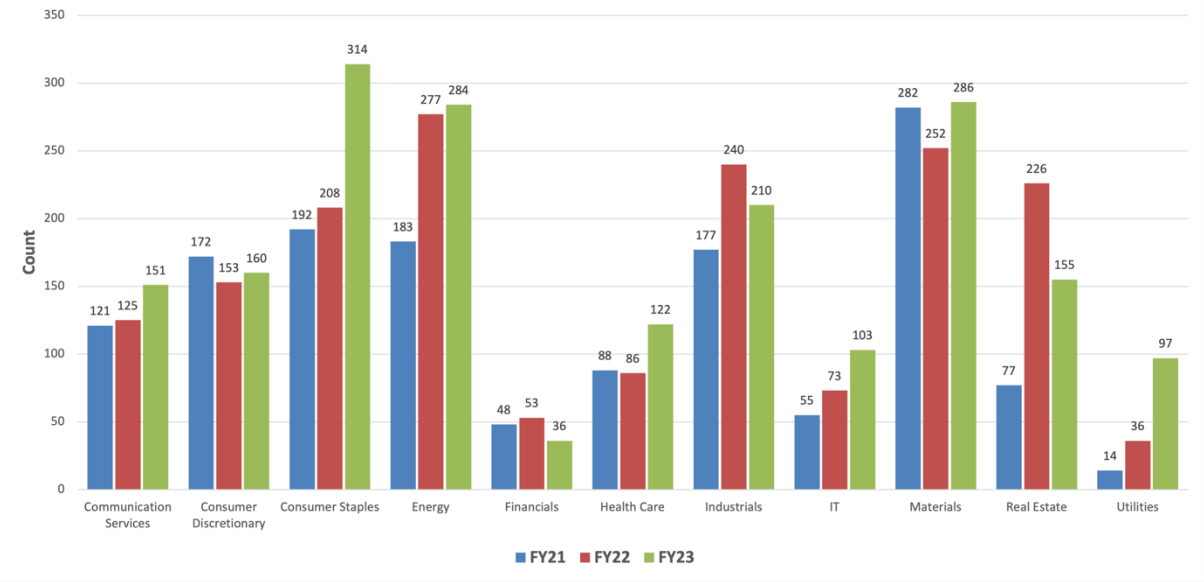


Figure 20: Count of Waste-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector

Water

In Australia, mentions of water-related keywords totalled 8,897, showing an increase from 2,761 in FY21 to 3,074 in FY23 (see Figure 21). The Materials sector had the highest frequency of water-related keywords, about double that of the second-ranking Energy sector.

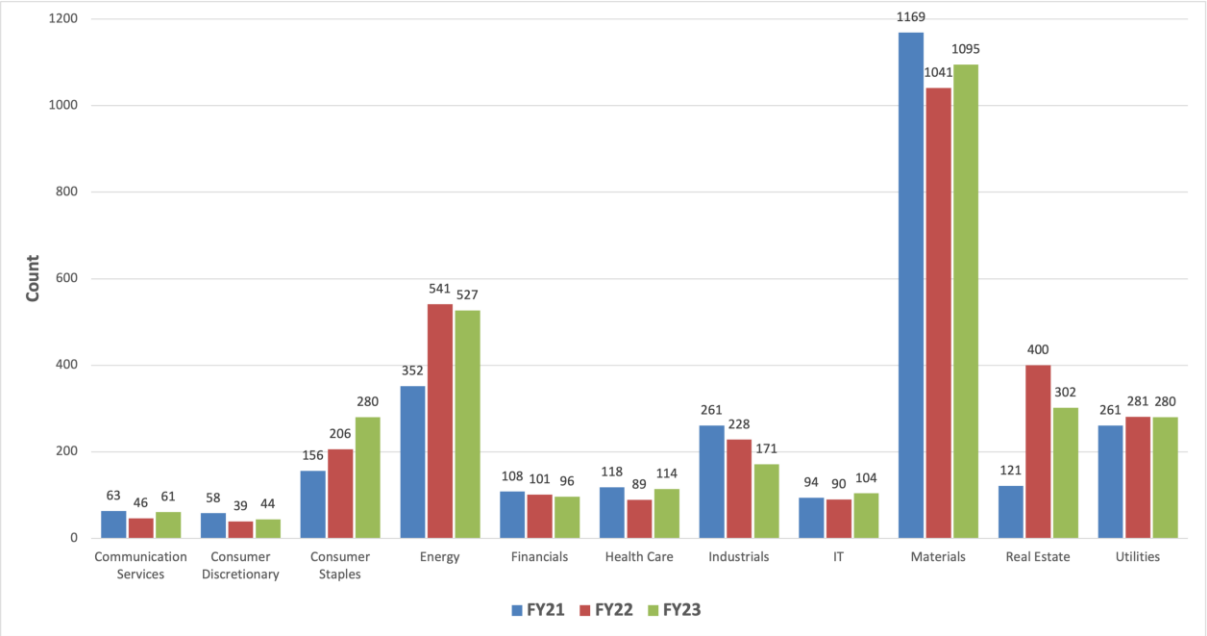
The Bureau of Meteorology (BoM) in Australia has issued a set of Water Accounting Standards, which have been approved by the Water Accounting Standards Board.[37] At present, the Water Accounting Standards are comprised of Water Accounting Standards 1 (BoM 2012) and 2 (BoM 2014a) and are accompanied by the Water Accounting Conceptual Framework (BoM 2014b), which together make up a collection of principle-based guidance developed for the preparation, presentation and assurance of water accounting practices within Australia.

Given the specific context of this jurisdiction, the keyword analysis was adjusted to also include the number of times the phrase 'water accounting standard' appears in the financial and/or sustainability-related reports of sample entities in Australia. One Australian entity in the Materials sector referenced the Water Accounting Standards. This finding aligns with the results of the industry sector analysis for water-related keywords below, where the Materials sector had the most mentions of water-related keywords in the analysed firm reports, significantly surpassing any other sector in Australia.

Figure 22 shows that in Korea, counts of water-related keywords were higher, totalling 10,766. This figure rose consistently from 2,820 in FY21 to 4,321 in FY23. The Consumer Staples sector appeared to have the highest number of counts of water-related keywords, followed by the IT and Materials sectors.

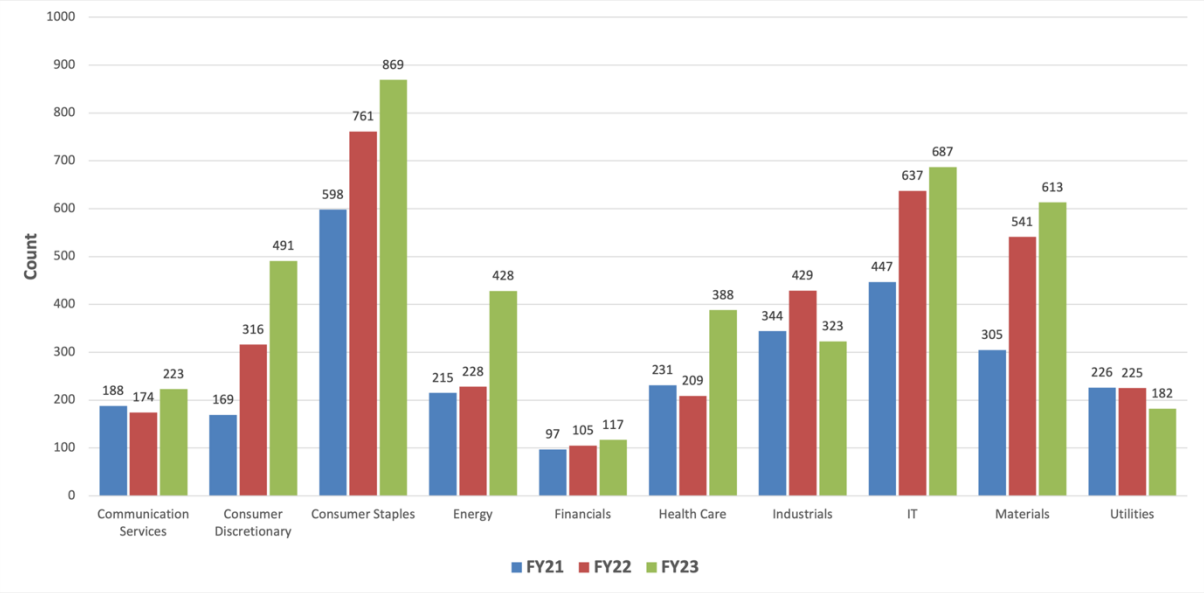
Both jurisdictions demonstrated an upward trend in water-related keyword counts, with Korea demonstrating a more prominent increase over the sample period.

Figure 21: Count of Water-related Keywords among the Australian Sample for FY21–23 by GICS Industry Sector



37 The Water Accounting Standards can be accessed at http://www.bom.gov.au/water/standards/wasb/awas.shtml (accessed 29 April 2025).

Figure 22: Count of Water-related Keywords among the Korean Sample for FY21–23 by GICS Industry Sector



2.6 Additional Searches

2.6.1 Climate-related Keywords

In addition to BEES-related keywords, we also explored the extent to which climate-related keywords were mentioned in sample reports. The ISSB has identified that investors consider BEES and climate change to be intimately related, with BEES-related information likely providing information that contextualises and bolsters a more comprehensive understanding of the implications of climate-related risks and opportunities on an entity's prospects (Wong and Johnson 2024).[38]

The climate-related keywords examined include 'carbon neutrality', 'climate', 'climate change', 'climate risks' and 'net zero'. By analysing the frequency and context of these keywords, this research aims to assess if and how organisations are integrating climate-related issues in their reporting.

Table 11 presents the count of the number of times a particular climate-related topic was mentioned in sample entities' reports across the Australian and Korean samples for the sample period of FY21, FY22 and FY23.[39]

38 See AP2: Projects to add to the work plan from the ISSB April 2024 meeting (Accessed: 19 May 2025).
39 Appendix E shows tables with the absolute numerical count of the number of mentions of each of the subtopics of climate.

Table 11: Count of Climate-related Keywords by Jurisdiction and Financial Year						
	AUS			KOR		
Climate-related Keywords	FY21	FY22	FY23	FY21	FY22	FY23
Carbon neutrality	80	81	45	544	630	725
Climate	4,738	5,326	6,380	3,529	4,304	5,495
Climate change	2,007	1,969	1,835	2,035	2,402	3,058
Climate risks	64	73	122	84	74	131
Net zero	496	708	773	475	693	874

Carbon Neutrality

As shown in Figure 23 counts of ‘carbon neutrality’ in Australian entities’ reports were relatively infrequent, totalling 206 instances, declining from 80 in FY21 to 45 in FY23. This decreasing trend may reflect a shift in terminology preference within Australian corporate discourse, potentially moving away from ‘carbon neutrality’ toward ‘net zero,’ as counts of ‘net zero’ increased over the sample period (see Figure 31).

Figure 24 shows that Korean entities’ mentions of ‘carbon neutrality’ totalled 1,899 instances, gradually rising from 544 in FY21 to 725 in FY23. Compared to the Australian sample, counts of ‘carbon neutrality’ consistently increased across several sectors, including Communication Services, Consumer Discretionary, Energy and Financials. Nonetheless, a decline in mentions was seen in the IT and Utilities sectors over the three-year period.

Figure 23: Count of the Keyword ‘Carbon Neutrality’ among the Australian Sample for FY21–23 by GICS Industry Sector

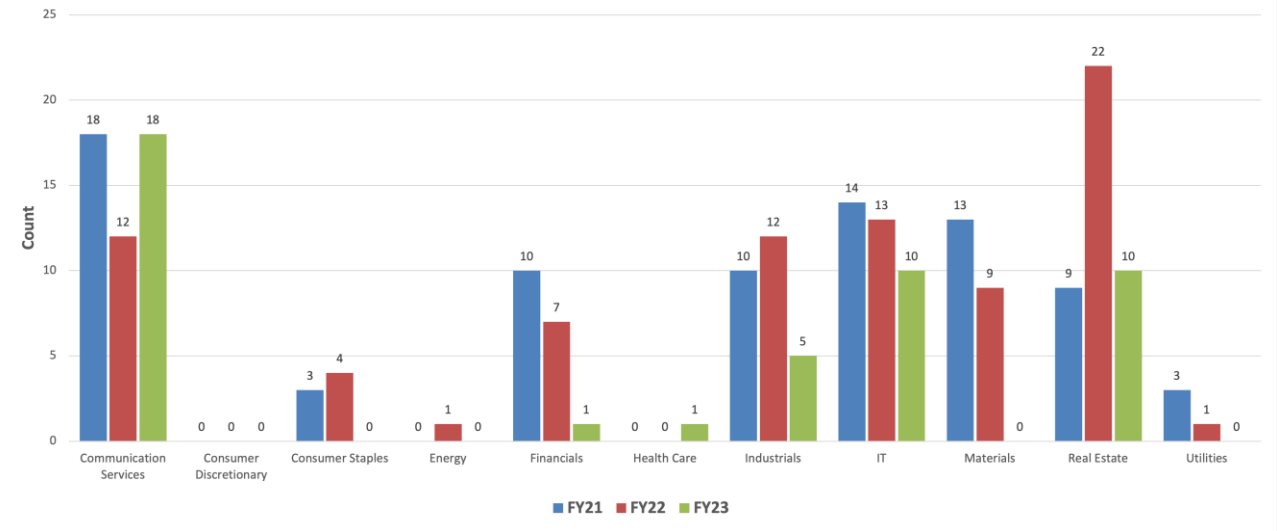
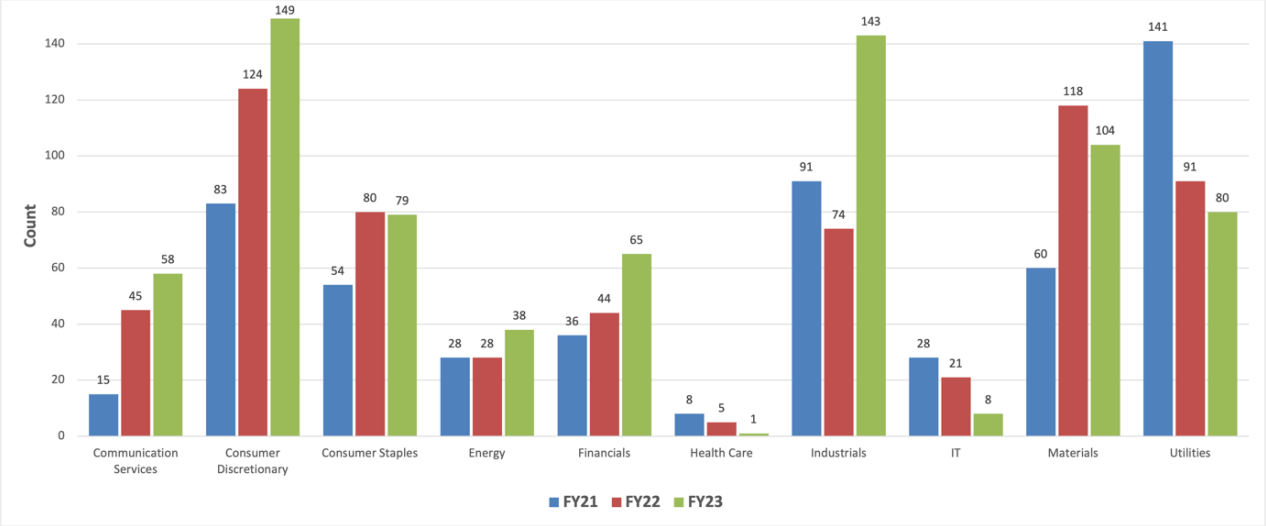


Figure 24: Count of the Keyword 'Carbon Neutrality' among the Korean Sample for FY21–23 by GICS Industry Sector



Climate

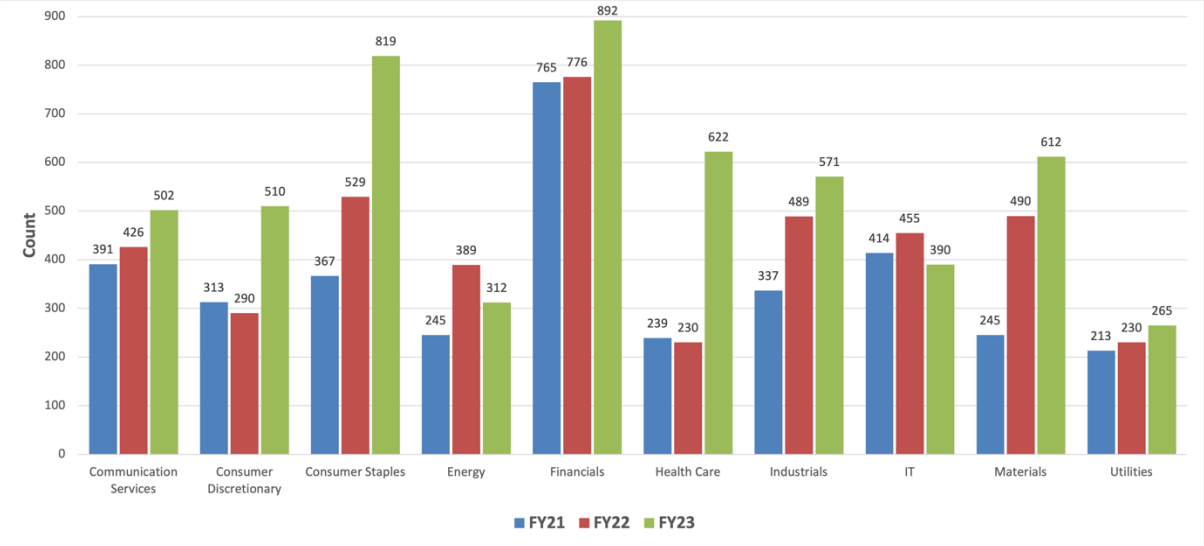
Figure 25 and Figure 26 show the trends in the count of 'climate' among the Australian and Korean samples. The numbers in Figure 25 and Figure 26 represent every mention of 'climate' in the reports of sample entities, meaning that these count figures also include 'climate change' and 'climate risks', all of which are also examined individually in the following subsections of this report.

In Australia, mentions of 'climate' totalled 16,444, increasing steadily from 4,738 in FY21 to 6,380 in FY23. In Korea, mentions were slightly lower at 13,328 but showed stronger growth, rising from 3,529 in FY21 to 5,495 in FY23.

In the Australian sample, 'climate' was most frequently mentioned by entities in the Materials sector (2,642 counts) and the Financials sector (2,233 counts), with an upward trend observed in the former and a downward trend in the latter. In Korea, the Financials sector contributed the highest number of mentions at 2,433 counts. The Consumer Staples sector was second with 1,715 mentions, followed by the Industrials sector with 1,397 and the Materials sector with 1,347.

Figure 25: Count of the Keyword ‘Climate’ among the Australian Sample for FY21–23 by GICS Industry Sector

Figure 26: Count of the Keyword ‘Climate’ among the Korean Sample for FY21–23 by GICS Industry Sector



Climate Change

Figure 27 illustrates that for the Australian sample, there were a total of 5,811 mentions of ‘climate change’, but counts remaining relatively stable, decreasing slightly from 2,007 in FY21 to 1,835 in FY23.

In contrast, Figure 28 shows that Korea had more total mentions at 7,495, demonstrating consistent growth from 2,035 in FY21 to 3,058 in FY23.

In Australia, the Financials and Materials sectors appear to reference ‘climate change’ more frequently than other industry sectors. The unique economic structures and sectoral emphasis in Australia may help to explain the prominence of ‘climate change’ in these two sectors (see 2.1 Sample Descriptives).

In contrast, although the Industrials and IT sectors are the leading industry sectors in Korea (by market capitalisation), they did not rank among the top two sectors mentioning ‘climate

change' during the sample period. Overall, in Korea, there was less diversity in the trends of mentions of 'climate change' across sectors than in the Australian sample.

Figure 27: Count of the Keyword 'Climate Change' among the Australian Sample for FY21–23 by GICS Industry Sector

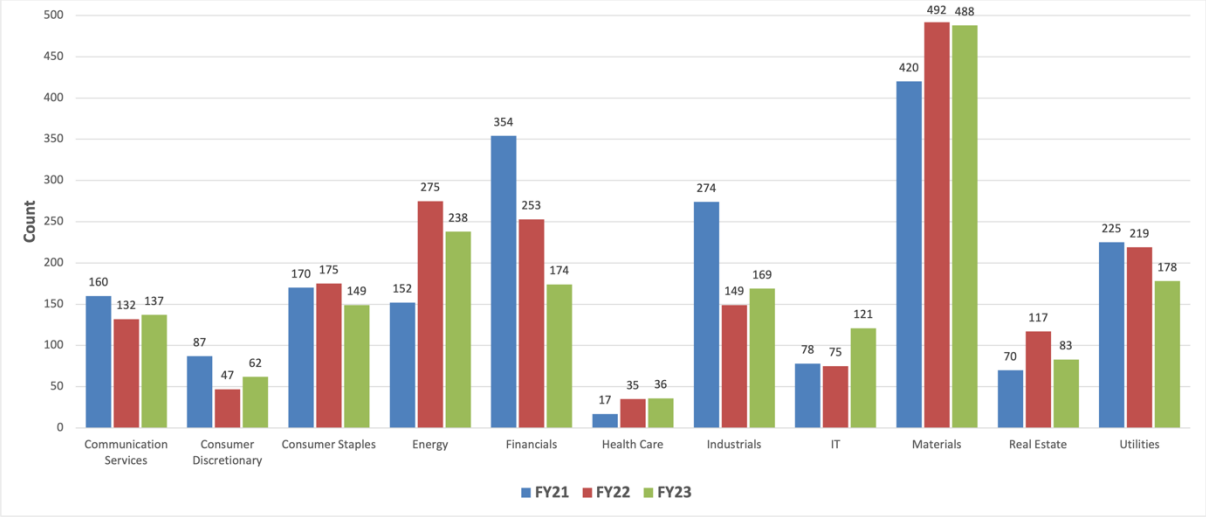


Figure 28: Count of the Keyword 'Climate Change' among the Korean Sample for FY21–23 by GICS Industry Sector

Climate Risks

As shown in Figure 29, counts of 'climate risks' in Australia were relatively low, totalling 259. The number of references to this keyword nearly doubled from 64 in FY21 to 122 in FY23, which could point to a possible increase in the recognition of climate-related risks in Australia. Notably, a sudden increase in counts of 'climate risk' was observed in the Communication Services sector in FY23, despite a relatively stable number of mentions in FY21 and FY22. However, this increase in mentions was not equivalently matched in other sectors, with only slight increases in mentions from FY22 to FY23 observed in Industrials, IT, Materials, Real Estate and Utilities.

Figure 30 shows that Korea recorded slightly higher mentions overall, totalling 289, with stable growth from 84 in FY21 to 131 in FY23, primarily driven by mentions from the Financials industry sector.

Figure 29: Count of the Keyword 'Climate Risks' among the Australian Sample for FY21–23 by GICS Industry Sector

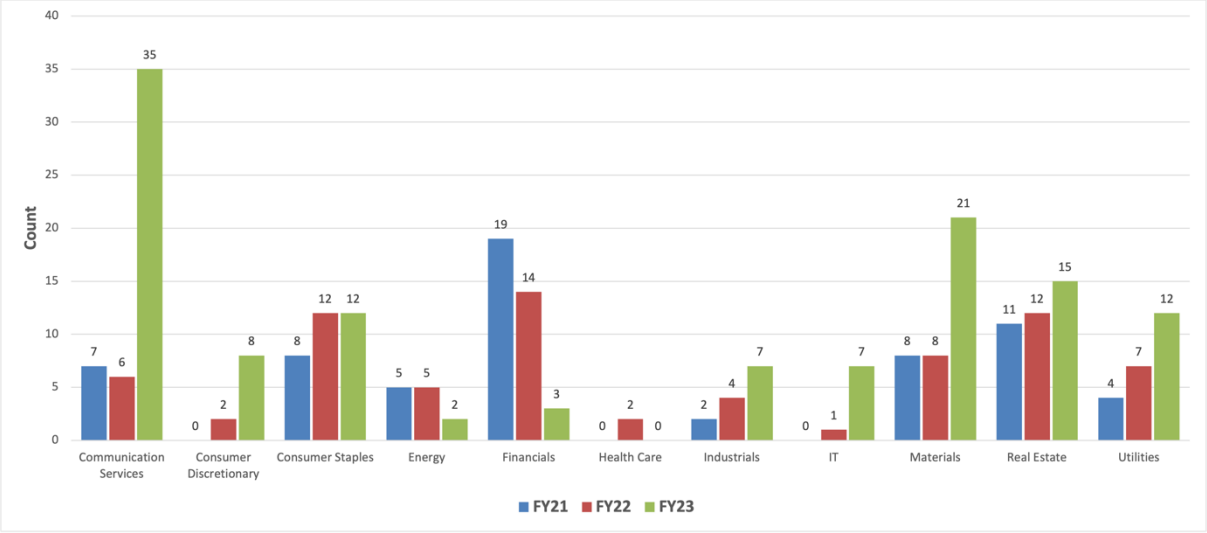
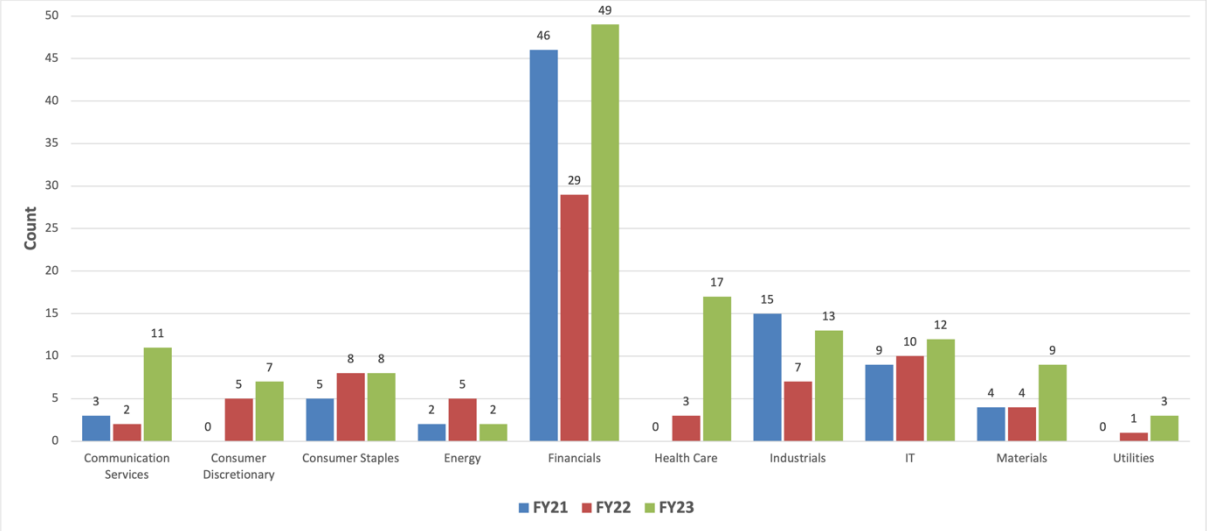


Figure 30: Count of the Keyword 'Climate Risks' among the Korean Sample for FY21–23 by GICS Industry Sector



Net Zero

Counts of 'net zero' in the Australian sample reached a total of 1,977, showing steady growth from 496 in FY21 to 773 in FY23 (Figure 31). Korea had slightly higher mentions at 2,042, with growth from 475 in FY21 to 874 in FY23 (Figure 32).

Both countries demonstrated increasing counts of 'net zero', with Korea demonstrating slightly stronger growth. In Australia, this upward trend was predominantly driven by the Real Estate sector, in contrast to the Real Estate sector in Korea, which had no mentions at all. In Korea, this trend was driven by entities in the Energy industry sector.

Figure 31: Count of the Keyword 'Net Zero' among the Australian Sample for FY21–23 by GICS Industry Sector

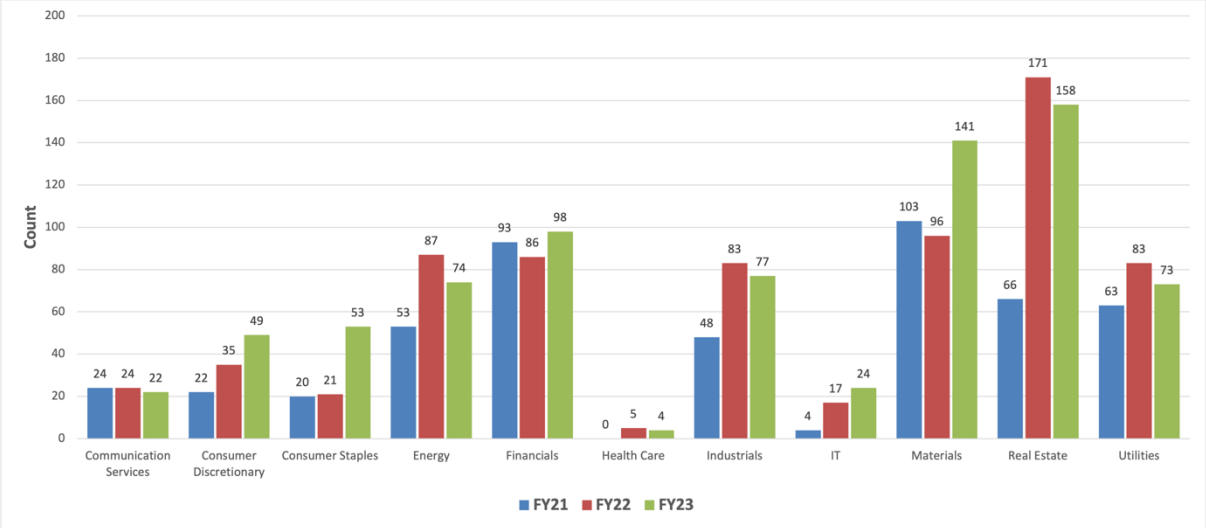
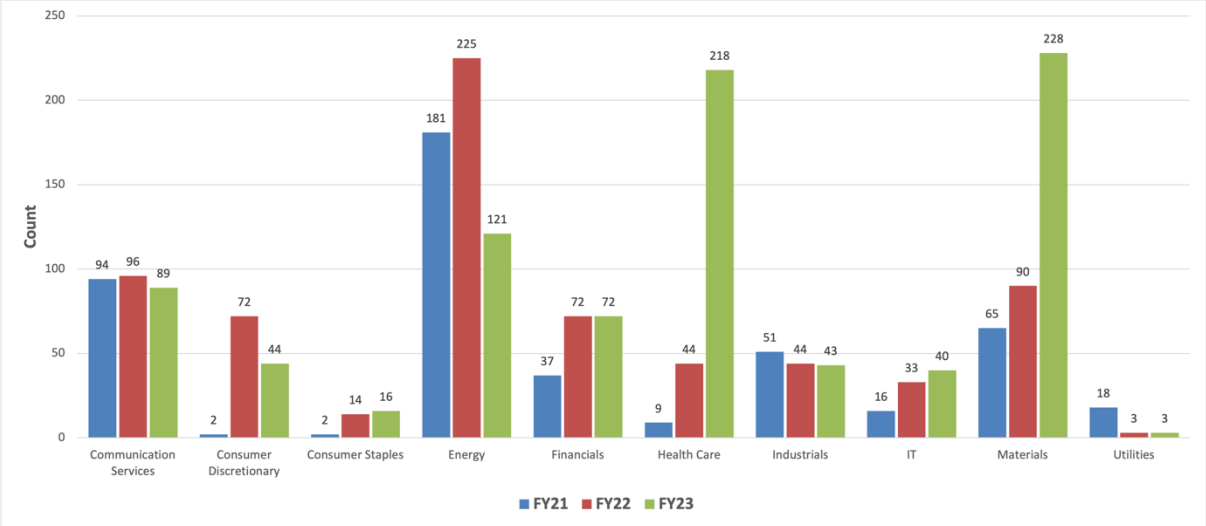


Figure 32: Count of the Keyword 'Net Zero' among the Korean Sample for FY21–23 by GICS Industry Sector



2.6.2 Materiality

Materiality is a key concept in reporting, guiding preparers to determine what information and disclosures would be relevant to the decision-making needs of primary users. Sustainability reporting standards and frameworks refer to different forms of materiality. For example, in the case of the IFRS S1 (ISSB 2023b), the definition of material information is based on the definition of 'material information' in the *Conceptual Framework for Financial Reporting* (IASB 2018) and IAS 1 *Presentation of Financial Statements* (IASB 2024). The ISSB has noted that such conceptually aligned definitions facilitate connectivity across an entity's general purpose financial report prepared applying IFRS Standards (ISSB 2023b).[40]

In accordance with the *Conceptual Framework* (IASB 2018) and IAS 1 (IASB 2024), information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity. This form of materiality is often referred to as financial materiality.

The definition of material information in IFRS S1 adopts this financial materiality lens, stating that:

> In the context of sustainability-related financial disclosures, information is material if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that primary users of general purpose financial reports make on the basis of those reports, which include financial statements and sustainability-related financial disclosures and which provide information about a specific reporting entity (ISSB 2023b:8).

GRI takes a different approach to define material topics as those that represent the organisation's most significant impacts on the economy, environment and people, including impacts on their human rights (GRI 2021).[41] This concept of materiality, commonly referred to as **impact materiality**, focuses on an entity's effects on people and the environment rather than on how those impacts affect the entity's financial position.

The ESRS adopt a **double materiality** approach, encompassing both impact materiality—focusing on the organisation's effects on the economy, environment and people—and financial materiality, which considers how sustainability matters affect the organisation's financial performance and position.[42]

As part of this research, we examined which materiality concept(s) were mentioned in sampled entities' reports to understand further which materiality concept(s) entities consider in their approach to sustainability-related matters, including those related to BEES.

Table 12 exhibits the number of entities mentioning each materiality concept in their reports.[43]

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40 Paragraph BC68 of IFRS S1 (Accessed: 19 May 2025).

41 Impact refers to the 'effect the organisation has or could have on the economy, environment and people, including on their human rights, which in turn can indicate its contribution (negative or positive) to sustainable development.' This definition originates from GRI 3: Material Topics 2021 (Accessed: 19 May 2025).

42 Impact materiality pertains to the material information about an entity's impact on people or the environment related to a sustainability matter. The financial materiality concept in ESRS aligns with that in IFRS S1—information is considered material for primary users of general-purpose financial reports if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that they make on the basis of the entity's sustainability statement.

43 Appendix F shows the count of firms referencing alternative forms of materiality among the Australian and Korean sample (by GICS industry sector) and presents the percentage of sample firms referring to materiality and each of the materiality concepts (by country).

Table 12: Count of Entities Mentioning 'Materiality' and Alternative Forms of Materiality by Jurisdiction and Financial Year						
	AUS			KOR		
Forms of Materiality	**FY21**	**FY22**	**FY23**	**FY21**	**FY22**	**FY23**
Financial materiality	1	5	4	6	22	28
Impact materiality	0	1	2	2	16	27
Double Materiality	0	4	9	9	36	41
Materiality	46	50	50	48	47	45

As shown in Table 12, between FY21 and FY23, Australian entities showed varying levels of engagement with materiality concepts in their sustainability reporting. The general concept of materiality was mentioned on a relatively consistent basis over time, with 46 entities referencing it in FY21 and 50 entities in both FY22 and FY23 (over 90% of the total sample).

Of the three specific materiality concepts, the most growth was seen for **double materiality**, with four entities referencing it in FY21 and nine in FY23. This growth was especially evident in specific industry sectors, with three entities in the Communication Services sector and four in the Real Estate sector mentioning double materiality in FY23.

Korean entities also demonstrated relatively stable engagement with materiality as a concept, with 48 entities mentioning materiality in FY21, 47 in FY22 and 45 in FY23. The following trends were observed for each specific materiality concept:

- **Financial materiality** rose steadily, from six entities referencing this concept in FY21 to 22 in FY22 and 28 in FY23.
- **Impact materiality** experienced growth, rising from two entities in FY21 to 16 in FY22 and finally peaking at 27 in FY23. This increasing trend could potentially suggest a focus on reporting non-financial impacts.
- **Double materiality** saw substantial growth, increasing from nine entities mentioning this concept in their reports in FY21 to 36 in FY22 and 41 in FY23. This may be a result of alignment with global trends toward integrating both financial and non-financial impacts in sustainability reporting.

3 Conclusion

This research identifies mentions of BEES-related keywords within corporate reporting from FY21–23 in Australia and Korea. A keyword analysis approach was employed to examine the extent of BEES-related information reported by the largest publicly-listed entities in both jurisdictions. The key findings include:

- **Trends in BEES-related disclosure:** BEES-related disclosures appear to be increasing in both Australia and Korea, based on the observed counts of BEES-related keywords in corporate reports. However, Australia shows a higher overall count of BEES-related keywords, especially in the Materials and Financial sectors. In contrast, while the use of BEES-related keywords are also trending upwards in Korea, the main sources of these disclosures are in the Consumer Staples and IT sectors in Korea.
- **Results of the keyword count** analysis: counts of BEES-related keywords have generally increased across FY21, FY22 and FY23. However, the extent of this growth varies across topics. Air-related keywords appear to be the most frequently mentioned disclosure topic, with a steady upward trend in both Australian and Korean sample firm reports. Water and waste were the second and third most common keywords, with Korean entities reporting more waste-related disclosures than the Australian sample. The keywords of biodiversity and pollution are also increasingly being mentioned across the two jurisdictions, with Korea exhibiting a sharper increase in counts of pollution-related keywords.
- **Recognition of sustainability-reporting frameworks and standards:** Australian and Korean entities are increasingly referring to sustainability-reporting frameworks and standards, namely, GRI, IFRS Sustainability Disclosure Standards, SASB, ESRS, TCFD and TNFD.
- **Recognition of sustainability-reporting initiatives:** Australian and Korean entities are increasingly referring to various global sustainability-reporting initiatives, particularly the IUCN.

The findings demonstrate key trends in BEES-related disclosures identified by the ISSB, such as the common practice of reporting various types of BEES-related information across different regions and sectors, as well as entities referencing at least one disclosure standard or framework in their reports. Focusing on the period from FY21-23, a time marked by the introduction of significant sustainability standards and frameworks amid increased scrutiny of sustainability disclosures, this report highlights the interaction between jurisdiction-specific factors and global frameworks.

The findings of this report should be considered in light of certain limitations. The entities included are the largest by market capitalisation in each GICS industry sector, which may not reflect the disclosure practices of smaller entities. Additionally, the keyword analysis employs an automated program to count the frequency of specific keywords in the sampled reports, which could unintentionally pick up keywords used in unrelated contexts. To address this and ensure accuracy, manual validity checks were carried out, especially when keyword counts appeared inconsistent, to verify the results. Lastly, additional analysis may be needed to contextualise the results of this study and determine whether shifts in language (captured by keyword counts) correspond with actual changes in entities' practices and behaviour.

As this study focuses on the frequency of BEES-related keywords, it provides only a preliminary view of how BEES-related information is incorporated into corporate reporting. Future research is warranted to explore the depth, quality and substance of BEES-related disclosures, including whether the information provided aligns with the needs of investors and other users of corporate reporting.

Appendices

Appendix A: International Disclosure Standards and Frameworks

Appendix A includes disaggregated information on the percentage of sample entities referring to each of the international disclosure standards and frameworks (by jurisdiction).

Figure A1: Percentage of Sampled Entities Mentioning 'ESRS' (and alternatives) by Jurisdiction and Financial Year

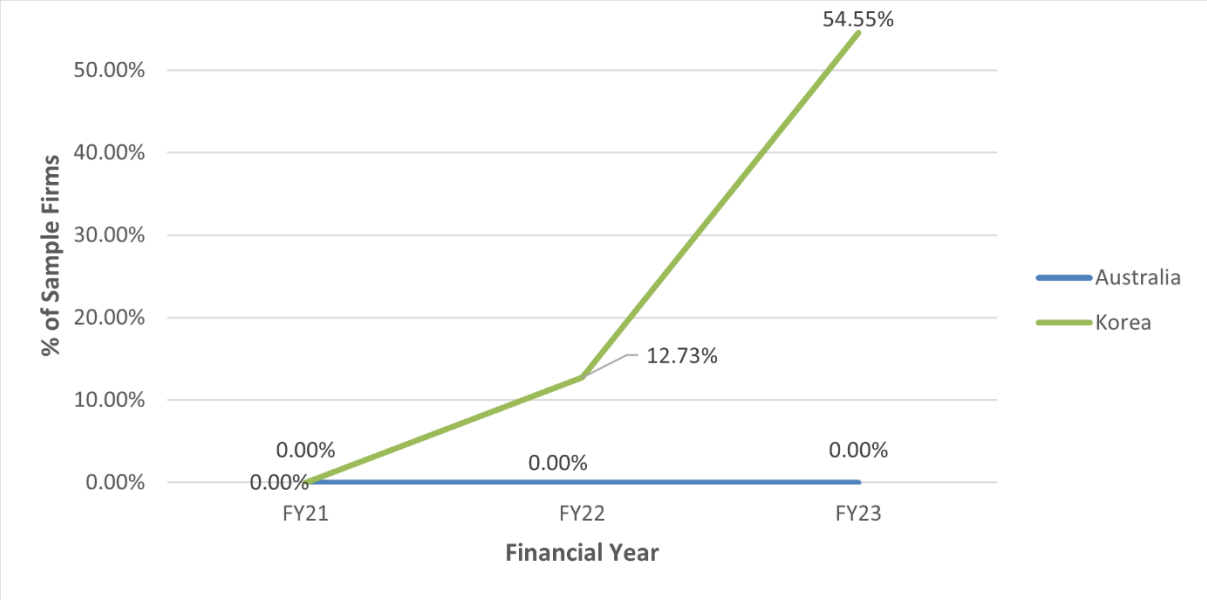


Figure A2: Percentage of Sampled Entities Mentioning 'GRI' (and alternatives) by Jurisdiction and Financial Year

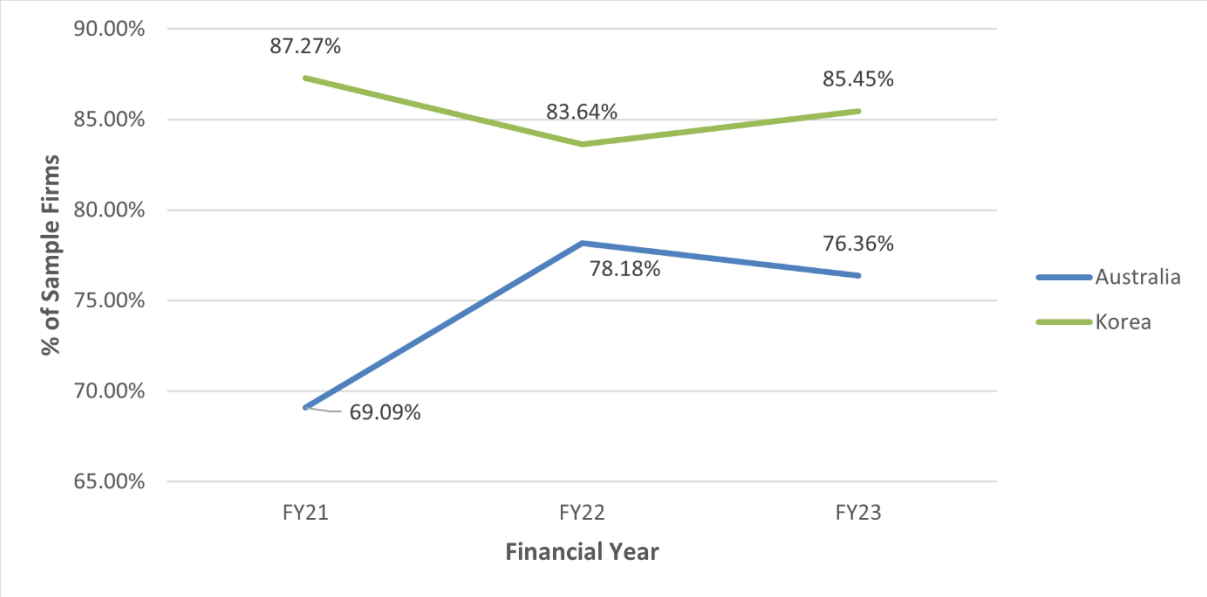


Figure A3: Percentage of Sampled Entities Mentioning 'ISSB' (and alternatives) by Jurisdiction and Financial Year

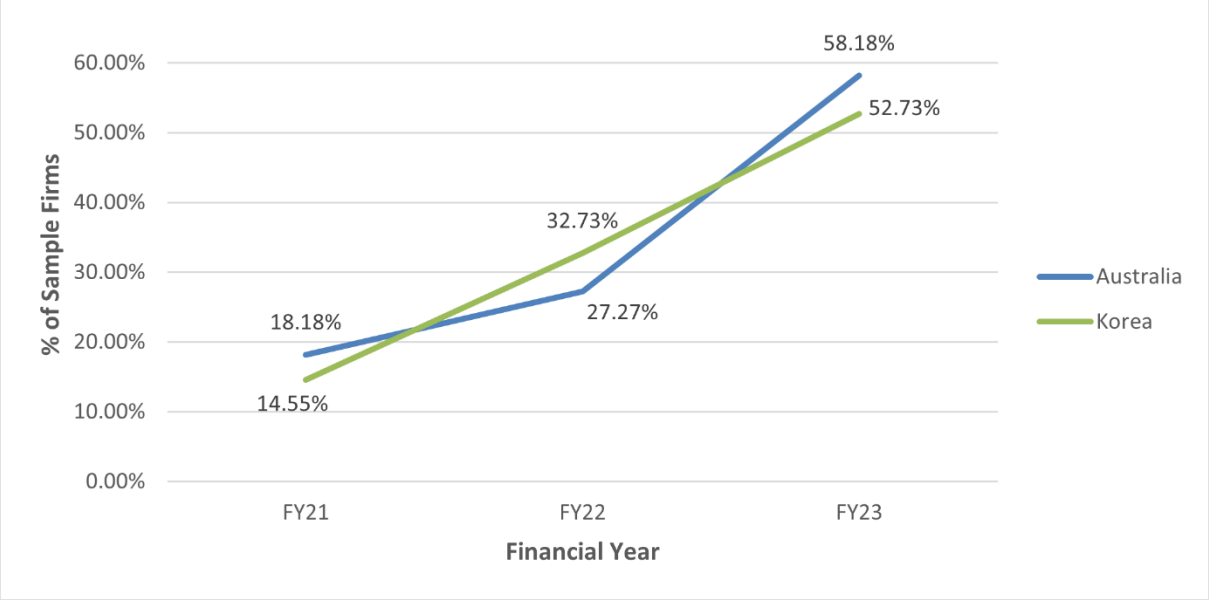


Figure A4: Percentage of Sampled Entities Mentioning 'SASB' (and alternatives) by Jurisdiction and Financial Year

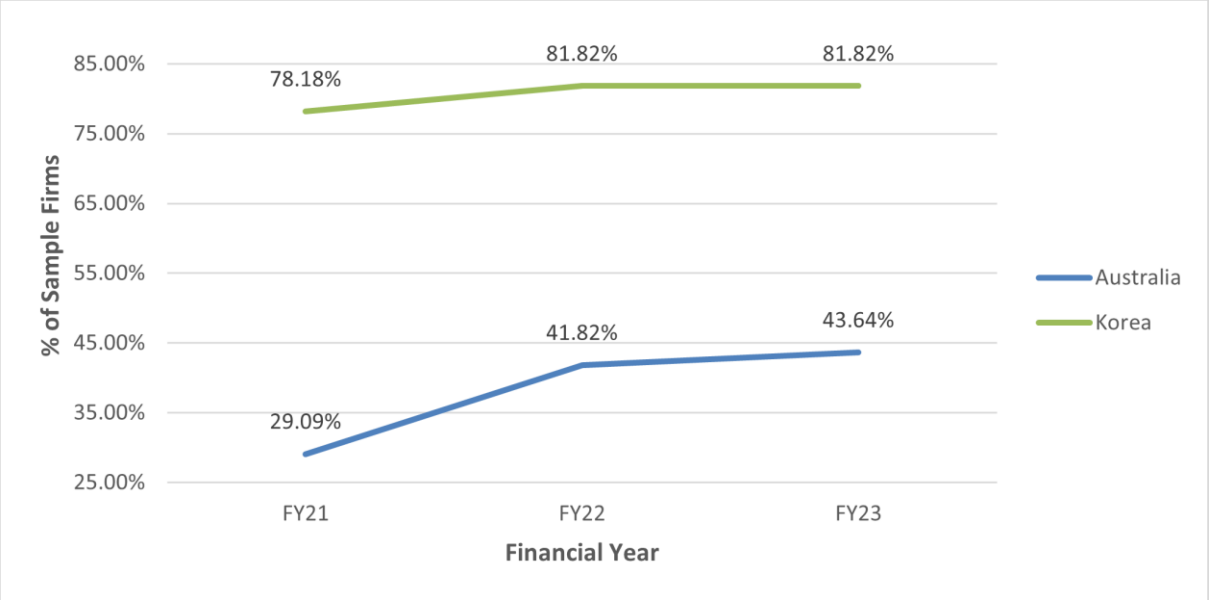


Figure A5: Percentage of Sampled Entities Mentioning 'TCFD' (and alternatives) by Jurisdiction and Financial Year

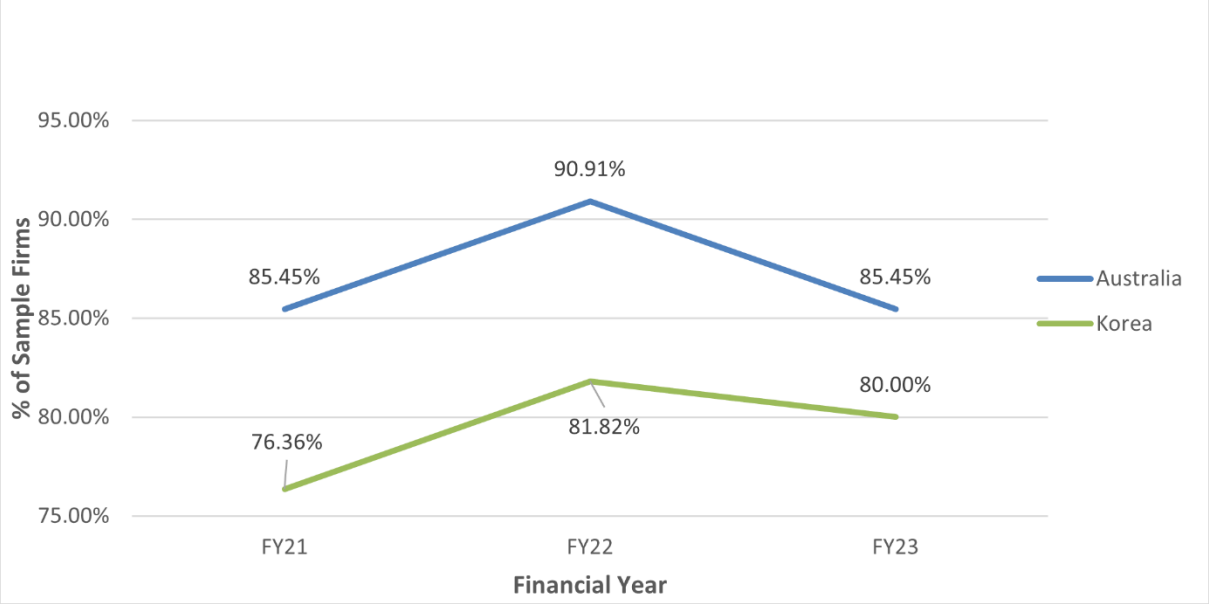
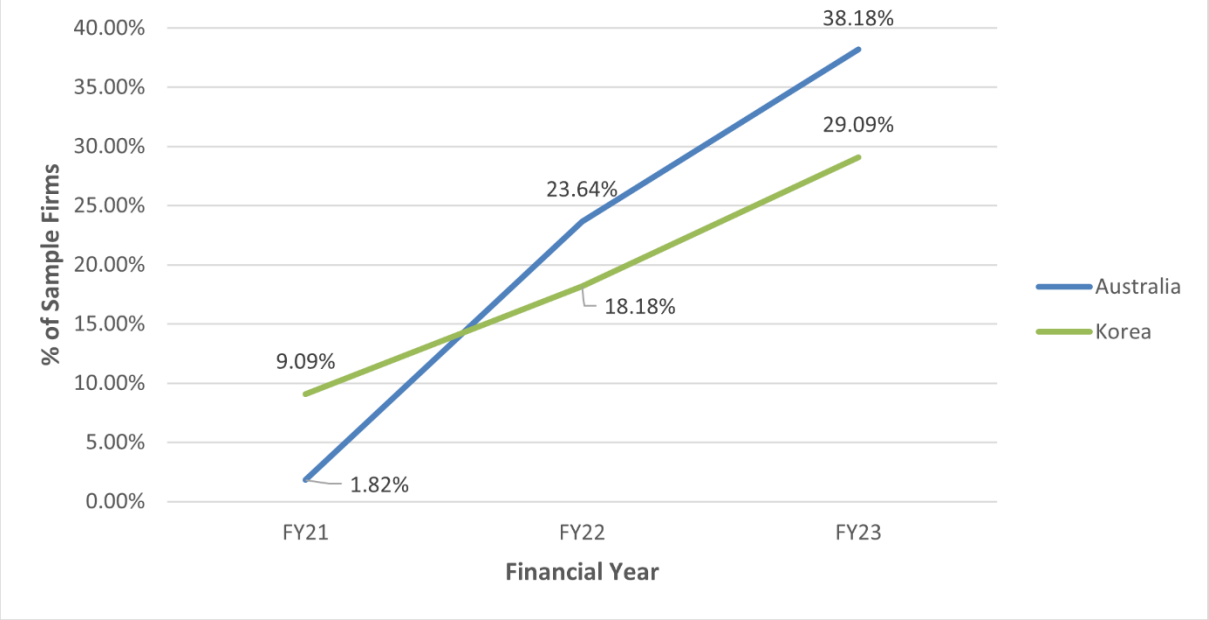


Figure A6: Percentage of Sampled Entities Mentioning 'TNFD' (and alternatives) by Jurisdiction and Financial Year



Appendix B: Other Global Initiatives

Appendix B includes disaggregated information on the percentage of sample entities referring to each of the global initiatives and frameworks (by jurisdiction).

Figure B1: Percentage of Sampled Entities Mentioning 'GBF' (and alternatives) by Jurisdiction and Financial Year

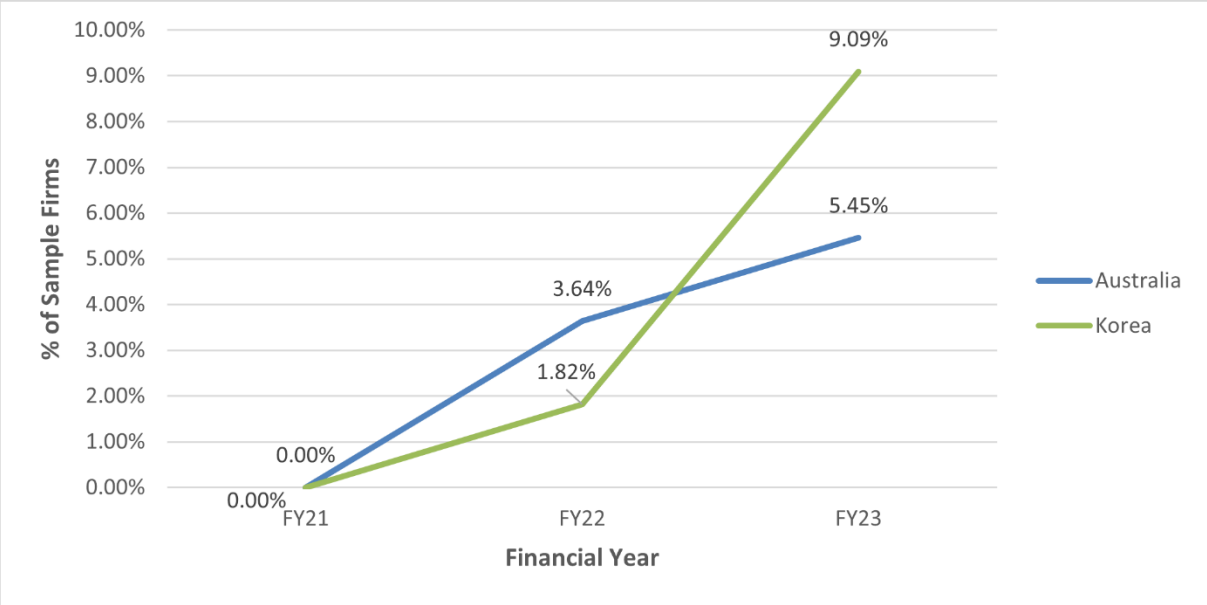


Figure B2: Percentage of Sampled Entities Mentioning 'IUCN' (and alternatives) by Jurisdiction and Financial Year

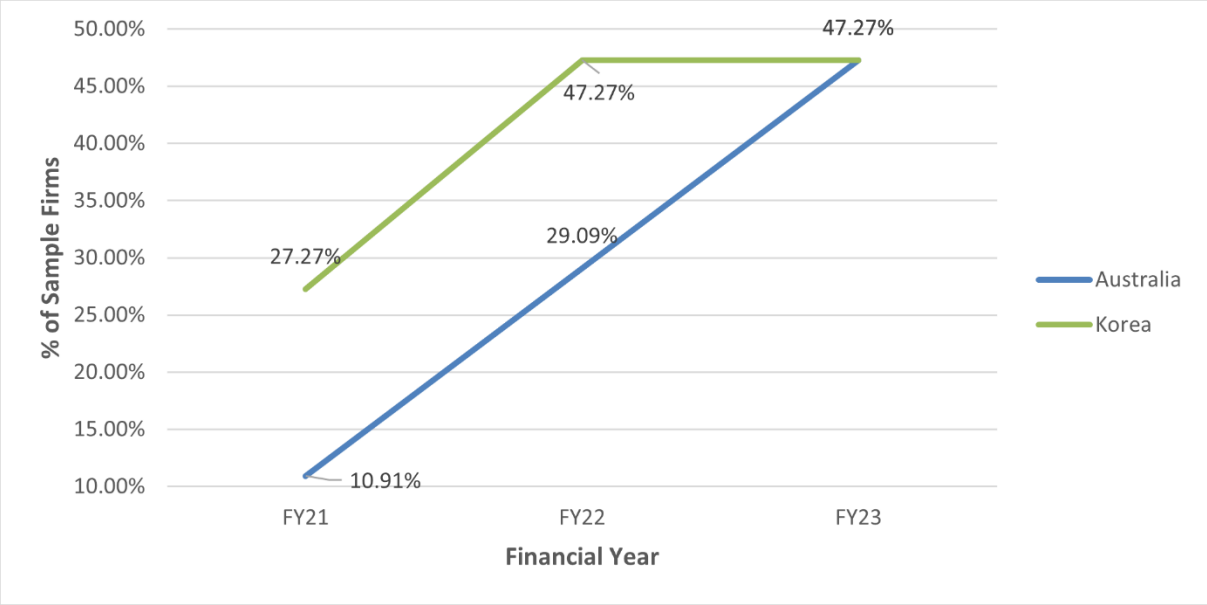


Figure B3: Percentage of Sampled Entities Mentioning 'PBAF' (and alternatives) by Jurisdiction and Financial Year

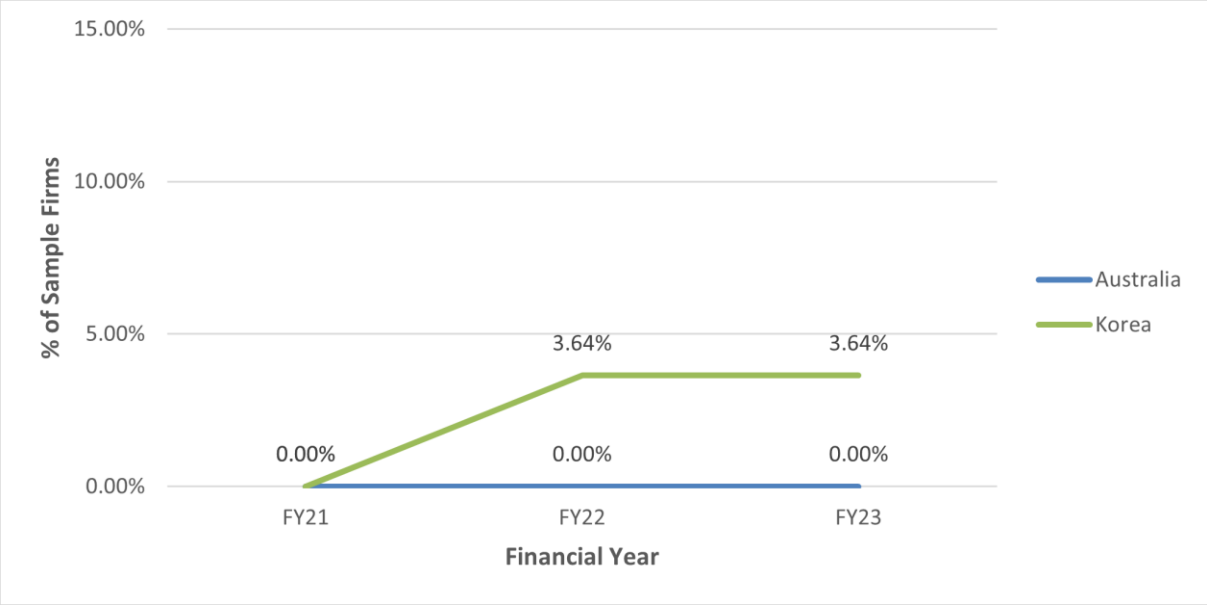


Figure B4: Percentage of Sampled Entities Mentioning the 'Ramsar Convention' by Jurisdiction and Financial Year

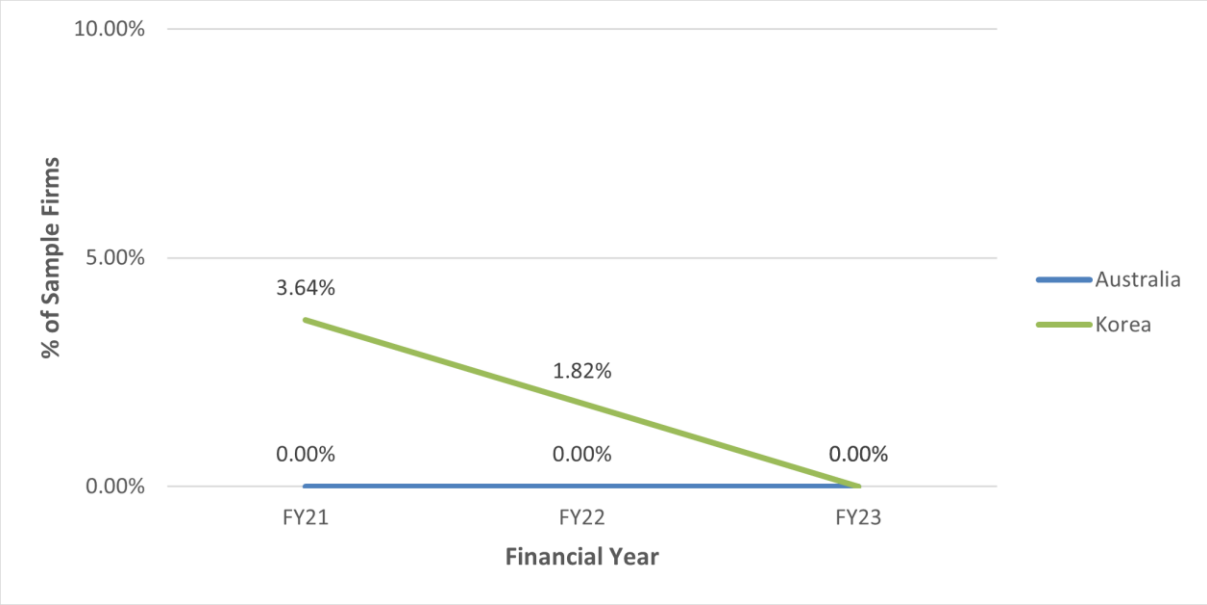
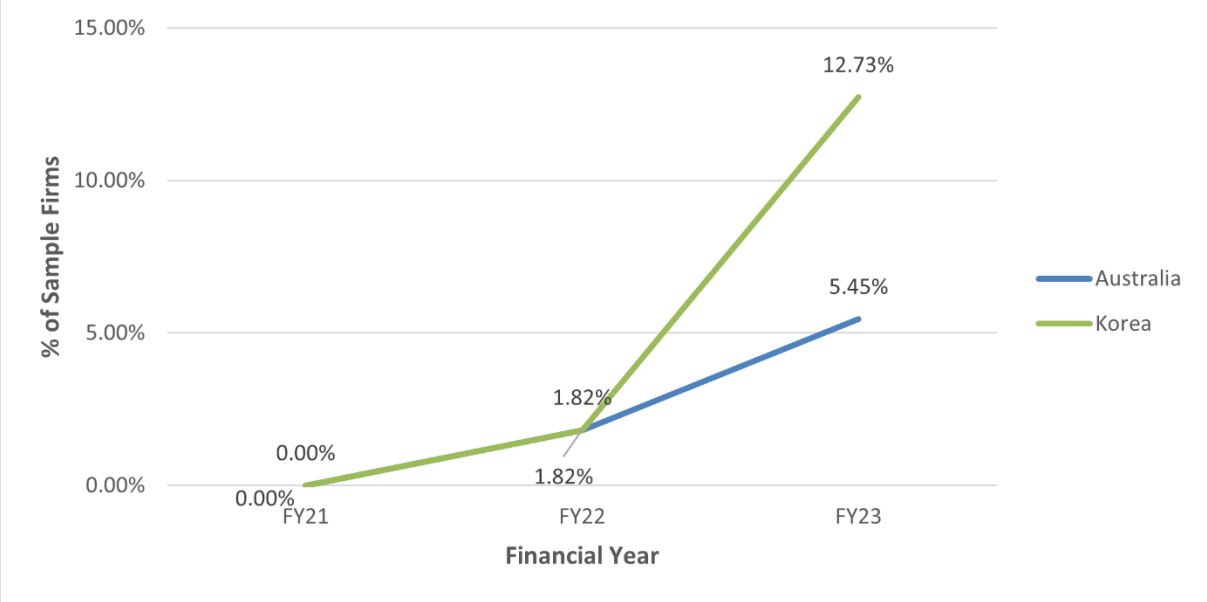


Figure B5: Percentage of Sampled Entities Mentioning 'SBTN' (and alternatives) by Jurisdiction and Financial Year



Appendix C: Terms and Concepts in TNFD Recommendations

Appendix C shows the percentage of sample entities referring to each of the terms and concepts in the TNFD Recommendations in Australia and Korea.

Figure C1: Percentage of Sampled Entities with Reports Containing the 'LEAP' Approach in TNFD Recommendations by Jurisdiction and Financial Year

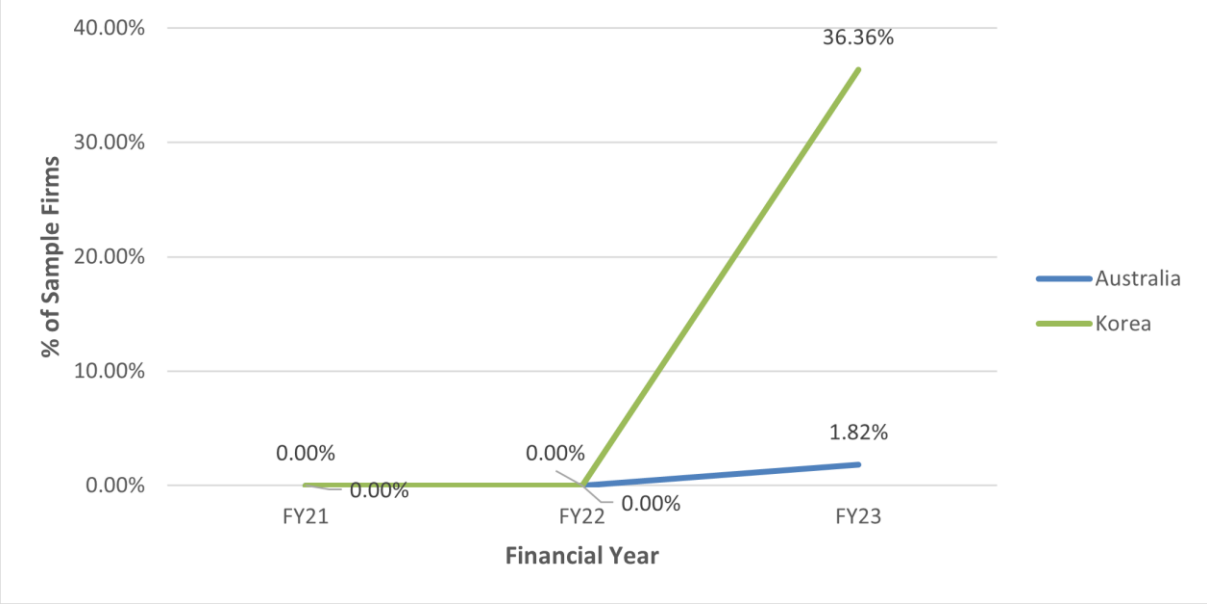


Figure C2: Percentage of Sampled Entities with Reports Containing 'Natural Capital' by Jurisdiction and Financial Year

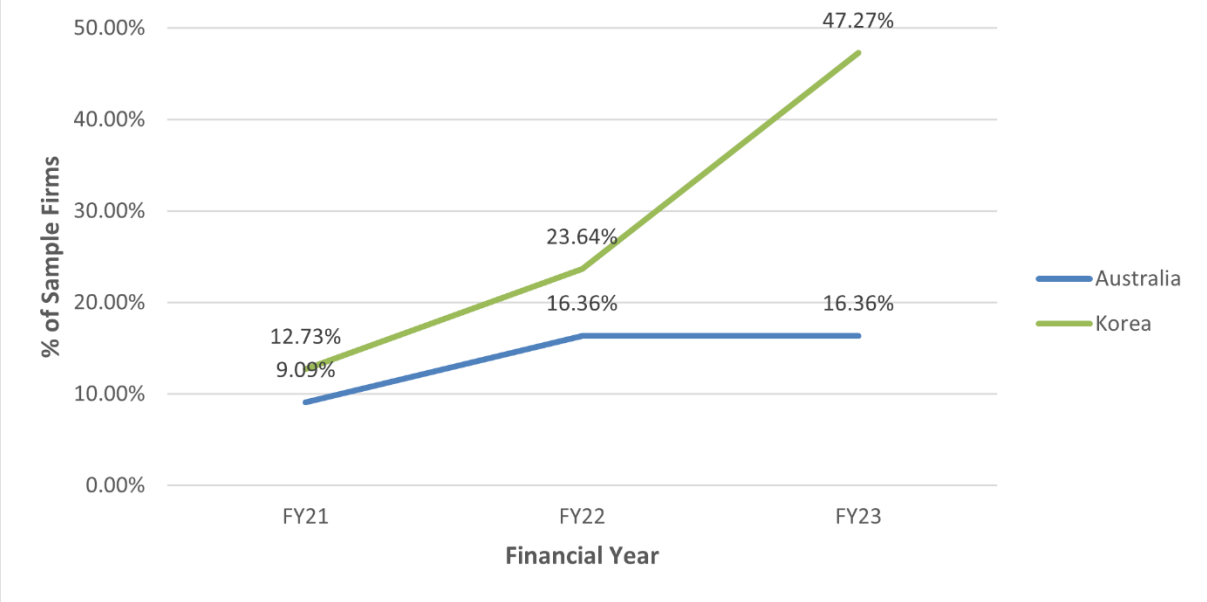


Figure C3: Percentage of Sampled Entities with Reports Containing 'Nature-related Risks' by Jurisdiction and Financial Year

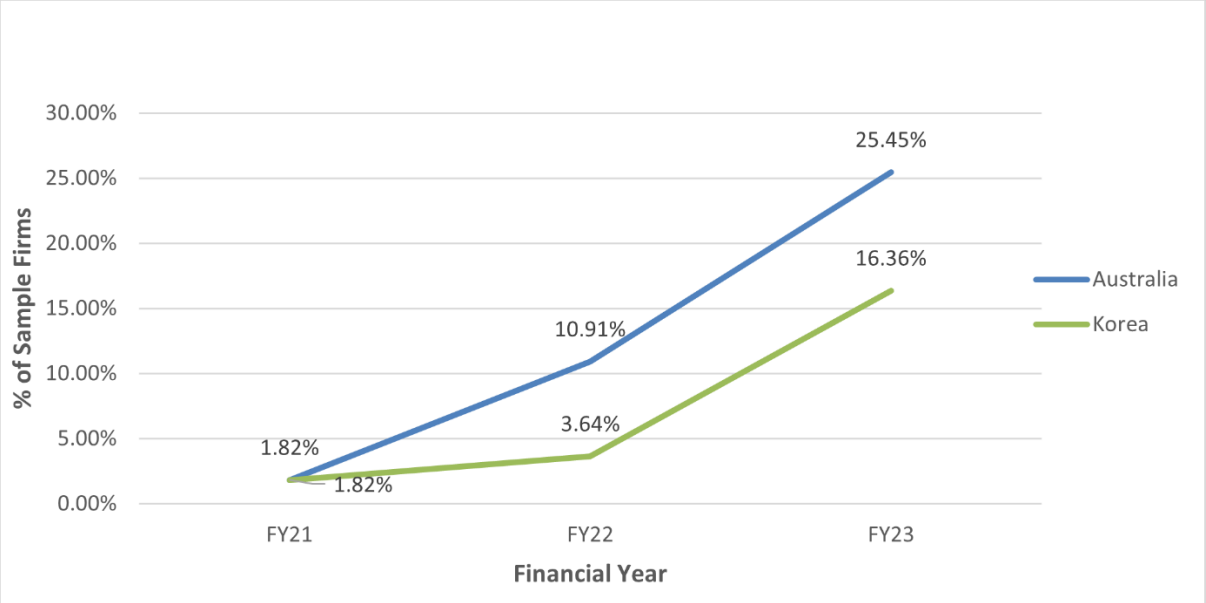
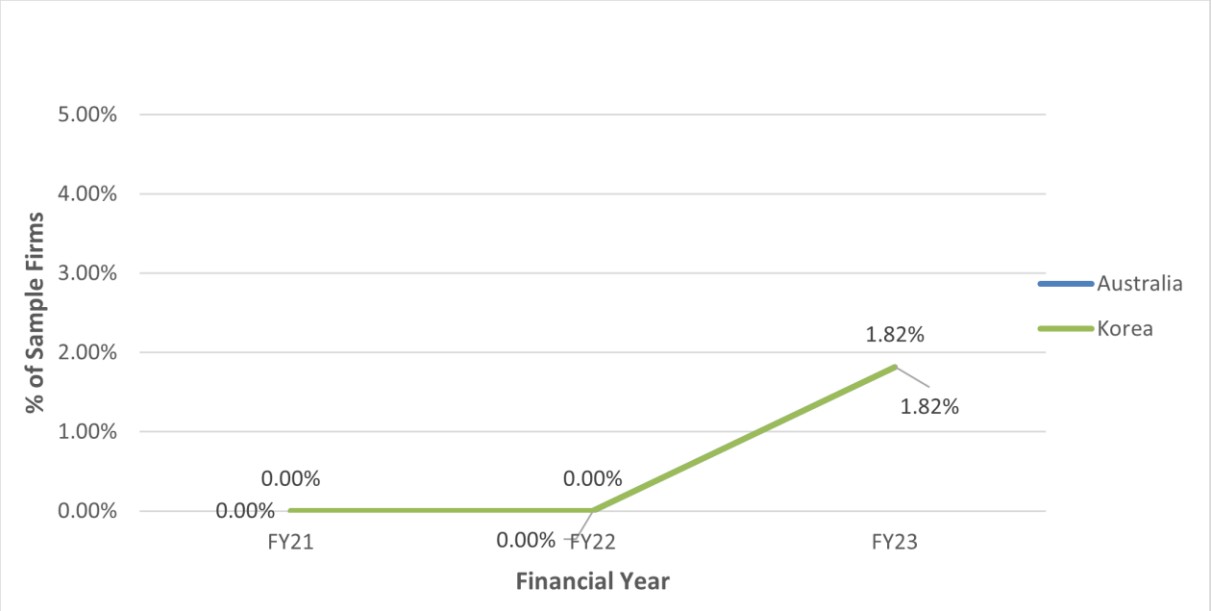


Figure C4: Percentage of Sampled Entities with Reports Containing 'Nature-related Opportunities' by Jurisdiction and Financial Year



Appendix D: BEES-related Keywords

Appendix D includes tables with the absolute numerical count of the number of mentions for each of the subtopics of air, biodiversity, land use, pollution, waste and water. It also includes figures representing the proportion of entities referencing each examined BEES-related topic and associated keywords (including air, biodiversity, circular economy, ecosystem services, land use, mineral, pollution, resource efficiency, waste and water) across the sample period.

Table D1: Count of Keywords for Air-related BEES Subtopics by Jurisdiction and Financial Year

	FY21	FY22	FY23	Total	FY21	FY22	FY23	Total
Subtopics	**AUS**				**KOR**			
Air emissions	32	50	31	113	45	48	49	142
Air pollution	6	2	5	13	66	113	120	299
Air quality	74	90	67	231	56	77	122	255

Table D2: Count of Keywords for Biodiversity-related BEES Subtopics by Jurisdiction and Financial Year

	FY21	FY22	FY23	Total	FY21	FY22	FY23	Total
Subtopics	**AUS**				**KOR**			
Biodiversity impacts	4	15	16	35	1	2	14	17
Biodiversity loss	12	23	21	56	10	11	41	62
Biodiversity management	9	10	12	31	2	14	33	49
Biodiversity targets	0	1	2	3	0	0	1	1
Environment Protection and Biodiversity Conservation Act*	0	2	2	4	N/A			
*denotes an Australian sample-specific keyword								

Table D3: Count of Keywords for Land Use-related BEES Subtopics by Jurisdiction and Financial Year

	FY21	FY22	FY23	Total	FY21	FY22	FY23	Total
Subtopics	**AUS**				**KOR**			
Land use	61	84	72	217	11	14	10	35
Land-use change	0	0	0	0	0	0	0	0
Sustainable land management	1	0	3	4	0	0	0	0

Table D4: Count of Keywords for Pollution-related BEES Subtopics by Jurisdiction and Financial Year								
	FY21	FY22	FY23	Total	FY21	FY22	FY23	Total
Subtopics	**AUS**				**KOR**			
Air pollution	6	2	5	13	66	113	120	299
Persistent organic pollutants	0	1	1	2	1	1	3	5
Plastic pollution	1	0	1	2	6	9	10	25
Pollutants	12	34	21	67	379	397	555	1,331
Soil pollution	0	0	0	0	27	25	31	83
Water pollution	1	4	3	8	28	54	54	136

Table D5: Count of Keywords for Waste-related BEES Subtopics by Jurisdiction and Financial Year								
	FY21	FY22	FY23	Total	FY21	FY22	FY23	Total
Subtopics	**AUS**				**KOR**			
Hazardous waste	35	59	76	170	61	69	74	204
Waste minimisation*	6	8	1	15	N/A			
Waste minimisation	0	0	0	0	0	2	4	6
Wastewater	36	35	45	116	349	541	574	1,464
Zero waste strategies	0	0	0	0	0	0	1	1
*denotes an Australian sample-specific keyword								

Table D6: Count of Keywords for Water-related BEES Subtopics by Jurisdiction and Financial Year								
	FY21	FY22	FY23	Total	FY21	FY22	FY23	Total
Subtopics	**AUS**				**KOR**			
Freshwater	40	46	29	115	14	35	45	94
Groundwater	109	80	76	265	29	50	81	160
Seawater	30	15	24	69	19	40	53	112
Wastewater	36	35	45	116	349	541	574	1,464
Water accounting standard*	1	0	0	1	N/A			
Water accounting standards*	1	0	0	1	N/A			
Water management	66	81	91	238	82	82	94	258
Water pollution	1	4	3	8	28	54	54	136
Water stress	28	30	44	102	67	122	150	339
Water usage	35	47	57	139	62	102	147	311
*denotes an Australian sample-specific keyword								

Figure D1: Percentage of Sampled Entities with Reports Containing 'Air' by Jurisdiction and Financial Year

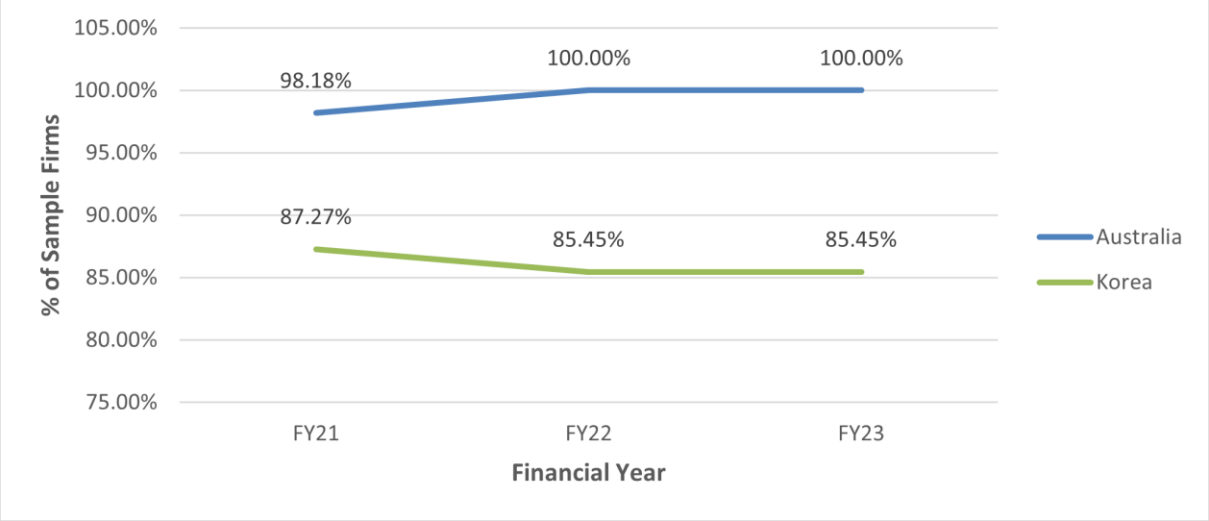


Figure D2: Percentage of Sampled Entities with Reports Containing 'Biodiversity' by Jurisdiction and Financial Year

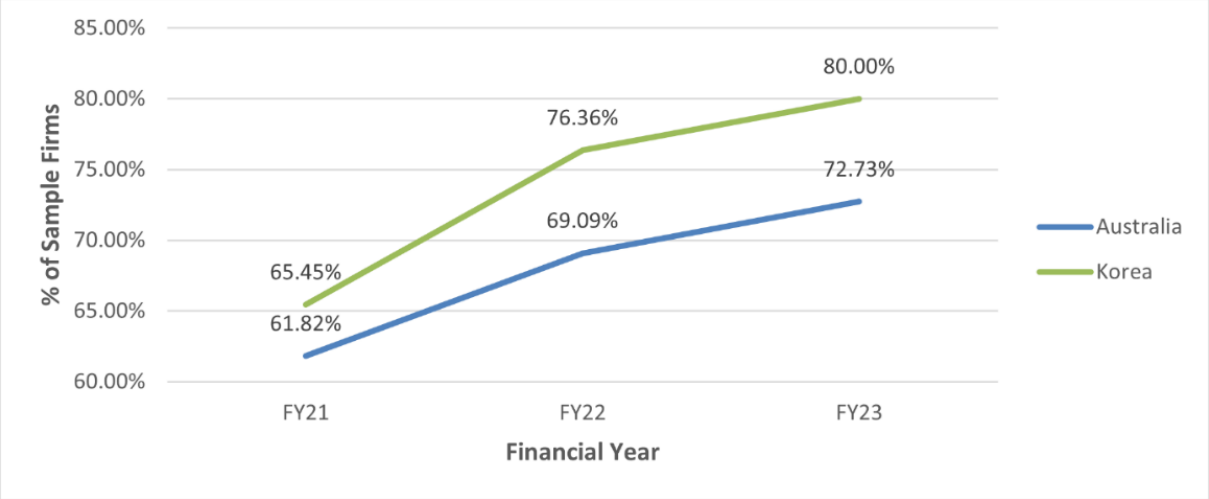


Figure D3: Percentage of Sampled Entities with Reports Containing 'Circular Economy' by Jurisdiction and Financial Year

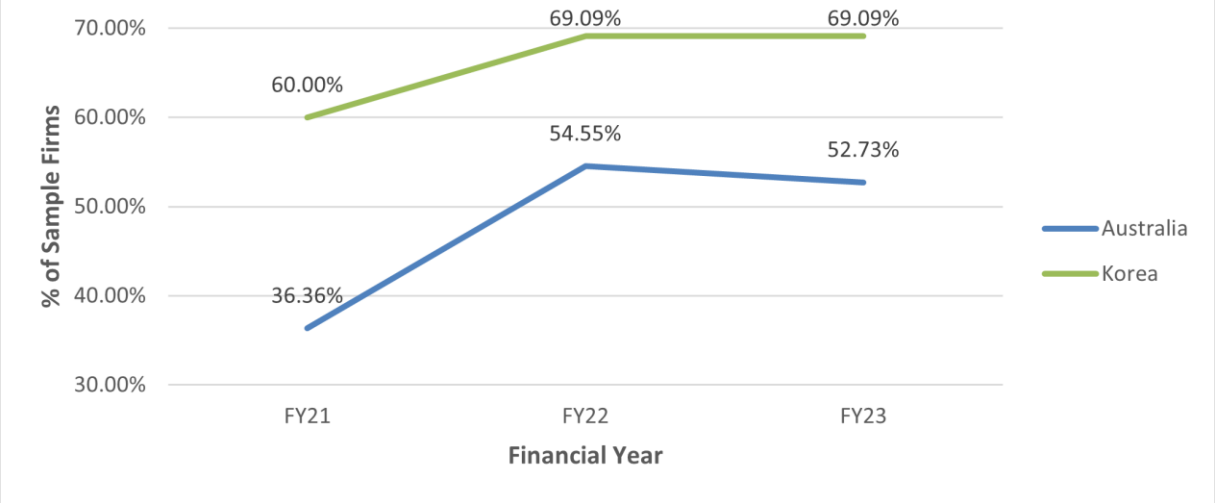


Figure D4: Percentage of Sampled Entities with Reports Containing 'Ecosystem Services' by Jurisdiction and Financial Year

Figure D5: Percentage of Sampled Entities with Reports Containing 'Waste' by Jurisdiction and Financial Year

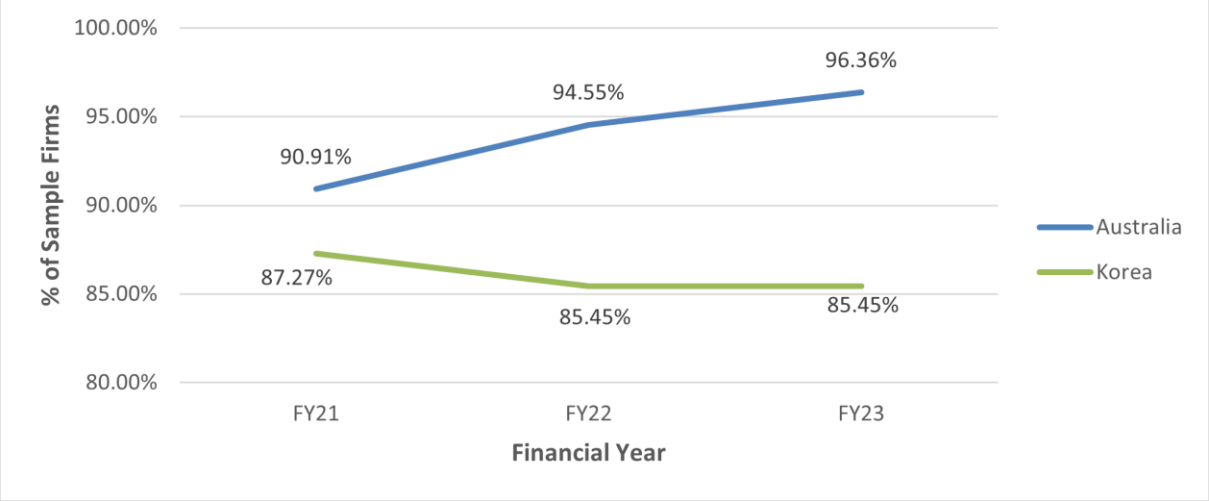
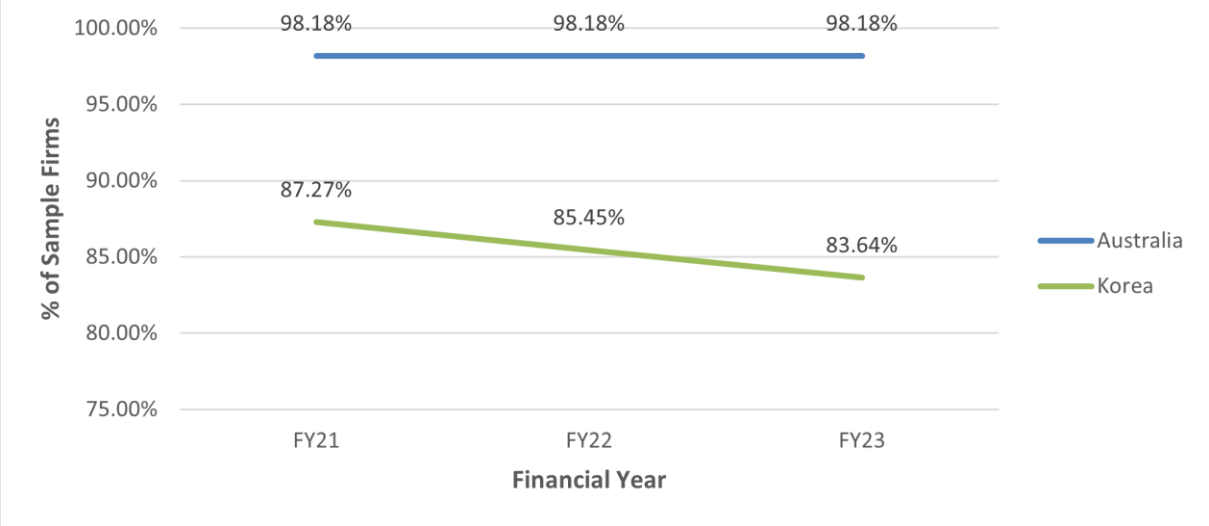


Figure D6: Percentage of Sampled Entities with Reports Containing 'Water' by Jurisdiction and Financial Year



Appendix E: Climate-related Keywords

Appendix E contains a table with the absolute numerical count of the number of mentions for each of the subtopics of climate. It also includes figures representing the proportion of entities referencing each examined climate-related topic and associated keywords (including carbon neutrality, climate, climate change, climate risks and net zero) across the sample period.

Table E1: Count of Climate-related Keywords by Jurisdiction and Financial Year

	FY21	FY22	FY23	Total	FY21	FY22	FY23	Total
Keywords	**AUS**				**KOR**			
Climate change	2,007	1,969	1,835	5,811	2,035	2,402	3,058	7,495
Climate risks	64	73	122	259	84	74	131	289
Physical climate risks	8	12	14	34	3	4	2	9
Transitional climate risks	1	3	3	7	0	0	0	0

Figure E1: Percentage of Sampled Entities with Reports Containing 'Carbon Neutrality' by Jurisdiction and Financial Year

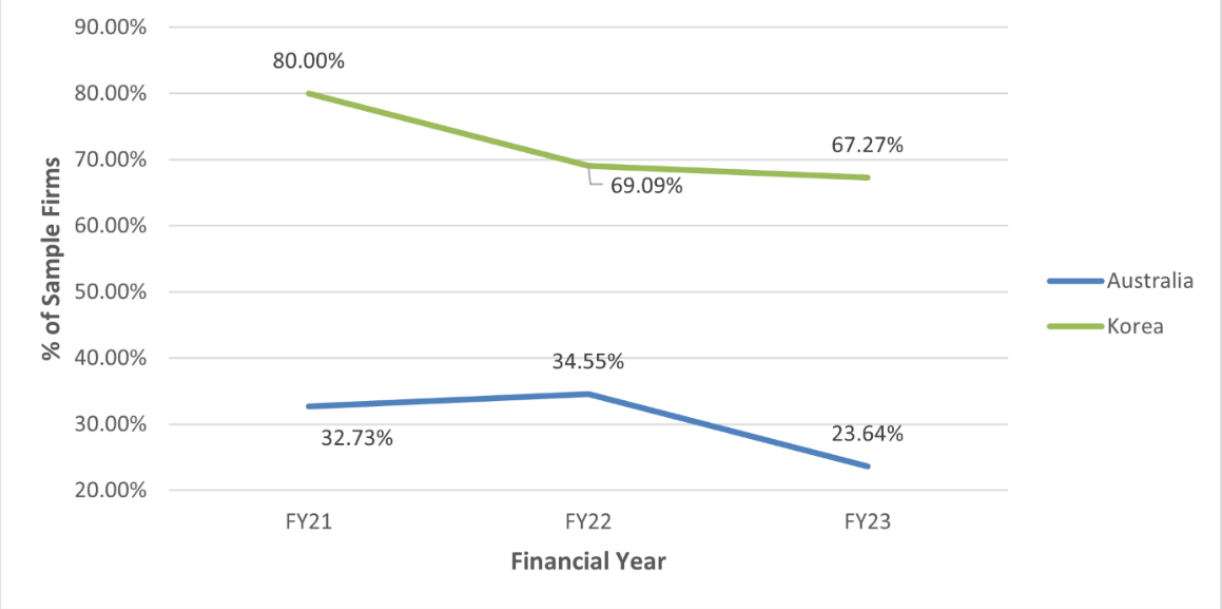


Figure E2: Percentage of Sampled Entities with Reports Containing 'Climate' by Jurisdiction and Financial Year

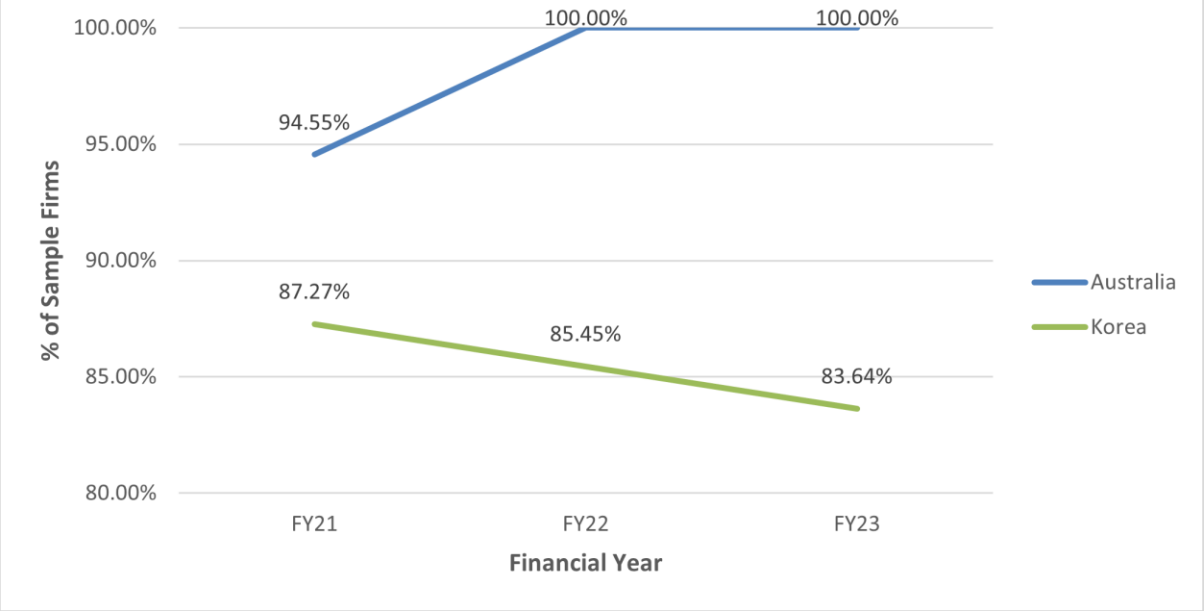


Figure E3: Percentage of Sampled Entities with Reports Containing 'Climate Change' by Jurisdiction and Financial Year

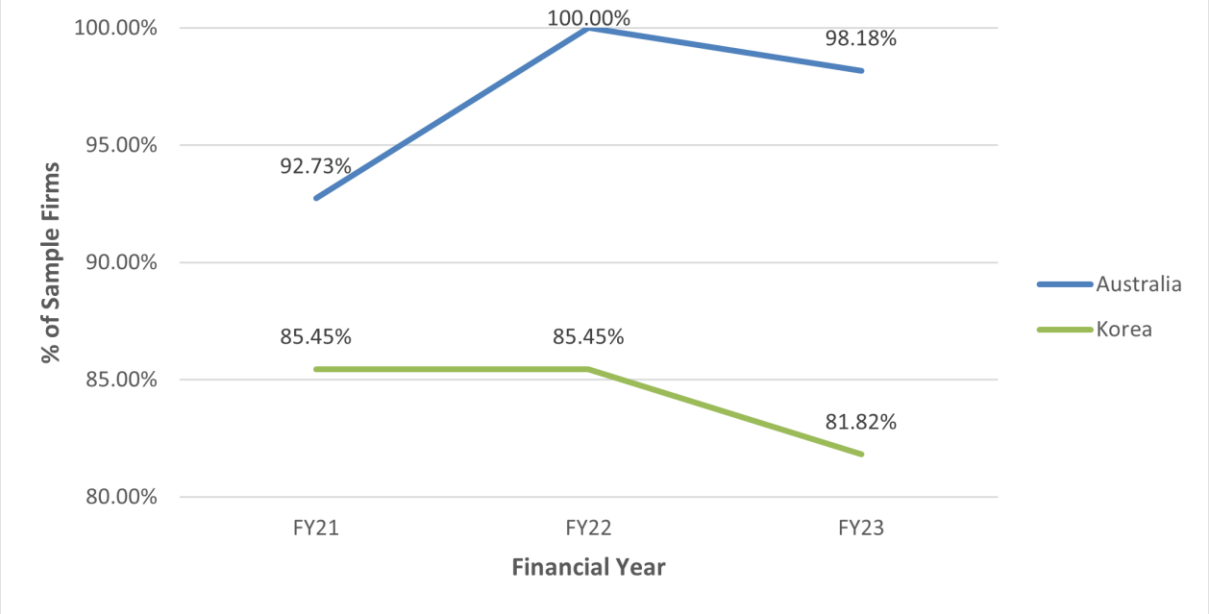


Figure E4: Percentage of Sampled Entities with Reports Containing 'Climate Risks' by Jurisdiction and Financial Year

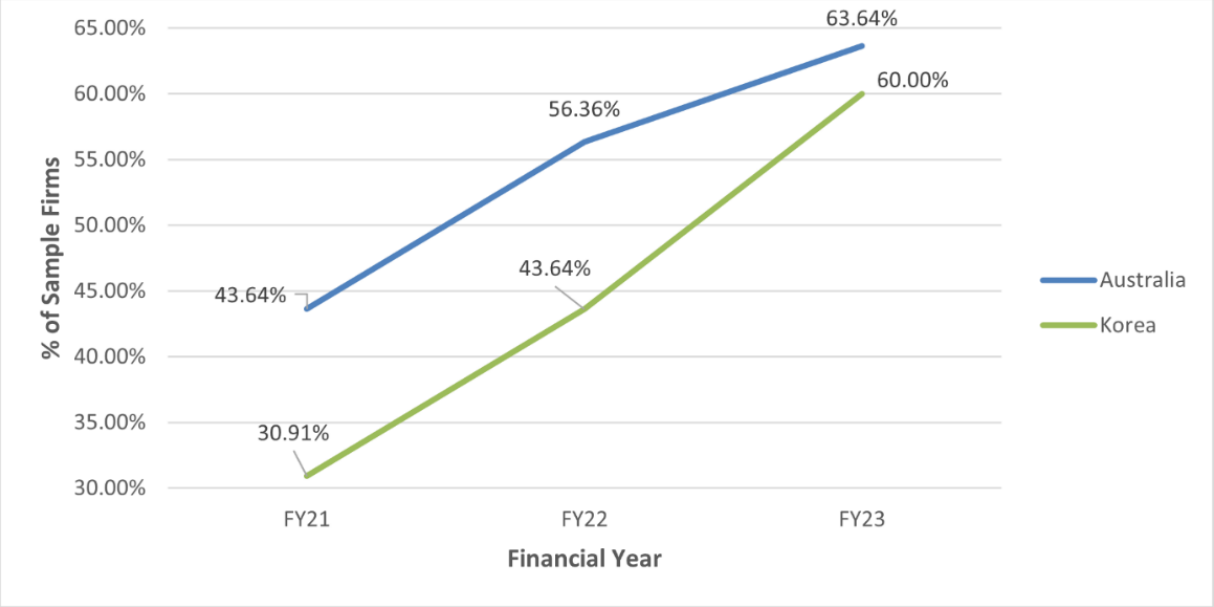
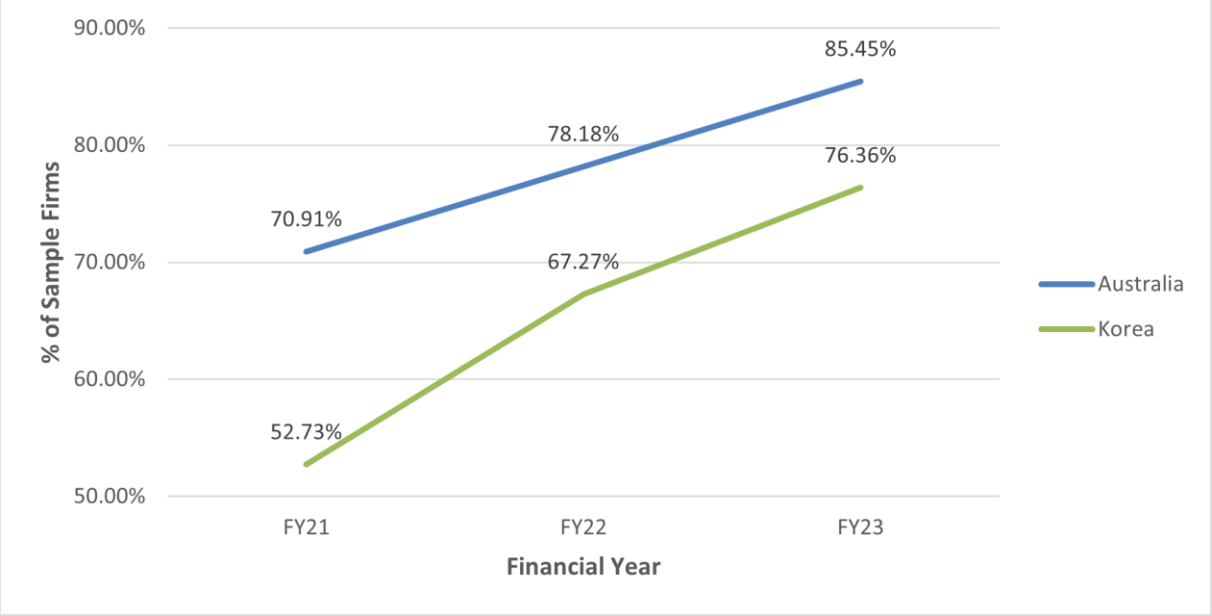


Figure E5: Percentage of Sampled Entities with Reports Containing 'Net Zero' by Jurisdiction and Financial Year



Appendix F: Materiality

Appendix F includes the count of entities referencing alternative forms of materiality among the Australian and Korean sample (by GICS industry sector) and also presents the percentage of sample entities referring to materiality and different materiality concepts (by jurisdiction) across the sample period.

Figure F1: Count of Entities Referencing Alternative Forms of Materiality among the Australian Sample for FY21–23 by GICS Industry Sector

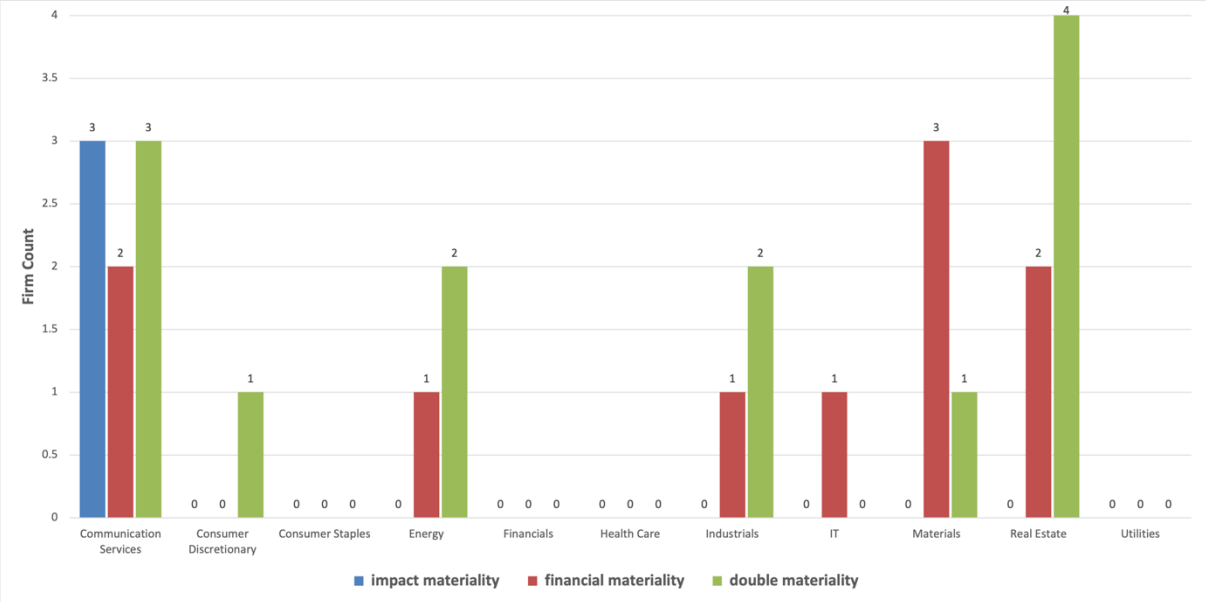


Figure F2: Count of Entities Referencing Alternative Forms of Materiality among the Korean Sample for FY21–23 by GICS Industry Sector

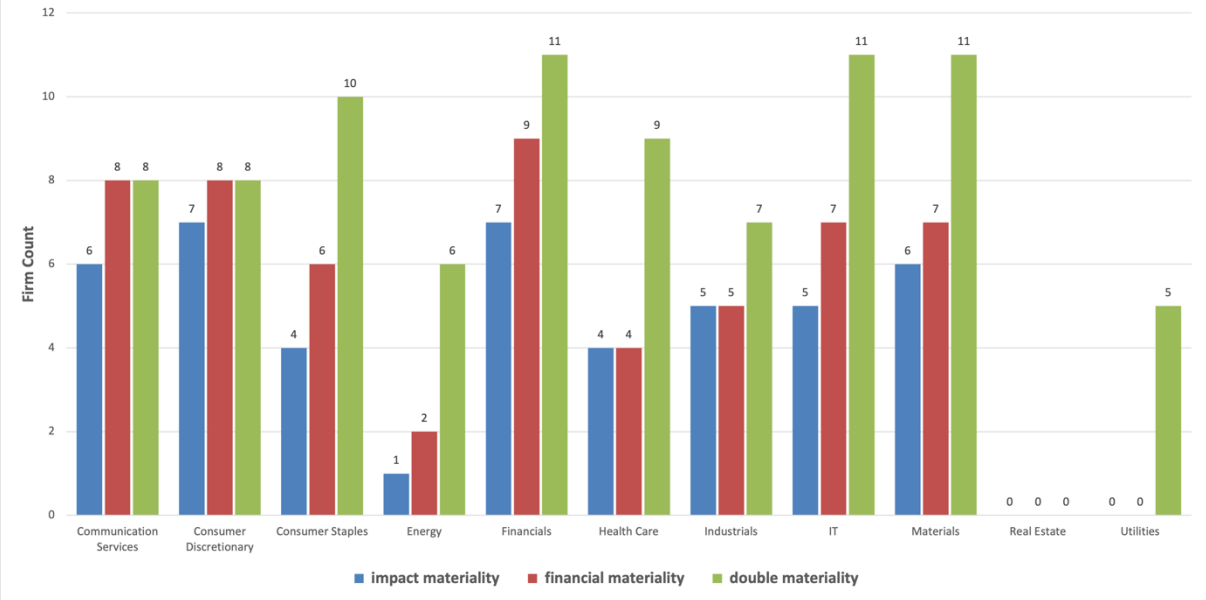


Figure F3: Percentage of Sampled Entities with Reports Containing 'Materiality' by Jurisdiction and Financial Year

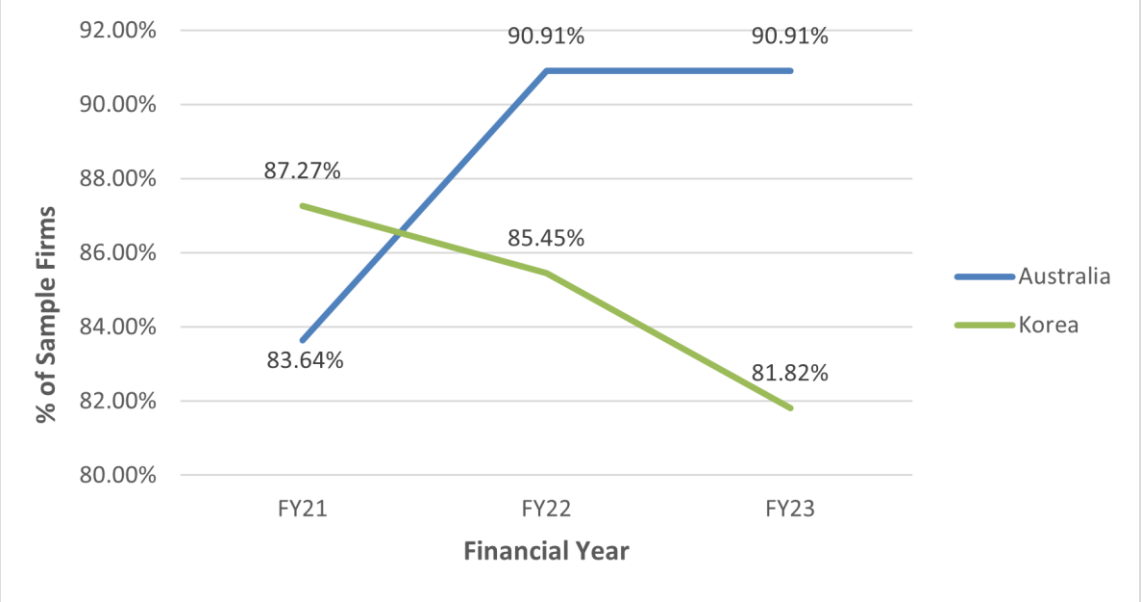


Figure F4: Percentage of Sampled Entities with Reports Containing 'Double Materiality' by Jurisdiction and Financial Year

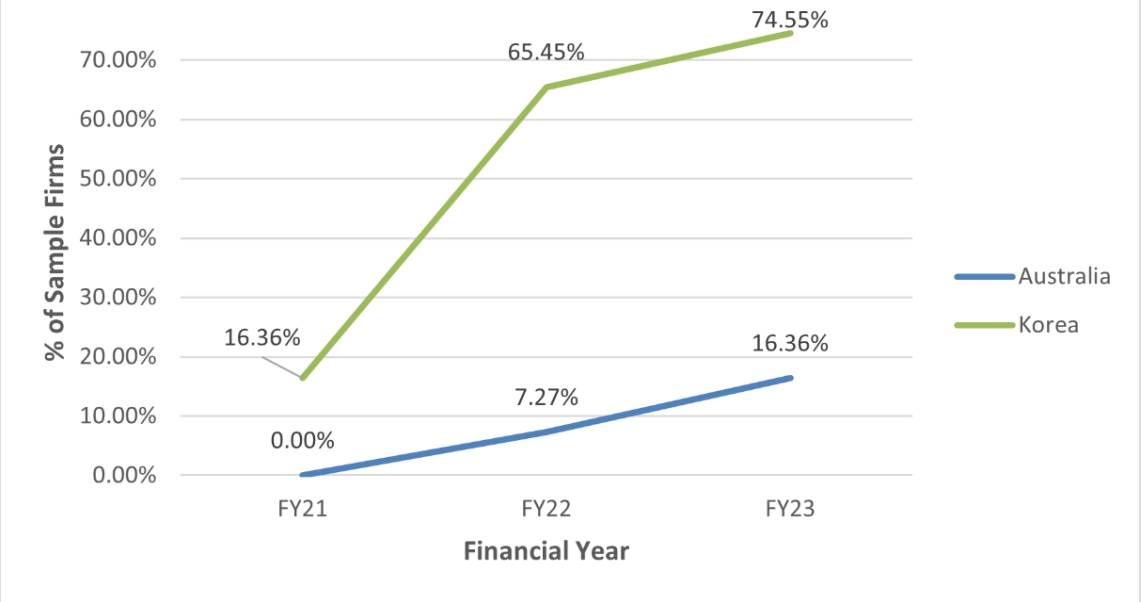


Figure F5: Percentage of Sampled Entities with Reports Containing 'Financial Materiality' by Jurisdiction and Financial Year

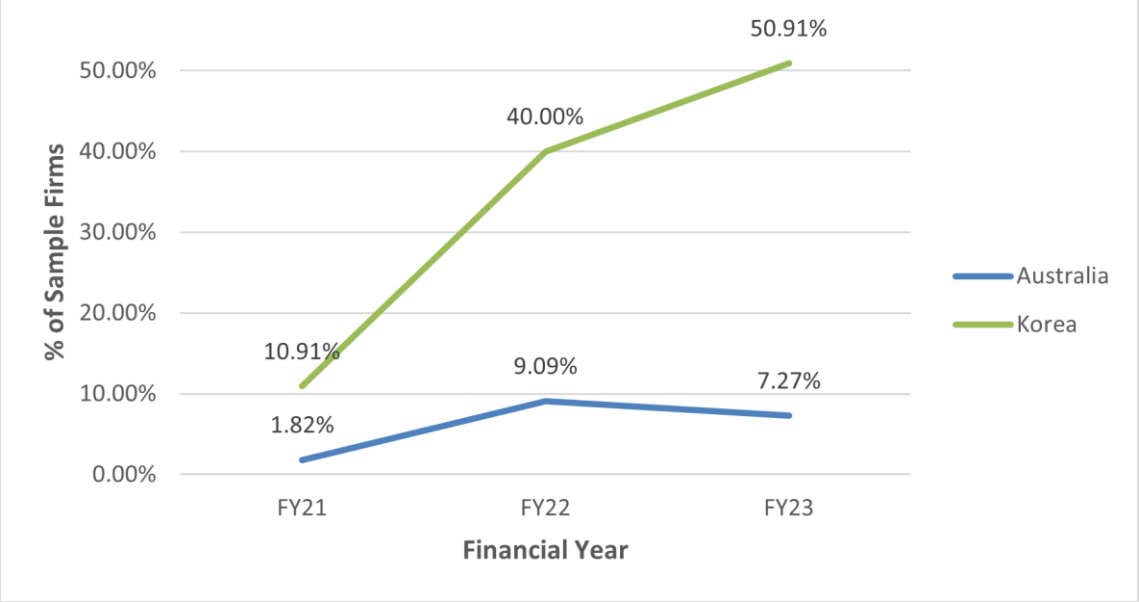


Figure F6: Percentage of Sampled Entities with Reports Containing 'Impact Materiality' by Jurisdiction and Financial Year

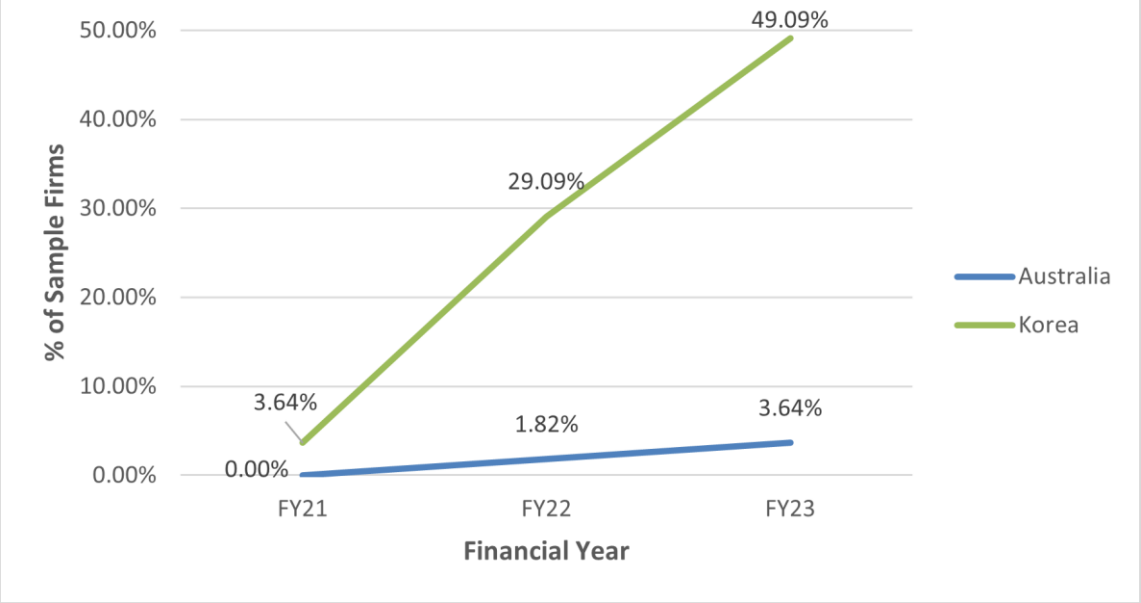


Table of Abbreviations

The table below provides definitions and explanations of key terms, acronyms and specialised terminology used throughout the report.

Table of Abbreviations	
Acronym	**Definition**
AASB	Australian Accounting Standards Board
ASX	Australian Stock Exchange
BEES	Biodiversity, ecosystems and ecosystem services
BoM	Bureau of Meteorology
CBD	Convention on Biological Diversity
CDSB	Climate Disclosure Standards Board
COP15	Kunming Declaration at the UN Biodiversity Conference
COP26	2021 United Nations Climate Change Conference
ESG	Environmental, Social and Governance
ESRS	European Sustainability Reporting Standard(s)
EU	European Union
FY21	Financial year 2021
FY22	Financial year 2022
FY23	Financial year 2023
FY24	Financial year 2024
FYE	Financial year-end
GBF	Kunming-Montreal Global Biodiversity Framework
GHG	Greenhouse gas
GICS	Global Industry Classification Standards
GRI	Global Reporting Initiative
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*
ISSB	International Sustainability Standards Board
IT	Information Technology

IUCN	International Union for Conservation of Nature
JSE	Johannesburg Stock Exchange
KOSPI	Korean Composite Stock Price Index
KRX	Korea Exchange
KSSB	Korea Sustainability Standards Board
LEAP	Locate, Evaluate, Assess and Prepare (TNFD)
LSE	London Stock Exchange
NASDAQ	National Association of Securities Dealers Automated Quotations
NGO	Non-governmental organisation
NYSE	New York Securities Exchange
NZX	New Zealand's Exchange
PBAF	Partnership for Biodiversity Accounting Financials
PNGX	Papua New Guinea National Stock Exchange
SASB	Sustainability Accounting Standards Board
SBTN	Science-Based Targets Network
SDG	Sustainable Development Goals
SEHK	Stock Exchange of Hong Kong
SGX	Singapore Exchange
TCFD	Task Force on Climate-related Financial Disclosures
TNFD	Task Force on Nature-related Financial Disclosures

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