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Enhancing Climate Decision Making

insights from early adopters of climate risk disclosure

Abstract

This article investigates the early implementation of the Aotearoa New Zealand Climate Standards, the world's first mandatory climate-related disclosure regime, and its influence on New Zealand business practices. Through interviews with 20 organisations, the study explores challenges and opportunities associated with the new disclosure requirements. Findings range from viewing disclosures as compliance to recognising the strategic value. Key needs include enhanced policy support, data access and capacity building to ensure disclosures contribute meaningfully to New Zealand's climate goals. The insights provide a foundation for refining the Aotearoa New Zealand Climate Standards and offer broader lessons for the global adoption of climate risk disclosure standards.

Keywords climate change, climate risk, disclosures, data, qualitative

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Changing decision making for capital allocation is needed in high greenhouse gas-emitting activities, and increased investment in those activities which involve clean, renewable energy and less greenhouse gas-emitting processes (Ministry for the Environment and Ministry of Business, Innovation and Employment, 2019). Business has a considerable role to play in supporting decarbonisation efforts. Demand from stakeholders and investors for transparent and consistent climate-related and ESG (environmental, social and governance) data has also led to organisations voluntarily disclosing such information (Ding, Liu and Chang, 2023; Griffin and Jaffe, 2022). To integrate climate risk and resilience into financial and business decision making, disclosures need to be comprehensive, risk management strategies need to evolve, and capital allocation should align accordingly.

New Zealand was one of the first countries to 'require the financial sector to report on climate risks' (Shaw, 2020) with the introduction of a mandatory climate-related reporting framework. This is part of a national and global effort to transition towards a low-emissions, climate-resilient

economy, as other countries are also making climate-related financial disclosures mandatory (e.g., the UK, EU, Singapore, Switzerland and Australia have just released their standards).

The Aotearoa New Zealand Climate Standards were developed using insights from the international voluntary disclosure regimes, such as the Task Force on Climate-related Financial Disclosures (TCFD), the Global Reporting Initiative and the International Sustainability Standards Board (ISSB). The Aotearoa New Zealand Climate Standards aim to enhance decision making, capital allocation and transparency regarding entities' climate change risks and opportunities. Our wider research programme on the disclosure framework seeks to evaluate whether, and to what extent, these objectives are being achieved. Specifically, this article will explore the early reporters' experiences of preparing their disclosures to understand some of the key issues involved and what changes might be made by policymakers to help all disclosing entities, in New Zealand and globally. The findings are intended to inform both practitioners and policymakers, enabling them to adopt strategies that promote transparency, accountability and continuous improvement in disclosure processes. The article begins with some background on the standards and then outlines the method of research, before moving on to the thematic findings and recommendations.

Goals of mandatory climate risk disclosures

Mandatory climate-related disclosures are increasingly seen as essential for addressing climate change and facilitating the transition to a net zero economy (Armour, Enriques and Wetzer, 2021b; Carattini et al., 2022). The aim of mandatory climate-related disclosures is to ensure that the impacts of climate change are consistently taken into account in business, investment, lending and insurance underwriting decisions. These disclosures aim to help climate-reporting entities show responsibility and foresight in addressing climate issues, leading to a more efficient allocation of capital and facilitating the transition to a more sustainable, low-emissions economy. This involves not only understanding the impact of organisations

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on reducing emissions, but also striving to mitigate financial market risks associated with physical impacts, such as flood inundation, increased extreme weather, extreme temperature, etc., and transition risks, such as new, more competitive technologies, policy changes, legal liabilities and stranded assets.

The primary goal of these disclosures is to provide investors with the necessary information to accurately price climate risks and allocate capital efficiently. Current voluntary frameworks have proven insufficient, leading to mispricing and capital misallocation that hinders the net zero transition (Armour, Enriques and Wetzer, 2021b). A key issue associated with a voluntary disclosure is that they allow companies to pick and choose which aspects to disclose (Armour, Enriques and Wetzer, 2021a). Mandatory, and thus more prescribed, disclosures aim to accelerate carbon emission reductions and help manage carbon transition risks for both public and private companies (Bolton and Kacperczyk, 2021) through more accurate evaluation and pricing of climate risks, enhancing investor decision making to foster a more resilient financial system.

Climate risk disclosures are evolving from voluntary to mandatory standards,

influenced by global requirements and organisations such as the TCFD and ISSB (Dey et al., 2024). Effective implementation requires simple, straightforward disclosures and proper enforcement to support informed decision making by stakeholders and to combat greenwashing (Bolton and Kacperczyk, 2021; Dey et al., 2024). However, concerns around greenwashing and quality, credibility and comparability remain central issues (e.g., Sullivan and Gouldson, 2012; Taurangana and Chithambo, 2015; Depoers, Jeanjean and Jerome, 2016). Relatedly, there are issues around data, in terms of both the data needed to develop a risk assessment and disclosure, and the data being produced that investors, creditors and other stakeholders rely on to make financial decisions. Challenges include having the availability of granular data to assess climate risk, and the standardisation and integration of that data, particularly in relation to forward-looking data when developing scenarios (Vinelli, Kidd and Gellach, 2024; Fiedler et al., 2021; Talbot and Boiral, 2018; Miola and Simonet, 2014).

The effects of mandating sustainability disclosures are emerging as promisingly positive. Multiple studies have demonstrated that mandated emissions reporting leads to reductions in subsequent emissions among reporting companies in the UK (Tang and Demeritt, 2018; Downar et al., 2019; Jouvenot and Krueger, 2020). Research by Miller, Stockbridge and Williams (2023) found that US insurance companies reduced their investments in fossil fuels by 20% relative to non-disclosers after a law required such disclosures; notably, this effect persisted even after the policy was rescinded. The European Union has also passed several directives mandating increased sustainability disclosures. Research by Fiechter, Hitz and Lehmann (2022) indicates a rise in sustainability-related activities in anticipation of the EU Non-Financial Reporting Directive, which, according to Brié, Stouthuysen and Verdonck (2022), has improved the quality and comparability of disclosures across Europe. However, others, such as Tang and Demeritt (2018), note that there is limited evidence (and research) on the relationships between disclosing and reducing emissions.

There is also little research examining the relationship between corporate target setting and emissions reductions (Bolay et al., 2024; Dahlmann, Branicki and Brammer, 2019). However, clear patterns do emerge from these two studies (e.g., absolute and long-term emission targets have a positive relationship with emissions reductions). In Aotearoa New Zealand, we have the opportunity to observe these relationships unfold over the coming years with the mandated framework.

The Aotearoa New Zealand Climate Standards framework involves disclosing in four areas, which align with the TCFD framework for international interoperability (External Reporting Board, n.d.). The framework provides detailed guidance on the specific information that entities must disclose to ensure comprehensive and transparent climate-related reporting. First, entities must disclose governance practices, including the roles and responsibilities of boards and management in overseeing climate-related risks and opportunities. Second, entities are required to disclose how they incorporate climate considerations into their strategic planning, including the potential impacts of climate change on their business models, operations and long-term objectives. Third, entities are to outline their risk management processes, detailing how climate risks are identified, assessed and managed across the organisation. The fourth part mandates the reporting of specific metrics and targets that organisations use to measure and manage their climate-related performance, such as greenhouse gas emissions, energy use, and progress towards emissions reduction goals. These disclosures aim to provide stakeholders with a clear understanding of how entities are addressing climate-related challenges and contributing to the transition to a sustainable, low-carbon economy.

Who has to disclose?

Approximately 170 financial market participants in New Zealand will be required to produce climate-related disclosures. These include:

- all registered banks, credit unions and building societies with total assets exceeding \$1 billion;

Table 1: Summary of interview respondents (participants)

Type of entity	Total entities
Corporate issuer	13
Registered bank or building society	1
Investment scheme manager	2
Crown financial institution	3
Insurer	1
Total	20

- all managers of registered investment schemes (excluding restricted schemes) with more than \$1 billion in total assets under management;
- all licensed insurers with total assets greater than \$1 billion or annual gross premium revenue exceeding \$250 million;
- large listed issuers of quoted equity securities or quoted debt securities. An equity issuer is considered large if the market price of all its equity securities exceeds \$60 million, and a debt issuer is considered large if the face value of its quoted debt surpasses \$60 million. (Issuers listed on growth markets are excluded from the climate-reporting entity definition.)

Managers of registered investment schemes are required to make disclosures on a fund-by-fund basis, ensuring that investors receive the necessary information to understand the impact climate change may have on the future performance of their investments. This differs from the EU scheme, in which the standards for corporates and financial institutions are separate. Additionally, overseas-incorporated organisations will be required to make disclosures if their New Zealand business exceeds the thresholds outlined above.

Oversight and monitoring of the climate-related disclosures

The Financial Markets Authority (FMA) in Aotearoa New Zealand is responsible for the independent monitoring, supervision and enforcement of the climate-related disclosures regime. The FMA has committed to taking a constructive and educative role in the early stages of implementation (Financial Markets Authority, n.d.). It states that in the

first year it will focus on setting initial compliance expectations, in the second year support development of best practice, and in the third year will aim to provide a steady state of guidance, monitoring and enforcement.

This study seeks to feed into the process of supporting best practice and learnings from the initial disclosing practices, drawing on insights by analysing and synthesising the experiences and outcomes of selected disclosing firms. By examining these initial efforts, the study aims to provide a foundation for refining and enhancing future practices, ensuring they are aligned with emerging standards and stakeholder expectations.

Research methods

Interviews were conducted with 20 organisations that were in various stages of their climate-related reporting, ranging from early adopters to those just starting the process, and from various sectors of the New Zealand economy. The organisations were selected based on whether they had already produced climate or broader sustainability reports before mandatory reporting, and to capture a range of potential companies that would be in the process of disclosing as mandated climate-reporting entities. Table 1 outlines the participants involved.

Before any interviews were conducted, and prior to contacting potential participants via email, ethical approval was obtained, and consultation was undertaken with Ngāi Tahu through the Māori Development Office at Ōtakou Whakaihu Waka University of Otago. A database of potential participants was then created and invitations were emailed, accompanied by an information sheet and a consent form. The authors conducted the interviews via

video calls, with each session averaging around 60 minutes. These interviews were digitally recorded with the participants' permission and transcribed using Otter AI software. The transcripts were carefully reviewed against the recordings to ensure accuracy and any errors corrected.

A semi-structured interview approach was employed, designed to capture the participants' perspectives on and insights into the process of disclosing climate risks, as well as the impacts and outcomes of this process. The interviews began with an open-ended question, inviting participants to share their experiences and describe their process of preparing climate risk disclosures. This narrative approach allowed participants to tell their stories in as much detail as they were comfortable with, offering flexibility to highlight aspects that were meaningful to them. The interviewer could then probe further, ensuring a detailed understanding from the participant's viewpoint, expressed in their own words.

The interviews were analysed thematically using NVivo software. This analysis involved systematically identifying, analysing and developing patterns (themes) within the data. NVivo is a specialised tool which helps researchers organise and code large volumes of text, such as interview transcripts, to facilitate the thematic analysis process. We began by reading through transcripts multiple times to gain a deep understanding. A high-level analysis was prepared at this stage. Then NVivo was used to code the data, which involved organising segments of text that relate to specific topics or ideas. These codes are organised into broader themes that capture the key patterns and insights emerging from the data. This article focuses on one of the themes that emerged from the analysis – the challenges associated with data.

Data is the focus of this article because it was a prominent theme across this qualitative data set. It was also the key concern raised in a survey of disclosing entities that was done as part of the larger project (External Reporting Board, 2024). As such, we thought that a deeper delve into and discussion around data and the role of policymakers to facilitate and support the generation of more accurate data for the disclosures was important.

While some participants questioned the necessity of leading in this area, citing the additional costs, others saw value in New Zealand's pioneering role, provided it did not compromise the economic well-being of its citizens.

Findings

This section gives a high-level overview of the participants' thoughts on the Aotearoa New Zealand Climate Standards and the ways in which they have been understood and incorporated into their organisations. We then focus on one of the emerging themes, with a number of issues being raised around the data involved in the reporting process. These are discussed in relation to a series of actions that could be undertaken by policymakers and government departments to facilitate data to enable the mandated climate-related disclosure process.

Overall, the findings from the interviews reveal a complex and varied response to the climate standards process. Most of the participants (75%) indicated uncertainty regarding the impact of the mandatory climate-related disclosures on their decision making or capital allocation, primarily due to the early stage of their involvement in the process. Comments included 'not yet, too early' (participant 1), 'still early days' (participant 18), and the observation that the market didn't understand climate risk yet. While a small

number of corporate issuers were starting to see some impacts in decision making, the vast majority of participants saw that it 'would impact future decision making' (participant 2). Even so, a subset of interviewees expressed that they view the climate-reporting requirements as a compliance exercise. This perspective was often tied to immediate competing priorities, such as maintaining global supply chains or recovering from external disruptions, both of which overshadowed the perceived value of climate disclosures. And for some the reporting process was seen as cumbersome, adding to the perceived regulatory burden, particularly for smaller, listed companies.

However, some organisations (approximately 10%) discussed the potential of aspects of the climate-related disclosure process to drive meaningful change. For these entities, the disclosures were not just about ticking regulatory boxes, but were seen as valuable tools for guiding corporate strategy and fostering long-term, holistic thinking about climate-related risks. These organisations viewed the process as an opportunity to embed climate considerations within their decision-making frameworks, which they believe will eventually influence their capital allocation and broader business strategies.

The discussions also highlight a tension between the perceived regulatory burden and the desire for New Zealand to be a global leader in climate action. While some participants questioned the necessity of leading in this area, citing the additional costs, others saw value in New Zealand's pioneering role, provided it did not compromise the economic well-being of its citizens.

Overall, this data points to the climate-related disclosure regime being at a crossroads: while it is seen by some as a compliance task, others view it as an opportunity for integrating climate considerations into organisational strategy. This dichotomy underscores the need for a more nuanced approach to climate reporting, one that not only fulfils regulatory requirements but also adds tangible value to business decision making and supports the transition to a low-carbon economy. The next few years will be an interesting test.

Policymakers are already taking several steps to address the dichotomy between viewing climate-related disclosures as mere compliance exercises and recognising their potential to drive meaningful change in decision making and capital allocation. For example, the External Reporting Board provides extensive guidance on how to integrate climate-related disclosures into strategic decision-making processes, facilitate training programmes aimed at building the internal capacity of companies, and create platforms for dialogue between businesses, investors and other stakeholders to share experiences and learn from each other. Now that organisations are using the New Zealand standards, more support can be provided in terms of best practices, case studies, and tools that demonstrate how disclosures can inform business strategy and capital allocation, plus workshops, webinars, and/or partnerships with academic institutions. In addition, leadership and innovation can be promoted: for example, encouraging and highlighting examples of companies that are using climate-related disclosures to drive innovation and long-term sustainability. By showcasing leaders in the field, it can inspire others to follow.

Other strategies that could be considered to drive change in disclosure practices could include introducing incentives for companies to go beyond the basic compliance requirements to encourage more meaningful engagement with climate-related disclosures. These incentives could be in the form of public recognition, or certain aspects of best practice reporting being a requirement for government contracts.

Data, decision making and the collective betterment

The sharing of data for greater collective understanding and subsequent decision making was identified by a group of participants as crucial in addressing the complex challenges involved in disclosing and understanding risks from climate change. It was suggested that fostering collaborative efforts in data was needed to develop more comprehensive and nuanced understanding of climate dynamics, which in turn informs better practices, actions and reporting.

The concern is that without clear guidelines and realistic expectations, the system may become overwhelmed by the sheer volume of data, leading to inefficiencies and potentially inaccurate reporting.

This section outlines the challenges identified by participants, followed by a discussion on possible solutions.

Obtaining data

One challenge companies face in developing their climate-related disclosures is obtaining reliable data on what other companies are doing. As one participant (an investor) pointed out, data collection from publicly listed assets has traditionally been handled by third-party providers, such as MSCI or SandP, who have historically focused on financial information but are now expanding to include ESG (including climate) data:

And for those up until recently, there hasn't been a lot of data collection or data supply. So from external parties, we've had to go and collect that data ourselves. Then there's third parties who will collect this data for you so MSCI and SandP are index and information providers. They have collected a bunch of financial information historically and have started to add a bunch of environmental social and governance data.

Also: 'we don't always actually get as much data as we would like, in fact, we often don't get enough data to do something that we feel is really, really robust (participant 4).

However, for privately held companies, the process is less straightforward. Many organisations find themselves needing to collect data independently or purchase it from external sources to understand the climate practices of companies in their supply chain, customers or those in their investment portfolios. This can be a significant undertaking, especially for companies with limited resources, as they strive to align with industry standards and regulatory requirements. Furthermore, New Zealand has a large number of small and medium-sized enterprises (SMEs), which are often owner-run businesses and largely lack resources (time) and capacity for extra reporting (Lewis, Massey and Harris, 2007), which in turn may be required by larger mandated reporting companies in their disclosures.

Reliability of data: Scope 3 emissions

A recurring theme in discussions about climate data is the reliability of Scope 3 emissions data. Scope 3 emissions, which encompass indirect emissions from a company's value chain, are notoriously difficult to quantify accurately. One participant described the challenges of dealing with Scope 3 data, emphasising the risk of double counting and the general unreliability of the data. To mitigate these issues, some companies focus on high-priority sectors, such as coal, oil and gas, where production data tends to be more reliable. Another participant expressed frustration with the current scramble to report Scope 3 emissions, calling for a more rational, coordinated approach to data collection and reporting:

I think this is a ridiculous scramble around scope three data at the moment. You have to focus on what you can influence. And I think probably there needs to be a rationalisation and kind of a connected grown up conversation around actually, what data should be reporting, what should we be requesting with scope three data? And what is the reporting system and reporting kind of

scope, that will mean we spend a reasonable amount of time reporting but we're reporting on things that we can influence and then drive change? (participant 16)

The concern is that without clear guidelines and realistic expectations, the system may become overwhelmed by the sheer volume of data, leading to inefficiencies and potentially inaccurate reporting. This highlights the need for companies, particularly those working with SMEs, to develop effective, collaborative strategies for gathering and managing Scope 3 data.

Integration of data

Several participants emphasised the importance of obtaining data that is not only accurate but also useful for organisational decision making. In New Zealand, where infrastructure and industries are highly interconnected, scenario planning should be done at the country level rather than focusing solely on individual sectors, some participants argued. This is particularly relevant in a small country where sectors such as rail, telecommunications and energy are closely linked. Participants suggested that a cross-sectoral approach would be more effective in building the resilience necessary to address future risks. The current sector-focused model may overlook critical interdependencies, which could undermine the effectiveness of scenario planning and risk management. One participant mentioned this as they felt that:

the only challenge I have is the fact that our climate data for New Zealand are old. So the most recent data I have from industrial environmental 2018 ... I do think that we, at some point, will stop building our own climate scenarios. There will simply be a couple that will emerge and they will become the de facto standards. And I'm expecting ours could be one of them because we are one of the few organisations that have got a nationwide presence. (participant 17)

There are currently very few attempts at trying to develop higher-level scenarios at a systems level. The think tank,

While Scope 3 emissions reporting is in the process of becoming more standardised, the challenge is obtaining accurate data for both the upstream and downstream emissions.

McGuiness Institute, advocates for scenarios at the national level (McGuiness Institute, 2023). However, these types of scenarios can be very difficult to develop as they require time and resources and a high level of stakeholder and partner participation. However, they may be worth developing to enable useful discussions on and disclosures of climate-related risk and opportunities.

Types of data: qualitative data versus quantitative models for scenario planning

The discussions also highlighted the tension between qualitative and quantitative approaches in scenario planning. Many participants noted that the data currently available tends to be backward-looking, making it challenging to develop forward-looking scenarios that accurately reflect potential future risks and opportunities. While quantitative models are essential for providing measurable insights, qualitative data offers valuable context and can help to interpret the implications of various scenarios. However, most of the participants found the use of qualitative data in scenarios challenging as it was harder to understand and factor in

than numbers. For example:

I think getting to the point where we're all comfortable with getting datasets to be used for exploratory analysis, that can then be used for further analysis on the impacts your business. It's not getting the data sets and saying this is what's going to happen in the future and, therefore, this is what's going to happen to our business. The balance between these two types of data is crucial for effective scenario planning and strategic decision making, as it enables companies to anticipate and respond to a range of possible futures. (participant 13)

This illustrates the difference between reading data to understand what is going to happen, often in a quantitative way, and being able to qualitatively explore data to understand the possibilities for the future. Many participants mentioned the challenges in this process in their companies.

Presentation of the data: reading and understanding the data presented in disclosures

Finally, the readability and presentation of data in climate-related disclosures emerged as a significant concern. For example, one participant discussed at length the importance of making data more accessible and engaging for stakeholders, particularly investors who need to understand potential future scenarios. They stated:

How can we be smart about making this available? Because that is what investors want, rather than producing tables and charts, create [scenarios] like a map. So for instance, we've got the geospatial team so we can produce maps of the country where we simply can click the button. And you can say, well, if I combine that field with the climate view, I can actually start producing maps for short, medium or long term. One and a half, two and a half, three now. Three scenarios. And if you can make it interactive, that's a lot sexier than if you have like a silly table. (participant 17)

Table 2: Summary of findings

Topic	Findings	Implications for policymakers
Organisational impact	Varied organisational responses, from compliance-focused to strategic decision making	Provide guidance to encourage integration of climate risks into core strategies rather than as a mere compliance exercise.
Compliance burden	Smaller entities struggle with the perceived regulatory burden and resource limitations.	Introduce capacity-building initiatives, particularly for SMEs, to help manage and interpret climate-related data.
Strategic opportunities	Some entities leverage disclosures for long-term planning, viewing it as a tool for innovation, resilience and growth.	Highlight and share best practices, showcasing how disclosures can drive strategic benefits beyond compliance.
Recognition and incentives	Incentives for going beyond compliance could drive meaningful engagement.	Establish recognition programmes and explore government contract incentives for entities that demonstrate exemplary disclosure practices.
Interconnected and holistic scenario planning	Sector-focused scenario planning overlooks interdependencies, enhancing overall resilience.	Encourage cross-sectoral scenario planning to address interdependencies and enhance national resilience to climate-related risks.
Data challenges	Issues with Scope 3 emissions data reliability, data integration and accessibility	Support development of centralised data repositories and standards for consistent, reliable data collection and reporting.
Data presentation	Need for interactive, engaging and accessible data presentation to support stakeholder and partner understanding	Promote innovative visualisation tools (e.g., geospatial mapping) to enhance stakeholder partner engagement and understanding of disclosures.

Instead of relying solely on tables and charts, this participant suggested using more interactive and visual tools, to present data in a meaningful way. It was suggested that, by combining climate projections with geographical information, companies can create dynamic visualisations that make it easier for stakeholders to grasp complex information. This approach would not only enhance understanding but also help to bring the data to life, making it more compelling and actionable for stakeholders, partners and decision makers.

Solutions for the data issues

Across all of the themes raised around data, the underlying question might be: how do we best collaboratively develop data on climate to build better understandings, practice and action?

Enhancing the quality, reliability and utility of the data used for climate and broader sustainability decision making includes practices that are already underway, including the development of the Aotearoa New Zealand Climate Standards themselves to bring about a standardisation in data generation and disclosing.

While Scope 3 emissions reporting is in the process of becoming more standardised, the challenge is obtaining accurate data for both the upstream and downstream emissions. The Global Reporting Initiative in conjunction with the Carbon Trust and World Resources Institute regularly releases

guidance updates to the Corporate Value Chain (Scope 3) Standard and there are now 15 internationally recognised categories for what is expected to be reported (Greenhouse Gas Protocol, n.d.). Despite this, ambiguities and inconsistencies with data remain.

The Ministry for the Environment has created repositories where companies can access high-quality, verified data on industry practices, emissions and other relevant metrics. However, this repository is not well known and not easily searchable, and keeping it up-to-date is also essential. This data being readily available and understandable can help level the playing field, allowing companies to focus their resources on analysing and using the data rather paying consultants to make sense of it for them.

In addition to the static resources provided, there could be more capacity-building initiatives that equip companies, particularly SMEs, with the tools and expertise needed to manage and interpret climate-related information effectively. This could include funding for training programmes and workshops, and the development of user-friendly data management tools that help companies gather, analyse and report data in line with regulatory requirements. By enhancing companies' internal capacities, policymakers can ensure that the data they produce is both accurate and useful for decision making.

Innovative data presentation tools that make climate-related data more accessible and engaging could be encouraged. Advanced data visualisation technologies could be encouraged, such as geospatial mapping, that help stakeholders better understand complex data and scenarios. By supporting innovation in this area, policymakers can help companies communicate their climate strategies more effectively, fostering greater transparency and stakeholder engagement.

Participants discussed the need for more interconnected data, especially for developing scenarios, given the interconnected nature of industries, particularly in a small country like New Zealand. While there has been sector- and industry-level scenario planning, it seemed from the comments that they would value this process being even wider. The 2023 cyclone across the North Island was a galvanising point for this – participants discussed their role in enabling resilience to climate-related disasters in the future. The interconnected data could be derived from facilitating industry-wide or national-level working groups that bring together representatives from different sectors to share data, insights and best practices. Such collaboration would help address the issue of fragmented data collection and ensure that scenario planning reflects the full range of interdependencies and risks.

Finally, the External Reporting Board has recently announced a public review of

the standards and will call for submissions (External Reporting Board, 2024). This provides the opportunity to give a voice to firms struggling with data to clearly identify and state the data needed to create better quality disclosures.

Conclusion

This research underscores the multifaceted challenges companies face, not just in Aotearoa New Zealand but globally, in processes of collecting, analysing and presenting climate-related data. The series of interviews with climate-risk disclosing organisations in Aotearoa New Zealand raised issues with data in climate-risk

disclosure. Indeed, this was one of the key issues identified by participants in this study and in the associated survey (Gehricke, Walton and Zhang, 2024b). Participants have noted that there is a clear need for more coordinated efforts, both within companies and across sectors, to ensure that the data collected is reliable, useful and effectively communicated. Meaningful data is needed to aid decision making to be able to allocate capital efficiently and thus meet the goals of the mandated Aotearoa New Zealand Climate Standards. Table 2 provides a summary of these findings.

One of the key mechanisms to bring about change for climate in the business sector is through finance. For the financial sector to shift, there is a need to accurately price climate risks and allocate capital efficiently (Armour, Enriques and Watson, 2021b). The climate risk disclosures are a key mechanism to provide the data to the market for this change. Without consistent and reliable data, the disclosures could fail to have the impact needed. Thus, we need to take heed of these calls for consistent data and adapt processes and regulations to enable the data for the market to respond.

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