Discussion Paper 2019/01

The Climate Reporting Emergency: A New Zealand case study

MCGUINNESS INSTITUTE
TE HONONGA WAKA

Discussion Paper 2019/01

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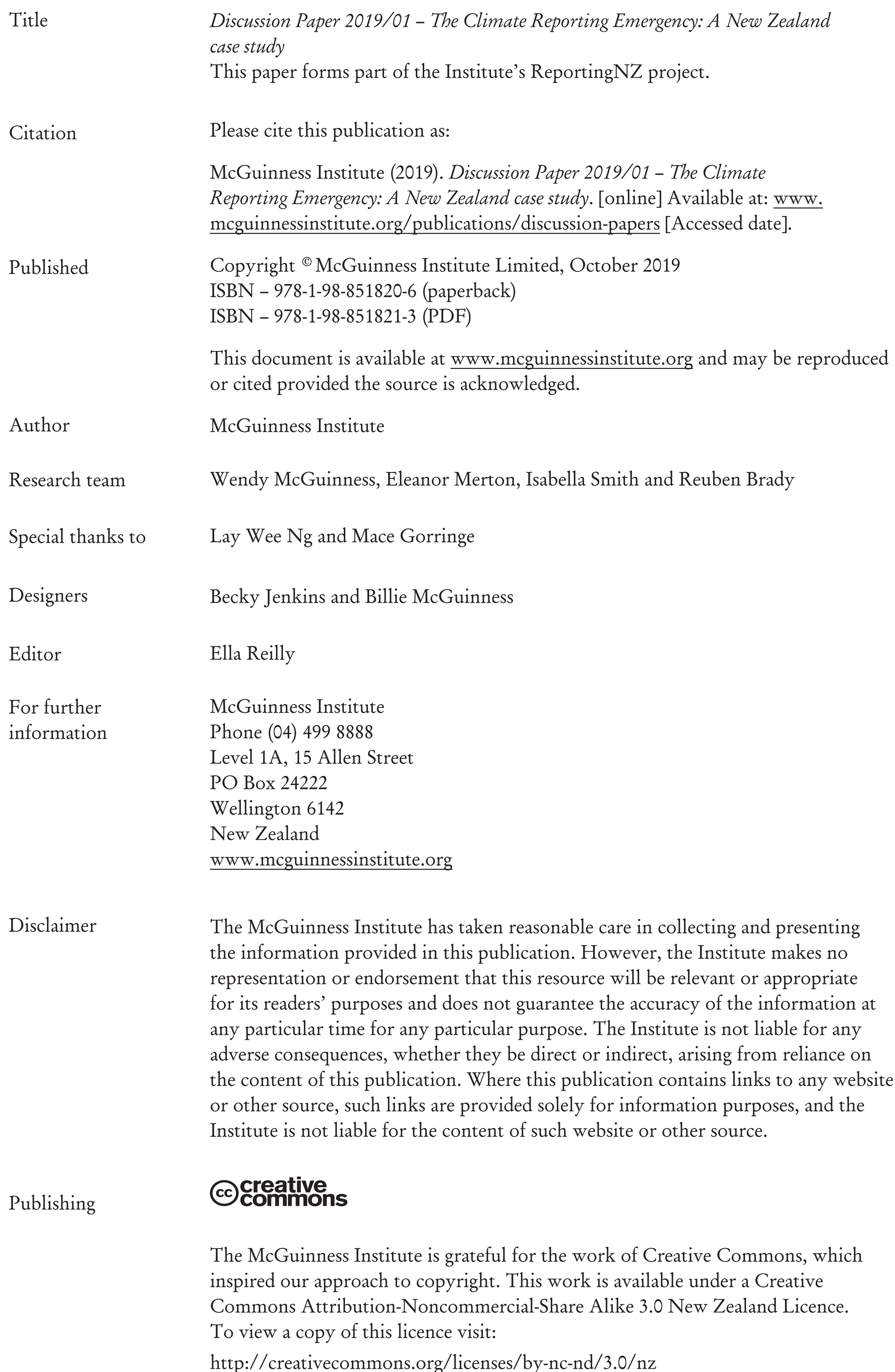
October 2019



Title: *Discussion Paper 2019/01 – The Climate Reporting Emergency: A New Zealand case study*
This paper forms part of the Institute's ReportingNZ project.

Citation: Please cite this publication as:

McGuinness Institute (2019). *Discussion Paper 2019/01 – The Climate Reporting Emergency: A New Zealand case study*. [online] Available at: www.mcguinnessinstitute.org/publications/discussion-papers [Accessed date].

Published: Copyright © McGuinness Institute Limited, October 2019
ISBN – 978-1-98-851820-6 (paperback)
ISBN – 978-1-98-851821-3 (PDF)

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Contents

Preface		1
Executive summary		2
1.0	**Introduction**	4
1.1	Purpose	4
1.2	Background	5
1.3	About Project ReportingNZ	6
Part 1:	**The New Zealand context**	9
2.0	**What is happening in New Zealand?**	10
2.1	New Zealand's international commitments	10
2.2	Te Tiriti o Waitangi and te ao Māori	11
2.3	Institutions and instruments	11
2.4	Private sector leadership	17
2.5	Underlying considerations	20
Part 2:	**The existing reporting regime**	22
3.0	**Legislative reporting framework**	23
3.1	Upcoming New Zealand legislation	23
3.2	Existing New Zealand legislation	23
3.3	Climate change litigation and shareholder resolutions	29
4.0	**Mandatory reporting regime**	30
4.1	An overview of the existing for-profit reporting landscape	30
4.2	Analysis of the for-profit reporting regime in practice	34
4.3	Review 1: The chair's report	36
4.4	Review 2: The financial statements	41
4.5	Review 3: The independent auditor's report	44
4.6	Review 4: The corporate governance statement	50
4.7	Observations and ideas	55
5.0	**Voluntary reporting regime**	57
5.1	Voluntary reporting frameworks	59
5.2	Results from analysis of Deloitte Top 200 annual reports	62
5.3	Observations and ideas	64
Part 3:	**Designing the solution**	65
6.0	**Policy knots**	66
6.1	How can we obtain the appropriate information to develop a climate strategy and monitor its progress?	66

6.2	How can we break down climate risks into useful and measurable components?	67
6.3	How can we fund the transition to a low-emissions economy and ensure the polluter pays (e.g. revisiting carbon tax)?	68
6.4	How can we move beyond the 'primary user' and redefine the 'user' to include broader stakeholders?	69
6.5	How can we ensure that reports are accessible, comparable, accurate and meaningful?	72
6.6	How can we direct preparers and users to apply the best voluntary reporting frameworks for them?	74
6.7	How can we ensure consistent application of key terms such as 'materiality'?	75
6.8	How can we ensure companies feel safe in making transparent disclosures (e.g. safe harbour provisions)?	77
6.9	How can we report emissions in a consistent and verifiable manner?	78
7.0	**The international accounting and assurance context**	80
7.1	What international protocols does New Zealand currently follow?	80
7.2	To what extent do these protocols set standards or guidance on climate reporting?	81
7.3	The New Zealand response	85
7.4	The Australian response	86
7.5	The United Kingdom response	86
7.6	The European Union response	88
7.7	Observations and ideas	89
8.0	**Proposed design**	92
8.1	Goal 1: Improve the quality and accessibility of climate-specific information in New Zealand	92
8.2	Goal 2: Ensure those who are responsible for governance in New Zealand think long-term and are future-focused	98
8.3	Goal 3: Cater to the disclosure needs of broader stakeholders in New Zealand	100
8.4	Goal 4: Improve the existing international framework of reporting standards to cover climate-related information	101
8.5	Final comment and next steps	102
Abbreviations		106
Appendix 1:	Proposed legislative changes	108
Appendix 2:	Z Energy's statement of climate information	112
Appendix 3:	Reserve Bank of New Zealand's results of industry survey on the potential impacts of climate change	117
Appendix 4:	Timeline of selected key reports and events regarding climate change risks	119
Appendix 5:	Professional contacts and reviewers	129
References		130

Figures

Figure 1:	Scenarios from the Global 2000 Report to the President	5
Figure 2:	Pace Layers Thinking	6
Figure 3:	Linkages between McGuinness Institute policy and research projects	6
Figure 4:	Comparing preparer and user views on the importance of climate-related EER disclosures	7
Figure 5:	Climate change information disclosed in the 2017 and 2018 annual reports of significant New Zealand organisations	8
Figure 6:	Data, information and knowledge	8
Figure 7:	New Zealand climate reporting institutions	11
Figure 8:	New Zealand climate reporting instruments	12
Figure 9:	XRB stance on where information should be reported	13
Figure 10:	Total replacement value of exposed infrastructure	14
Figure 11:	Disclosure of carbon emissions information in 2016 annual reports of 2017 NZSX-listed companies	17
Figure 12:	Disclosure of environmental information in 2016 annual reports of 2017 NZSX-listed companies	18
Figure 13:	New Zealand's 2017 emissions profile	25
Figure 14:	Entity types that mentioned 'NZ ETS' in their 2017 and 2018 annual reports	26
Figure 15:	Seven characteristics that inform the content of regular external reporting	31
Figure 16:	Six types of audiences in New Zealand's regulatory reporting regime	33
Figure 17:	Four key components of an annual report	34
Figure 18:	Z Energy's greenhouse gas emissions	35
Figure 19:	NZKS's premature mortality as a percentage of biomass	36
Figure 20:	Views on the ethics and integrity of the audit profession in New Zealand	48
Figure 21:	Five tiers of tensions between key stakeholders	56
Figure 22:	Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of Deloitte Top 200 entities	63
Figure 23:	New Zealand's climate strategy landscape	66
Figure 24:	Three types of climate change risk	68
Figure 25:	Comparing information over time and across entities	71
Figure 26:	Disclosure of Scope 1, 2 and 3 emissions in the 2017 and 2018 annual reports of the Deloitte Top 200 entities	79
Figure 27:	Comparing the XRB definition of EER and IASB definition of management commentary	85
Figure 28:	The double materiality perspective	88
Figure 29:	Who should report and why	93
Figure 30:	Comparing the tentative timelines for enactment of the Zero Carbon Amendment Bill and the development of XRB reporting standards on climate-related disclosures	196
Figure 31:	Exploring ways to embed climate reporting into the existing framework	105

Tables

Table 1:	Comparing the current and possible future focus areas of IASB pronouncements	3
Table 2:	Comparing nationwide and entity level reporting requirements	24
Table 3:	Emissions by sector in kilo tonnes of carbon dioxide equivalents (kt CO_2-e) between 1990–2017	26
Table 4:	New Zealand's total 2017 emissions by activity	27
Table 5:	Regulatory instruments that impact and shape the content of parts of the annual report	31
Table 6:	Review of principles underlying some voluntary reporting frameworks	58
Table 7:	Mentions of 'TCFD' in the 2017 and 2018 annual reports of Deloitte Top 200 entities	62
Table 8:	Comparison of voluntary reporting information disclosed in the 2017 and 2018 annual reports of significant entities	64
Table 9:	Mentions of shareholder and stakeholder in legislation	70
Table 10:	Purpose of the TCFD recommendations	73
Table 11:	Comparing elements of the TCFD to elements of the proposed Statement of Climate Information	73
Table 12:	List of major standard-setters that shape reporting and assurance practices in New Zealand	81
Table 13:	Types of reporting obligations for preparers	92
Table 14:	Strategic options for 'material' content requirements in an annual report	95
Table 15:	Voluntary guidance documents	98
Table 16:	Comparing the current and possible future focus areas of IASB standards	101

Preface

'We haven't got the money [or the time] so we've got to think!' – Sir Ernest Rutherford, 1962

The issue of climate change has gained a significant amount of traction, particularly in light of the assertion in the 2018 Intergovernmental Panel on Climate Change (IPCC) report of the urgent need to cut carbon emissions by 45% in the next 11 years in order to limit global warming to within 1.5°C (Rogelj, Shindell, Jiang et al. in press p. 95). The report was picked up widely by global media, as were the comments made by 16-year-old climate change activist Greta Thunberg at Davos at the beginning of 2019:

> We must change almost everything in our current societies [...] Adults keep saying: "We owe it to the young people to give them hope." But I don't want your hope. I don't want you to be hopeful. I want you to panic. (Thunberg, 2019)

A further wakeup call is provided by oil giant ExxonMobil's announcement that it intends 'to pump 25% more oil and gas in 2025 than in 2017' less than six months after the IPCC report was published (*The Economist*, 2019a).

Recent experiences in Cape Town after a severe drought provide some key lessons:

- An existential climate crisis creates almost instant consensus on action [...]
- Climate change is a class issue [...] a crisis was proclaimed only when rich [people] and companies were affected [...]
- Climate change reorders the economy [...]
- Regional and national governments will clash over who should pay for climate change [...]
- There are quick wins [...] but bigger solutions are elusive [...]
- The poorest places won't adapt; they'll be abandoned (Kuper, 2019, p. 5).

In a time of rapid change, exponential risk and uncertainty, when we do not have a clear idea of what lies ahead, comprehensive and appropriate reporting will be key for responding to the impacts of climate change. New Zealand must develop a cohesive, useful, meaningful and cost-effective climate reporting framework in order to help transition to a low-carbon economy. However, there are difficulties in undertaking this task due to the level of uncertainty over the effects of climate change as well as over what information will be most useful for managing these effects. When scoping research in this area, the McGuinness Institute was struck by how unsophisticated and disjointed the current thinking is about climate reporting, both nationally and internationally.

Unlike financial reporting frameworks, a climate reporting framework does not have the advantage of money as a simple unit of measurement. Instead, we are faced with the difficulty of presenting a wide range of potential impacts to a much broader audience for reporting with more varied, important and urgent needs.

As evident in the ExxonMobil example, some companies will continue to operate in their own interests and the interests of certain investors and consumers. This means that voluntary reporting will not be enough. Mandatory reporting will be required to enable governments and regulators to target those not transitioning to a low-emissions economy.

The McGuinness Institute has designed this discussion paper to contribute to climate crisis conversations both nationally and internationally. We aim to build on existing data and knowledge by adding our own layers that others can then build on further. Together we hope to develop a climate reporting framework for New Zealand. Thank you to all those who contributed and took the time to meet with myself and Institute staff over the last six months. This is a complex area and we could not have written this discussion paper without the help of a wide range of people and institutions. If there are any errors or points requiring clarification, please do not hesitate to contact me.

Wendy McGuinness
Chief Executive

Executive summary

Discussion Paper 2019/01 – The Climate Reporting Emergency: A New Zealand case study explores the existing reporting framework from a climate change perspective. This research has implications beyond New Zealand's borders. It illustrates the global challenges faced by businesses and countries that wish to improve climate reporting in order to develop long-term strategies to mitigate and adapt to climate change, as well as make their businesses and countries more socially just, environmentally robust and economically durable.

This paper aims to answer three research questions:

1. What international protocols does New Zealand currently follow and to what extent do these protocols set standards or guidance for climate reporting? (See Section 7)
2. How might international protocols be influenced or strengthened to improve climate reporting and how likely is it for an international climate reporting standard to be developed in the short term? This question assumes that New Zealand can influence the quality of climate reporting standards through consultation with the international standard-setters. (See Section 8)
3. Given the current situation, what direct changes could New Zealand policy-makers and standard-setters make to improve climate reporting in New Zealand? This question assumes that New Zealand actively pursues other ways to strengthen climate reporting. (See Section 8)

This discussion paper forms part of the Institute's *Project ReportingNZ*, and includes previous research undertaken by the Institute. It is made up of three parts. Part 1 outlines the New Zealand context in terms of international commitments, Te Tiriti o Waitangi and te ao Māori, existing institutions and instruments, and private sector developments. Part 2 reviews the existing New Zealand reporting regime through the lens of legislation, the mandatory reporting regime and the uptake of voluntary reporting frameworks. Part 3 identifies a number of policy knots, reviews the international accounting context and then puts forward a design solution so New Zealand can provide useful, timely and accurate climate-related disclosures.

The proposed framework is based on four design goals that the Institute believes should drive decision-making in this area:

Goal 1: Improve the quality and accessibility of climate-specific information in New Zealand.

Goal 2: Ensure those who are responsible for governance in New Zealand think long-term and are future-focused.

Goal 3: Cater to the disclosure needs of broader stakeholders in New Zealand.

Goal 4: Improve the existing international framework of reporting standards to cover climate-related information.

The Institute has concluded that, in terms of climate-related disclosures, there is a significant gap between what users want and what preparers provide. This gap is not the fault of users or preparers but is due to a lack of infrastructural response to a complex and critical issue facing existing and future generations. The International Accounting Standards Board (IASB), an independent international standard-setter, was designed to respond to financial reporting issues that are generally backward-looking and, when forward-looking, only addresses risks with a high level of certainty.

The International Financial Reporting Standards (IFRS) Foundation, which oversees the IASB, does not have a strong platform in its constitution for developing non-financial future-focused reporting for wider users (other than primary users). This explains why there is so little leadership by IFRS in regard to climate-related disclosures (see discussion in Section 7). Table 1 outlines how the IFRS constitution and IASB framework could be directed to close the emerging 'reporting standards gap'.

If the IASB is not going to progress a climate-related disclosure regime in the immediate future, countries like New Zealand will be left with the challenge of developing a regulatory solution to improve climate reporting. Such a solution will likely be built around the content of an annual report and the filing of those reports on a public register. Currently only certain companies are required to file their financial statements on the Companies Register. The Institute proposes that this requirement be expanded to require the annual

report to be filed (i.e. not just the financial statements) and that the Companies Register be expanded to become a central register for all entities. Climate change makes a case for improving the content of annual reports of selected entities and making those reports more accessible to the general public. The content of annual reports could be improved in the following ways:

- A new statement – a *Statement of Climate Information* – could be required to be prepared, to be included in the annual report and to be filed for selected entities under s 211 (Contents of annual report) of the Companies Act 1993. This statement could include climate risk identification, measurement (e.g. reporting on GHG emissions) and management (e.g. a Paris-aligned business strategy).
- For the chair's/directors' report, the contents could be clarified and expanded by amending both s 211 (Contents of annual report) and s 137 (Directors' duty of care) of the Companies Act 1993 to require the chair to report on (i) the impact of climate change on the entity and (ii) the impact of the entity on the climate (see Figure 28 in Section 7.6). The chair's/directors' report of selected entities should also be required to be filed on the Companies Register. A distinction should be made between the chair's/directors' report (which should be strategic) and the management commentary (which should be operational). Alternatively, a strategic report could be required, along the lines of the UK model.
- For the financial statements, a domestic accounting standard on climate-related disclosures could be issued under s 17 (Financial reporting standards may cover non-financial reporting) of the Financial Reporting Act 2013. This could then be accompanied by a domestic auditing and assurance standard on climate-related disclosures to cover the auditor's report. Both standards could extend the audience of information to include wider stakeholders (i.e. beyond primary users or shareholders) and discuss (i) the impact of climate change on the entity and (ii) the impact of the entity on the climate.
- For the corporate governance statement, they should be required to be published as part of the annual report. This could be addressed by amending s 211 (Contents of annual report) of the Companies Act 1993. The *NZX Corporate Governance Code* could be extended to consider the needs of wider stakeholders and to require the disclosure of GHG emissions (currently, the *FMA Handbook* asks preparers to consider stakeholders but the *NZX Corporate Governance Code* does not). Content requirements for corporate governance statements are set out in the *FMA Handbook* published by the Financial Markets Authority (FMA) and the *NZX Corporate Governance Code* (supported by the *NZX ESG Guidance*).

Table 1: Comparing the current and possible future focus areas of IASB pronouncements

Focus area	Current IASB pronouncements	Suggested direction/expansion of IASB pronouncements
Purpose (why)	Provided for accountability and decision-making purposes.	Provided for transparency, building social licence, accountability and decision-making purposes.
Audience (who)	Primary users.	Primary users and other stakeholders.
Horizon (when)	Past and the next 12 months.	Past and the next ten years.
Information (what)	Financial statements and notes (primarily financial information and possibly management commentary).	Everything in the annual report (financial and non-financial information and all commentary).
Level of certainty (what)	Primarily retrospective with a focus on known risks with high probability/certainty in the near future.	Retrospective and prospective, allowing for the use of exploratory tools such as scenario development to inform strategies.
Instruments (how)	Standards, practice statements and other guidance.	Standards, practice statements and other guidance.
Materiality for climate matters (how)	Minimal.	Guidance followed by a standard for climate reporting.
Accessibility (where)	Dependent on the jurisdiction. In New Zealand, information can be accessible via NZX, the Companies Register or entities' websites.	Will always be dependent on jurisdiction, but ideally the focus will move beyond access to financial statements to include access to the annual report.

1.0 Introduction

1.1 Purpose

This paper explores the desired outcomes of climate reporting, with a view to designing a climate reporting framework for New Zealand. The McGuinness Institute found that designing a framework for climate reporting requires clarity of purpose, a high level of specificity over the desired outcome and sufficient flexibility to take account of the pace of change and uncertainty of the future.

With this in mind, this paper aims to answer three research questions:

Question 1: What international protocols does New Zealand currently follow and to what extent do these protocols set standards or guidance for climate reporting? (See Section 7)

Question 2: How might international protocols be influenced or strengthened to improve climate reporting and how likely is it for an international climate reporting standard to be developed in the short term? This question assumes that New Zealand can influence the quality of climate reporting standards through consultation with the international standard-setters. (See Section 8)

Question 3: Given the current situation, what direct changes could New Zealand policy-makers and standard-setters make to improve climate reporting in New Zealand? This question assumes that New Zealand actively pursues other ways to strengthen climate reporting. (See Section 8)

In answering these three questions, the discussion paper makes a number of broad assumptions. The most important of these are as follows:

- The current state of climate reporting constitutes a global emergency.
- The New Zealand Government aims to reduce our emissions to net-zero by 2050.
- We manage what we measure. Accurate, timely and comparable data is essential for New Zealand's policy development and decision-making in order to reach our 2050 emissions reduction target and have a tangible impact on the effects of climate change.
- It is critical that our reporting is comparable with our trading partners.
- Climate change affects everyone and therefore the audience for climate reporting is much broader than the primary users of financial statements. This relates to the idea of social licences. In this paper, the Institute uses the term 'social licence' to refer to ethical or moral obligations imposed on an entity by stakeholders that are not derived from a legal contract. A legal contract generally exists between an entity and an employee, an entity and an investor or an entity and a supplier. In contrast to a legal contract, a social contract exists between an entity and its other stakeholders. The social contract grants an entity a social licence to operate and imposes ethical, moral and accountability obligations on an entity.
- Much of the Institute's thinking about the characteristics of an appropriate climate reporting framework are aligned with the seven guiding principles of the International Integrated Reporting Council's (IIRC) IR framework: (i) strategic focus and future orientation, (ii) connectivity of information, (iii) stakeholder relationships, (iv) materiality, (v) conciseness, (vi) reliability and completeness and (vii) consistency and comparability.
- Boards of directors are responsible for communicating the strategic thinking of a company, not management.
- The annual report is central to the accessibility, transparency and accountability of information and should include all information material to an entity's operations.
- Disclosure requirements for for-profit entities should also be applied to public benefit entities. (For the purposes of this paper, some sections focus on for-profit entities, but the intent is for all entities to report comprehensively and comparably).

This paper is structured as follows:

Part 1: The New Zealand context

Section 2 outlines the broader New Zealand climate reporting context, including discussion of our international commitments, the unique position of Te Tiriti o Waitangi and te ao Māori, and our particular institutions, instruments and initiatives in this space.

Part 2: The existing reporting regime

Section 3 outlines the legislative context for climate reporting, which necessarily involves some legislation solely focused on reporting, and some legislation solely focused on environmental concerns. Section 4 outlines the mandatory reporting regime in terms of External Reporting Board (XRB) standards and provides two case studies. Section 5 outlines the voluntary reporting regime by presenting research into references to international frameworks/instruments in New Zealand entities' annual reports.

Part 3: Designing the solution

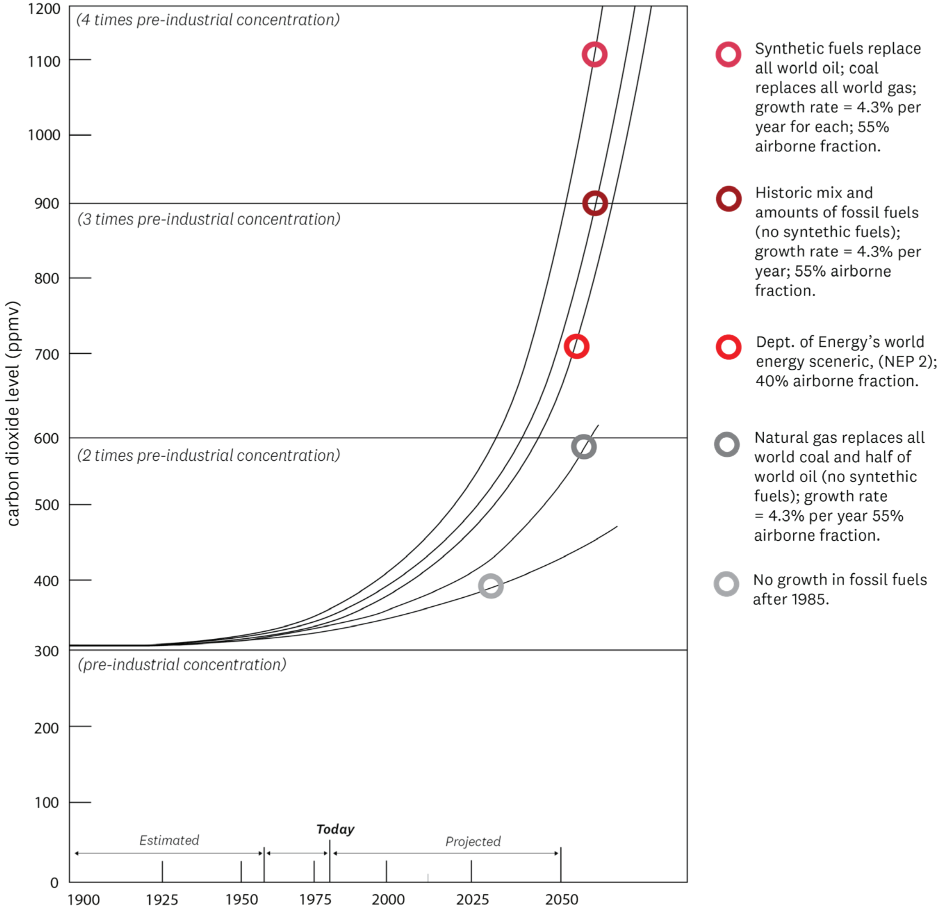
Section 6 outlines difficult policy questions that need to be answered in order to develop a climate reporting framework fit for purpose. Section 7 sets out the international accounting requirements in regard to climate reporting. Section 8 then outlines our direct recommendations for improving the reporting framework to deliver more robust climate-related disclosures.

1.2 Background

Climate change is more than just an environmental issue. It is urgent, unavoidable, and requires profound shifts in thinking, systems and how we live and work. Without severe disruptions to the status quo, the world will continue to descend into an unknown and troubling future. A report released in 1980 forewarned of the consequences of dramatic increases in carbon emissions (as shown in Figure 1) and the irreversible damage this might have on the climate, the environment, and inevitably on humankind (Barney, 1983). Forty years have passed and climate change, though a long-standing part of discussion in scientific circles, has only gained significant traction in government and the corporate sector since the IPPC 2018 *Special Report Global Warming of 1.5 °C* report was published. The report asserted the urgent need to cut carbon emissions by 45% in the next 11 years in order to limit global warming to within 1.5°C (Rogelj, Shindell, Jiang et al., in press, p. 95). Reporting on carbon dioxide and its impacts are key parts of the solution. In 2013, the global concentration of carbon dioxide in the atmosphere hit 400 parts per million for the first time in recorded history (NASA, 2013).

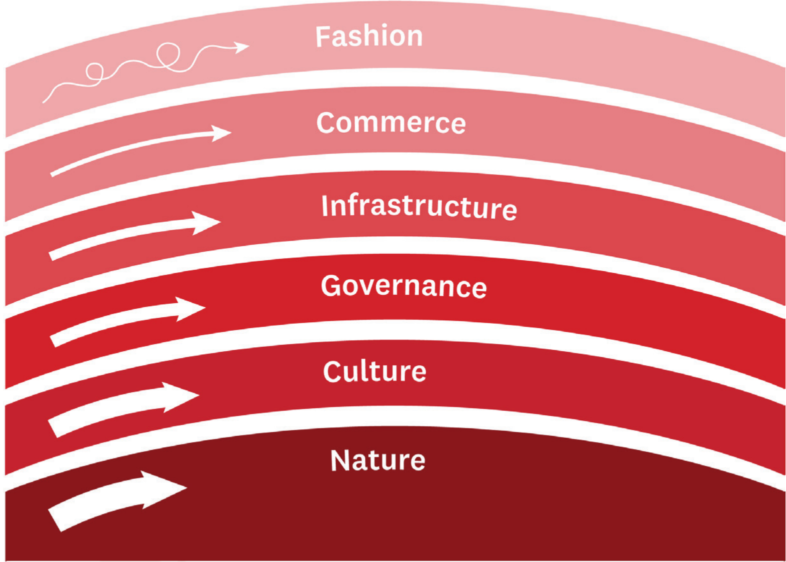
Figure 1: Scenarios from the Global 2000 Report to the President

Source: (Barney, 1983, p. 84)



Climate change is unlike anything else humanity has had to deal with. Globally we have and are still managing issues such as tensions between nation states, environmental degradation and poverty, but climate change is one of the most significant examples of nature affecting humanity. The Pace Layers Thinking model in Figure 2 shows, via the arrows, that as we move from fashion to nature, the pace of change slows down. Further, unlike the other layers in the diagram, once nature changes, it disrupts all the layers above. That is why climate change – both in terms of mitigation and adaptation – requires reporting by entity, by industry, by nation and in terms of the world.

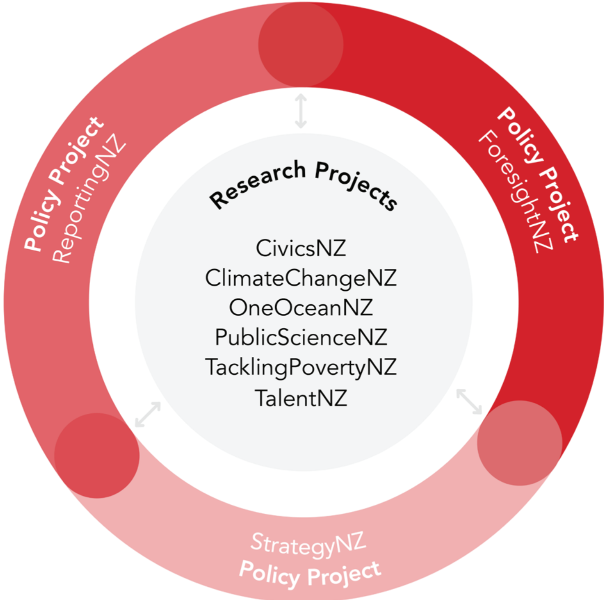
Figure 2: Pace Layers Thinking
Source: (Adapted from Heuer, 2019)



1.3 About Project ReportingNZ

This discussion paper is part of the McGuinness Institute's *Project ReportingNZ*[1], which was developed as one of three policy projects following the observation that foresight shapes strategy, strategy determines reporting and reporting drives foresight. This interconnected relationship is illustrated in Figure 3 with the Institute's six research projects at the centre.

Figure 3: Linkages between McGuinness Institute policy and research projects



1 For more on *Project ReportingNZ*, please see the *ReportingNZ* website at www.reportingnz.org.

The aim of *Project ReportingNZ* is to contribute to a discussion on how to build an informed New Zealand. To do this, the project looks specifically at the role of annual reports as a tool for improving the relationship between organisations and the communities in which they operate.

Since 2016 the Institute has produced a number of publications as part of *Project ReportingNZ*. *Survey Highlights: A Summary of the 2017 Extended External Reporting Surveys* summarises the findings of two surveys about extended external reporting (EER) from the perspectives of users and preparers, undertaken in collaboration with the XRB (McGuinness Institute, 2018a). After undertaking these surveys the Institute became aware of the poor state of climate reporting in New Zealand. Specifically, the surveys indicated significant disparities between what preparers included in their annual reports, and what information users of annual reports considered important to disclose (see Figure 4).

Figure 4: Comparing preparer and user views on the importance of climate-related EER disclosures
Source: (McGuinness Institute, 2018a, p. 3)

Preparers		→	Users	
61%	Breaches of air pollution standards (Q14)	→	84%	Breaches of air pollution standards (Q8), BUT only **8%** considered it to be reported on well (Q11)
60%	Breaches of water quality standards (Q14)	→	86%	Breaches of water quality standards (Q8), BUT only **12%** considered it to be reported on well (Q11)
53%	Total greenhouse gas emissions (Q14)	→	79%	Total greenhouse gas emissions (Q8), BUT only **18%** considered it to be reported on well (Q11)
31%	Amount of nitrogen used (Q14)	→	66%	Amount of nitrogen used (Q8), BUT only **8%** considered it to be reported on well (Q11)

This work then led to a comprehensive analysis of the annual reports of NZSX-listed companies, outlined in *Working Paper 2018/01 – NZSX-listed Company Tables* (McGuinness Institute, 2018b). From there, a further six data sets were added under the overarching title 'significant entities'; in addition to NZSX-listed companies, this included entities listed on the Deloitte Top 200 [predominantly companies], government departments, Crown agents and Crown entities, State-owned enterprises and local authorities. At the same time our focus was narrowed to cover climate-related disclosures. This led to a total of 384 'significant entities'.

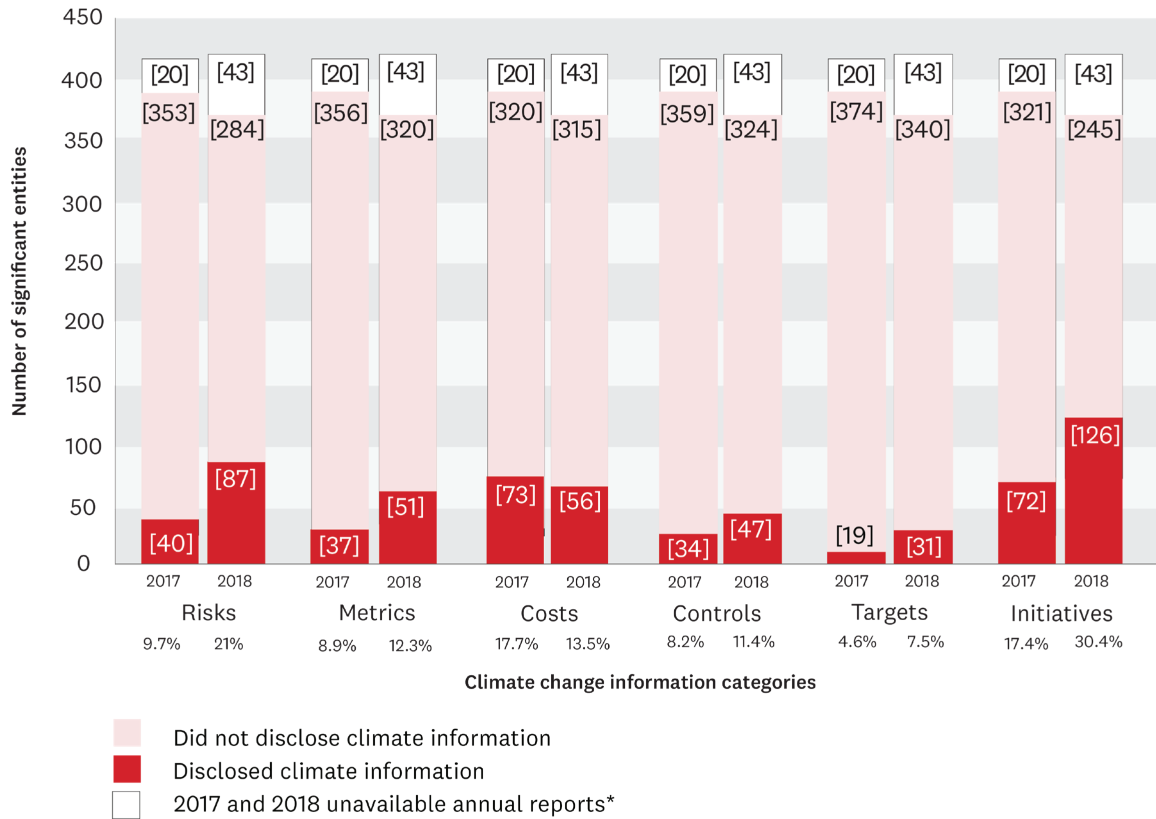
This phase of our research is presented in *Working Paper 2018/03 – Analysis of Climate Change Reporting in the Public and Private Sectors* (McGuinness Institute, 2018c). We found that reporting on climate change was low across both the public and private sectors in New Zealand. Between the 2017 and 2018 annual reports there was general improvement (e.g. in terms of information reported on climate-related risks and initiatives), although reporting on costs worsened (see Figure 5 overleaf). The information disclosed was classified into categories developed by the McGuinness Institute based on the *Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures* (*Recommendations of the TCFD*).

As a result of our findings from this working paper, we produced *Think Piece 30 – Package of Climate Reporting Recommendations,* which attempts to address what we consider is an urgent need for information to be used by investors, insurers and decision-makers to better prepare New Zealand for the effects of climate change and for our transition to a low-emissions economy (McGuinness, 2018). Specifically, the think piece explores the possibility of creating a new instrument: a concise *Statement of Climate Information* to be filed in the annual report by a new category of significant entity called 'climate reporting entities'.

Together, these publications form the research base for the Institute's major piece of work on New Zealand's reporting framework: *Report 17 – ReportingNZ: Building a Reporting Framework Fit for Purpose*. This *Project 2058* report is part of our flagship project, which focuses on the year 2058 as a way to contribute to New Zealand's long-term future. This report is focused on ensuring the reporting framework – our information infrastructure – is sufficiently durable, flexible and cost-effective to cope with the challenges and opportunities of the future (McGuinness Institute, in press, p. 13).

Figure 5: Climate change information disclosed in the 2017 and 2018 annual reports of significant New Zealand entities

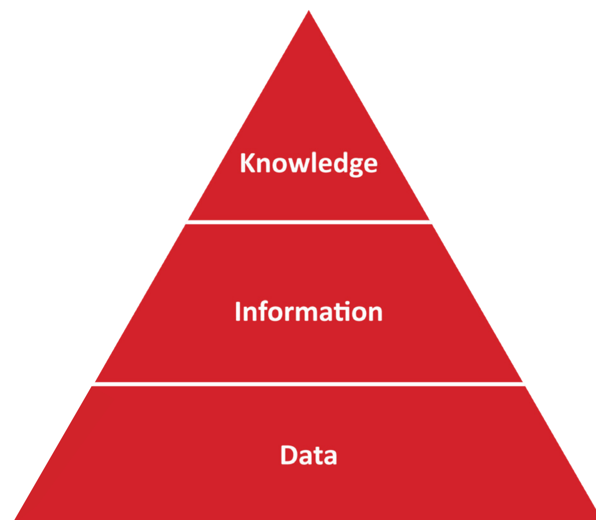
Source: (Adapted from McGuinness Institute, 2019c, p. 19)



Note: * A set of financial statements on its own does not meet the definition of an annual report (see s 211 of the Companies Act 1993).

Figure 6 illustrates the relationship between data and knowledge; it shows that knowledge is built on information and information is built on data. This is relevant to good policy development as it is not simply about having access to quality data but about having enough quality data to create useful information (e.g. a report), and sufficient time to turn that information into knowledge (e.g. to make good public policy).

Figure 6: Data, information and knowledge



Report 17 is currently available in draft after a period of public comment. Much of the feedback we received on this draft related to climate reporting, which led to the decision to prepare this discussion paper. While *Report 17* explores how New Zealand could develop a reporting framework fit for purpose, this discussion paper explores how we can develop an effective climate reporting component of that framework.

Part 1: The New Zealand context

There are a number of factors that set New Zealand apart from the rest of the world in relation to climate reporting. These include our cultural diversity, commitment to Te Tiriti o Waitangi, geographic isolation, ecosystems, natural resources, agricultural base and environmental values. This means that New Zealand requires a unique approach to addressing climate change.

2.0 What is happening in New Zealand?

In addition to the factors mentioned on the previous page, New Zealand has a unique emissions profile, meaning that action taken by other countries to reduce emissions may not have the same effect here. For example, New Zealand has a 'significantly decarbonised energy sector; […] large share of difficult-to-reduce land sector emissions; and […] large forestry sector' (Vivid Economics, 2017, p. i). Although New Zealand accounts for a fraction of the world's greenhouse gas emissions (approximately 0.17% in 2014), on a per capita basis we are inarguably significant (Fyers, 2018). New Zealand emits 18 tonnes of greenhouse gases per person, per year, making us the fifth highest emitter in the OECD and 21st in the world (Fyers, 2018).

Regarding the unique emissions profile, Simon Upton, the Parliamentary Commissioner for the Environment (PCE) released a report in March 2019 challenging New Zealand's historic assumptions about the substitutability of various sources and sinks of greenhouse gases. He specifically argued that New Zealand's biological emissions should be separated from fossil fuel emissions, as not all gases have the same greenhouse effects (PCE, 2019, p. 4). He went on to recommend that fossil fuel emitters should not be permitted access to forest sinks to offset their emissions in lieu of actual emission reductions (PCE, 2019, pp. 7–8). Minister for Climate Change James Shaw described the report as 'thought-provoking' (Shaw, 2019a). However, he also noted that the Emissions Trading Scheme (ETS) reforms at the level recommended by Upton would contribute to policy instability and potentially slow the transition to a low-emissions economy, citing 'a narrowing window of opportunity to stay within 1.5°C of global warming' (Shaw, 2019a).

2.1 New Zealand's international commitments

As well as the 1.5°C target, New Zealand's progress towards a low-emissions economy is motivated by our international commitments under the Kyoto Protocol (2002) and the *Paris Agreement* (2016). New Zealand has a target 'to reach 5 per cent below our 1990 greenhouse gas emissions levels' by 2020, which was actually taken under the United Nations Framework Convention on Climate Change (UNFCCC), but uses Kyoto Protocol emissions accounting (MfE, 2018a; 2018b). Under the *Paris Agreement*, New Zealand's target is 'to reduce greenhouse gas emissions by 30 per cent below 2005 levels by 2030' (MfE, 2018a). Part of this is a specific commitment to making 'finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient economies' (MfE, 2018c, p. 16). International targets and commitments have an interesting place within the New Zealand climate change policy context, with the *Paris Agreement* arguably weakened by its flexibility over actual national emission reduction targets, which are self-determined by each country. Furthermore, a report produced by a group of academic institutions and environmental NGOs suggests that the expansion of indigenous land rights is 'the most cost-effective way to protect forests and sequester carbon', yet 167 out of the 188 nations committed to the *Paris Agreement* are not taking any such action (Watts, 2016).

As part of New Zealand's Annex 1 country obligations under the UNFCCC and the Kyoto Protocol, we are required to 'submit an annual greenhouse gas [GHG] inventory covering emissions and removals of GHG emissions for all years from the base year (or period) to two years before the inventory due date' (UNFCCC, 2019a, p. 1). New Zealand's Greenhouse Gas Inventory is compiled using internationally agreed guidelines from the IPCC (MfE, 2018d). MfE produces and submits the inventory by 15 April each year, with help from Ministry of Business, Innovation and Employment (MBIE), Ministry for Primary Industries (MPI), Stats NZ and the Environmental Protection Authority (EPA) (MfE, 2018d). The inventory records emissions from six sectors: agriculture; energy; industrial processes and product use (IPPU); land use, land-use change and forestry (LULUCF); and waste. Each year New Zealand's Greenhouse Gas Inventory is reviewed by certified experts from the UNFCCC, and a review report is submitted on its website 15 months later (MfE, 2018d). New Zealand's Greenhouse Gas Inventory 'is the official annual estimate of all human-generated greenhouse gas emissions and removals that have occurred in New Zealand since 1990' and 'is one of the most important publicly available statistics for understanding how well New Zealand is performing' (MfE, 2019a; 2018d).

Although they are not legally binding, it is worth noting New Zealand's commitment to the United Nations Sustainable Development Goals (SDGs). The goals form the 2030 Agenda, which sets out a 'universal agenda' for achieving sustainable development by balancing social, environmental and economic factors. SDG 13 is to 'take urgent action to combat climate change and its impacts', while several other goals support this more specifically in relation to things like consumption and production, energy, urban development and water quality (UN, n.d.[a]). New Zealand presented its first Voluntary National Review (VNR) in New York

in July 2019 (University of Auckland, 2019). *Project ReportingNZ* research found that some of the more comprehensive annual reports of significant New Zealand entities did report against SDGs (see Section 5).

2.2 Te Tiriti o Waitangi and te ao Māori

The positioning of Te Tiriti o Waitangi as New Zealand's founding document has significance for New Zealand's climate reporting framework. This is primarily because it provides a mandate for the use of environmental principles directly present in te ao Māori. In 2018, Prime Minister Jacinda Ardern made a speech to a UN summit discussing the principle of kaitiakitanga and its association with guardianship, responsibility and intergenerational equity in relation to the ways in which the international community might manage climate change and its impacts (Ainge Roy, 2018; Ardern, 2018). The inclusion of kaitiakitanga in Te Tiriti also has legal implications. For example, in 2017 a claim was made by the Mataatua District Māori Council to the Waitangi Tribunal stating that the Crown was not meeting its Treaty obligations due to its lack of action against climate change, a breach on kaitiakitanga (Cann, 2017).

The application of mātauranga Māori is also evident in New Zealand initiatives. Mātauranga is knowledge, comprehension [and] understanding both traditional and contemporary, and can be viewed as a 'process by which information is observed, tested, interpreted, built upon, and handed down' (Manaaki Whenua – Landcare Research, n.d.; Goodall, 2019). It has been applied to the sustainable use of resources in New Zealand in initiatives such as Manaaki Whenua (Landcare Research) and the Deep South National Science Challenge (funded by MBIE), which currently includes 'eight Māori-led science projects [...] investigating climate change impacts and opportunities for iwi, hapū, whānau and Māori business' (Deep South Challenge, n.d.). Mātauranga Māori has direct applications in terms of climate change, particularly in terms of local Māori knowledge of 'signs in the environment that can be used to make short-term and long-term weather forecasts', using 'animal behaviour [and] plant activities that happen when specific weather patterns [...] are imminent' (Goodall, 2019). The convergence of mātauranga Māori and scientific data has most recently been used to demonstrate what the landscape between Kāpiti and Horowhenua will look like in 30 years and then in 100 years (Goodall, 2019).

2.3 Institutions and instruments

New Zealand has a number of existing institutions with interests (or potential interests) in the area of climate change. Each have different mechanisms and work programmes. Some overlap and interlink with each other, while some are not aware of the work going on in other sectors. Figures 7 and 8 (overleaf) provide a brief overview of various key institutions and instruments in New Zealand's climate reporting landscape. A few are emerging, such as the Labour and the Green Party coalition agreement that 'all new legislation will have a climate impact assessment analysis' (NZ Labour Party & Green Party, 2017). The rest of this section discusses the instruments and institutions in more detail, providing examples of recent reports and publications of interest.

Figure 7: New Zealand climate reporting institutions

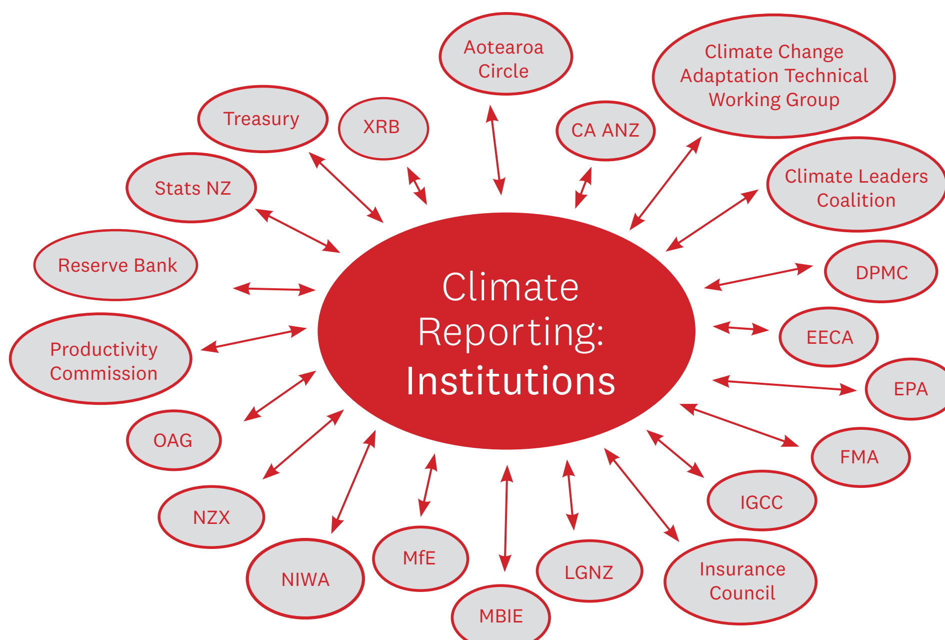
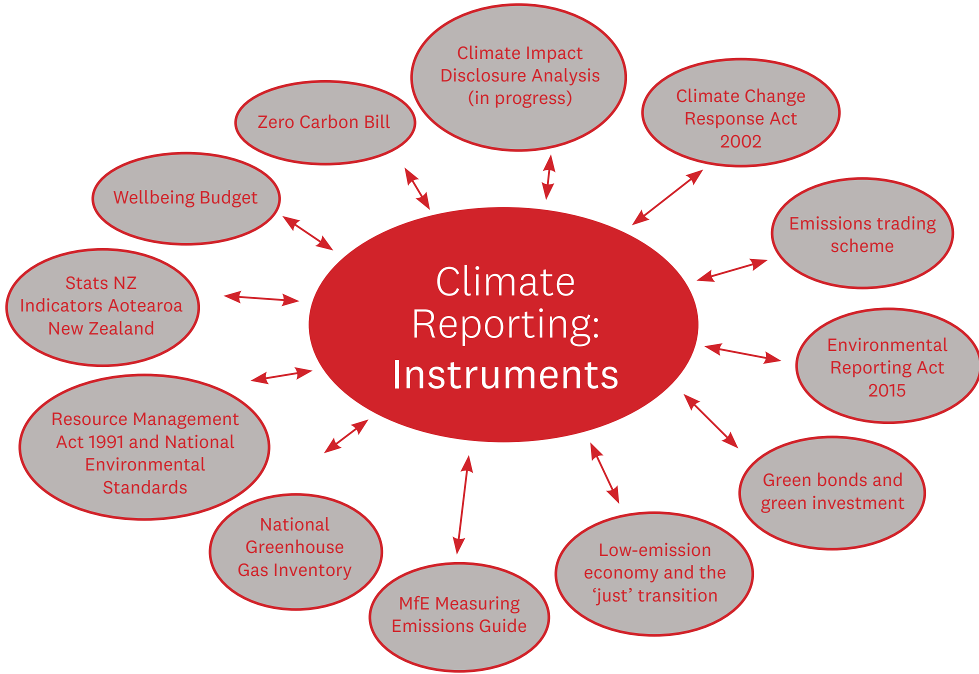


Figure 8: New Zealand climate reporting instruments



2.3.1 Wellbeing Budget (May 2019)

The 2019 *Wellbeing Budget* is New Zealand's first budget developed in line with Treasury's Living Standards Framework. The budget aims to centre 'the Government's investment priorities and funding decisions' around the four capitals (human, social, natural and financial/physical) and places 'people's wellbeing and the environment at the heart of its policies' (Treasury, n.d.). The Budget's emphasis on climate reporting is in its priority area 'transforming the economy', which predominantly refers to ensuring a 'just transition to a low-emissions future' (Crown, 2019, pp. 2, 85). The Budget refers to statements by the Reserve Bank about the vulnerability of New Zealand's economy and financial system to 'both the physical and transitional impacts of climate change' and presents a suite of initiatives intended to address this (Crown, 2019, p. 85). The initiatives include investing in rail, 'The Productive and Sustainable Land Use package' (which includes funding for the Climate Change Commission), increased funding for research and development, additional funding for local government to focus on developing strategies to manage natural hazards and the risks of climate change, and funding for initiatives to improve New Zealand's management of severe weather events (Crown, 2019, pp. 92–97).

2.3.2 Indicators Aotearoa New Zealand

In line with the SDGs (discussed in Section 2.1) and formed out of the Conference of European Statisticians (CES) Framework, *Ngā Tūtohu Aotearoa – Indicators Aotearoa New Zealand* (the *Indicators*) are a new set of indicators from Stats NZ that were released in July 2019. They are designed to measure progress in New Zealand with a strong focus on 'wellbeing and sustainable development', and extend beyond typical economic measures of progress such as GDP (Stats NZ, 2018; Stats NZ, 2019a).

The new indicators 'build on international best practice and [are] tailored to New Zealand' with the inclusion of cultural and te ao Māori perspectives (Stats NZ, 2019a). Over 100 indicators that cover 22 topics have been developed and are classified into current wellbeing, future wellbeing and impact on the rest of the world (Stats NZ, 2019a). The *Indicators* can also be classified into six dimensions that come from Stats NZ's statistical framework for Māori information needs, He Arotahi Tatauranga (Stats NZ, 2019b). The *Indicators* are intended to help all New Zealanders track progress across 'the different aspects of wellbeing that are important to them', as well as aiding government and non-government agencies to better 'focus on improving the wellbeing of current and future generations of New Zealanders' (Stats NZ, 2019b).

The suite of *Indicator*s includes two climate indicators: 'consumption of greenhouse gas emissions' and 'costs of extreme weather events' (Stats NZ, 2019c).

2.3.3 External Reporting Board Position Statement (March 2019)

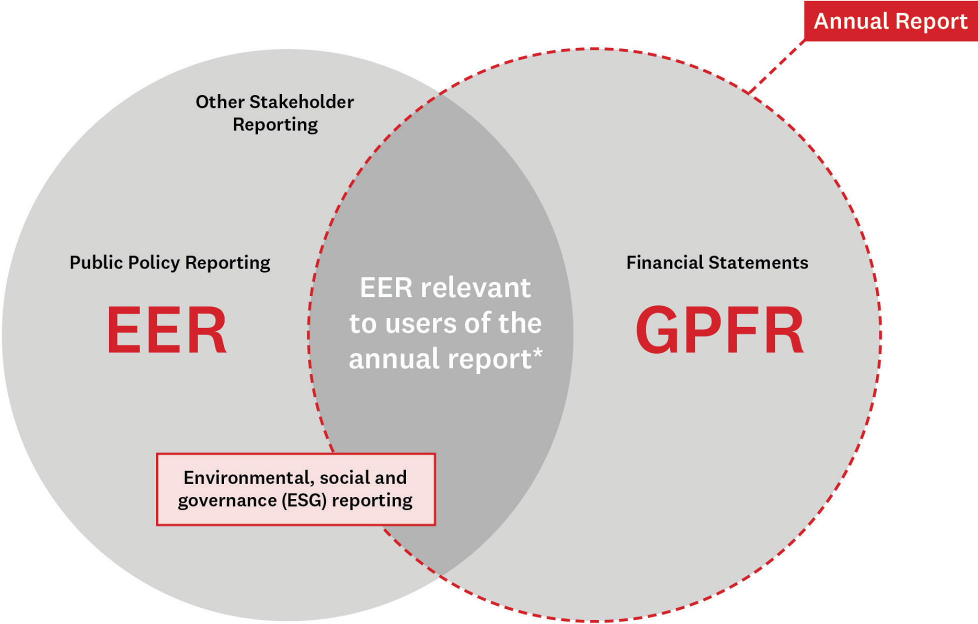
In New Zealand, the relevant board for external reporting is the External Reporting Board (XRB). The XRB generally adapts the standards issued by the international accounting and assurance standards boards for use in New Zealand for for-profit entities and for public benefit entities. For example, the International Auditing and Assurance Standards Board (IAASB) developed the *Assurance Engagements on Greenhouse Gas Statements* (ISAE 3410) standard, which was adopted by the XRB in 2012.

This enables New Zealand financial statements and assurance practices to be internationally comparable. For example, in the for-profit sector, the financial reporting standards (also called accounting standards) are IFRS and International Accounting Standards (IAS) issued by the IASB (CCH Tagetik, n.d.). Although the XRB is able to develop its own standards, this does not happen often.

In March 2019 the XRB released a position statement on EER, stating that 'the XRB focuses on users' needs for information in general purpose financial reports (GPFR)' when issuing standards (XRB, 2019a). The XRB clarifies that the primary users of GPFR of for-profit entities are 'existing and potential investors, lenders and other creditors', and the users of GPFR of public benefit entities are 'resource providers (e.g. taxpayers, ratepayers, donors and grantors), service recipients and their representatives' (XRB, 2019a). The statement also clarifies that the 'XRB considers that the primary users of GPFR' to be the same as the 'intended users (audience) of annual reports' (XRB, 2019a).

As illustrated in Figure 9, the XRB's position on 'detailed EER on a specific topic' that may serve a public policy purpose without being relevant to users of the annual report is that it should be provided outside the annual report 'in order to avoid "information overload"' (XRB, 2019a). However, the XRB also acknowledges that some 'EER information on a specific topic (such as climate change) is relevant to users of the annual report' and therefore should be included (XRB, 2019a). In determining whether or not specific EER information is relevant to annual report users, the XRB acknowledges that 'significant judgement' may be required and they intend 'to promote resources to assist entities in making such judgements' (XRB, 2019a). (See discussion in Section 7).

Figure 9: XRB stance on where information should be reported
Source: (XRB, 2019a)

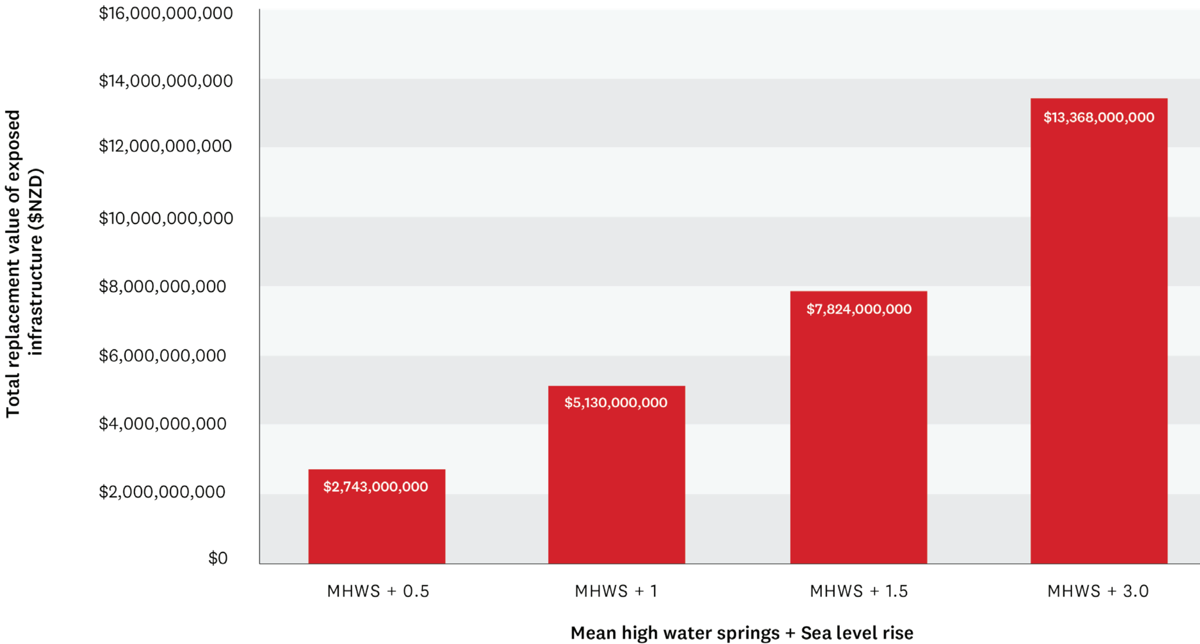


2.3.4 Local Government New Zealand Report (2019)

In recent years, recognition of the need for more data on how climate change will impact New Zealand has increased. Local Government New Zealand (LGNZ) has released a report as part of a climate change project that focuses on 'supporting councils with their adaptation and mitigation responsibilities' (Hall & Simonson, 2019, p. 6). Based on the fact that 65% of New Zealanders live within five kilometres of the coast, the report's purpose is twofold: first to research current quantity and value of infrastructure exposed to sea level rise and second to provide responses to rising sea levels (Hall & Simonson, 2019, p. 4). The report primarily investigates the impact that rising sea-levels will have on local government infrastructure relating to roads, three waters infrastructure and buildings (Hall & Simonson, 2019, p. 6). Data was also collected on other types of infrastructure including green spaces, waste management, jetties and airports (Hall & Simonson, 2019, p. 6). LGNZ worked with NIWA to gather Geographic Information System (GIS) data based on Light Detection and Ranging (LiDAR) (Hall & Simonson, 2019, p. 7).

Figure 10 sets out four different scenarios and their respective infrastructure costs at 0.5 metres, 1.0 metre, 1.5 metres, and 3.0 metres of sea level rise (Hall & Simonson, 2019, p. 12). Figure 10 also incorporates data on mean high-water springs (MHWS), 'the highest level that spring tides reach, on average, over a long timescale – often 18–20 years' (MfE, 2017). The significant costs on infrastructure owned by local government could reach approximately $8 billion at 1.5m rise and $13.4 billion at 3.0m rise (Hall & Simonson, 2019, p. 12). However, this does not account for less tangible exposures of 'potential economic development and growth, community health and safety, and social support systems', which may cause costs to be even higher (Hall & Simonson, 2019, p. 43). The wide-reaching impacts of sea level rise highlight the importance of 'central and local government, communities, iwi, businesses and property owners [coordinating] investments to adapt and build community resilience' (Hall & Simonson, 2019, p. 6).

Figure 10: Total replacement value of exposed infrastructure
Source: (Adapted from Hall & Simonson, 2019, p. 12)



Note: This adapted figure only looks at data based on LiDAR.

2.3.5 OAG reports (2018 and 2019)

The Office of the Auditor General (OAG) has a number of significant reports relating to climate change, due to its oversight role in the public sector, particularly for local government. One report titled *Managing stormwater systems to reduce the risk of flooding* undertakes a case study of the stormwater systems of three local councils in order to make recommendations about improving understanding of flood risks to aid in making appropriate investment decisions (OAG, 2018, p. 5). The report specifically states the need for

'information about climate change and land use change [...] to understand flood risk' (OAG, 2018, p. 15). Another report, *Matters arising from our audits of the 2018-28 long-term plans*, emphasises the value of long-term plans as an instrument and acknowledges the challenges faced by many councils (OAG, 2019). In particular, the report recommends increasing leadership for climate change matters in terms of 'what data is needed and who collects this; the quality of this data; and how councils should consider this in future accountability documents, including the long-term plan' (OAG, 2019, p. 7). This recommendation is based on the observation from their infrastructure strategy review that 'councils have a limited understanding of the risks natural hazards and climate change pose to their infrastructure assets' (OAG, 2019, p. 42).

2.3.6 New Zealand Productivity Commission (2018)

In August 2018 the New Zealand Productivity Commission released a comprehensive report as a result of its inquiry into New Zealand's transition to a low-emissions economy. Recommendations 7.3 and 7.4 form a significant part of the context for this discussion paper:

> R7.3
> The Government should endorse the recommendations of the Task Force on Climate-related Financial Disclosures as one avenue for the disclosure of climate risk. [...]
>
> R7.4
> The Government should implement mandatory (on a comply or explain basis), principles-based, climate-related financial disclosures by way of a standard under section 17(2)(iii) of the Financial Reporting Act 2013. These disclosures should be audited and accessible to the general public (NZPC, 2018, pp. 195, 199).

The Government responded to the Productivity Commission's report by publishing *Transitioning to a low-emissions future – the Government response to the Productivity Commission's Low Emissions Economy report* in August 2019. The report includes the following specific responses to Recommendations 7.3 and 7.4:

> [Response to Recommendation 7.3]
> The Government agrees that material financial risks and opportunities associated with climate change should be disclosed. In June 2017, the TCFD published a set of recommendations for disclosing clear, comparable and consistent information about the risks and opportunities presented by climate change. Several other governments have endorsed the TCFD's recommendations. The New Zealand Government also endorses them as one avenue for the disclosure of climate change financial reporting (MfE, 2019b, p. 5).
>
> [Response to Recommendation 7.4]
> The Government agrees with the comments of the Productivity Commission that investment needs to be redirected towards low-emissions investments to ensure New Zealand's economy remains resilient to the impacts of climate change. High quality disclosures will help investors, lenders and insurers make more informed decisions. They will also provide reporting entities with incentives to manage risks and take advantage of opportunities.
>
> To achieve this further consideration is required in relation to the following matters:
>
> 1. Whether the Financial Reporting Act is the most appropriate means for implementing climate-related disclosure requirements.
> 2. Consideration of the classes of entities the disclosure requirements should apply to. Subject to consultation, the Government considers that listed issuers, registered banks and licensed insurers should be covered. It is less clear whether any other classes of entities should also have climate-related disclosure requirements.
> 3. What, specifically, the disclosure requirements should require entities to disclose and whether the disclosures should be different for different classes of entity.
>
> Officials will work closely with a range of stakeholders on these issues over the coming months (MfE, 2019b, p. 6).

Section 8 of this discussion paper deals with the Government's response in further detail.

2.3.7 Climate Change Adaptation Technical Working Group (2018)

Another recent report, this time from the Climate Change Adaptation Technical Working Group (CCATWG), 'takes stock of existing work on adaptation, and identifies gaps in knowledge and work programmes' (CCATWG, 2017, p. 6). The working group was established 'to provide advice to the Government on adapting to the impacts of climate change', action on which is required under the *Paris Agreement* (CCATWG, n.d., p. 1). CCATWG's final report, *Recommendations from the Climate Change Adaptation Technical Working Group*, builds on its stocktake report released in December 2017. The working group found 'that New Zealand currently has no coordinated plan to adapt to and mitigate climate change' (CCATWG, 2018, p. 21). The report lays out 17 specific action points grouped under six broader recommendations and a further four proposed 'immediate actions' that collectively address the lack of a coordinated plan (CCATWG, 2018, pp. 9–11). There is a strong focus from the working group on the ideas of collaboration, cohesion and comparability across sectors. The recommendation of a comprehensive action plan for New Zealand is formed on the basis that this will be a single document that collates the duties of both the public and private sectors and civil society more generally (CCATWG, 2018, p. 23).

2.3.8 Reserve Bank

The Reserve Bank of New Zealand has provided leadership in the area of climate change risk reporting, with Reserve Bank Governor Adrian Orr speaking at the launch of the Climate Leaders Coalition in 2018 (Reserve Bank, n.d.[a]). In November 2018 the Reserve Bank's *Financial Stability Report* (released twice a year) acknowledged for the first time the importance of financial firms managing climate change risks (Reserve Bank, 2018, p. iii). Their latest *Financial Stability Report*, published in May 2019, mentions climate change 37 times. Large sections of the report share the results of the Reserve Bank's industry survey and explore climate change impacts (see Appendix 3):

> Given the widespread acknowledgement that the financial system is exposed to climate change risks, boards of financial institutions should work to understand the potential impacts on their businesses. The survey responses provided little evidence that concerns about climate change risks are influencing day-to-day business decisions (Reserve Bank, 2019, pp. 22–23).

In December 2018 the Reserve Bank published the *Reserve Bank Climate Change Strategy*, focusing on 'the channels through which the Bank can contribute to efforts to mitigate the effects of climate change' (Reserve Bank, n.d.[b]). In this they commit firstly to publishing a breakdown of their emissions in their annual report and then to establishing a target and strategy and 'reporting on performance against it' (Reserve Bank, n.d. [b]).

In December 2018 the Reserve Bank became a member of the Network for Greening the Financial System (NGFS) with the intention of contributing to climate and environmental analysis as well as mobilising finance 'to support the transition toward a sustainable economy' (Reserve Bank, n.d.[b]; NGFS, 2018, p. 7). The Reserve Bank is also a member of the Sustainable Insurance Forum (SIF) convened by the UN Environment Programme. The Forum is a 'network of insurance supervisors and regulators from around the world who are working together on sustainability challenges facing the insurance sector' (SIF, n.d.). The Australian Prudential Regulation Authority (APRA) is also a member of the Forum.

The NGFS released a progress report in October 2018 and its first comprehensive report in April 2019 (NGFS, 2018, p. 10). The report outlines six recommendations for what central banks and supervisors can do and how policy-makers can facilitate their work:

> 1. Integrating climate-related risks into financial stability monitoring and micro-supervision [...]
> 2. Integrating sustainability factors into own-portfolio management [...]
> 3. Bridging the data gaps [...]
> 4. Building awareness and intellectual capacity and encouraging technical assistance and knowledge sharing [...]
> 5. Achieving robust and internationally consistent climate and environment-related disclosure [...]
> 6. Supporting the development of a taxonomy of economic activities (NGFS, 2019, pp. 4–6).

Notably, the second part of the first recommendation is to integrate 'climate-related risks into prudential supervision' (NGFS, 2019, p. 5). This involves 'engaging with financial firms' on two counts. First 'to ensure that climate-related risks are understood and discussed at board level, considered in risk management and investment decisions and embedded into firms' strategy', and second 'to ensure the identification, analysis, and, as applicable, management and reporting of climate-related financial risks' (NGFS, 2019, p. 5).

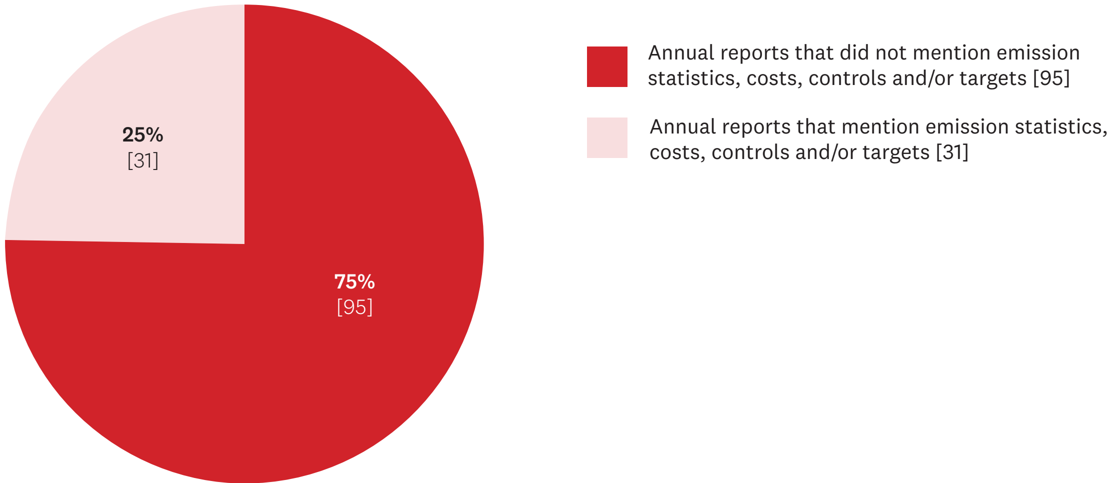
The recommendation also suggests 'setting supervisory expectations to provide guidance to financial firms as understanding evolves' (NGFS, 2019, p. 5). The report goes on to acknowledge that, in terms of next steps, the focus of most authorities is on 'discussing how the governance structure and strategy of the firm ensures a proper identification, assessment, management and reporting of climate and environment-related risks' (NGFS, 2019, p. 23).

Beyond managing its own effects on the climate and leading by example, the Reserve Bank has a role to play as a regulatory body in ensuring that New Zealand's financial system is resilient to 'both the physical and transitional impacts of climate change' (Reserve Bank, 2018, p. 14). In this capacity, the Reserve Bank advocates for policy certainty and a steady transition to a low-emissions economy, as well as acknowledging its own responsibility to drive 'appropriate disclosure to help market participants assess climate-related exposures' (Reserve Bank, 2018, p. 15).

2.4 Private sector leadership

Climate reporting practices do not yet match the magnitude of possible impacts of climate change. A recent report from the Grantham Research Institute found that 'about a quarter' of the highest emitting publicly listed companies globally fail to report on greenhouse gas emissions (Harvey, 2019). Figure 11 shows that, in New Zealand, 75% of the 2017 NZSX-listed companies failed to report on carbon emissions in their 2016 annual reports. While these two pieces of research are not necessarily directly comparable, they each illustrate the size of the reporting problem.

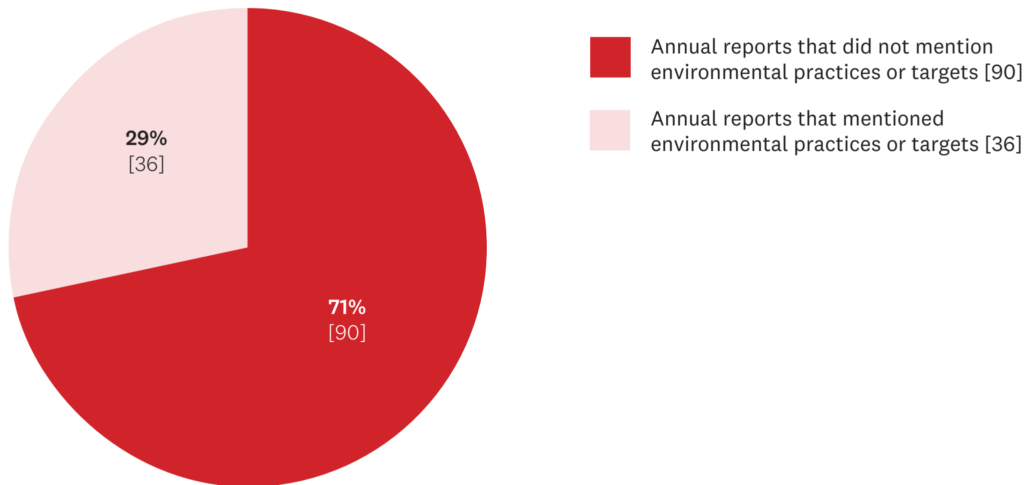
Figure 11: Disclosure of carbon emissions information in 2016 annual reports of 2017 NZSX-listed companies
Source: (McGuinness Institute, 2018b, p. 169)



Looking more broadly at environmental information disclosed by 2017 NZSX-listed companies, Figure 12 (overleaf) shows that only 29% (36 out of 126) of 2017 NZSX-listed companies disclosed information on environmental practices or targets in their 2016 annual reports.

Figure 12: Disclosure of environmental information in 2016 annual reports of 2017 NZSX-listed companies

Source: (Adapted from McGuinness Institute, 2018b, p. 164)



Furthermore, ratings agency S&P Global found that only 15% of companies in the S&P 500 Index disclosed the financial effects from weather-related events and under 5% of firms quantified the damage (*The Economist*, 2019b). In September 2018 the Governor of the Bank of England warned that only 10% of banks in Britain are 'managing climate change risks with long-term, comprehensive plans' (Schomberg & Jones, 2018). An Ernst & Young (EY) report also indicated that the 'quality of banks' climate risk disclosures lagged behind leading sectors', but was the highest in the financial sector (Nelson, 2018, p. 13).

Despite low rates of disclosure, there is growing interest from the corporate sector in voluntarily contributing to leadership in the area of climate reporting. Perhaps as a result of the increasing risk of climate change litigation and shareholder resolutions, the private sector is beginning to take note of the ways in which their companies may be impacted by climate change. Bell Gully partner Simon Watt notes that the 'shift towards disclosure is likely to be a tipping point and we will see real changes in behaviour' requiring businesses to 'adapt or get left behind' (Gibson, 2019). A 2019 'climate risk survey of regulated entities' by APRA found that 'a third of respondents believed climate change was a material financial risk to their businesses and a further half thought it would be in the future' (SIF, 2019). The top climate-related risks were found to be 'reputational damage, flooding, regulatory changes and cyclones' (SIF, 2019).

As an example of good practice, a working group of 16 banks 'set up by the United Nations Environmental Programme for Financial Institutions to pilot the recommendations of the Financial Stability Board's (FSB's) TCFD includes ANZ, which reported on the five elements of the TCFD framework and created a scenario-based long-term strategy in what the Institute considers to be an exemplary 2017 climate report (ANZ, n.d.; ANZ, 2018, p. 36). In addition to initiatives such as the Sustainable Business Network and the Sustainable Business Council, the rest of this section outlines other private sector examples of good practice.

2.4.1 Climate Leaders Coalition

The Climate Leaders Coalition was publicly launched in 2018 to 'promote business leadership and collective action on the issue of climate change' (Climate Leaders Coalition, n.d.). The *2017 Statement* signed by 89 chief executives of various companies throughout New Zealand (as at 23 May 2019) commits their organisations to take voluntary action on climate change, part of which involves publicly reporting their greenhouse gas emissions and setting reduction targets (Climate Leaders Coalition, n.d.). The statement also asserts the leaders' support for 'the *Paris Agreement* & New Zealand's commitment to it' and the 'introduction of a climate commission and carbon budgets enshrined in law' (Climate Leaders Coalition, 2017). The companies that have signed the *2017 Statement*, including Air New Zealand, Fonterra and Z Energy, together represent more than half of New Zealand's gross emissions and at least 25% of New Zealand's private sector GDP, and employ at least 130,000 New Zealanders (Climate Leaders Coalition, n.d.).

The Coalition issued a *2019 Statement*, asserting the commitment to assess 'climate change risks and publicly disclos[e] them' and to measure, verify and publicly report GHG emissions (Climate leaders Coalition, 2019, p. 14). At this stage there is no commitment for that information to be published in an annual report (the McGuinness Institute's preference), but this latest statement is a significant step in the right direction (see Section 8).

A recent Coalition initiative is Climate-X. Similar to the Coalition, Climate-X is a collective bringing together 'talent and passion on a mission to deliver innovation, systems, products, and new behaviour to take New Zealand toward Carbon Zero' (Climate-X, n.d.). However, Climate-X differs from the Coalition in that they are using a start-up approach to develop ideas that will then 'attract the resources and technologies to become viable and commercial projects' (Climate-X, n.d.).

2.4.2 Investor Group on Climate Change (IGCC)

The IGCC is a trans-Tasman collaboration of investors, representing management of $2 trillion worth of total funds, who are 'focused on the impact that climate change has on the financial value of investments' (IGCC, 2019, p. 2). Its 2019 report found that one of the 'most significant barriers impacting long term investment in zero carbon solutions is policy uncertainty' (IGCC, 2019, p. 8). In response, the IGCC outlines three policy priorities to be considered and actioned between 2019 and 2022: pathways to a net-zero emissions economy, managing the transition in the energy sector, and building resilient communities and economies, in addition to aligning public policy with the *Paris Agreement* (IGCC, 2019, p. 3). Within the policy priority of building resilient communities and economies, the IGCC recommends enhancing climate-related financial disclosures by embedding 'consideration and treatment of climate change as a systemic financial risk into [...] corporate and financial regulation and disclosure policy frameworks' (IGCC, 2019, p. 18).

2.4.3 Aotearoa Circle

The Aotearoa Circle is a 'voluntary initiative bringing together leaders from the public and private sectors to investigate the state of our natural resources, and to commit to priority actions that will halt and reverse the decline' (Aotearoa Circle, n.d.[a]). Although the Circle does include public sector organisations, they are primarily present as observers; hence why the Circle is included in this private sector leadership section. The group aims to avoid duplicating existing work and instead identifies gaps in current climate change, transition, and sustainable development information. The Circle's first initiative was the Sustainable Finance Forum launched in 2018, which is now in the process of developing two key outputs: 'a recommendations report to Ministers and a roadmap for implementing the recommendations' (Aotearoa Circle, n.d.[b], p. 3). The Forum is made up of a leadership group of 11 members and a larger technical working group who lend their individual expertise in the development of the key outputs (Aotearoa Circle, 2019). McGuinness Institute Chief Executive Wendy McGuinness is a member of the Forum's technical working group.

2.4.4 Green bonds and sustainable finance

Although green bond market issuance quadrupled from USD$45 billion in 2015 to USD$168 billion in 2018, green bonds 'accounted for only 3% of global bond issuance in 2018' (Carney, 2019, p. 9). Mark Carney, Governor of the Bank of England, noted that this means green bonds will not be sufficient to finance the transition to a low carbon future and 'achieving the transition will require mobilising mainstream finance' (Carney, 2019, p. 9).

This is illustrated specifically in the gap between the existing green bond market and the estimated energy sector investment required to mitigate climate change. The International Energy Agency (IEA) estimated that the green bond market would need to increase 21 times from the 2018 level of USD$168 billion to meet the USD$3.5 trillion level of investment the energy-sector is to require on average each year until 2050, which is itself twice the current level of energy-sector investment (IEA & IRENA, 2017, p. 8). This is why many countries are exploring how to mobilise investment to required areas. New Zealand's Aotearoa Circle has established the Sustainable Finance Forum (SFF) for this purpose (see Section 2.4.3) (Aotearoa Circle, n.d.[b], p. 3).

Specifically in New Zealand, the green bond market is open to a range of issuers including 'corporates, governments and semi-government bodies, financial institutions and asset owners' (NZX, 2017). EY has noted that 'the GB [green bond] market is still in its infancy, and will need to overcome some challenges facing the sector to become a major source of debt capital' (EY, n.d.). One such challenge is preserving and assuring the integrity of green bonds.

The Green Bond Principles (GBP) and the Climate Bonds Initiative (CBI) have been established as global standard instruments that will contribute to addressing the issues of assurance and integrity (EY, n.d.). New Zealand's Exchange (NZX) supports the use of GBP in New Zealand, calling them 'the most universally accepted basis on which to structure green bonds' (NZX, 2017). The GBP are very broad and include consideration of investment in areas such as renewable energy, eco-products and green buildings (NZX, 2019a, p. 20).

The 2018 *Responsible Investment Benchmark Report* published by Responsible Investment Association Australia (RIAA) indicated that there has been a marked shift towards responsible investment, with 'the single most significant driver of growth [...] coming from the demand and desire from clients to align investments to their values' (Miles, 2018). The report links this shift with 'the 2016 revelations of many KiwiSaver funds being invested in weapons and tobacco' (Miles, 2018). In 2017, KiwiSaver Funds were ranked from A–F using an independently verified environmental, social and governance (ESG) grading system; no KiwiSaver fund scored higher than a C+ in the ratings (Stock, 2018).

Green bonds have been gaining traction in New Zealand, as indicated by the increase in responsible investment of over a third between 2016 and 2018 (Miles, 2018). Recent examples include:

- In June 2018 Auckland Council became 'the first council in New Zealand to issue green bonds', successfully raising $200 million to go towards electric trains and associated infrastructure (Auckland Council, 2018).
- In February 2019 Contact Energy launched a $1.8 billion green borrowing programme (Edmunds, 2018).
- In March 2019 property company Argosy Limited offered $100 million worth of green bonds on the NZX Debt Market (Steeman, 2019).
- In July 2019 Westpac New Zealand became the first New Zealand bank to raise funding through the issuance of a green bond. The five year green bond raised $860 million from European investors, to support the funding of climate change solutions (Westpac, 2019).

2.5 Underlying considerations

This section outlines further considerations relating to climate change more broadly but which have implications for reporting. Instead of being specific initiatives or instruments as outlined so far, these are concerns that would need to be addressed at government level.

2.5.1 Just transition

Much of the current dialogue around climate change in New Zealand is focused on the transition to a low-carbon economy; specifically, ensuring that the transition is 'just'. This was evident at the 2019 Just Transition Summit, which was a landmark event in the global climate change discussion (MBIE, 2019a). In practice, this means ensuring that the costs of the transition in terms of things like stranded assets are not disproportionately borne by those least able to afford them. This tension is evident within the agriculture sector, where specific sectors such as beef and sheep farming have already been taking action on climate change for decades. The sheep population has decreased by 52.3%, the non-dairy cattle population has decreased by 23.1% and the sheep and beef sector has already reduced absolute emissions by 30% since 1990 (Beef & Lamb NZ, 2019, p. 1; MfE, 2018e, p. 3). The tension here is that the dairy sector has not stepped up to the efforts of other agricultural sectors and is directly benefiting from sheep and non-dairy reductions when data for the agriculture sector is looked at in aggregate. This is further emphasised in the Reserve Bank's May 2019 *Financial Stability Report*, which discusses the financial precarity of some dairy farms due to high debt levels:

> Most dairy farms are profitable at current prices and should have been able to repay debt. However, around a third of dairy debt is held in farms with high DTI [debt-to-income] ratios. Many of these farms struggle to make profits and repay debt, despite good milk prices. This is particularly concerning as the costs of the dairy sector may rise in response to longer-term challenges, such as environmental and climate change policies. Restoring resilience in the sector will be a challenge for farms and their lenders. The willingness of banks to continue supporting the sector will be an important determinant of how smoothly the current risks will be reduced (Reserve Bank, 2019, p. 2).

2.5.2 Cost bearing

Another key part of the just transition involves balancing the burden of costs between local and central government. Our research indicates that local government organisations in New Zealand are already considering potential impacts of climate change on communities, systems and infrastructure suggesting that, at this point, local government is likely to bear more of the costs of both transition risks and of the direct physical risks of climate change. This consideration is most likely because of the future-focused reporting capabilities local government has developed as a result of their requirement to prepare long-term plans. This is further supported by the fact that local government entities report on the New Zealand Emmissions Trading Scheme (NZ ETS) at a higher rate than any other entity type (see Figure 14 in Section 3.2.2). Appetites for climate action are also evident in the declaration of climate emergencies by several councils throughout New Zealand. The councils include Nelson City Council, Christchurch City Council, Kāpiti District Council, Auckland Council, Wellington City Council, Dunedin City Council, Hawke's Bay Regional Council, Porirua City Council, Hutt City Council and Queenstown Lakes District Council (Desmarais, Tso & Boyack, 2019).

It is possible that the recent increased funding in the *Wellbeing Budget* providing for local government to develop natural hazard management strategies in light of climate threats indicates the beginning of a shift in the balance between central and local government (Crown, 2019, p. 92). The funding could be taken as recognition by central government of the need to provide more support to the institutions that are likely to be on the front line, particularly in terms of the vulnerable infrastructure (Hall & Simonson, 2019, p. 6). However, it is also a possible 'harbinger of the large number of [...] disputes that can be expected to arise as governments stumble forward to facilitate or compel retreat from coastlines threatened by rising sea levels and increasingly powerful coastal storms' (UNEP, 2017, p. 35).

2.5.3 Energy security

According to the International Energy Association (IEA), energy security refers to the 'uninterrupted availability of energy sources at an affordable price' (IEA, n.d.). Energy security has typically been associated with oil supplies and now also natural gas and various forms of electricity, as well as infrastructure such as ports, pipelines and electrical grids. As New Zealand transitions to a low-emissions economy, it is important that we assess our available resources and how to best use them.

The Aluminium Smelter at Tiwai Point is an interesting example to consider. The smelter uses 13% of New Zealand's electrical grid (Coughlan, 2019). A deal signed in 2018 between the smelter and Contact Energy enabled greater amounts of energy per day to be transferred to the smelter (Hartley, 2018). As illustrated in Table 4 (see Section 3.2.2 of this paper), production of aluminium contributed 606,607 tonnes of CO_2 equivalent to New Zealand's emissions between 1 July 2017 and 30 June 2018 (EPA, 2018, p. 10). Given that New Zealand Aluminium Smelters Limited is the only entity undertaking the production of aluminium in New Zealand, it is interesting to consider what implications closing the smelter would have for New Zealand's ability to meet its commitments under the *Paris Agreement*, as well as for the availability of electricity.

New Zealand is in a unique position in that electricity generation is comparatively less significant to our overall emissions than for other countries. In New Zealand, 40% of primary energy is renewable, and approximately 85% of our electricity is renewable (Environment Foundation, 2018a). New Zealand's per capita electricity consumption is nearly 90 times higher than the IEA minimum (Coughlan, 2019). In a recent report by Transpower, New Zealand's energy consumption is projected to double by 2050, due to the fact that 'electrification will significantly decarbonise the New Zealand economy', helping us reach our commitment under the *Paris Agreement* (Transpower, 2018, p. 5). It is therefore critical that New Zealand's energy is renewable, affordable and abundant.

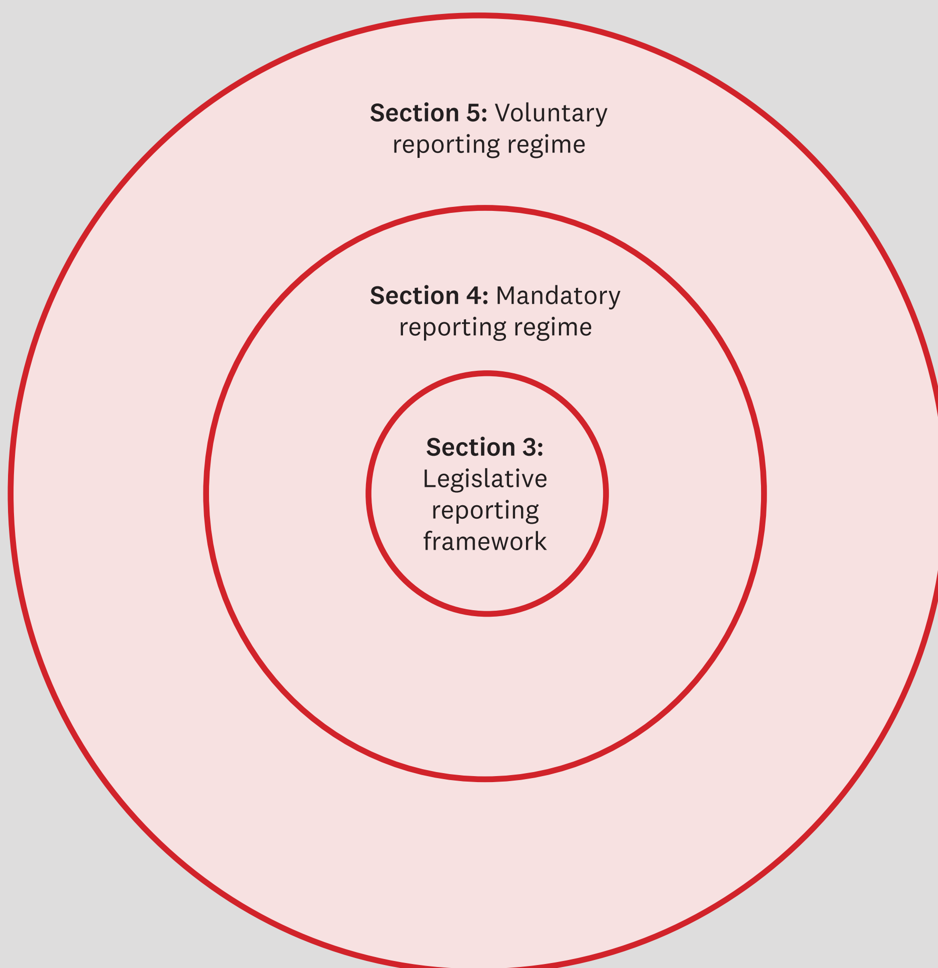
Part 2: The existing reporting regime

The following three sections discuss the existing reporting regime and explore disclosure gaps and solutions to the climate reporting emergency.

There are many ways in which a reporting regime could be conceptualised; the Institute prefers a system that is circular, robust and interconnected. The diagram below illustrates the three linked parts of the current reporting regime.

- **Legislative reporting framework** is the core of the system. It creates a rigid structural framework that is difficult to change and therefore has long-term endurance (see Section 3).
- **Mandatory reporting regime** is more flexible but is tightly connected to the core. It is made up of standards, rules and codes (see Section 4).
- **Voluntary reporting regime** sits outside the mandatory system and is therefore the easiest to change. However, its voluntary nature is also a weakness and it can produce data that is not comparable between entities or for the same entity over time (see Section 5).

An overview of the reporting system



3.0 Legislative reporting framework

This section outlines the legislative context for climate reporting in New Zealand. This context is made up of a number of existing pieces of legislation, discussed below in Section 3.2. We also briefly discuss climate change litigation and shareholder resolutions in Section 3.3.

3.1 Upcoming New Zealand legislation

Before examining New Zealand's existing legislation, we also discuss the Climate Change Response (Zero Carbon) Amendment Bill (the Zero Carbon Bill), which at the time of writing is before the Environment Select Committee. This Bill represents a hugely significant contribution to New Zealand's legislative reporting framework as it will embed the 1.5°C target of the *Paris Agreement* in New Zealand legislation, establishing 'a framework by which New Zealand can develop and implement clear and stable climate change policies' (Explanatory note). See excerpts of the Bill in Appendix 4.

Along with the Productivity Commission's inquiry into a low-emissions economy and the preliminary Ministry for the Environment (MfE) 'Our Climate Your Say' consultation on the Zero Carbon Bill, the Bill represents a significant development from previous climate change discourse, which has historically centred on the NZ ETS as the primary policy mechanism for reducing emissions (MfE, 2018f). Current and future climate change discourse in
New Zealand is likely to centre on transitioning to a low-carbon economy, as well as the target of reaching net-zero emissions in New Zealand by 2050.

Perhaps the most significant aspect of the Zero Carbon Bill is the establishment first of the Interim Climate Change Committee (ICCC), and then its proposed replacement with the permanent Independent Climate Change Commission. The ICCC is intended to make progress on analysis and evidence for issues of agricultural emissions and the transition to renewable electricity during the consultation process for the Zero Carbon Bill (MfE, 2018c, p. 13). The Independent Commission is intended to provide expert advice and introduce a mechanism for holding governments to account outside of party politics (MfE, 2018c, p. 13). The exact balance of advisory and decision-making powers to be held by the proposed commission is still under discussion. MfE's consultation document notes the importance of the climate change commission having 'political consensus for its work underpinned by widespread community and business support' (MfE, 2018c, p. 41).

A recent consultation with Chartered Accountants Australia and New Zealand (CA ANZ) members in preparation for its submission on the Zero Carbon Bill found that members support a durable climate change response framework including, 'separate targets for fossil fuel and biological emissions' but had differences of opinion over emissions targets (CA ANZ, 2019). The consultation did not discuss climate reporting.

3.2 Existing New Zealand legislation

Table 2 overleaf outlines a lens that was important for the Institute in developing our thinking around how climate reporting should be structured. In order to create an integrated system, the three phases of reporting (climate risk identification, climate measurement and climate management) need to be embedded into legislation in an integrated way. This table also shows how the Companies Act 1993 deals with companies, while other pieces of legislation outline requirements for other entity types (see Appendix 5 in *Report 17 – ReportingNZ: Building a Reporting Framework Fit for Purpose*).

3.2.1 Financial Reporting Act 2013 and Companies Act 1993

The Financial Reporting Act 2013 provides the legislative framework for the XRB and the issue of financial reporting and assurance standards. Other pieces of legislation specify more detailed requirements as they apply to various kinds of entity. For example, the Companies Act 1993 outlines directors' duties, which in some cases overlap with reporting requirements. Although neither of these pieces of legislation specifically refer to climate change, they have relevance in this discussion because the standards issued under them have the capacity to relate to non-financial information, as indicated in the *XRB Position Statement on EER* (see Section 2.3.3) and by the Productivity Commission's Recommendation 7.4 that 'the Government should implement mandatory (on a comply or explain basis), principles-based, climate-related financial disclosures by way of a standard under section 17(2)(iii) of the Financial Reporting Act 2013' (NZPC, 2018, p. 199).

Table 2: Comparing nationwide and entity level reporting requirements

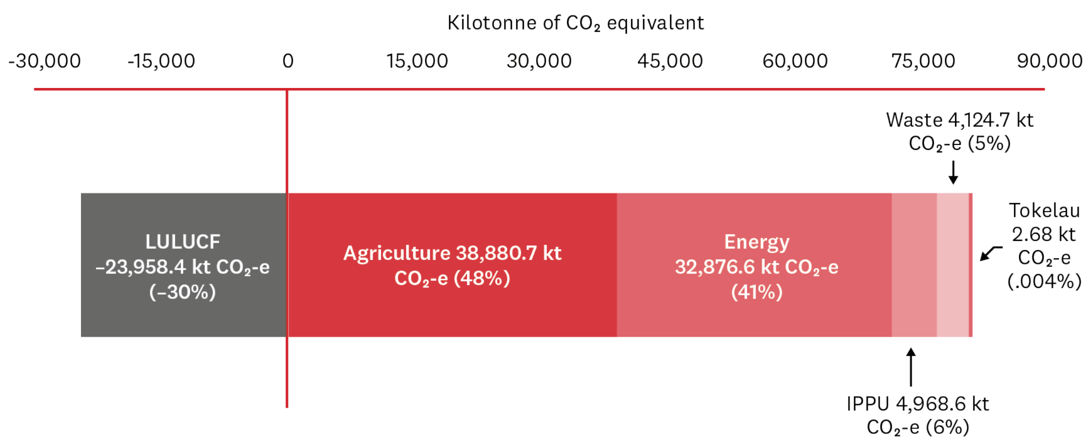
Reporting purpose	(i) Companies Act 1993 and Financial Reporting Act 2013	(ii) Climate Change Response Act 2002 (including NZ ETS)	(iii) Environmental Reporting Act 2015	(iv) Climate Change Response (Zero Carbon) Amendment Bill (in progress)
	Entity reporting	**Nationwide reporting**	**Nationwide reporting**	**Nationwide reporting**
Risk identification	Risk identification – every year	• Subpart 2: Registrar, unit register, miscellaneous provisions • NZ ETS: Participants • Part 5: Sector specific provisions	• Identifying trends found within reports	• National climate change risk assessment (updated every 5 years)
Risk measurement	Risk measurement – every year	• NZ ETS: ETS stocktake, issuing and allocating units, subpart 3 - EPA, emissions rulings, verification and inquiry, monitoring of emissions and removals	• Synthesis reports: required every three years • Domain reports: one domain must be reported on at least once every 6 months. Each domain must be reported on at least once every 3 years Domains: • air • atmosphere and • climate • fresh water • land • marine	• NZ ETS • Emission budget: Every 5 years • Regular review of progress towards implementing the national adaptation plan
Risk management	Risk management – every year	• Part 6: Targets • NZ ETS: Offences and penalties, review and appeal provisions	• Discussing the implications and recommending responses to report findings • Ability to make regulations (see s 19(2) of the Environmental Reporting Act 2013)	• Emission budget: Government prepares and publishes policies in response to each emission budget to develop longer term strategy • Set legislation for net-zero emissions across all GHGs by 2050 as soon as possible • National adaptation plan (updated and reviewed by the climate change commission every 5 years)

3.2.2 Climate Change Response Act 2002

When New Zealand ratified the Kyoto Protocol in December 2002, the Climate Change Response Act 2002 was the legal framework put in place to enable the country to meet those international obligations (MfE, 2018g). The Act then provided the legislative framework for the NZ ETS in 2008, empowering the Minister of Finance to manage the holding and trading of New Zealand Units (NZU) for GHG emissions (MfE, 2018g). The units, also known as carbon credits, represent one metric tonne of carbon dioxide or equivalent. Six sectors of New Zealand's economy are required to participate in the ETS by purchasing and surrendering units: forestry, stationary energy (electricity and heat), transport, industrial processes, synthetic GHGs and waste (Leining & Kerr, 2018, pp. 4, 6).

Biological emissions from the agricultural industry, which accounted for 48% of all GHG emissions profiled in 2017 (as illustrated in Figure 13), are only covered by the reporting obligations of the ETS, not by purchase and surrender obligations (MfE, 2019a; MfE, 2018f). Despite this exemption, an MPI Biological Emissions Research Group (BERG) noted that farmers have been 'asking what practical things they can do to reduce their emissions', highlighting the demand for better information and 'tailored advice' to assist their mitigation and adaptation efforts (MPI, 2018).

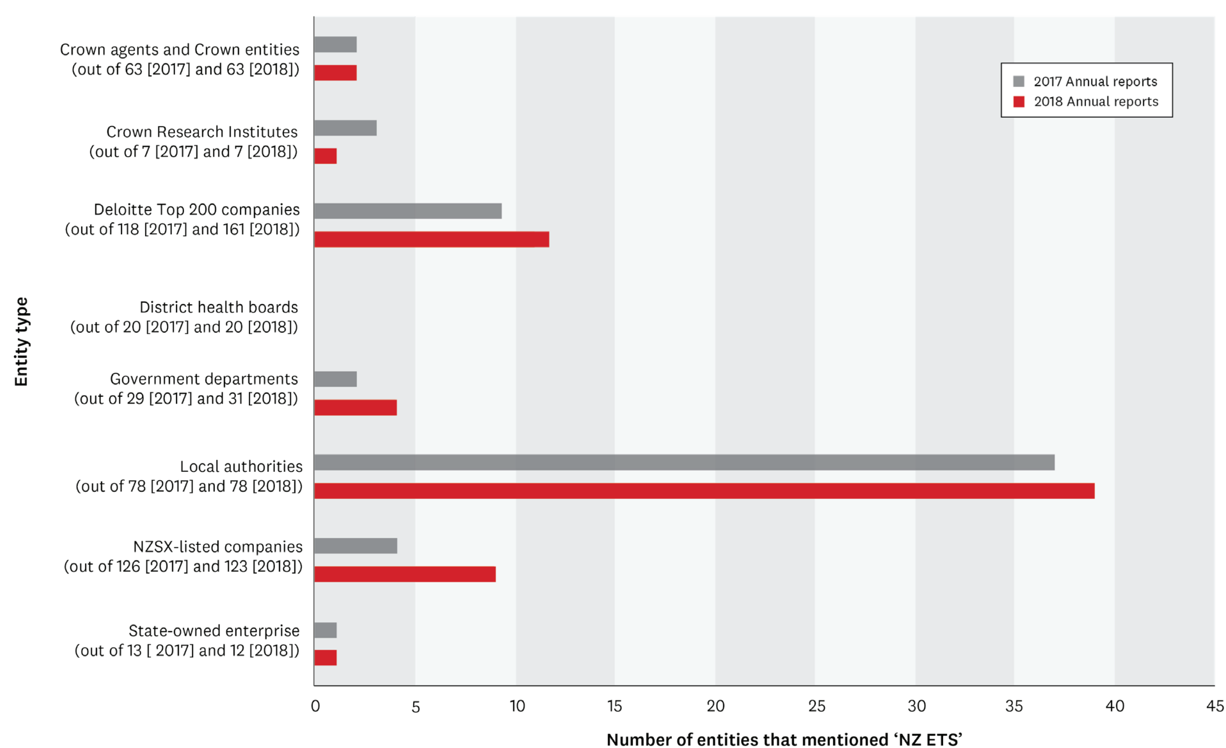
Figure 13: New Zealand's 2017 emissions profile
Source: (MfE, 2019a)



Note: Net emissions from this sector are expressed as negative numbers because the Land Use, Land Use Change and Forestry (LULUCF) sector removes more carbon dioxide than it emits.

Primary research undertaken by the McGuinness Institute found that the NZ ETS is mentioned in the 2017 and 2018 annual reports of significant New Zealand entities at a much higher rate than any other climate reporting framework or instrument. For the most part, the entities mentioning the NZ ETS in their annual reports tended to operate in one of the six sectors required to report on their GHG emissions (EPA, 2018, p. 10). However, 60% of the entities mentioning the NZ ETS were local authorities (see Figure 14 overleaf).

Figure 14: Entity types that mentioned 'NZ ETS' in their 2017 and 2018 annual reports
Source: (Original McGuinness Institute research for this paper)



Over half of New Zealand's total emissions are accounted for by 292 mandatory participants and 2156 voluntary participants of the ETS (MfE, 2018f; EPA, 2018, pp. 4, 6). Table 3 provides a breakdown of emissions by sector using data from the interactive emissions tracker on the MfE website.

Table 3: Emissions by sector in kilo tonnes of carbon dioxide equivalents (kt CO_2-e) between 1990–2017
Source: (Adapted from MfE, 2019c)

Sector	1990	2003	2017	Change from 1990–2017
Energy	+23,785.67	+33,475.23	+32,876.58	38.2%
Industrial Processes and Product Use	+3,579.87	+3,885.62	+4,968.56	38.8%
Agriculture	+34,257.22	+39,437.10	+38,880.72	13.5%
Land Use, Land Use Change and Forestry	-31,161.77	-29,686.27	-23,958.45	23.1%
Waste	+4,041.86	+4,788.97	+4,124.75	2.1%
Tokelau	+3.64	+3.62	+2.86	-21.3%
Total (net)*	+34,506.48	+51,904.25	+56,895.02	64.9%
Total (gross)**	+65,668.25	+81,590.53	+80,853.47	23.1%

Notes: * Total net emissions include LULUCF
** Total gross emissions exclude LULUCF

Table 4 provides a more detailed breakdown of 2017 emissions by sector and activity, based on the EPA's *2017 Emissions Trading Scheme Report*.

Table 4: New Zealand's total 2017 emissions by activity

Source: (EPA, 2018, p. 10)

Schedule	Sector	Activity	Emissions reported to EPA 1 July 2017 to 30 June 2018 (t CO_2-e)
Schedule 3	Part 1 Forestry	Deforesting pre-1990 forest land	672,647
	Part 2 Liquid fossil fuels	Owning obligation fuel	17,345,591
	Part 3 Stationary energy	Importing coal	977,012
		Mining coal	1,051,436
		Importing natural gas	40,497
		Mining natural gas	10,561,893
		Using geothermal fluid	677,890
		Combusting used or waste oil, tyres, or waste	58,231
		Using crude oil	14,355
	Part 4 Industrial processes	Producing iron or steel	71,388
		Producing aluminium	606,607
		Producing clinker or burnt lime	582,657
		Producing glass using soda ash	14,116
		Operating electrical switchgear that uses sulphur hexafluoride	3,451
		Importing hydrofluorocarbons or perfluorocarbons	1,886,828
	Part 5 Agriculture	Importing or manufacturing synthetic fertilisers containing nitrogen	2,660,762
		Slaughtering ruminant animals, pigs, horses or poultry*	14,276,456
		Dairy processing of milk or colostrum	15,314,701
		Exporting from New Zealand live cattle, sheep or pigs	28,010
	Part 6 Waste	Operating a disposal facility	1,283,825

Note: * An instance of over-reporting for 'slaughtering ruminant animals, pigs, horses, or poultry' is known to have been included in the reporting for this activity in last year's annual report, and has subsequently been amended. Emissions for this activity in 2016 are very similar to those reported in 2017.

Despite its status as one of New Zealand's principal instruments for addressing climate change, the NZ ETS does not really constitute a cap-and-trade system, because it does not include a cap on the maximum number of units traded and therefore on the total amount of emissions allowed under the scheme. This means that the scheme's ability to incentivise companies to shift their everyday operations to more sustainable practices is severely limited. Furthermore, companies are able to purchase international units, meaning that they are able to meet their obligations without achieving any actual emissions reductions (Bracey, 2017, p. 13).

Following a 2016 evaluation of the ETS, it was found that 95% of the units surrendered in 2014 were international units (Bracey, 2017, p. 34). In December 2018, New Zealand's Acting Minister for Climate Change announced that amendments to the Climate Change Response Act 2002 would look towards making it possible for the Government to place a cap on New Zealand's emission units in the future (Genter, 2018).

The scheme has also been criticised for exhibiting 'the characteristic weaknesses of the New Zealand law-making system', specifically numerous amendments, which, over the years, have become increasingly complex and difficult to navigate (Palmer, 2015). The end result of these issues is that a 'mute[d] price signal' shifts the burden of costs to taxpayers to subsidise pollution indefinitely (Palmer, 2015).

3.2.3 Environmental Reporting Act 2015

The Environmental Reporting Act 2015 forms part of New Zealand's national climate reporting framework, outlining the environmental issues to be reported on by the Government Statistician and the Secretary for the Environment. The Act organises reporting disclosures into five domains (air, atmosphere and climate, fresh water, land, and marine), allowing MfE to 'build a comprehensive picture about the state, impacts and pressures across each domain' and develop that picture with the three-yearly synthesis reports (MfE, 2019d). The Act also outlines a set of topics to identify within each domain and across domains, and provides indicators and measures for each topic. Because reporting under the Act falls into Tier 1 of the New Zealand Official Statistics System, most of these indicators are in line with international standards to allow benchmarking against other countries (MfE, 2019d). The Act also embeds the significance of te ao Māori to environmental matters, stipulating in s 11(1)(c)(iv) that the domain reports must describe 'the impacts that the state of the environment and changes to the state of the environment may be having on [...] te ao Māori'. This is also stipulated in s 8 of the Act in relation to synthesis reports. The most recent synthesis report was produced in 2019, and combines data collected in the most recent domain reports to produce a full picture of the health of the New Zealand environment (MfE & Stats NZ, 2019, p. 7). The report, instead of siloing each domain, has identified five themes and nine issues where the environment is under threat in order to understand 'the whole interconnected system' (MfE & Stats NZ, 2019, p. 8). The fifth theme deals with 'our changing climate' and was chosen to illustrate 'how this unprecedented global disruption will affect every other issue' (MfE & Stats NZ, 2019, p. 8).

3.2.4 Resource Management Act 1991 and National Environmental Standards

Government could encourage entities to consider incorporating the requirement to establish internal carbon pricing into their strategies as a means of helping identify risks and opportunities. Internal carbon pricing is a mechanism of placing a monetary value on greenhouse gas emissions. An article in the *Harvard Business Review* explains how this might work in practice:

> Internal carbon pricing allows companies to place a monetary value on emitting a ton of carbon, even when few or none of their operations are currently subject to external carbon-pricing polices and related regulations. Companies use internal pricing in three key ways: to inform decisions about capital investments (especially when projects directly affect emissions, energy efficiency, or changes in the portfolio of energy sources); to measure, model, and manage the financial and regulatory risks associated with existing and potential government pricing regimes; and to help identify risks and opportunities and adjust strategy accordingly' (Aldy & Gianfrate, 2019).

National environmental standards (NESs) are 'regulations that prescribe standards for environmental matters' (MfE, 2018h). Provisions are made in the Resource Management Act 1991 (RMA) for National Policy Statements, which 'enable central government to prescribe objectives and policies for matters of national significance' in relation to the sustainable management of resources (Environment Foundation, 2018b).

Both the RMA and NESs, as policy instruments, have important roles to play in instances of climate change case law. In the absence of an appropriate and relevant standards, expert testimonies are pitched against each other, resulting in additional expenditure of time and money. The RMA has limitations in dealing with renewable energy and climate change, because neither are currently 'identified as matters of national importance' (Bell Gully, 2019, p. 12). Although climate change and renewable energy are mentioned in the RMA, there is no provision under this legislation for considering 'the effects of greenhouse gas discharges on climate change' (Bell Gully, 2019, p. 12).

One possible mechanism is for applications under the RMA to require entities/individuals to run a carbon pricing assessment as part of the cost benefit assessment. Currently, s 7 of the RMA requires all entities and persons who exercise power to factor in climate change into their decision-making processes, but this could be extended to include a requirement to add a carbon price under s 32.

Section 32 (2) Requirements for preparing and publishing evaluation reports
(2) An assessment under subsection (1)(b)(ii) must—

(a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—

(i) economic growth that are anticipated to be provided or reduced; and

(ii) employment that are anticipated to be provided or reduced; and

(b) if practicable, quantify the benefits and costs referred to in paragraph (a); and

(c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

3.3 Climate change litigation and shareholder resolutions

New Zealand's current climate change legislation is highly relevant in light of an international trend of increasing climate change litigation, which 'continues to expand across jurisdictions as a tool to strengthen climate action' (Setzer & Byrnes, 2019, p. 1). New Zealand's first instance of an individual suing the Government in a climate-related lawsuit was in 2017, when a University of Waikato law student took the Government to the High Court over a failure to 'reset New Zealand's [climate change] targets under the Paris Climate agreement' (May, 2017). The case was dismissed, but the student indicated that she would appeal (RNZ, 2017). This was one of 16 climate-related cases filed in New Zealand as of March 2017, while 654 cases have been filed in the US alone and more than 230 have been filed across the rest of the world in at least 28 different countries (Bell Gully, 2019, p. 16; Setzer & Byrnes, 2019, p. 1). Although governments are almost always the defendant in these cases, 'the private sector is beginning to be affected', particularly examples of heavy carbon-emitters such as the oil and gas industry (Bell Gully, 2019, p. 16).

Individuals are also encouraging the transition to a low-emissions economy as investors, cities, states and activist shareholders pursue climate-related claims. In 2018 alone, 90 climate-related shareholder resolutions began (Setzer & Byrnes, 2019, p. 1; Carney, 2019, p. 3).

In December 2018, major shareholders of Royal Dutch Shell (including the Church of England and Robeco) demanded that Shell do more to tackle carbon emissions, arguing that 'its earlier goal of cutting emissions by half by 2050 did not go far enough' (Kottosová, 2018). Succumbing to shareholder pressures, Shell announced that beginning in 2020, it would establish short-term carbon reduction targets, as well as become the first oil company to link executive pay to hitting these carbon reduction goals (Kottosová, 2018). Shell has continued its efforts into 2019, becoming the first major oil company to leave the US refining lobby American Fuel & Petrochemical Manufacturers 'over clashes on climate policies, citing its support for the Paris climate agreement' and announcing plans to invest $300 million over three years in reforestation projects (Newburger, 2019). Shell is not the only company developing executive incentives, other companies 'have begun to include climate-related targets and indicators, such as carbon emissions indicators or external ESG [...] ratings in their management incentive schemes', such as the world's largest mining company BHP, which is increasing the proportion of the Chief Executive bonus that is linked to carbon emissions reductions (WEF, 2019, p. 15; Sanderson, 2019).

Activist group 'Follow This', which has invested in heavy emitters such as Shell, BP, ExxonMobil, Chevron and Equinor, has filed shareholder resolutions for three years to pressure Shell to 'drastically reduce its spending on fossil fuel' (Newburger, 2019; Bousso, 2019). However, the group chose to withdraw the resolution and 'focus on other companies' environmental goals' after Shell's decision to 'introduce industry-led targets to reduce greenhouse gas emissions and link them to executive pay' (Newburger, 2019; Bousso, 2019). Climate Action 100+, a group of 310 investors with over $32 trillion assets under management, released a joint statement with Shell stating that it 'strongly supported the company taking "these important steps"' (Newburger, 2019). Shareholders have been a major source of influence in another fossil-fuel heavy company whereby 41% of the investors of ExxonMobil voted 'to separate ExxonMobil's board chair from its CEO at the company's annual general meeting [...] sending a strong signal that investors are dissatisfied with the board's approach, including its approach to managing climate risk' (Climate Action 100+, 2019).

4.0 Mandatory reporting regime

New Zealand has a complex reporting landscape. It is designed for a range of users, managed by a number of institutions, and uses a diverse mix of instruments. As a result, the reporting regime is difficult to navigate, making this the most technical section of this paper.

To help illustrate how the reporting regime operates in practice, the section draws on the annual reports of two for-profit companies (Z Energy and New Zealand King Salmon), although many of the instruments and institutions that shape the reporting of for-profit entities can also apply to public benefit entities. Table 5 (opposite) outlines the regulatory instruments that shape annual report content.

The method used to produce this section was firstly a review of the instruments that currently exist (Section 4.1) and then analyse the reporting regime in practice using the two case studies (Section 4.2). The analysis is divided into review of four parts of an annual report:

Review 1: The chair's report (Section 4.3)

Review 2: The financial statements (Section 4.4)

Review 3: The auditor's report (Section 4.5)

Review 4: The corporate governance statement (Section 4.6)

Each review answers five technical questions:

1. What part of the regulatory regime is applicable?
2. What is required under the existing reporting regime?
3. What was disclosed by each of the two companies?
4. What is the gap between what was required and what was disclosed in practice?
5. What is the gap between what preparers are required to provide and what users need? (Comparing the answer to question 2 with the needs of wider stakeholders). This question considers climate change not just in terms of impacts on the entity but also the entity's impacts on external factors such as society and the environment.

The questions range from factual answers for question 1 through to matters of opinion for question 5. Section 4.7 then provides a closing summary of key observations and ideas. Together, the results of this research inform the proposed design of the reporting regime discussed in Section 8.

4.1 An overview of the existing for-profit reporting landscape

The complex reporting landscape relies on links between legislation (Section 3), mandatory reporting (this section) and voluntary guidance (Section 5). It also relies on a high level of judgement and skill by preparers, assurers and users of reports and statements. Similar types of legislation, standards and guidance exist across all entity types and other, more specific mandatory reporting requirements exist outside annual reports, such as the specific reporting requirements for NZ ETS 'participants' (MfE, 2016). Given the relevance of this type of reporting to climate change, this topic is discussed in Section 6 of this discussion paper, but the remainder of this section is intended to have a narrower focus to avoid repetition.

Figure 15 (opposite) shows the seven characteristics that inform the content of regular external reporting.

Figure 15: Seven characteristics that inform the content of regular external reporting

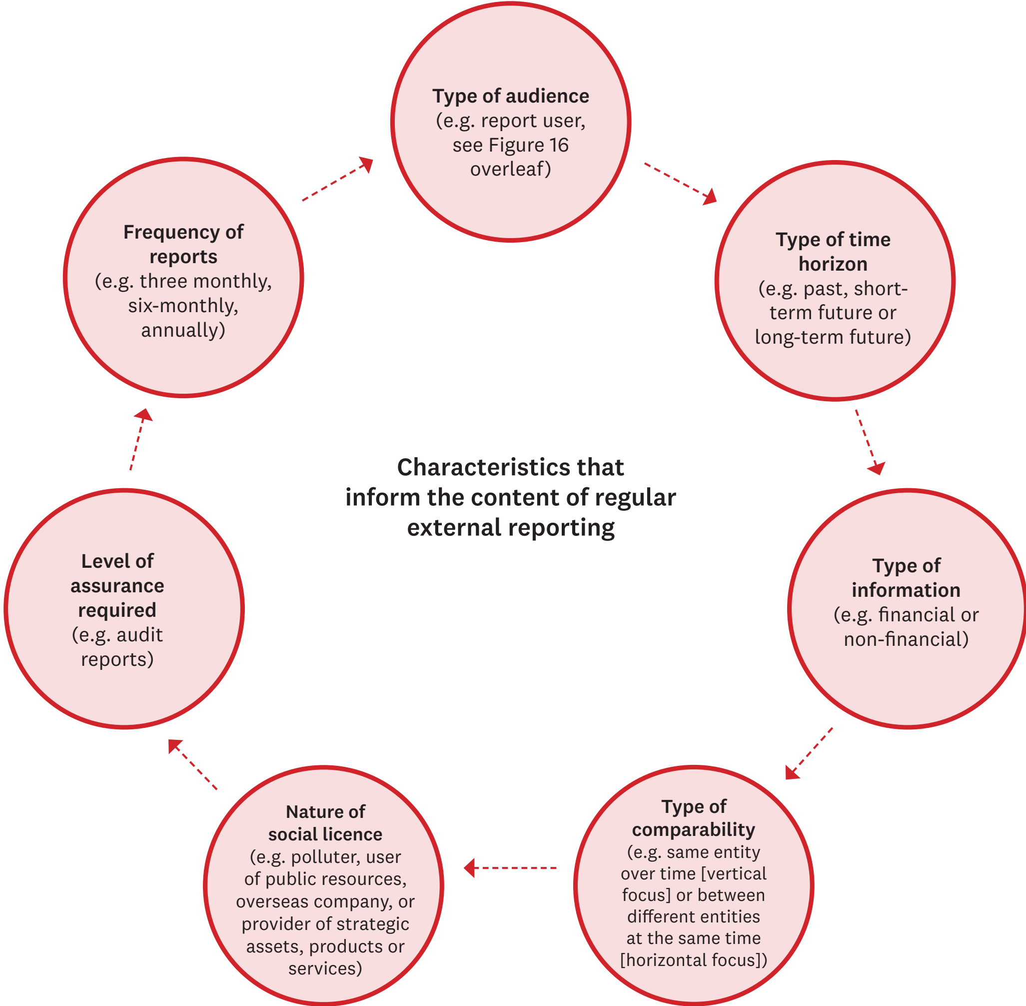


Table 5: Regulatory instruments that impact and shape the content of parts of the annual report

Instrument	Chair's report (See Section 4.3)	Financial statements (See Section 4.4)	Independent auditor's report (See Section 4.5)	Corporate governance statement (See Section 4.6)	Rest of the annual report
Companies Act 1993, s 137 – Director's duty of care	Directly	Indirectly (to produce financial statements)	Indirectly (in some cases to ensure financial statements are audited)	Indirectly	Indirectly
Companies Act 1993, s 211 – Contents of an annual report	Directly	Directly	Directly (if required)	No	Directly (as other specific information is required)
Financial Markets Conduct Act 2013, s 460 – Financial statements must be prepared	No	Directly	No	No	No
XRB financial reporting standards and authoritative notices (see s 12 of the Financial Reporting Act 2013)	No	Directly	No	No	No

Instrument	Chair's report (See Section 4.3)	Financial statements (See Section 4.4)	Independent auditor's report (See Section 4.5	Corporate governance statement (See Section 4.6)	Rest of the annual report
XRB auditing and assurance standards (see s 12 of the Financial Reporting Act 2013)	No	No	Directly	No	Indirectly
NZX Listing Rules (*NZX Rules*) 'An Issuer must comply with the Rules as interpreted' (NZX, 2019b, p. xxv). The *NZX Rules* set out the content of an annual report (NZX, 2019b, Section 1, pp. 24-25)	Indirectly	Indirectly	Indirectly	Indirectly, via the *NZX Code*	Directly
NZX Corporate Governance Code (*NZX Code*) 'The *NZX Code* applies to all listed issuers on the NZX Main Board that do not fall under an exception in the Listing Rules. There are specific [comply and explain] recommendations intended to give effect to general principles, as well as [voluntary] explanatory commentary in relation to both the principles and recommendations' (NZX, 2019c, p. 4).	Indirectly	Indirectly	Indirectly	Directly	Indirectly
FMA Corporate Governance Handbook (*FMA Handbook*) 'The 'explain' approach [...] is intended to cater for reporting by the broad range of entities that may use this handbook' (FMA, 2018a, p. 6). 'Financial reporting and annual reports of all entities should (in addition to all information required by law) include sufficient meaningful information to enable investors and stakeholders to be well informed. We encourage boards to make their financial reports clear, concise and effective; while meeting the requirements of financial reporting standards' (FMA, 2018a, p. 16).	Indirectly	Indirectly	Indirectly	Directly	Indirectly

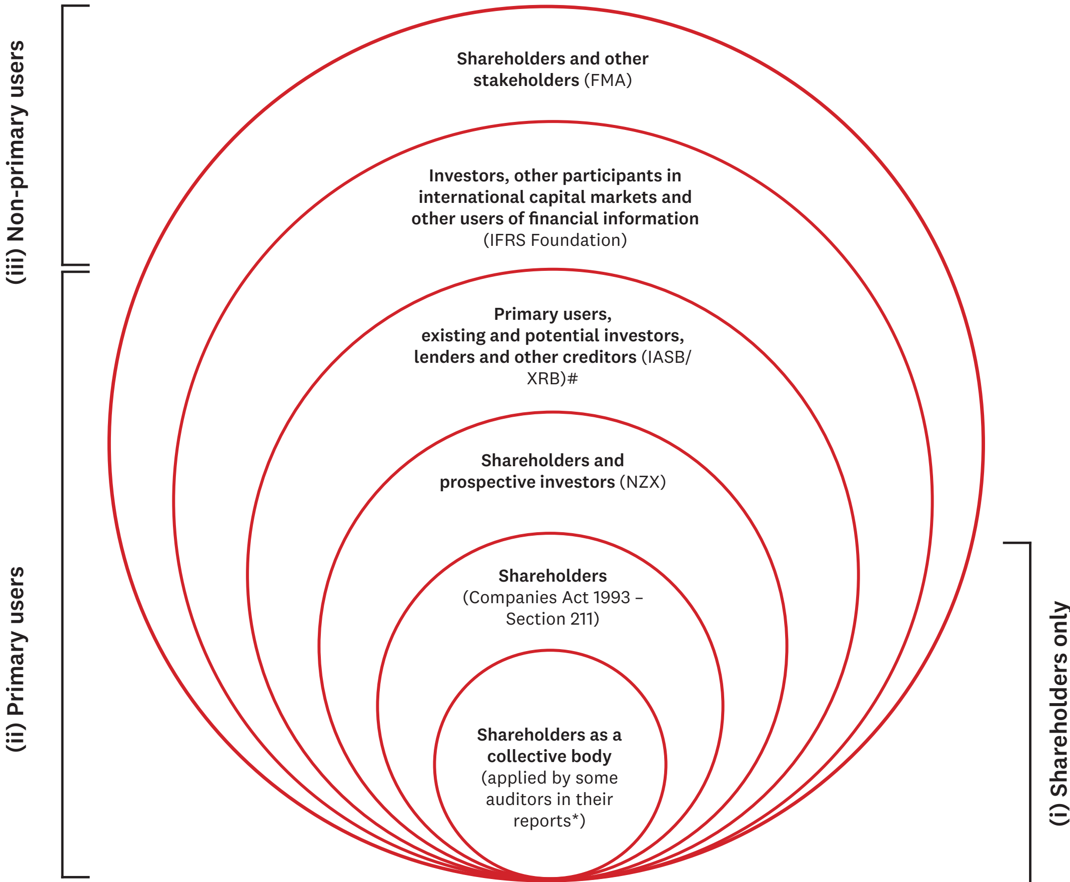
Note: The distinction between directly and indirectly is a judgement made here to differentiate between primary focus and other information also covered by regulatory instruments. A legal opinion may produce to a different conclusion.

There are three major user groups that preparers may consider when producing annual reports:

1. Shareholders only. The chair's report and auditor's report are prepared specifically for shareholders.
2. Primary users (such as existing and potential investors, lenders and other creditors). The financial statements are prepared for primary users.
3. Non-primary users (all parties other than the above). This extends users to include regulators, neighbours, communities, local councils, district health boards and members of the general public.

See the full list in Figure 16.

Figure 16: Six types of audiences in New Zealand's regulatory reporting regime
Source: (FMA, 2018a, p. 5; XRB, 2018; NZX, 2019b, Appendix 1, p. 22)



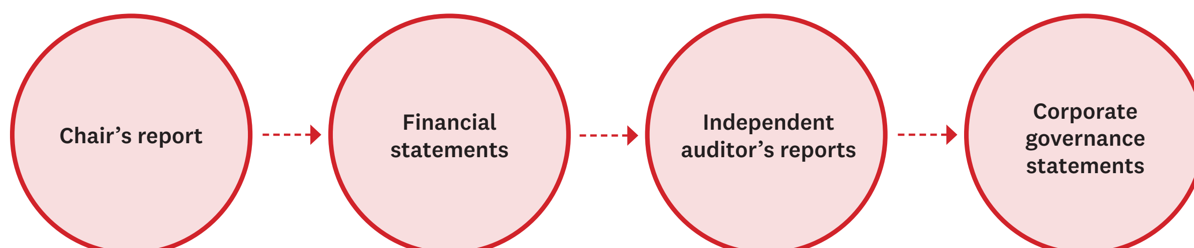
Note: * Referring to shareholders 'as a body' or 'as a collective body' is not terminology required by the XRB or the IAASB. See discussion in Sections 4.5.4 and 7.1. The addition of 'as a body' appears to have arisen as a result of the Caparo Industries PLC Dickman [1990] UKHL2 House of Lords case where it was held that the only duty of care the auditors owed was to the governance of the firm, not to existing or potential shareholders. The purpose of a statutory requirement for an audit of public companies under the UK Companies Act 1985 was the making of a report to enable shareholders to exercise their class rights in a general meeting; it did not extend to the provision of information to assist shareholders in the making of decisions as to future investment in the company (Caparo Industries plc v. Dickman, 1990).

In the public benefit entity sector, the primary users are wider and include service recipients and resource providers.

4.2 Analysis of the for-profit reporting regime in practice

To complete this analysis, we reviewed four specific components of the annual report: the chair or CEO report, the financial statements, the independent auditor's report and the corporate governance statement (see Figure 17). Although we indirectly discuss other parts of the annual report to support some of our analysis, our focus has been on the types of users this information was prepared for (e.g. shareholders, primary users [including shareholders] or non-primary users), the horizon that preparers use when preparing information (e.g. past, short-term future or long-term future), and the types of climate-related information preparers disclosed (i.e. financial or non-financial).

Figure 17: Four key components of an annual report



For each of the four components of the annual report, we first outline what part of the regulatory regime is applicable. This includes an overview of the relevant accounting, assurance and reporting requirements issued and/or prepared by XRB, FMA and NZX, and in some cases, sections from relevant Acts. The high-level annual report content requirements set out in s 211 of the Companies Act 1993 are of particular relevance. These institutions and instruments together form the basis of the regulatory reporting regime currently existing in New Zealand.

Next, as previously noted, we identify the audience (i.e. a description of the user as defined under the regime), the information horizon (e.g. the preparer's timeframe for identifying risks) and, lastly, whether the information tends to be financial or non-financial in nature.

Next, we look at two case studies: Z Energy and New Zealand King Salmon (NZKS). There are three reasons for this:

1. The Institute knows the background to these two companies reasonably well due to past research.
2. One company deals with energy and the other with production.
3. One company is an example of impacts on the climate (i.e. energy), while the other (salmon farming) is an example of climate change impacts on a company.

A brief summary of these are discussed directly below, and then discussed in answer to the question 'What was disclosed?'

Lastly, we provide our observations of the broader implications for climate reporting. Is the report or statement adequate for the users identified under the existing regime and is it adequate for users other than those specified under the existing regime?

Through case studies we aim to provide a high-level summary illustrating how current climate reporting requirements are being interpreted and implemented in practice. The case study analysis is intentionally narrow and is therefore not a detailed analysis of the two companies' reports, nor does it aim to explore climate-related impacts on energy provision or salmon farming. Further, the Institute does not investigate other climate-related risks, such as rising sea levels or extreme weather events.

Case study 1: Z Energy 2019 annual report

Z Energy is an NZSX-listed company that distributes fuel, with branded service stations throughout New Zealand. Z Energy comprises some of the former assets of Shell New Zealand and Chevron New Zealand.

It mentions 'climate' 26 times in its 2019 annual report (Z Energy, 2019a). For the purpose of our analysis, we focused on reporting of emissions (see Figure 18) and actions the company is taking.

Z Energy's full year results announcement for the year ended 31 March 2019 states:

> The price of NZU's [New Zealand Units] has risen during the year in response to the escalation in emissions reduction requirements, environmental concerns and growing certainty around the strength and importance of the NZ ETS as the mechanism to price carbon emissions and contribute toward slowing climate change (Z Energy, 2019b, p. 20).

Z Energy provided a 'Climate Change Statement' as part of its annual report, which has been advocated by the Institute. This is discussed later in this paper as it is not part of the mandatory reporting regime.

Z Energy also developed and reported scenarios to explore the future along the lines of the *Recommendations of the TCFD* to 'Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario' (Z Energy, 2019a, p. 46; TCFD, 2019a, p. 2).

Figure 18: Z Energy's greenhouse gas emissions
Source: (Z Energy, 2019a, p. 39)

Greenhouse gas emissions	FY19	Calendar year 2017 (base year)
Scope 1 – Z offices and retail sites	**3,837**	3,907
Scope 2 – Z offices and retail sites	**4,195**	4,045
Scope 3 – Z offices and retail sites	**4,495**	3,339
Scope 3 – New Zealand supply chain	**37,910**	40,031
Scope 3 – Share of refinery	**555,892**	634,848
Scope 3 – Rest of supply	**902,215**	807,542
Scope 3 – Z product emissions from our customers	**11,640,509**	9,488,277
Total emissions	**13,149,051**	10,981,989

Case study 2: NZKS 2018 annual report

New Zealand King Salmon (NZKS) is a NZSX-listed company that farms salmon in the Marlborough Sounds. The company's business model is being impacted by rising water temperatures. It mentions 'climate' twice in its annual report. For the purpose of our analysis, we focused on salmon mortalities (in terms of NZKS's reporting and management strategies) and the expiration of existing consents for salmon farm sites (particularly in terms of proposed relocation of existing farms to higher-flow, lower-temperature sites).

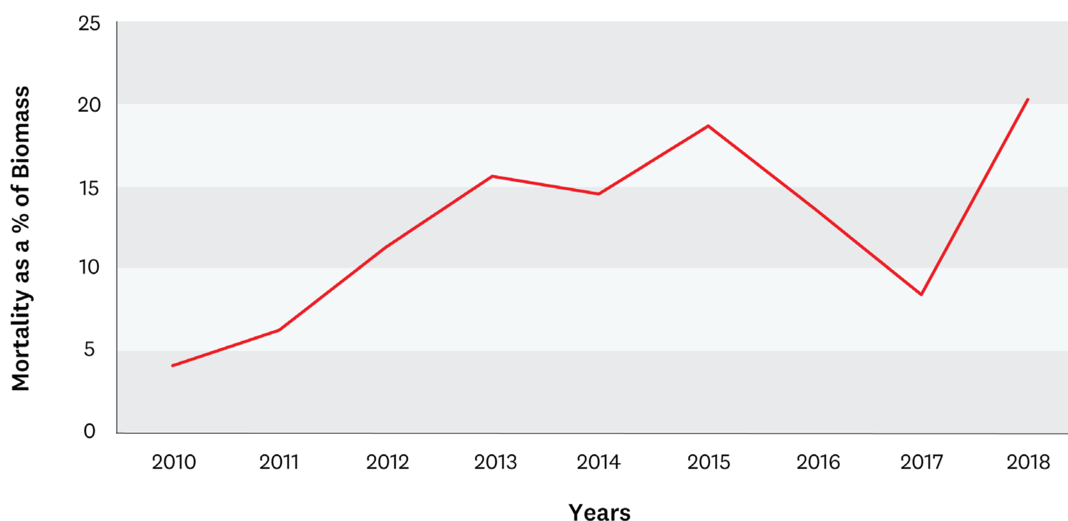
NZKS background

- A 2013 Board of Inquiry (BOI) decision approved four farms (which decreased to three due to legal challenges over environmental impacts) all in high-flow, low-temperature areas (McGuinness Institute, 2017, p. 29).
- The site consents for six of NZKS's existing low-flow, high-temperature farms expire shortly: Ruakaka expires in 2021 and Crail Bay (two farms), Forsyth, Waihinau and Otanerau in expire in 2024 (McGuinness Institute, 2017, p. 3).
- NZKS acknowledges climate change as one of four 'major sustainable development issues for New Zealand' in its 2018 annual report *Big Ideas Start Here* (NZKS, 2018a, p. 18).

- NZKS graphs water temperatures for three areas on its website: Pelorus, Queen Charlotte and Tory Channel (NZKS, 2019a).
- NZKS reports an estimated fish mortality rate of 20%, compared to a 'norm' of 11% (NZKS, 2018b, p. 4). Changes in premature mortality rates since 2010 are graphed in Figure 19.
- The *New Zealand King Salmon – Post-Summer Fish Performance Update* (May, 2019) explicitly refers to climate change risk. It notes the impact of 'sustained warm water temperatures which continued into April' on fish performance, acknowledging that 'the full year mortality cost for the year ended 30 June 2019 (FY19) will now be materially higher than in FY18' (NZKS, 2019b).
- NZKS Chief Executive says 'Climate change is causing more salmon to die in the Marlborough Sounds' (6 May 2019) (Taunton, 2019).

Figure 19: NZKS's premature mortality as a percentage of biomass

Source: (NZKS, 2016a, p. 20; NZKS, 2017, p. 11; NZKS, 2018a, p. 13)



4.3 Review 1: The chair's report

4.3.1 What part of the regulatory regime is applicable?

Companies Act 1993

The Act sets out the requirement for the annual report to include information from the board. It is common for this to take the form of a chair's report, which is often also accompanied by a CEO report (although this is not specifically required by the Companies Act 1993). However, as indicated in the bold italicised text in the excerpt below, the board must consider the information needs of shareholders in terms of what is material, however, in practice it is a matter of judgement – it is what the board believes is 'material' and what the board believes is 'harmful':

Section 211 – Contents of annual report

(1) Every annual report for a company must be in writing and be dated and, subject to subsection (3), must—

(a) describe, so far as ***the board believes is material*** for the shareholders to have an appreciation of the state of the company's affairs and will not be ***harmful*** to the business of the company or of any of its subsidiaries, any change during the accounting period in—

(i) the nature of the business of the company or any of its subsidiaries; or

(ii) the classes of business in which the company has an interest, whether as a shareholder of another company or otherwise; [bold italics added]

Section 137 – Director's duty of care

A director of a company, when exercising powers or performing duties as a director, must exercise the care, diligence, and skill that a reasonable director would exercise in the same circumstances taking into account,

but without limitation,—

(a) the nature of the company; and

(b) the nature of the decision; and

(c) the position of the director and the nature of the responsibilities undertaken by him or her.

We found little guidance on how to define what was 'material' in terms of the content of the chair's report. However, the FMA website titled 'How to read a company annual report' did outline four questions to consider when reading the commentary from the chair and chief executive:

- Is the commentary balanced?
- Have they done what they said they'd do?
- How are management decisions affecting performance?
- Are they using appropriate performance measures? (FMA, 2018b)

Our view is that the shareholders are expecting to learn what the board thinks about strategic matters (looking outwards and long-term), rather than operational matters (inwards and short-term).

4.3.2 What is required of a chair's report under the existing reporting regime?

- The report is prepared for shareholders.
- The information horizon is a combination of past, short-term future and long-term future-focused.
- The information is financial and non-financial in nature.

4.3.3 What was disclosed in the chair's report by each of the two companies?

Case study 1: What was disclosed in Z Energy's chair's report?

The chair discusses the need to prepare for a low-carbon future, the challenges of the commercial fuel demand for diesel and the need to find replacement fuel for aviation and marine requirements. The chair sets the scene by discussing the types of investments the company is undertaking or looking into (e.g. biodiesel and hydrogen) (Z Energy, 2019a, p. 15).

Case study 2: What was disclosed in NZKS's chair's report?

The chair's report was combined with the CEO's report.

The shared report discusses the following challenges: finding suitable water space, fish survival due to warmer temperatures, and the fact that farms located in high-flow sites will deliver much better survival rates over high temperature periods. Even with increased mortality, NZKS states 'despite the extraordinarily hot summer, our strategy of strong brands, diversified markets and innovation has delivered a record result', and notes that their Pro Forma operating EBITDA increased to '26.2 million, up 21.1% on FY17' (NZKS, 2018a, p. 11). The title of the annual report 'Big ideas start here', illustrates a broader dialogue on exploring the feasibility of moving farms offshore to the open ocean.

4.3.4 What is the gap between what was required for shareholders and what was disclosed in practice? (Comparing answers to 4.3.2 and 4.3.3)

In our view, although publishing a joint chair and CEO report (as in the NZKS case) is common practice, it confuses the purpose of the chair's report and is arguably less useful for shareholders who want to learn about what the board (not the CEO) think in terms of the strategic challenges facing the company. Questions the board should be asking and answering about climate change are well articulated in the latest TFCD status report:

> Disclose the organization's governance around climate-related risks and opportunities [...]
>
> Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's

> businesses, strategy, and financial planning where such information is material [...]
>
> Disclose how the organization identifies, assesses, and manages climate-related risks [...]
>
> Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material (TCFD, 2019a, p. 2).

Given these questions, information about the number of salmon that died, how they died (e.g. fast or slow and under stress), when they died, where they died (e.g. low-flow, high-temperature farms or high-flow, low-temperature farms) and for what reasons (e.g. poor husbandry, disease or water temperature) is likely to be relevant. The upcoming expiry dates of some farm site consents may also be relevant, because the existing low-flow, high-temperature farms may be at risk of becoming stranded assets. Although consent expiry dates are available on the Marlborough District Council (MDC) website, this would require investors to first know the site consent numbers.

The question as to whether such information belongs in the chair's report or the CEO's report is, in our view, dependent on whether the information is strategic or operational. Using the above example, if the consents were not expiring and the temperatures were not rising (and causing mortalities), all of the above issues would more likely fit in the CEO's report; however, if the sites are at risk of becoming stranded assets, this would become a strategic issue that should therefore be discussed in the chair's report.

This discussion highlights the challenges for preparers of climate reporting to identify risks (particularly the risk of stranded assets), then to disclose the risks accurately and completely, and finally to communicate how they will adapt the strategy to address the risk. These characteristics need to be taken into account when we are dealing with new risks that have exponential impacts and undermine the natural ecosystem upon which many of New Zealand's businesses rely.

All of this information classified by consent is likely to be of interest to investors concerned with environmental, social or governance (ESG) information, such as Guardians of New Zealand Superannuation, which has shares in both Z Energy and NZKS (Z Energy, 2019c, p. 25; NZKS, 2018a, p. 118). The Guardians state that 'ESG considerations are integrated into all aspects of the Guardians' investment activities' (NZ Super Fund, n.d.). Information on climate change and its impacts is becoming an even more significant part of ESG reporting. In the past this may have been a gradual move from an investor perspective but is likely to develop more quickly as climate change impacts increase.

The existing reporting regime puts the focus on what the 'board believes is material for the shareholders' (s 211 of the Companies Act 1993), without putting any onus on the board to make any inquiries into what the shareholders actually might consider material. For example, NZ Super Fund's view of what is material might be very different from what the board believes is material for stakeholders to know. The current content requirements of a chair's report are not clear and this level of uncertainty is likely to make things difficult for shareholders investing in turbulent times.

Ideas worth considering:

1. Require a separate chair's report in all annual reports (i.e. no joint chair-CEO reports). The separating of the board from the CEO is an emerging area of interest, as discussed in May 2019 by ClimateAction100:

   > Forty one percent of investors voted to separate ExxonMobil's board chair from its CEO at the company's annual general meeting today, sending "a strong signal that investors are dissatisfied with the board's approach, including its approach to managing climate risk"(ClimateAction100, 2019).

2. Institute of Directors (IoD) to provide guidance on the content of the chair's report (e.g. outlining materiality in terms of climate change and requiring the board to seek input from shareholders on what they consider material and reporting against that).

3. Amend s 131 and/or s 137 of the Companies Act 1993 to extend the 'Duty of directors to act in good faith and in best interest of company' and/or 'Director's duty of care'. The CA ANZ and ACCA report *Directors Responsibilities for Financial Reporting: What You Need to Know* provides a comparison of directors' duties in New Zealand and Australia with those in other countries that may be helpful for guiding amendments (CA ANZ & ACCA, 2017). Amending s 131 more along the lines of the UK approach (s 172 of their Act), whereby duties are owed to the company having regard to certain matters, including the environment, would enable New Zealand judges to look to UK court decisions for guidance.

This could either be a separate provision that applied to all the duties, or added to s 131 (duty to act in the best interests of the company) (see Appendix 1).

4. Expand s 211(1) of the Companies Act 1993 to clarify that the board must consider what is 'material' from a shareholder perspective (see Appendix 1).
5. Amend the Companies Act 1993 to introduce the requirement to produce a strategic report (like the UK) as part of the annual report. As illustrated by the excerpt below, the Companies Act 2006 (UK) strategic report requirements have a stronger, wider and longer-term focus than the New Zealand Companies Act 1993.

Companies Act 2006 (UK)

Section 414C – Contents of strategic report

(1) The purpose of the strategic report is to inform members of the company and ***help them assess how the directors have performed their duty*** under section 172 ***(duty to promote the success of the company)***.

(2) The strategic report must contain—

(a) a fair review of the company's business, and

(b) ***a description of the principal risks and uncertainties facing the company***. [Section 414CZA (section 172(1) statement) and sections 414CA and 414CB (non-financial information statement) make further provision about the contents of a strategic report.]

(3) The review required is a balanced and comprehensive analysis of—

(a) the development and performance of the company's business during the financial year, and

(b) the position of the company's business at the end of that year, consistent with the size and complexity of the business.

(4) The review must, to the extent necessary for an understanding of the development, performance or position of the company's business, include—

(a) analysis using financial key performance indicators, and

(b) where appropriate, ***analysis using other key performance indicators, including information relating to environmental matters and employee matters.***

(5) In subsection (4), "key performance indicators" means factors by reference to which the development, performance or position of the company's business can be measured effectively.

(6) Where a company qualifies as medium-sized in relation to a financial year (see sections 465 to 467), the review for the year need not comply with the requirements of subsection (4) so far as they relate to non-financial information.

(7) In the case of a quoted company the strategic report must, to the extent necessary for an understanding of the development, performance or position of the company's business, include—

(a) the main trends and factors likely to affect the future development, performance and position of the company's business, and

(b) information about—

(i) environmental matters ***(including the impact of the company's business on the environment)***,

(ii) the company's employees, and

(iii) ***social, community and human rights issues, including information about any policies of the company in relation to those matters and the effectiveness of those policies.***

If the report does not contain information of each kind mentioned in paragraphs (b)(i), (ii) and (iii), it must state which of those kinds of information it does not contain.

(8) In the case of a quoted company the strategic report must include—

(a) ***a description of the company's strategy,***

(b) ***a description of the company's business model,***

(c) a breakdown showing at the end of the financial year—

(i) the number of persons of each sex who were directors of the company;

(ii) the number of persons of each sex who were senior managers of the company (other than persons falling within sub-paragraph (i)); and

(iii) the number of persons of each sex who were employees of the company.

(9) In subsection (8), "senior manager" means a person who—

(a) has responsibility for planning, directing or controlling the activities of the company, or a strategically significant part of the company, and

(b) is an employee of the company.

(10) In relation to a group strategic report—

(a) the reference to the company in subsection (8)(c)(i) is to the parent company; and

(b) the breakdown required by subsection (8)(c)(ii) must include the number of persons of each sex who were the directors of the undertakings included in the consolidation.

(11) The strategic report may also contain such of the matters otherwise required by regulations made under section 416(4) to be disclosed in the ***directors' report as the directors consider are of strategic importance to the company***.

(12) The report must, where appropriate, include references to, and ***additional explanations of, amounts included in the company's annual accounts***.

(13) Subject to paragraph (10), in relation to a group strategic report this section has effect as if the references to the company were references to the undertakings included in the consolidation.

(14) Nothing in this section requires the disclosure of information about impending developments or matters in the course of negotiation if the disclosure would, in the opinion of the directors, be seriously prejudicial to the interests of the company [bold italics added, footnotes removed].

4.3.5 What is the gap between what preparers are required to provide and what users need? (Comparing the answer to 4.3.2 with the needs of wider stakeholders)

Because climate change affects everyone, not just shareholders, it is important that climate-related information is reported to wider stakeholders. This is particularly relevant in terms of the role businesses will play in the significant transition to a low-emissions economy. If businesses do not take a leadership role, governments will need to mandate climate change action. This is why stakeholders need to be kept aware of what action businesses are already taking. For example, Z Energy played a leadership role in setting up the Climate Leaders Coalition. Mike Bennetts, CEO of Z Energy, noted the following:

> We remained active with our contribution to a more sustainable agenda for New Zealand business. We adopted a leadership role in the business community with those who wanted to take a more assertive stance on reducing emissions. The Climate Leaders Coalition is a signal to stakeholders that we care and that we will look to make a collective difference.
>
> I hope the coalition is seen as a signal to New Zealanders, regulators and government alike that business acknowledges that a new sustainability conversation is needed (Z Energy, 2019a, p. 19).

In contrast, NZKS's joint chair-CEO report notes the following:

> We continue to work on solutions to address the risk of rising seawater temperatures – in addition to a strong focus on fish husbandry and animal welfare, this year we have reduced stocking density on some farms. We see opportunities to improve future survival rates for our fish via preventative immunisation in our hatchery, and specifically targeting robustness in our selective breeding program. ...
>
> We look forward to "Creating the Ultimate Salmon Experience" and achieving our mission to enrich the lives of all our stakeholders (NZKS, 2018a, p. 11).

Although this does constitute discussion of a strategy to cope with the impacts of climate change, it does not

show the same leadership as Z Energy in this space. This may partially be because it is an adaptive response to impacts of climate change on the company rather than a mitigating response to the company's own impact on the climate. This is a relatively common approach across companies and may be linked to nature of business (e.g. Z Energy is better placed to mitigate climate change than NZKS).

NZKS's focus on stakeholders and its closing comment above illustrate the importance of companies maintaining a social licence to operate. Annual reporting provides an opportunity for companies to express to wider stakeholders that they operate in a considered and ethical manner. In terms of climate reporting, such a dialogue should include discussion of both the impact of the climate on the entity (adaptation) and the entity's impact on the climate (mitigation). It is interesting to note that the reports prepared by the chairs of both companies are already being written with stakeholders in mind, which is outside the current requirements.

Ideas worth considering:

6. Ensure that the chair's report is not just about how shareholders can obtain consistent value from the company's operations (e.g. profit and share price), but about how stakeholders can benefit or be harmed from the company's operations (e.g. retaining a social licence to operate). In terms of climate change, this means reporting with 'care, diligence and skill' about carbon emissions (negative impacts) and the benefits its operations provide (positive impacts). See Appendix 1 for suggested amendment to s 2 of the Companies Act 1993 to include 'climate risk management', which discusses both mitigation and adaptation. If companies are only required to report on one without the other, the transition will at best be slow, unjust and inefficient.
7. Amend section 211 of the Companies Act 1993 'contents of annual report' to include stakeholders not just shareholders (see Appendix 1).

4.4 Review 2: The financial statements

4.4.1 What part of the regulatory regime is applicable?

The regulatory reporting regime has two parts:

(i) The statutory financial reporting framework and

(ii) The standards framework made up of reporting accounting standards and auditing and assurance standards (KPMG, 2014, p. 5).

The two frameworks are connected through the use of generally accepted accounting principles (GAAP), in legislation. For the most part, GAAP is the culmination of authoritative standards, principles and practices accepted by accounting bodies in different countries. However, in New Zealand, s 8 of the Financial Reporting Act 2013 defines GAAP very specifically in relation to applicable reporting standards and authoritative notices (see also para 4 in XRB Standard A1), and s 12(c) enables the XRB to 'issue authoritative notices for the purposes of the definition of generally accepted accounting practice' (XRB, 2019e).

The Financial Reporting Act 2013 sets out the two types of standards: ss 15–19 of the Act describe 'financial reporting standards' (which can include GAAP and non-GAAP standards), also called accounting standards, and s 20 describes 'auditing and assurance standards'. According to the XRB, 'Accounting and Auditing & Assurance standards ensure transparent and consistent external financial reporting and ultimately build greater trust and confidence with your stakeholders — whether they be your shareholders, investors, donors, funders, members, customers, or tax or rate payers' (XRB, 2019b).

Although the XRB is able to write and issue its own standards (known as domestic standards), this does not happen often. Two examples are the *Prospective Financial Statements* (FRS42) and the *Service Performance Reporting* (PBE FRS 48) standards, both issued by the New Zealand Accounting Standards Board (NZASB) (XRB, 2011a; XRB, 2017). Domestic accounting standards can lead to the issue of domestic audit standards by the New Zealand Auditing and Assurance Standard Board (NZAuASB). For example, *The Audit of Service Performance Information* (NZ AS 1) was issued as a result of the *Service Performance Reporting* standard (PBE FRS 48) (XRB, 2019d). Both NZASB and NZAuASB are committees of the XRB and have delegated authority from the XRB to issue standards. The key links between the legislation and the standards are explained below.

Companies Act 1993

Section 201 – Financial statements must be prepared

Every company or overseas company to which this section applies **(A)** must ensure that, within 5 months after the balance date of A, financial statements that comply with ***generally accepted accounting practice*** are—

(a) completed in relation to A and that balance date; and

(b) dated and signed on behalf of A by 2 directors of A, or, if A has only 1 director, by that director [bold italics added].

This section sets out the obligation of companies; there are equivalent sections for other entity types in other legislation.

Financial Reporting Act 2013

Section 8 – Meaning of generally accepted accounting practice

In this Act, financial statements, group financial statements, a report, or other information complies with **generally accepted accounting practice** only if the report, statements, or information comply with—

(a) ***applicable financial reporting standards***; and

(b) in relation to matters for which no provision is made in applicable financial reporting standards, an authoritative notice [bold italics added].

The XRB issues the applicable financial reporting standards and authoritative notices.

New Zealand Equivalent to the IASB Conceptual Framework for Financial Reporting (2018 NZ Conceptual Framework)

Paragraph 1.5

> Many existing and potential investors, lenders and other creditors cannot require reporting entities to provide information directly to them and must rely on general purpose financial reports for much of the financial information they need. Consequently, they are the primary users to whom general purpose financial reports are directed (XRB, 2018).

Making Materiality Judgements: IFRS Practice Statement 2 (September 2017)

> When making materiality judgements, an entity needs to consider the impact information could reasonably be expected to have on the primary users of its financial statements. Those **primary users are existing and potential investors, lenders and other creditors**—those users who cannot require entities to provide information directly to them and must rely on general purpose financial statements for much of the financial information they need. In addition to those primary users, other parties, such as the entity's management, regulators and members of the public, may be interested in financial information about the entity and may find the financial statements useful. However, the financial statements are not primarily directed at these other parties. [bold added] (IASB, 2017a, p. 10).

4.4.2 What is required of a set of financial statements under the existing reporting regime?

- The statements are prepared for 'primary users', which are defined as 'existing and potential investors, lenders and other creditors' (IASB, 2017a, p. 10).
- The information horizon is past-focused and short-term future-focused (looking out 12 months from the signing of the report by the auditor).
- The information is both financial and non-financial in nature.

4.4.3 What was disclosed in the set of financial statements by each of the two companies?

Case study 1: What was disclosed in Z Energy's financial statements?

The financial statements show net profit before taxation of $252,000,000 (for the 12 months ended 31 March 2019) and $366,000,000 (for the 12 months ended 31 March 2018) (Z Energy, 2019a, p. 65).

The financial statements do not mention climate change directly but do mention carbon taxes. The company's climate change discussion sits outside the financial statements.

Case study 2: What was disclosed in NZKS's financial statements?

The financial statements show earnings before interest, tax, depreciation, and amortisation (EBITDA) of $28,482,000 (for the 12 months ended 30 June 2018) and $38,533,000 (for the 12 months ended 30 June 2017) (NZKS, 2018a, p. 64). The EBITDA for 2016 (for the 12 months ended 30 June 2016) and 2015 (for the 12 months ended 30 June 2015) was $13,816,000 and $12,384,000 respectively (NZKS, 2016b, p. 3).

The financial statements do not mention climate change directly but reference is made in Note 15: Biological Assets to 'climatic events', 'decrease due to mortality' and 'fair value risk and sensitivity' (NZKS, 2018a, pp. 79–80). Note 15 also records a significant increase in mortality costs of $7,254,000 from $5,244,000 in 2017 to $12,498,000 in 2018 (NZKS, 2018a, p. 79). This increase is equivalent to half of the reported comprehensive income for FY18 (which was $14,658,000) (NZKS, 2018a, p. 64). Note 15 acknowledges that 'the Group is exposed to financial risks relating to the production of salmon stocks including climatic events, disease and contamination of water space' (NZKS, 2018a, p. 80). Of particular relevance is the statement that even if fish survive the higher temperatures, 'changes in fish health and environmental factors may affect the quality of harvested fish' (NZKS, 2018a, p. 80).

4.4.4 What is the gap between what was required for primary users and what was disclosed in practice? (Comparing answers to 4.4.2 and 4.4.3)

A key observation is that financial statements tend not to tell the story about the risks the company faces in terms of climate change. Although the *Recommendations of the TCFD* suggests that preparers of climate-related financial disclosures should provide such disclosures in their mainstream (i.e. public) annual financial filings, they do not specify that these disclosures should be made in financial statements:

> Financial filings refer to the annual reporting packages in which organizations are required to deliver their audited financial results under the corporate, compliance, or securities laws of the jurisdictions in which they operate. While reporting requirements differ internationally, financial filings generally contain financial statements and other information such as governance statements and management commentary (TCFD, 2019a, Footnote 15, p. 3).

NZKS discloses a significant amount of information about the financial risks to its business model due to climate change affecting its profitability and asset values (e.g. farm site consents) in the short term. Using the analogy of the 'canary in the mine', we see NZKS as an early example of how stranded assets might affect profitability and asset values. If NZKS had not been able to obtain the three new coastal permits approved during the 2013 BOI, it is unlikely that they would currently be so profitable. Furthermore, its current free access to high-flow, low-temperature water is a point of contention for stakeholders in the community and the possibility of future charges for water space will also impact its business model.

The NZKS case study illustrates the challenges between preparers providing information in the financial statements that may not align with the information in an entity's annual report. NZKS's annual report provides a more comprehensive picture of the affairs of the entity and the possible impacts of farm site consents and mortality on the business model. However, given the nature of the farm sites, users would gain an even more comprehensive picture if each site was discussed in detail (by fish farmed, biomass, mortality). In our view, mortality risk should also be disclosed in 'Note 23: Financial Risk Management' (alongside discussion of market risk, credit risk and liquidity risk), rather than sitting solely within 'Note 15: Biological Assets' (NZKS, 2018a, pp. 79, 83–85).

Climate change will increasingly challenge preparers to reconsider what information is relevant and material and where such information should be disclosed. This highlights a current problem in standards and guidance of outdated distinctions. Historically, a division between financial and non-financial information was used to explain and shape reporting; the financial statements contained the financial information and the rest of the annual report contained the non-financial information. However, more recently, notes to the financial statements have become more detailed and more substantial, blurring the boundaries between financial and non-financial. Further, the distinction between the board's commentary and the management commentary (from the CEO) is not always clear.

It is clear that both Z Energy and NZKS recognise the need to communicate to a broader audience in order to preserve their social licence to operate. The key challenge for preparers is the level of judgement involved in determining what information may or may not be material for both the primary user (as outlined in the applicable reporting and assurance standards) and for other stakeholders. The auditor's role in shaping the content of the financial statement is discussed in more detail in Section 4.5.

We would argue that the primary user is not currently able to access the full range of climate-related information necessary to make informed decisions. This is supported by one of the four key findings of the TCFD's 2019 status report:

> **More clarity is needed on the potential financial impact of climate-related issues on companies.** The top area identified by users of climate-related financial disclosures as needing improvement is for companies to provide more clarity on the potential financial impact of climate-related issues on their businesses. Without such information, users may not have the information they need to make informed financial decisions (TCFD, 2019a, p. iv).

Ideas worth considering:

10. XRB to provide standards/guidance on climate-related disclosures to help guide preparers. Particular areas for discussion should include:

    - Types of risk information:

      (i) Risk identification (e.g. risk of stranded assets, how scenarios can help identify risks and the types of risk identified [physical risk, transition risk and liability risk])

      (ii) Risk measurement (e.g. what metrics are useful and what are their methodologies). This could include financial and non-financial information

      (iii) Risk management (e.g. reporting on strategy to manage the potential financial impact of climate-related issues on their businesses)

    - Where risk information should be reported in an annual report (the Institute advocates for a *Statement of Climate Information*).

11. Amend s 211 of the Companies Act 1993 to require a *Statement of Climate Information* in the annual report (see Appendix 1).

4.4.5 What is the gap between what preparers are required to provide and what users need? (Comparing the answer to 4.4.2 with the needs of wider stakeholders)

Given the impact of climate change, many new users will enter the system looking for information specific to climate change mitigation and adaptation. Following on from the discussion about the chair's report in Section 4.3, it seems timely to reconsider the lack of alignment over who is considered a user.

Ideas worth considering

12. Extend the definition of the 'primary user' of financial statements. This would be hard to do given this definition is set internationally, but there may be ways for New Zealand to do this. This would be worth discussing with the XRB.

4.5 Review 3: The independent auditor's report

4.5.1 What part of the regulatory regime is applicable?

The auditor's role is to review the financial statements and give an opinion on whether the company's position is fairly presented 'in all material respects' (XRB, 2015a, p. 8). Where judgements are questionable, the auditor is obliged to raise those issues with the preparer and, if not resolved, issue a modification to the opinion (see paragraph 17), *Modifications to the Opinion in the Independent Auditor's Report* (ISA (NZ) 705).

As part of the audit process, the auditor is required to look out 12 months from 'the date of the auditor's current report' in order to 'assess the appropriateness of the going concern assumption for the relevant period' (XRB, 2015b, p. 34).

ISA (NZ) 700: Forming an Opinion and Reporting on Financial Statements

Paragraph 10

The auditor shall form an opinion on whether the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework.

Paragraph 11

In order to form that opinion, the auditor shall conclude as to whether the auditor has obtained reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error. That conclusion shall take into account:

(a) The auditor's conclusion, in accordance with ISA (NZ) 330, whether sufficient appropriate audit evidence has been obtained;

(b) The auditor's conclusion, in accordance with ISA (NZ) 450, whether uncorrected misstatements are material, individually or in aggregate; and

(c) The evaluations required by paragraphs 12–15 [footnotes removed] (XRB, 2015a, pp. 8–9).

Audit Report 1

As part of an audit in accordance with ISAs (NZ), the auditor exercises professional judgement and maintains professional scepticism throughout the audit.

The auditor also:

[...] Concludes on the appropriateness of the use of the going concern basis of accounting by those charged with governance and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If the auditor concludes that a material uncertainty exists, the auditor is required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify the auditor's opinion. The auditor's conclusions are based on the audit evidence obtained up to the date of the auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern (XRB, 2019c).

ISA (NZ) 570: Going Concern

Paragraph 6

The auditor's responsibilities are to obtain sufficient appropriate audit evidence regarding, and conclude on, the appropriateness of management's use of the going concern basis of accounting in the preparation of the financial statements, and to conclude, based on the audit evidence obtained, whether a material uncertainty exists about the entity's ability to continue as a going concern. These responsibilities exist even if the financial reporting framework used in the preparation of the financial statements does not include an explicit requirement for management to make a specific assessment of the entity's ability to continue as a going concern (XRB, 2015b, p. 7).

Accompanying Attachment: Conforming to the International Standards of Auditing

ISA (NZ) 570 requires the auditor to assess the appropriateness of the going concern assumption for the relevant period, which is at least 12 months from the date of the auditor's current report. However, ISA 570 requires the auditor to consider the appropriateness of the going concern assumption for a period of at least, but not limited to, twelve months from the date of the financial statements (XRB, 2015b, p. 34).

ISA (NZ) 701: Communicating Key Audit Matters in the Independent Auditor's Report

Paragraph 7

The objectives of the auditor are to determine key audit matters and, having formed an opinion on the financial statements, communicate those matters by describing them in the auditor's report.

[...]

Paragraph 8

Key audit matters—Those matters that, in the auditor's professional judgement, were of most significance in the audit of the financial statements of the current period. Key audit matters are selected from matters communicated with those charged with governance.

[...]

Determining Key Audit Matters

Paragraphs A19–A26

The auditor shall determine, from the matters communicated with those charged with governance, those matters that required significant auditor attention in performing the audit. In making this determination, the auditor shall take into account the following: [...]

(a) Areas of higher assessed risk of material misstatement, or significant risks identified in accordance with ISA (NZ) 315 (Revised). [...]

(b) Significant auditor judgements relating to areas in the financial statements that involved significant management judgement, including accounting estimates that have been identified as having high estimation uncertainty. [...]

(c) The effect on the audit of significant events or transactions that occurred during the period (XRB, 2015c, pp. 6–7).

ISA (NZ) 315: Identifying and Assessing the Risks of Material Misstatement Through Understanding the Entity and Its Environment

Paragraphs 3 and 4

The objective of the auditor is to identify and assess the risks of material misstatement, whether due to fraud or error, at the financial statement and assertion levels, through understanding the entity and its environment, including the entity's internal control, thereby providing a basis for designing and implementing responses to the assessed risks of material misstatement.

Definitions

For purposes of the ISAs (NZ), the following terms have the meanings attributed below:

(a) *Assertions* – Representations by management, explicit or otherwise, that are embodied in the financial statements, as used by the auditor to consider the different types of potential misstatements that may occur.

(b) *Business risk* – A risk resulting from significant conditions, events, circumstances, actions or inactions that could adversely affect an entity's ability to achieve its objectives and execute its strategies, or from the setting of inappropriate objectives and strategies.

(c) *Internal control* – The process designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations. The term *"controls"* refers to any aspects of one or more of the components of internal control.

(d) *Risk assessment procedures* – The audit procedures performed to obtain an understanding of the entity and its environment, including the entity's internal control, to identify and assess the risks of material misstatement, whether due to fraud or error, at the financial statement and assertion levels.

(e) *Significant risk* – An identified and assessed risk of material misstatement that, in the auditor's judgement, requires special audit consideration (XRB, 2013, p. 6).

4.5.2 What is required of an auditor's report under the existing reporting regime?

- The independent auditor's report is prepared for shareholders or shareholders as a body.

- The information horizon in the auditor's report is past-focused and short-term future-focused.
- The information in the audit report is largely non-financial in nature.

4.5.3 What was disclosed in the auditor's report by each of the two companies?

Case study 1: What was disclosed in Z Energy's independent auditor's report?

The five-page independent auditor's report does not explicitly mention climate change risks. It is made up of seven sections.

The first section of the auditor's opinion states that the financial statements 'present fairly in all material respects the Group's financial position as at 31 March 2019 and its financial performance and cash flows for the year ended on that date' (Z Energy, 2019a, p. 99).

The second section outlines the basis for the opinion. The auditor notes the assurance standards that they applied, assert their independence and state their belief that they have the audit evidence required to form an opinion (Z Energy, 2019a, p. 99).

The third section outlines how they dealt with the scope, materiality and the one key audit matter (KAM's) they identified: 'Acquisition of Flick Energy'. Notably, they used the term materiality as follows:

> The scope of our audit was influenced by our application of materiality. Materiality helped us to determine the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and on the consolidated financial statements as a whole. The materiality for the consolidated financial statements as a whole was set at $15 million determined with reference to a benchmark of group total revenue. We chose the benchmark because, in our view, this is a key measure of the group's performance.
>
> The group also evaluates its own performance on replacement cost profit and we have benchmarked against this measure and historical cost profit (Z Energy, 2019a, p. 100).

The fourth section of the auditor's report deals with 'other information'.

The fifth section discusses the 'use of this independent auditors report':

> This independent auditor's report is made solely to the shareholders as a body. Our audit work has been undertaken so that we might state to the shareholders those matters we are required to state to them in the independent auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the shareholders as a body for our audit work, this independent auditor's report, or any of the opinions we have formed (Z Energy, 2019a, p. 102).

The sixth section clarifies the 'Responsibilities of Directors for the consolidated financial statements'. The seventh section discusses the 'Auditor's responsibilities for the audit of the consolidated financial statements'.

Case study 2: What was disclosed in NZKS's independent auditor's report?

The four-page independent auditor's report does not explicitly mention climate change risks. The report is made up of five sections, the third of which briefly mentions mortality.

The first section states the auditor's opinion that the financial statements 'present fairly, in all material aspects, the consolidated financial position of the group as at 30 June 2018' represent the consolidated financial position and performance of NZKS (NZKS, 2018a, p. 94). This section also outlines the purpose and audience of the auditor's report:

> This report is made solely to the company's shareholders, as a body. Our audit has been undertaken so that we might state to the company's shareholders those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's shareholders, as a body, for our audit work, for this report, or for the opinions we have formed (NZKS, 2018a, p. 94).

The second section outlines the basis for opinion, the auditors' note and the assurance standards that they applied, asserts their independence and states their belief that they have the audit evidence required to form an opinion (NZKS, 2018a, p. 94).

The third section outlines three key audit matters (KAMs): 'Valuation and Existence of Biological Assets', 'Goodwill Impairment Assessment' and 'Valuation of Sea Farm Related Assets' (NZKS, 2019a, pp. 95–96). The KAM 'Valuation and existence of biological assets' mentions 'future fish mortalities, and 'future sea farm use, marine licence and resource consent renewal and environmental compliance' are discussed under 'valuation of sea farm related assets' (NZKS, 2018a, pp. 95–96).

The fourth section of the auditor's report deals with 'information other than the financial statements', and refers to the requirement for auditors to read information in the annual report other than the financial statements. The purpose of this exercise is to consider whether such information is materially inconsistent with the financial statements or other knowledge obtained during the audit, or otherwise appears to be materially misstated. In this case, the auditors note the following:

> The directors of the company are responsible for the Annual Report, which includes information other than the consolidated financial statements and auditor's report which is expected to be made available to us after the date of this auditor's report.
>
> Our opinion of the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.
>
> In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained during the audit, or otherwise appears to be materially misstated.
>
> When we read the Annual Report, if we conclude that there is a material misstatements therein, we are required to communicate the matter to those charged with governance and, if uncorrected, to take appropriate action to bring the matter to the attention of users for whom our auditor's report was prepared (NZKS, 2018a, p. 97).

The fifth section clarifies the 'Directors' responsibilities for the audit of the financial statements' (NZKS, 2018a, p. 97).

4.5.4 What is the gap between what was required for shareholders and what was disclosed in practice? (Comparing answers to 4.5.2 and 4.5.3)

Recent requirements for auditors to report on key audit matters reviewed after undertaking the audit are discussed in *Communicating Key Audit Matters in the Independent Auditor's Report* (ISA (NZ) 701). These requirements improved the quality of audit reporting by giving shareholders insight into the challenges the auditor faced. In our view, although the requirements are robust, the standard is not yet fully embedded in to best practice. Our specific concern is that auditors will need to look out for climate change risks and how they might play out in terms of materiality. Boards and management will see some issues develop over time, while other issues will be less visible and may occur more quickly.

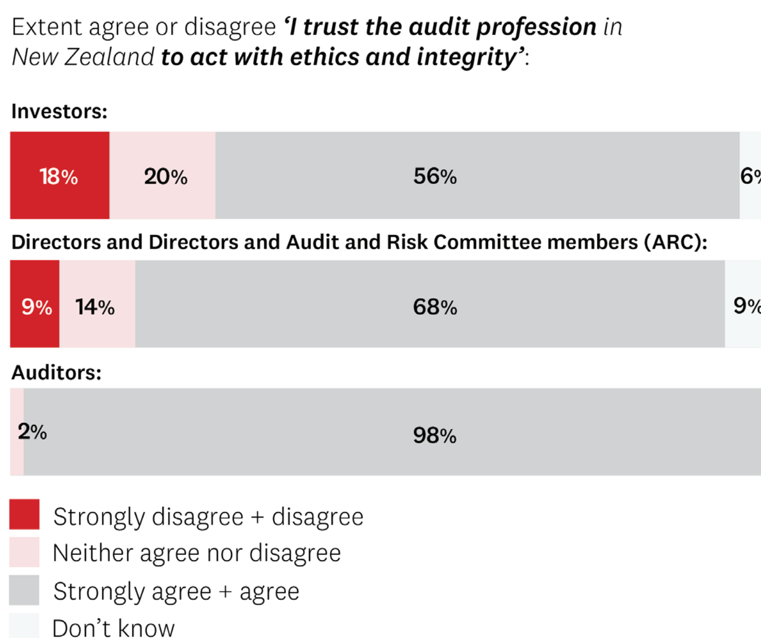
Because of the relative uncertainty of climate change, scepticism will be particularly important for auditors, as indicated by the UK's Financial Reporting Council (FRC). In undertaking a review of the audit reports of major auditing firms, the FRC found that much of current auditing practice is below par. In particular, they highlighted a lack of scepticism leading to a failure to challenge management enough (Ford, 2019). Although New Zealand does not have a direct equivalent to the FRC, the FMA fills a similar auditor oversight role and its 2019 *Perceptions of Audit Quality in New Zealand* survey had similar conclusions. It found that investors in particular have 'a lack of faith and trust in the audit profession and the quality of audit' in New Zealand (Buzz Channel & FMA, 2019, p. 3). The following specific points were raised:

> Investors had concerns about the independence of auditors from the entities they audit, lack of professional scepticism, and auditors not asking questions and challenging the judgement of the management and directors. In contrast the directors rated auditor independence fairly high (71% agreed).

> A lack of competition and choice was mentioned by investors, referring to a small pool of audit firms available and the big four or five organisations who have a large share of the market. Sector experience was rated as an important factor when selecting an audit firm, and this combined with a small market in New Zealand and audit companies offering other consultancy services to their audit clients was talked about as contributing to an auditor being re-engaged and building a strong relationship with the entity they're auditing, in turn leading to a conflict of interest. This perceived lack of independence came through as a strong concern of investors and some directors (Buzz Channel & FMA, 2019, p. 3).

It is difficult to know whether the shortcomings, as indicated by respondents, are the result of auditing and assurance standards, auditors' interpretations or a combination of both. Broader views on trust in the audit profession in New Zealand are summarised in Figure 20.

Figure 20: Views on the ethics and integrity of the audit profession in New Zealand
Source: (Adapted from Buzz Channel & FMA, 2019, p. 4)



Both Z Energy and NZKS have adopted the additional qualifier 'as a body' after the term shareholder in auditors' reports. This is not required by the XRB or the IAASB but is included by a number entities operating in New Zealand (see UK case law note for Figure 16, Section 4.1). XRB considers such statements to be a form of risk management, which they refer to as a 'hold harmless' paragraph (Personal communication with XRB, 27 June 2019). These are not prohibited by the standards and entities may therefore choose to include such paragraphs as they see appropriate (Personal communication with XRB, 27 June 2019). However, the addition of 'as a body' may narrow the focus of the audit report and limit liability for auditors, which is likely to raise issues if this practice continues to be allowed.

Ideas worth considering:

13. XRB could prepare a guidance paper identifying questions and issues assurance practioners should be mindful of when preparing audit and assurance reports on climate-related disclosures. In particular, assurance practitioners should be asked to take more time to explore and understand a company's business model.

14. Other reports or statements in the annual report (such as the Institute's proposed *Statement of Climate Information*) could be assured.

15. XRB to consider reviewing the current practice of adding the shareholder qualifier 'as a body' in audit reports, as it implies that shareholder majority considerations are prioritised over the needs of individual shareholders. If such a practice weakens the rights of individual shareholders, we believe this practice should be stopped.

16. In the public sector, the Auditor-General could issue an assurance standard on climate information as part of the Auditor-General's Auditing Standards for assurance practitioners of public sector entities. The Auditor-General is able to supplement the NZAuASB's assurance and ethical standards with the Auditor-General's Specific Standards, where appropriate (OAG, 2017).

4.5.5 What is the gap between what preparers are required to provide and what users need? (Comparing the answer to 4.5.2 with the needs of wider stakeholders)

The exponential nature of climate change impacts will drive public discourse and policy making. The debates over fairness and equity for the transition to a low-emissions economy are already evolving. The Institute expects the public to have an increasing interest in ensuring policy decisions are made based on trusted financial and non-financial information that sits outside the financial statements, and to be cautious of green-washing.

Ideas worth considering:

17. XRB to consider assurance of EER in annual reports but outside financial statements (see Figure 9 in Section 2.3.3).

4.6 Review 4: The corporate governance statement

4.6.1 What part of the regulatory regime is applicable?

There are two sets of corporate governance principles. One is prepared for companies listed on the NZX and the other is prepared for non-listed companies, public-sector companies, and other entities. The *NZX Corporate Governance Code* is supported by a series of guidance notes that relate back to the *NZX Listing Rules*.

NZX Corporate Governance Code (NZX Code) (1 January 2019)

Although the *NZX Code* is not an accounting or assurance standard, it is the 'primary guidance on corporate governance for NZX-listed issuers' (NZX, 2019c, p. 3). The purpose of the *NZX Code* is to 'promote good corporate governance, recognising that boards are in place to protect the interests of shareholders and to provide long-term value' (NZX, 2019c, p. 3). The *NZX Code* contains a set of 'comply or explain' recommendations for good practice under each overarching principle (NZX, 2019c, pp. 3, 4). Part of the comply or explain requirement is recognising that not all recommendations will be appropriate for all issuers depending on 'size or stage of development', in which case 'the issuer can explain why it has chosen not to adopt the recommendation and the alternative measures it has in place' (NZX, 2019c, p. 3).

The practical implications of this are outlined in the excerpt below:

> An issuer should explain what policies and practices it has in place in respect of the recommendation, and inform the investor or stakeholder where they can find any material referred to and where to find out more about their policies, which can be updated over time as practices develop and change. This is to demonstrate that the corporate governance practices of the issuer will evolve over time.
>
> The disclosure of an issuer's compliance with the *NZX Code* is intended to be flexible so that disclosure can either be:
>
> - in its annual report – where an issuer chooses to include its statement in the annual report rather than its website, NZX recommends that the statement and any related disclosures appear in a clearly labeled [sic] corporate governance section; or
> - on its website – disclosures should be clearly presented and centrally located on or accessible from the landing page of the website, and the link should be easy to locate, prominently displayed in a category such as 'About Us' or 'Investor Centre'; or
> - a combination of both reporting in the annual report and cross referencing on the website [italics added] (NZX, 2019b, Appendix 1, p. 5).

Two specific recommendations from the *NZX Code* are particularly relevant to our corporate governance statement case study examples:

> Recommendation 4.3: Financial reporting should be balanced, clear and objective. An issuer should provide non-financial disclosure at least annually, including considering **environmental, economic and social sustainability factors and practices. It should explain how operational or non-financial targets are measured**. Non-financial reporting should be informative, include forward looking assessments, and align with key strategies and metrics monitored by the board [bold added] (NZX, 2019b, Appendix 1, p. 23).
>
> Recommendation 6.1: An issuer should have a risk management framework for its business and the issuer's board should receive and review regular reports. An issuer should report the material risks facing the business and how these are being managed (NZX, 2019b, Appendix 1, p. 29).

Both the *NZX Code* and the *NZX ESG Guidance* apply to the whole annual report, not just the financial statements. In the same way that financial reporting is intended to provide an overall picture of company finances, ESG information is intended to build an overall picture of the company's performance beyond financials (Personal communication with NZX, 23 June 2019).

NZX ESG Guidance (1 January 2019)

Unlike the *NZX Code*, the *NZX ESG Guidance* is entirely voluntary. The *NZX ESG Guidance* identifies eight principles the *NZX Code* is structured around, which 'cover a code of ethics, board composition and performance, board committees, reporting and disclosure, remuneration, risk management, auditors and shareholders rights and relations' (NZX, 2019a, p. 3).

The *NZX ESG Guidance* recommends that companies disclose what actions they undertook in the reporting period in order to address specific ESG matters highlighted in the *NZX ESG Guidance* (Personal communication with NZX, 23 June 2019). The *NZX ESG Guidance* particularly notes 'three elements that help socially conscious businesses measure their sustainability and the ethical impact of an investment in their company or business':

> - **Environmental criteria** (looks at how a company performs as a steward of the natural environment);
> - Social criteria (considers how a company manages its relationships with stakeholders (i.e. employees, impact on the broader community and/or suppliers);
> - Governance (includes a company's leadership, executive pay and shareholder rights amongst other matters) [bold added] (NZX, 2019a, p. 5).

FMA Corporate Governance Handbook (2018)

> **Principles:** The principles do not impose any new legal obligations, and reporting against them is voluntary. However, the principles do set out standards for corporate governance that we believe directors and executives should apply, and report on, to their investors, shareholders and stakeholders.
>
> The principles are in no particular order of priority. Principles 1 to 7 deal with how directors should govern. Principle 8 deals with the board's relationship with shareholders and other stakeholders. The handbook focuses on principles rather than checklists or rules (FMA, 2018a, p. 4).
>
> **Principle 4:** Reporting and disclosure: The board should demand integrity in financial and non-financial reporting, and in the timeliness and balance of corporate disclosures.
>
> 4.1 Boards should have a rigorous process to ensure the quality and integrity of financial statements and non-financial reporting.
>
> 4.2 Financial reporting and annual reports of all entities should (in addition to all information required by law) include sufficient meaningful information to enable investors and stakeholders to be well informed. We encourage boards to make their financial reports clear, concise and effective; while meeting the requirements of financial reporting standards.

4.3 Boards should determine the appropriate level of non-financial reporting, considering the interests of their stakeholders and material exposure to environmental, social and governance (ESG) factors. All boards should maintain an effective system of internal control for reliable financial and non-financial reporting and accounting records (FMA, 2018a, p. 16).

FMA Commentary:

High standards of reporting and disclosure are essential for proper accountability between an entity and its investors and stakeholders. Accountability is an incentive for good corporate governance.

Reporting and disclosure encompasses both financial and non-financial reporting. Although these guidelines make a distinction between financial and non-financial reporting, **we recognise the two can be interconnected**. Together, they provide a comprehensive understanding of an entity's overall performance, and related risks and opportunities [bold added] (FMA, 2018a, p. 17).

Non-financial reporting

To demonstrate long-term value creation, boards should determine the appropriate level of non-financial reporting. Entities are encouraged to disclose policies and performance relating to ESG issues.

Where appropriate, entities should report on material topics such as social and environmental issues, business ethics, and other relevant topics identified and assessed through a materiality determination process.

Non-financial reporting can also include a description of the entity's performance against its strategic goals. This should enable a meaningful understanding and analysis of strategy, and execution against the strategy.

These examples of non-financial reporting are important as they help investors and stakeholders to assess the relationship between an entity and the communities it affects. This is because ESG factors, while they can be classified as non-financial, may have a financial impact through, for example, increasing costs or threatening an entity's 'licence to operate' [bold added] (FMA, 2018a, p. 18).

Principle 6 Risk management: Directors should have a sound understanding of the key risks faced by the business, and should regularly verify there are appropriate processes to identify and manage these (FMA, 2018a, p. 21).

FMA Commentary:

Companies globally and in New Zealand are facing increasing calls to consider ESG matters in their identification and management of risk. This is, partly, driven by calls from investors for greater transparency about the types of risks they face. Greater transparency means investors can better assess risks to their capital.

We recommend entities consider ESG matters as part of their risk assessment. Entities should report on what circumstances exist or could arise to materially increase the risks to their strategy or plans, and how they currently manage or intend to manage those risks.

Entities may adopt a formal framework to report on ESG factors (as outlined in Principle 4) or use other forms of reporting.

We also encourage entities to develop and maintain a risk register to identify material risks. It should record the likelihood and impact of each risk, and highlight the steps taken to mitigate each one. This enables boards and managers to be properly informed and implement internal processes that are responsive to existing or emerging risks (FMA, 2018a, p. 22).

Principle 8: Shareholder relations and stakeholder interests:

Guidelines:

[...]

8.4 Recognise it is in shareholders' interests to take account of the interests of other stakeholders, (eg customers, employees, the public, the government, and anyone else affected by the business).

8.5 Take account of stakeholder interests by, for example:

- having clear policies for the entity's relationships with significant stakeholders, bearing in mind distinctions between public, private and Crown ownership
- regularly assess compliance with these policies to ensure conduct towards stakeholders complies with its code of ethics and the law
- check conduct towards stakeholders aligns with current accepted social, environmental, and ethical norms (FMA, 2018a, p. 26).

FMA Commentary:

Stakeholder interests in corporate governance

An entity's business activities can impact a wide range of stakeholders. This could include: employees, customers, creditors, suppliers, and the wider community. Legal obligations and relevant social, ethical, and environmental factors need to be **taken into account when considering the interests of stakeholders.**

Good corporate governance and benefits to stakeholders

Company law requires directors to act in the best interests of the company (subject to certain exceptions). Advancing the interests of other stakeholders, such as employees and customers, will often further the interests of an entity and its shareholders.

Good corporate governance practices will benefit stakeholders and shareholders. Relationships with significant stakeholders can be improved if addressed in specific policies that are disclosed and reported to stakeholders. Managing stakeholder interests should be viewed as good business and can have positive long-term impacts on society and the environment. It ensures entities maintain their **social licence** to operate [bold added] (FMA, 2018a, pp. 27, 28).

4.6.2 What is required of the corporate governance statement under the existing reporting regime?

The corporate governance report is different depending on whether the company is listed or not.

- **If listed, the NZX Principles apply,** and the audience is shareholders and prospective investors only. They are on a 'comply or explain' basis (see NZX, 2019b, Appendix 1, p. 4).
- The information horizon looks forward and backward, but whether that is short or long-term is not stipulated (NZX, 2019b, Appendix 1, p. 22).
- The Principles cover financial and non-financial information.
- **If not listed, the FMA Principles apply,** and the audience is shareholders and other stakeholders (see FMA Principle 8, FMA commentary directly above). They do not impose any legal obligations and reporting against them are voluntary, although the FMA expects directors to apply the principles (FMA, 2018a, p. 5).
- The information horizon is not clear but appears to be past-focused via annual assessment (see Principle 6) (FMA, 2018a, p. 21).
- The Principles cover financial and non-financial information.

4.6.3 What was disclosed in the corporate governance statement by each of the two companies?

Case study 1: What was disclosed in Z Energy's corporate governance statement?

Z Energy's *Corporate Governance Statement FY19* is published in a separate document (which is linked to the annual report). The separate report discusses each of the principles in the *NZX Code* (Z Energy, 2019a, p. 63).

This corporate governance statement is linked to the annual report and is also a standalone document available at Z's investor centre. This document demonstrates Z's compliance with the new *NZX*

> *Corporate Governance Code*. It is current as at 31 March 2019 and has been approved by Z's Board. Other information on the board's activity this year and plans for next year can be found in the online report.
>
> Z considers that, during the reporting period, the company materially complied with the *NZX Corporate Governance Code* [italics added] (Z Energy, 2019c, p. 1).

Z Energy notes the following in respect to 'Recommendation 4.3: Financial reporting' from the *NZX Code:*

> **Non-financial reporting**
> Z is committed to transparency at all levels of the organisation, which includes sustainability reporting against the Global Reporting Initiative (GRI) and the International Integrated Reporting Council Guidelines. Both frameworks are recognised by the Sustainable Stock Exchanges Initiative. Z also complies with the *NZX Environmental, Social and Governance Guidance Note* issued on 11 December 2017.
>
> The ARC [Audit and Risk Committee] makes sure that it and the full board are sufficiently informed about good-practice non-financial reporting and Z's operations to know whether reporting is fit for purpose. This means it represents a balanced viewpoint, is factual and complete, and is effectively implemented [italics added] (Z Energy, 2019c, p. 11).

The statement also provides other disclosures required under the s 140(2) of the Companies Act 1993.

<u>Case study 2</u>: What was disclosed in NZKS's corporate governance report?

NZKS's corporate governance statement sits at the back of the annual report (the McGuinness Institute's preference) and discusses each of the principles in the *NZX Code*. Of particular relevance are Principles 4 and 6. Principle 4 contains a reference to the two-page Sustainability Report in the annual report (NZKS, 2018a, pp. 18–19). Among other matters, Principle 6 contains a comment on the company's risk framework for the oversight and management of financial and non-financial business risks.

Principle 4 clearly sets out an obligation to disclose to stakeholders (beyond shareholders):

> The Company's Board is committed to the principle that high standards of reporting and disclosure are essential for proper accountability between the Company and its investors, employees and stakeholders (NZKS, 2018a, p. 105).

4.6.4 What is the gap between what was required for shareholders and prospective investors and what was disclosed in practice? (Comparing answers to 4.6.2 and 4.6.3)

Both companies reported against the *NZX Code*, and did so in what appeared to be a complete and timely manner.

Ideas worth considering:

18. The *NZX Code* and the *FMA Handbook* could be combined into one document to improve alignment across different entity types (this does not mean that the intent would need to change but the differences between the two are easily apparent to preparers and users of such statements).

4.6.5 What is the gap between what preparers are required to provide and what users need? (Comparing the answer to 4.6.2 with the needs of wider stakeholders)

The *FMA Handbook* is stronger than the *NZX Code* for climate-related disclosures because it has a broader scope, including a principle that considers stakeholder interests (FMA, 2018a, p. 3).

Ideas worth considering:

19. Corporate governance statements should be required to be included in the annual report so they are easy for everyone to find.
20. Corporate governance statements could be assured for NZX-listed companies.
21. Introducing *Statements of Climate Information* (like Z Energy) is the way to provide access to key climate information quickly.

22. Require emissions to be disclosed in line with the three 'scopes' of the GHG Protocol (see Section 5.1, number 10). This should be mandatory for all NZX-listed companies, large private New Zealand companies and all large overseas companies operating in New Zealand, as well as all government departments, councils and other large Crown agencies. Ideally, this information should be signed by the entity chair and assured.

23. Promote the use of scenarios as a useful tool to identify and explore risks. For example, Z Energy notes the following in its annual report:

> Forecasting future demand for fossil fuels becomes more complex when considering technology developments that may emerge over time. We use the BusinessNZ Energy Council scenarios as outlined on page 46 of this report.
>
> As a company selling around 45 percent of New Zealand's total transport fuel; or put another way, primarily through the products we sell, nine percent of New Zealand's total emissions, Z is at risk from both the transition to a low-carbon economy and the physical impacts of climate change. However, as a downstream energy company, with no exposure to upstream drilling and extraction operations, we are well-placed to manage the change to a low-carbon economy (Z Energy, 2019a, p. 40).

4.7 Observations and ideas

From a review of these four parts of an annual report through the use of two case studies (Z Energy and NZKS), we have made the following observations that in turn shape our recommendations in Section 8:

- There are two distinct types of information disclosed in annual reports, both of which relate to climate change: financial information and non-financial information.
- There are three types of time horizon that may be considered for information disclosed in annual reports:
    1. Past information looking back over consecutive years (e.g. multiple columns in the financial statements providing comparison for different years).
    2. Short-term future information looking ahead one year (e.g. financial risks in the notes to the financial statements and in the going concern component of the audit report).
    3. Long-term future information looking ahead many years (e.g. risks to the business model over the medium to long term and scenario analysis).
- Many of the issues around climate reporting are relevant to the needs of non-primary users who grant entities a social licence to operate. Such social licences impose accountabilities on entities, which arguably should include reporting obligations. Non-primary users have an interest in the strategic narrative, which also include access to a range of non-financial information and future-focused information.
- The disclosure gap between the information preparers provide and what users need will grow wider as climate change intensifies and due to the exponential rate of change more generally.
- Drawing a distinction between primary and non-primary users based on types of contract might be useful; i.e. primary users are those who have legal contracts with the entity and non-primary users are those who have social contracts with the entity.
- The *Recommendations of the TCFD* are not being widely adopted in New Zealand (see discussion in Section 5).
- The current legislation, XRB accounting and assurance standards, *FMA Handbook* and *NZX Code* (and *NZX ESG Guidance*) are inadequate for guiding climate-related disclosures due to their narrow definition of user. Of the four, the *FMA Handbook* is the most stakeholder-focused guidance document and has the broadest definition of report users. This means that the reporting of NZX-listed companies that are required to report against the *NZX Code* would be directed at a narrower group of users than if they applied the *FMA Handbook*. This may mean that if the XRB does not issue a standard for climate

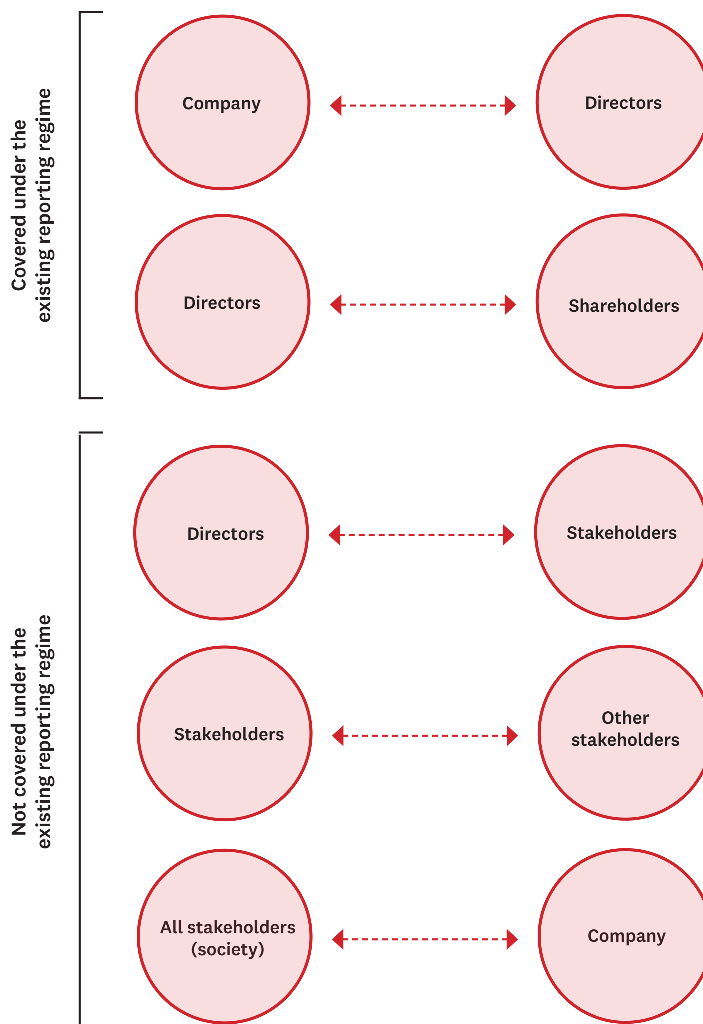
reporting, the *FMA Handbook* is the most appropriate framework for climate reporting in New Zealand (see Principles 4, 5 and 8).

- The relevant legislation is too high-level to adequately and directly address climate change risks.
- The accounting standards also do not adequately and directly discuss climate change risks.
- Climate change will increase tensions between all key stakeholders, not just the tensions that exist between directors, management and shareholders (see Figure 21).
- It is clear from this review that there is scope for preparers and assurance practitioners to interpret the existing rules and guidance for shareholders and other primary users more broadly, to work harder at providing useful and relevant non-financial information. However, while preparers and assurance practitioners work largely in isolation to grapple with each organisation, an overarching review and action is needed to deliver a new framework designed to meet the purpose of external reporting in the 21st Century.
- The annual report will continue to be the home for 'material' information. However, how that information is prepared, reported and assured is up for debate.

The next section outlines existing voluntary reporting frameworks and illustrates how preparers are seeking out climate reporting solutions. However, in order to meet the needs of non-primary users and to ensure information has a longer time horizon (future-focus), legislation and new standards will be necessary. The XRB's project to explore extended external reporting will likely be part of the solution.

Figure 21: Five tiers of tensions between key stakeholders

Source: (Adapted from Cossin & Lu, 2017)



5.0 Voluntary reporting regime

The voluntary reporting regime in New Zealand is largely the same as it is internationally. Mandatory instruments tend to be domestic, while international instruments are more often voluntary. IASB chair Hans Hoogervorst recently noted the 'plethora of sustainability standards and initiatives' in existence, and the *NZX ESG Guidance* states that there is 'no consensus on reporting standards globally' (Deloitte, 2019a; NZX, 2019a, p. 12). Looking at 71 countries in 2016, KPMG found 383 sustainability reporting instruments across 64 countries, with 65% of these instruments being mandatory (KPMG et al., 2016, p. 9). Government regulation accounted 'for the largest proportion of sustainability reporting instruments worldwide with governments in over 80 percent of the countries studied [...] introducing some form of regulatory sustainability reporting instruments' (KPMG et al., 2016, p. 9).

To help bring these frameworks together, the IIRC collaborated with other key standard setters, CDP (formerly the Carbon Disclosure Project), the Climate Disclosure Standards Board (CDSB), the Global Reporting Initiative (GRI), the International Accounting Standards Board (IASB), the International Organization for Standardization (IOS) and the Sustainability Accounting Standards Board (SASB), to establish the Corporate Reporting Dialogue (CRD). The CRD is intended is 'to promote greater coherence, consistency and comparability between corporate reporting frameworks, standards and related requirements' (CRD, 2019a). Its 2019 paper *Understanding the value of transparency and accountability* found that many of the financial and non-financial reporting frameworks share seven common principles of transparency and accountability:

1. Materiality – this regards relevant information that is (capable of) making a difference to the decisions made by users of the information.
2. Completeness – all material matters identified by the organization for the relevant topic(s) should be reported upon.
3. Accuracy (free from material error) – the information reported should be free from material error.
4. Balance (neutral) – the information does not have bias, i.e. is not presented in such a way that the probability would be increased that it will be received favourably or unfavourably by the users.
5. Clarity – the information will be understandable and accessible to the users; this includes a certain level of conciseness.
6. Comparability – including consistency information is reported on the same basis and applying the same methodologies year-on-year. Also, the information enables comparison against other organizations.
7. Reliability – in preparing the information processes and internal controls are in place that ensure the quality of the information and allow for examination of the information reported (CRD, 2019b, p. 8).

The paper also notes the commitments of the participating organisations:

> to promote application of these [seven] principles for the wider reporting landscape in any interactions or partnerships they may enter into. The Dialogue [CRD] will also consider further alignment of the principles' terminology and underlying explanations in due course, taking into account the applicable governance mechanisms and timelines for updating the individual frameworks that exist (CRD, 2019b, p. 10).

Table 6 presents the results of the CRD's analysis of the frameworks and indicates a solid basis for the participants to further build towards alignment. It is particularly interesting to note that three of five participating organisations focus on stakeholders as the primary framework users (see the first row in Table 6).

5.1 Voluntary reporting frameworks

This section focuses on research outlined in *Working Paper 2019/05 – Reviewing Voluntary Reporting Frameworks Mentioned in 2017 and 2018 Annual Reports* (see also Section 6.6 of this paper) (McGuinness Institute, 2019a). In order to understand the extent to which voluntary frameworks have been applied in New Zealand, the Institute focused on the frameworks most likely to be applicable to New Zealand entities. However, many other international frameworks exist. *The Big eBook of Sustainability Reporting Frameworks* catalogues 26 of the major mandatory and voluntary frameworks, some of which are new to the Institute and were therefore excluded (EcoAct, n.d.).

Working Paper 2019/05 categorised 2017 and 2018 annual reports from significant entities into eight data sets, which were then searched for mentions of voluntary frameworks. Section 5.2 presents detailed results of the research of one of the data sets: the 2017 and 2018 annual reports of Deloitte Top 200 entities (the Deloitte Top 200 list is published on the Deloitte website at the end of November each year). Section 5.3 provides a brief overview of the high-level observations and ideas of the remaining data sets contained in *Working Paper 2019/05*.

The research methodology was made up of three key steps:

Step 1: Find a soft copy of each entity's annual report. For example, for the Deloitte Top 200 data set, the Companies Register was searched first and if no annual report was found, the entity's website was searched. This meant, for example, that the 2017 Deloitte Top 200 list generated the annual reports whose year end was during the 2017 calendar year.

Step 2: If only financial statements (not an annual report) were found, these were included in the data set but excluded from Step 3.

Step 3: Using the 'search' tool on Adobe Acrobat Pro, annual reports were searched for any mention of selected voluntary frameworks.

The 21 different frameworks analysed are briefly described as follows:

1. **B Corp (B Corporations)**
   B Corp is a certification available to businesses that meet the highest standards of social and environmental performance, public transparency, and legal accountability to balance profit and purpose (B Lab, n.d.).

2. **CarboNZero**
   This certification assists entities with accurate measurement of greenhouse gas emissions and putting in place strategies to manage and reduce climate impacts (Enviro-Mark Solutions, n.d.). The programme then helps entities offset their remaining emissions to achieve net-zero (Enviro-Mark Solutions, n.d.).

3. **CDP (formerly Carbon Disclosure project)**
   CDP is a registered charity that runs a 'global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts' (CDP, 2019). The initiative is also intended to help investors and policy-makers by providing a data base for decision-making (CDP, 2019).

4. **CDSB (Climate Disclosure Standards Board)**
   The CDSB is made up of businesses and NGOs working to 'provide decision-useful environmental information to markets via mainstream corporate reports' (CDSB, 2019a). They do this by providing a framework for preparers that enables them to report environmental information, with the ultimate goal of 'advancing and aligning the global mainstream corporate reporting model to equate natural capital with financial capital' (CDSB, 2019a).

5. **CEMARS (Certified Emissions Measurement and Reduction Scheme)**
   This certification is linked to the CarboNZero initiative. Similarly, it aims to enable accurate measurement of greenhouse gas emissions and help put in place strategies to manage and reduce climate impacts (Enviro-Mark Solutions, n.d.).

Table 6: Review of principles underlying some voluntary reporting frameworks
Source: (Adapted from CRD, 2019b, p. 9)

GRI	IIRC	SASB	CDSB	IASB
Voluntary	**Voluntary**	**Voluntary**	**Voluntary**	**Mandatory and Voluntary**
Stakeholder inclusiveness	Stakeholder relationships	Stakeholder inclusive		
Sustainability context				
Materiality	Materiality	Materiality	Materiality & relevance	Materiality
Completeness	Completeness	Complete	[part of materiality & relevance]	Complete
Accuracy	Reliability	Fair	Free from error	Free from material error
Balance	Reliability /completeness	Neutral	Neutral	Neutral
Clarity	≈ Conciseness	≈ Useful	Clear & understandable	Understandability
Comparability	Comparability	Comparable	Comparability	Comparability
Reliability	Reliability	≈ Verifiable	Verifiable	Faithful representation
Timeliness			Timely	Timeliness
[part of comparability]	Consistency	[part of comparable]	Consistent	Consistency
	Strategic focus & future orientation		≈ Forward looking	
	Connectivity of information		Connected	

Notes: ≈ Refers to a principle that relates to the other principles in the same row without fully addressing these.

The GRI principles have been taken as the basis for comparison.

As a disclosure system, CDP does not exclusively publish principles for reporting, however CDP's questionnaires and guidance on climate change aspects align directly with the GHG Protocol which is based on relevance, completeness, transparency and accuracy.

6. **Ceres**
   Ceres is a sustainability not-for-profit that works 'with the most influential investors and companies to build leadership and drive solutions throughout the economy' (Ceres, 2018). Its work centres around the 'business case for sustainability' and mostly involves forming networks and building leadership (Ceres, 2018).

7. **CSR (Corporate Social Responsibility)**
   Corporate social responsibility is related to the idea of 'corporate citizenship' and provides a 'self-regulating business model that helps a company be socially accountable – to itself, its stakeholders, and the public' (Chen, 2019).

8. **DJSI (Dow Jones Sustainability Indices)**
   This index family 'tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria' (RobecoSAM, 2019).

9. **FTSE4GOOD (FTSE Russell Index Series)**
   This index family is 'designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices' (FTSE Russell, 2019). It mainly serves investors.

10. **GHG Protocol**
    The GHG Protocol provides standards, guidance, tools and training for a range of public and private sector entities to measure and manage climate-warming emissions by establishing 'comprehensive global standardized frameworks' (GHG Protocol, n.d.). The GHG Protocol provides full guidance and methodological detail for the calculation of Scope 1, 2 and 3 emissions (EcoAct, n.d.).

11. **GLEC framework (Global Logistics Emissions Council)**
    This framework is targeted at 'shippers, carriers and logistics service providers' as a way of developing 'harmonized calculation and reporting of the logistics GHG footprint across the multi-modal supply chain' (Smart Freight Centre, n.d.). It is aligned with the GHG Protocol and CDP reporting (Smart Freight Centre, n.d.).

12. **GRI (Global Reporting Initiative)**
    The GRI has pioneered sustainability reporting since 1997, releasing Its first set of guidelines in 2000 (GRI, n.d.[a];[b]). Its reporting standards are 'rooted in the public interest' and are intended to help 'businesses and governments worldwide understand and communicate their impact on critical sustainability issues such as climate change, human rights, governance and social well-being' (GRI, n.d.[a]).

13. **IIRC (International Integrated Reporting Council)/International <IR> Framework**
    The IIRC, which administers the International <IR> Framework, is 'a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs' that promotes 'communication about value creation as the next step in the evolution of corporate reporting' (Integrated Reporting, n.d.[a]). The *International <IR> Framework*, broadly outlines the content of an integrated report, applying 'principles and concepts that are focused on bringing greater cohesion and efficiency to the reporting process, and adopting "integrated thinking" as a way of breaking down internal silos and reducing duplication' (Integrated Reporting, n.d.[b]).

14. **ISO 14000 family – Environmental management**
    This family of standards 'provides practical tools for companies and organizations of all kinds to manage their environmental responsibilities' (ISO, n.d.). The standards are as follows:

    a. *ISO 14001 Environmental management systems - Requirements with guidance for use*

    b. *ISO 14004 Environmental management systems - General guidelines on implementation*

    c. *ISO 14006 Environmental management systems - Guidelines for incorporating ecodesign*

    d. *ISO 14015 Environmental management - Environmental assessment of sites and organizations*

    e. *ISO 14020 to 14025 Environmental labels and declarations*

    f. *ISO/NP 14030 Green bonds - Environmental performance of nominated projects and assets; discusses post-production environmental assessment*

g. *ISO 14031 Environmental management - Environmental performance evaluation - Guidelines*

h. *ISO 14040 to 14049 Environmental management - Life cycle assessment; discusses pre-production planning and environment goal setting*

i. *ISO 14050 Environmental management - Vocabulary; terms and definitions*

j. *ISO/TR 14062 Environmental management - Integrating environmental aspects into product design and development*

k. *ISO 14063 Environmental management - Environmental communication - Guidelines and examples*

l. *ISO 14064 Greenhouse gases; measuring, quantifying, and reducing greenhouse gas emissions.* ISO 14064 provides a methodology to calculate GHG emissions, including requirements for the design, development, management, reporting and verification of an organisation's GHG inventory (EcoAct, n.d.).

15. **Measuring emissions: A guide for organisations**
This guide is made up of a suite of documents intended to 'help New Zealand organisations measure and report their greenhouse gas emissions' (MfE, 2019e).

16. **NGER (National Greenhouse and Energy Reporting scheme)**
The NGER provides a single national framework in Australia for 'reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information' (Australian Government Clean Energy Regulator, 2019).

17. **PRI (Principles of Responsible Investment)**
The United Nations PRI is the world's leading proponent of responsible investment. It 'encourages investors to use responsible investment to enhance returns and better manage risks, but does not operate for its own profit; it engages with global policymakers but is not associated with any government' (PRI, n.d.).

18. **SASB (Sustainability Accounting Standards Board)**
The SASB establishes and maintains 'disclosure standards on sustainability matters that facilitate communication between companies to investors about financially material, decision-useful information' (SASB, 2018).

19. **TCFD (Recommendations of the TCFD)**
The FSB's TCFD develops 'voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders' (TCFD, 2019b). The TCFD Secretariat is based in New York in the Bloomberg offices. The CDSB and SASB have started working together to support the intent of the *Recommendations of the TCFD*. In May 2019 they issued the *TCFD Implementation Guide*. It is the first 'in a series of practical, TCFD-focused resources CDSB and SASB intend to develop and make available in the coming months and years, as climate-related tools and reporting practices continue to mature' (CDSB & SASB, 2019, p. 1). In late September they launched the *TCFD Good Practice Handbook* (TCFD, 2019c). This is intended to offer real-world examples of TCFD 'aligned disclosures in mainstream reports across many G20 countries' (CDSB, 2019b).

20. **UN SDGs (United Nations Sustainable Development Goals)**
The Sustainable Development Goals are intended to help 'achieve a better and more sustainable future for all' (UN, n.d.[b]). They address global challenges 'including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice' (UN, n.d.[b]).

21. **UNFCCC (United Nations Framework Convention on Climate Change)**
The UNFCCC is a convention adopted at the Rio Earth Summit that now has near universal membership of 197 countries (UNFCCC, 2019b). The ultimate aim of the convention is to prevent '"dangerous" human interference with the climate system' (UNFCCC, 2019b).

5.2 Results from analysis of Deloitte Top 200 annual reports

5.2.1 Public availability of Deloitte Top 200 annual reports

Figure 22 (see Section 5.3) illustrates the extent to which Deloitte Top 200 annual reports were made publicly available. For each year, a number of entities did not make their annual reports publicly available, either on their own website or on the Companies Register within the cut-off date of this research (7 June). In 2017, 118 entities made their annual reports public in comparison to 161 entities in 2018.

The cut-off date of 7 June was chosen because s 207E of the Companies Act 1993 requires selected companies to register their financial statements on the Companies Register within five months after their balance date. Because 31 December is the latest possible balance date within a calendar year, 31 May was chosen as the latest date a company could legally file its financial statements; but as there is a lag between statements being registered and made public, the date was extended to 7 June.

The Companies Office allows a company to file a single document under 'financial statements' each year. Interestingly, many companies use this mechanism to upload their annual reports (instead of just filing their financial statements). Earlier research found that 72% of 2017 NZSX-listed entities voluntarily filed their 2016 annual report with the Companies Office (McGuinness Institute, 2018b, p. 49). This research found that 80.5% of the Deloitte Top 200 want to be visible and share their story in their annual report, while 19.5% remain relatively invisible. This trend towards transparency is increasing; in 2018 80.5% (161/200) of the Deloitte Top 200 made their annual reports publicly available on the Companies Register or their website compared with 59% (118/200) in 2017.

5.2.2 Mention of voluntary reporting frameworks in Deloitte Top 200 annual reports

This research indicates that there is a diverse range of voluntary frameworks on offer for preparers to use and report against but this space is not dominated by any single framework, and preparers are not, as a general rule, adopting voluntary reporting frameworks. Although there was a broad increase in the numbers of entities mentioning a framework, these numbers are still low, particularly given the large data set (34 out of 200 in 2017 and 51 out of 200 in 2018). This analysis also suggests that mandatory reporting may be the only way to ensure that climate information is comparable for the same entity over time or between entities at the same point in time.

TCFD uptake is poor

No Deloitte Top 200 entity mentioned TCFD in their 2017 annual reports. In 2018, the number of entities acknowledging the TCFD in their reporting practices increased to five (see Table 7). Only two of these entities were listed as supporters on the TCFD website on 26 June 2019. While there has been an increase in the uptake of *Recommendations of the TCFD*, there is still a long way to go if investors and other users of annual reports want to understand climate risks, metrics, strategy and other related information.

Table 7: Mentions of 'TCFD' in the 2017 and 2018 annual reports of Deloitte Top 200 entities

Source: (McGuinness Institute, 2019a, p. 19)

Entity name	Entity type	2017 annual reports	2018 annual reports
Air New Zealand Limited	Deloitte Top 200	X	✓
Contact Energy Limited *	Deloitte Top 200	X	✓
Downer EDI Group Limited *	Deloitte Top 200	X	✓
Meridian Energy Limited	Deloitte Top 200	X	✓
Vector Limited	Deloitte Top 200	X	✓
Total (out of 200)		**0**	**5**

* These two entities are listed as supporters on the TCFD website as at 26 June 2019.

Most commonly mentioned frameworks
Of those mentioned, the most commonly applied frameworks were GRI, the ISO14000 family, UN SDGs, CSR, and the IIRC's *International* <*IR*> *Framework*. Five frameworks/instruments were not mentioned at all, these were CDSB, Ceres, GLEC framework, NGER and UNFCCC.

Number of frameworks mentioned
SkyCity Entertainment Group Limited mentioned the highest number of different frameworks in its 2018 annual report, with eight: CDP, CEMARS, CSR, DJSI, FTSE4GOOD, GRI, IIRC's International <IR> Framework and UN SDGs.

Emerging issue: Biggest change
Mentions of the IIRC's *International* <*IR*> *Framework* increased from 2017 to 2018, as did mentions of the UN SDGs. Five new frameworks/instruments were mentioned in 2018 annual reports that were not mentioned in 2017: B Corp, carboNZero, PRI, SASB and TCFD.

5.3 Observations and ideas

This section provides a brief overview of the high-level observations and ideas from the remaining data sets contained in *Working Paper 2019/05*. In addition to the Deloitte Top 200 data set (section 5.2), NZSX-listed companies, government departments, Crown agents and Crown entities, district health boards, Crown research institutes, local authorities and state-owned enterprises were also included in our research. The same methodology (outlined in section 5.1) was applied to all data sets to ensure consistency and, in doing so, generate comparable information across all sectors. Table 8 shows a brief comparison of the key findings from each data set contained within this research.

Table 8: Comparison of voluntary reporting information disclosed in the 2017 and 2018 annual reports of significant entities

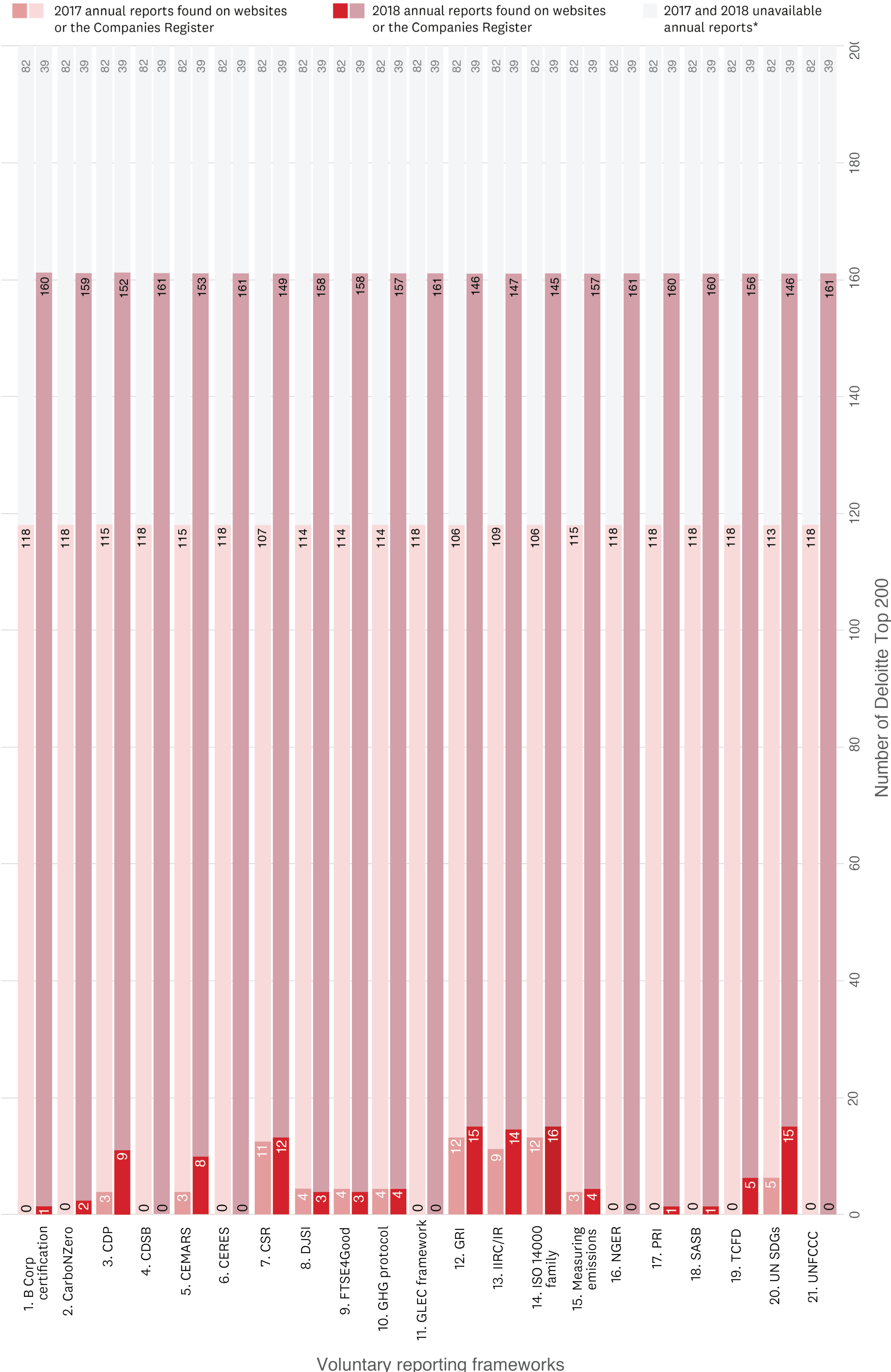
Entity type	Highest mention of framework(s)/ instrument(s)		Entity with highest number of frameworks in 2017 and/or 2018 annual report	Mentions of 'TCFD'
	2017	2018		
NZSX-listed companies (out of 126 [2017] and 123 [2018])	GRI [10], ISO14000 family [11]	CSR [13], GRI [13], IIRC [13], UN SDGs [17]	WBC Westpac Banking Corporation [8]	*7
Government departments (out of 29 [2017] and 30 [2018])	Measuring emissions [2], UN SDGs [2], UNFCCC [4]	UN SDGs [6], UNFCCC [3]	Ministry for the Environment [3]	0
Crown agents and Crown entities (out of 63 [2017] and 63 [2018])	ISO14000 family [3], PRI [3]	ISO14000 family [3], PRI [3]	Guardians of New Zealand Superannuation [6]	1
District health boards (out of 20 [2017] and 20 [2018])	CEMARS [1]	CEMARS [3]	Auckland District Health Board [1]	0
Crown research institutes (out of 7 [2017] and 7 [2018])	ISO14000 family [2]	UN SDGs [2]	Landcare Research New Zealand Limited [6]	0
State-owned enterprises (out of 13 [2017] and 12 [2018]	CSR [3], IIRC [2], ISO14000 family [2]	CSR [3], IIRC [2], ISO14000 family [2]	New Zealand Post [3]	0
Local authorities (out of 78 [2017] and 78 [2018])	CEMARS [2], ISO14000 family [2], Measuring emissions [4]	CEMARS [3], ISO14000 family [2]	Greater Wellington Regional Council [2]	0

* Five of these entities are also listed on the Deloitte Top 200

Figure 22: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of Deloitte Top 200 entities

Source: (McGuinness Institute, 2019a, p. 10)

Note: * A set of financial statements on its own does not meet the definition of an annual report (see s 211 of the Companies Act 1993).

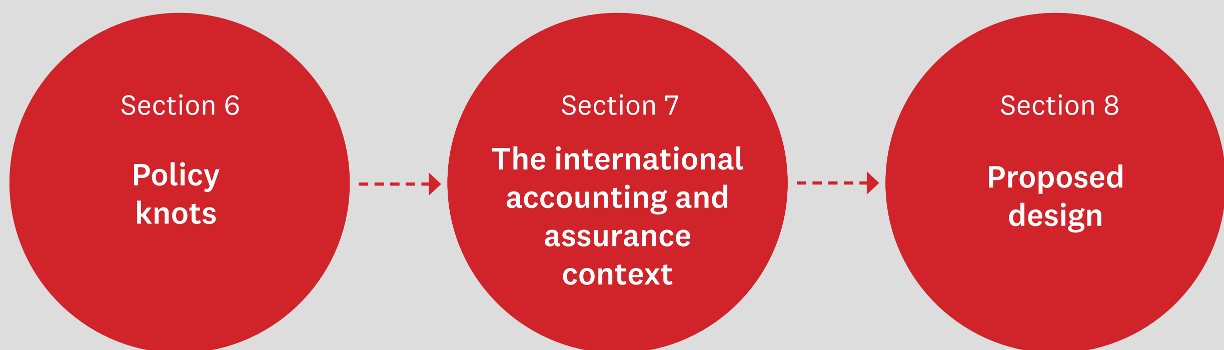


Part 3: Designing the solution

The final three sections describe the climate reporting emergency, explore policy knots and put forward some suggestions for the design of a climate reporting framework for New Zealand.

There are many ways that the reporting system could be redesigned. The diagram below shows the process the Institute has followed to arrive at our proposed design. The existing reporting system is extensive and complicated. Coupled with this, the future of the planet and the way we currently live, work and play is volatile, uncertain, complex and ambiguous (often abbreviated as VUCA). Trying to design a system in such times is not easy. To this end, the following observations and suggestions are made based on McGuinness Institute research, drawing on our knowledge of the existing system at this point in time.

Structure of Part 3



6.0 Policy knots

Given the complexity of the current New Zealand context for climate reporting and the current low levels of disclosure outlined in Section 4, this section attempts to identify the key challenges preventing New Zealand from developing a climate reporting framework that is cost-effective and timely. We refer to these challenges as policy knots. Each policy knot aims to illustrate the various tensions and trade-offs that exist and, where possible, attempts to present possible tools and mechanisms that might contribute to solving the issue.

6.1 How can we obtain the appropriate information to develop a climate strategy and monitor its progress?

New Zealand lacks a comprehensive, multi-sector integrated climate strategy

Figure 23 illustrates the current climate strategy landscape in New Zealand. As illustrated by the question mark in the centre, New Zealand does not currently have an integrated climate strategy. This lack of consistency is also evident in the McGuinness Institute research on mandatory and voluntary frameworks as discussed in Part 2 of this paper.

Figure 23: New Zealand's existing climate strategy landscape

Source: (McGuinness Institute, 2019b, p. 43)

Further, the Institute's *Project StrategyNZ* research into government department strategies found three government department strategies (GDSs) with 'climate change' in their titles that have now been archived: MfE's *Climate Change Research Strategy* (2002), MfE's *Climate Change Solutions: Whole of Government Climate Change Work Programmes* (2006) and MPI's *New Zealand's climate change solutions: Sustainable land management and climate change* (2007).

The research indicates New Zealand has a long way to go before it can design and develop an effective and responsive climate strategy. Developing a climate strategy will require a great deal of new information that we have not previously collected in the past, from a range of providers who have not previously been required to provide it. This is complicated by uncertainty over the impacts of climate change, technological solutions and human/consumer behaviour, as well as the current shortage of reliable data that has not been modified or misrepresented by those with vested interests. Furthermore, once a strategy is developed, the amount and type of information required to check whether the strategy is working and tweak it if required may be very different from the data collected to develop the strategy in the first instance.

The amount of information required to develop a robust climate strategy constitutes a significant challenge for New Zealand. It may be possible to develop a more responsive strategy through experimentation and analysis of outcomes (i.e. trial and error); however, this would require accepting failure and taking a long-term approach, which may not be politically feasible.

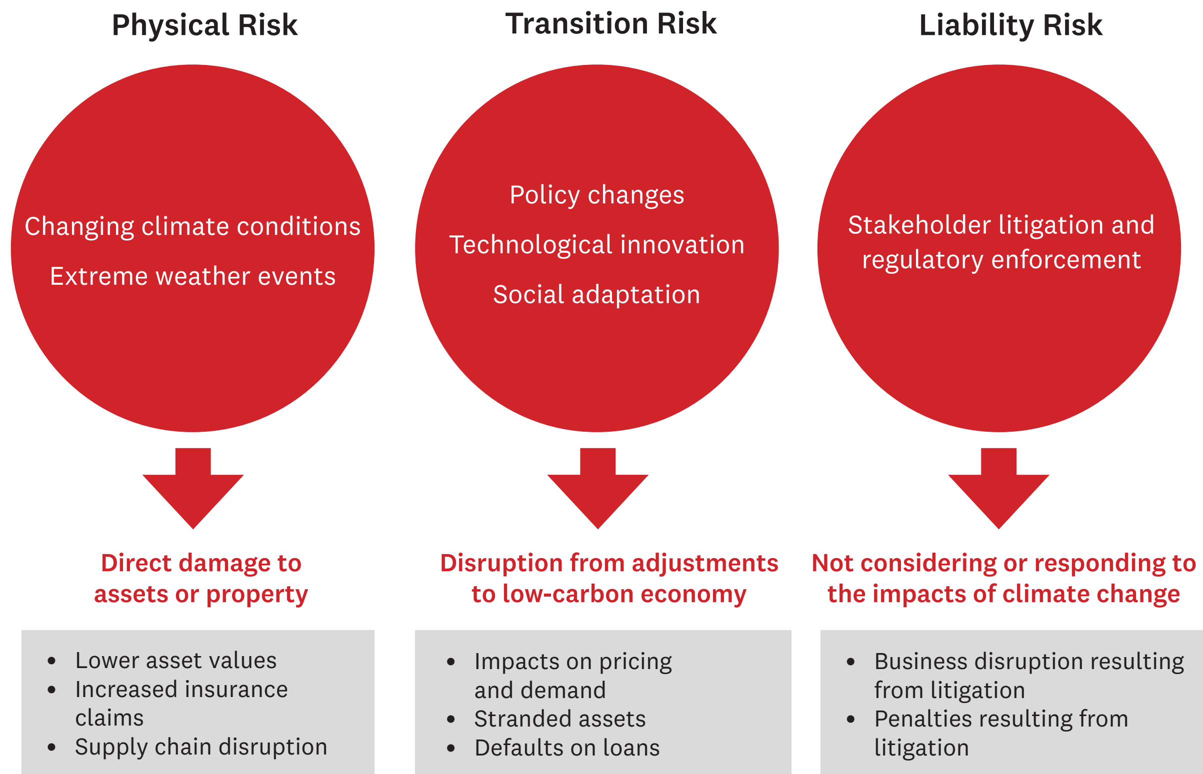
6.2 How can we break down climate risks into useful and measurable components?

Climate risk is multifaceted and new facets such as reputational risk are still emerging as differences in action become more pronounced

This policy knot arises from the difficulty in understanding climate risk in terms that are simple enough to be measured, reported and compared. As one possible framework, Governor of the Bank of England Mark Carney identified 'three broad channels through which climate change can affect financial stability' in his landmark speech in 2015, *Breaking the Tragedy of the Horizon – climate change and financial stability*: physical risks, liability risks and transition risks (Carney, 2015, pp. 5–6). The Australian Prudential Regulation Authority (APRA) also discussed these three types of risk in its recent report *Climate change: Awareness to action*, as illustrated in Figure 24 overleaf. The report emphasised that 'climate change is increasingly seen as a material prudential risk' and as such requires a shift from awareness to action (APRA, 2019, p. 4).

Further to these three risk types, reputational risks are also entering discussion, particularly in terms of possible removal of social licences to operate. For example, a UK Labour MP suggested that companies may be forced off the London Stock Exchange (LSE) if they do not share their plans to tackle climate change (Elliott and Partington, 2019).

Figure 24: Three types of climate change risk
Source: (APRA, 2019, p. 5)



6.3 How can we fund the transition to a low-emissions economy and ensure the polluter pays (e.g. revisiting carbon tax)?

The NZ ETS has not had a measurable positive effect given that New Zealand's emissions have increased since its implementation.

Building on concerns about the efficacy of the NZ ETS, raised in Section 3.2.2, many business leaders, including Chief Executive of New Zealand Post David Walsh, consider the existing emissions trading scheme's reliance on offsetting to be a 'soft answer' (Stock, 2019). As impacts are felt and concerns grow, the likelihood of a carbon tax and mandatory reporting increases. For example, Singapore introduced a carbon tax of S$5 per tonne of GHG emissions (t CO_2-e) from 1 January 2019, with the price set to be reviewed by 2023 (NEA, 2019). The tax is administered under the Carbon Pricing Act 2018 and accompanying Carbon Pricing (Measurement, Reporting and Verification) Regulations 2018.

Economist Tim Harford revisited the idea of a carbon tax for the UK in the *Financial Times*:

> A broad-based tax on carbon dioxide and other greenhouse gases [...] could motivate action on a scale that is both grander and more precise [than a Green New Deal]. Every part of the economy and each decision we make would be shaped by such a tax. A carbon tax would pull billions of different levers in an economy that is both complex and saturated in fossil fuels (Harford, 2019).

Below are four principles that may help shape the dialogue:

1. Incentivise positive impact to increase flows of green finance and employment
2. Disincentivise negative impact by making those impacts public, charging taxes and penalties and supporting transitions to more sustainable businesses and investments.
3. Inform consumers and investors of the real cost of their choices so they are able to make informed decisions and contribute to the transition.
4. Generate enough public money so that the New Zealand Government can help individuals or industries negatively impacted by the transition to move to more sustainable investment.

A carbon tax is one tool that would progress all four goals. Whatever tool or package the New Zealand Government decides to progress, we would argue that it should not only meet all four goals, but that a reporting framework should require reporting against the goals.

6.4 How can we move beyond the 'primary user' and redefine the 'user' to include broader stakeholders?

Shareholders are no longer the only parties that need to be informed about risk.

Climate change is a clear example of the difficulties of balancing private and public interests. The audience for climate reporting is necessarily much broader than the audience for traditional entity annual reporting. This is perhaps best put by the following quote from a paper titled *Should FASB and IASB be responsible for setting standards for nonfinancial information*? prepared for a debate at Harvard:

> Information that is useful to investors can also be useful, for a different purpose, for a different set of stakeholders. An obvious example is corporate reporting with respect to climate change, where information on carbon emissions might be directly relevant to investors, for the purpose of evaluating the economic sustainability of the reporting entity's business model, yet also relevant, for different purposes, for stakeholders such as government and environmental NGOs (Barker & Eccles, 2018, p. 5).

Furthermore, one of the principles agreed on by Cabinet to guide the transition to a low-emissions economy was to make 'decisions underpinned by strong data and evidence', positioning the public sector as a key part of the audience for climate reporting (Shaw, 2017, p. 5).

There is an emerging trend towards mandatory reporting on social and environmental impacts and a shift away from 'shareholder primacy' to reporting for the broader needs of stakeholders (Chapman Tripp, 2019, p. 2). This was recognised by Rob Everett, Chief Executive of the FMA, in his March 2019 presentation at the NZ Capital Markets Forum:

> One flaw in the principle of shareholder primacy is that the shareholder is often no longer the person or entity at the biggest risk from the conduct of the company. Reductions in profit or even bankruptcy at any particular company are not existential threats to global fund managers or other institutional investors running huge, diversified portfolios. Employees have much more at risk (Everett, 2019).

Interestingly, recognition of employee interests is embedded in s 172 of the Companies Act 2006 (UK), which outlines directors' duty to 'promote the success of the company for the benefit of its members as a whole'. The section goes on to outline some of the specific factors that directors must have regard to:

> (a) the likely consequences of any decision in the long term,
>
> (b) the interests of the company's employees,
>
> (c) the need to foster the company's business relationships with suppliers, customers and others,
>
> (d) the impact of the company's operations on the community and the environment,
>
> (e) the desirability of the company maintaining a reputation for high standards of business conduct, and
>
> (f) the need to act fairly as between members of the company.

The UK presents another example of good practice with a new requirement from 1 January 2019: 'directors of all large companies [in the UK] will have to prepare narrative disclosures [in their strategic reports] that explain how they have taken wider stakeholders' needs into account', such as the company's impact on the community and the environment (BDO UK, 2018). Table 9 illustrates how existing legislation tends to focus on shareholders and does not legally require organisations to consider broader stakeholders.

Even in the reporting landscape more broadly, the line between shareholder and stakeholder interests in information is blurring. The number of shareholder activism proposals filed doubled between 1999 and 2013 (Grewal, Serafeim & Yoon, 2016). Stakeholders are 'pressuring companies to play a more prominent role in addressing critical challenges such as [...] climate change' (BCG, 2017, p. 10).

Table 9: Mentions of shareholder and stakeholder in legislation

Source: McGuinness Institute searches of selected legislation as at 22 June 2019.

Legislation	Mentions of 'shareholder'	Mentions of 'stakeholder'
Charities Act 2005	0	0
Climate Change Response Act 2002	1	0
Companies Act 1993	853	0
Crown Entities Act 2004	46	0
Environmental Protection Authority Act 2011	0	0
Environmental Reporting Act 2015	0	0
Financial Markets Conduct Act 2013	18	0
Financial Reporting Act 2013	2	0
Fire and Emergency Act 2017	0	3
Forestry Rights Registration Act 1983	0	0
Forests Act 1949	0	0
Incorporated Societies Act 1908	0	0
Local Government Act 2002	31	0
Maori Fisheries Act 2004	17	0
New Zealand Business Number Act 2016	0	0
NgāiTakoto Claims Settlement Act 2015	0	0
Personal Property Securities Act 1999	0	0
Public Finance Act 1989	19	0
Public Records Act 2005	0	0
Resource Management Act 1991	1	0
State Sector Act 1988	0	0
Te Aupouri Claims Settlement Act 2015	1	0
Te Rarawa Claims Settlement Act 2015	0	0
Tūhoe Claims Settlement Act 2014	2	0
Total	**988**	**3**

These actions are tied to recognition of the fact that performance in environmental areas affects financial returns in the long term, as well as to the development of reporting standards that recognise ESG matters as 'financially material by industry' (BCG, 2017, p. 10). For example, in August 2017, two shareholders of the Australian Commonwealth Bank took the bank to court, claiming it 'failed to properly disclose investment risks associated with the environmental problem' (BBC, 2017). The case is considered to be the first attempt globally to encourage financial institutions to keep shareholders informed about how exposed the company is to climate-related risks. The lawsuit arose when Geoffrey Summerhayes, from APRA, stated it was 'unsafe for companies to ignore the risks of climate change just because there is some uncertainty, or "even some controversy", about the policy outlook' (Hutchens, 2017). APRA is encouraging companies to 'start incorporating sophisticated "scenario-based" analysis of climate risks into their business outlooks' (Hutchens, 2017).

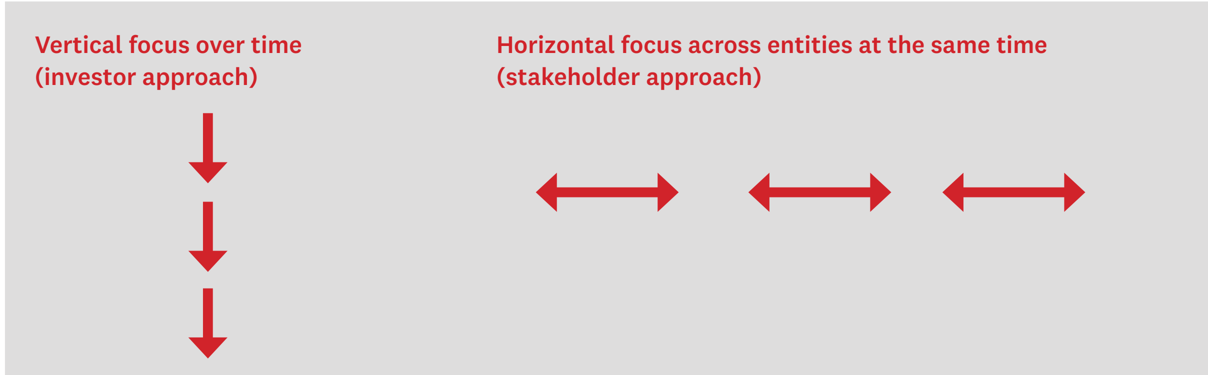
Similarly, BlackRock, the world's largest asset manager (with $5.1 trillion in Assets Under Management), indicated in a 2016 report that they believe climate factors have been 'under appreciated and underpriced' (BlackRock Investment Institute, 2016, p. 3). Early in 2017 BlackRock and major financial advisory firm Vanguard, which together own 13% of ExxonMobil's stock, voted for the oil company to make more comprehensive climate change disclosures. In total, holders of 62.3% of ExxonMobil shares voted to instruct the company to report on the impact of climate change measures designed to keep global temperature increases within 2°C (Mufson, 2017).

The fact that climate reporting has proven to be financially beneficial for businesses that take disclosures seriously indicates that there may be a balance that is beneficial for both public and private interests. For example, 'a review of over 200 sources on ESG performance [...] showed that in the overwhelming majority (88%) of companies that focused on sustainability, operational performance was improved, translating to higher cash flows' (Carney, 2019, p. 10). The significance of this is highlighted by Hans Hoogervorst, chair of the IASB, who considers climate change to be an example of market failure. Speaking at the Climate-Related Financial Reporting Conference at Cambridge University, he explained that we 'should not expect sustainability reporting to be very effective in inducing companies to prioritise planet over profit' (IFRS, 2019a). He closed by stating the following:

> I strongly believe that the most promising strand of sustainability reporting comprises those standards that focus on the investor and on the impact of sustainability issues on the future returns of the company. This is the type of sustainability reporting which will fit well with our *Management Commentary Practice Statement*, rather than the reporting that focuses primarily on a company's contribution to the public good [italics added] (IFRS, 2019a).

Figure 15 (see Section 4.1) introduced a range of characteristics that can be applied to design a reporting framework. In addition to audience types, climate reporting is likely to be shaped by the types of comparability required. Traditional external reporting is predominantly concerned with providing comparability for the same entity over time, with what we refer to as a vertical focus. This is what shareholders want to understand. While potential investors often compare different entities, climate reporting is likely to introduce a new group of stakeholders interested in comparing different entities over the same period, with what we refer to as a horizontal focus (see Figure 25). Examples of such stakeholders include suppliers, customers and government.

Figure 25: Comparing information over time and across entities



It is also worth noting that reporting on efforts to reduce emissions is necessarily different from reporting about climate change adaptation. The former is more relevant for heavy emitters, while the latter may be more relevant for public sector organisations such as regional and district councils. Furthermore, as the effects of climate change continue to progress and worsen, climate change adaptation (as opposed to climate change mitigation) becomes even more important. This difference is highlighted by the ETS, which is focused entirely on emissions. As 'a principal element of New Zealand's policy response to climate change', this leaves significant gaps in terms of the information necessary for a collaborative push to reach our international commitments (Leining & Kerr, 2018, p. 1).

6.5 How can we ensure that reports are accessible, comparable, accurate and meaningful?

Caution is needed when considering embedding international frameworks in New Zealand legislation.

There are a number of international frameworks for climate reporting that have been developed, many with specific purpose, focus and application. Many also have their own limitations. It is important that no one framework is embedded into New Zealand legislation without ensuring that it is fit for purpose in New Zealand. For the purposes of this section we focus on the *Recommendations of the TCFD*. This is because the TCFD recommendations have garnered a strong international following, including calls for both the New Zealand and Canadian governments to endorse or implement them (CCATWG, 2018, p. 35; Sarra & Williams, 2019, p. 1).

The *Recommendations of the TCFD* offers an approach to risk reporting, which includes calculating the costs of risks posed by climate change, acknowledging this issue to be 'one of the most significant, and perhaps most misunderstood, risks that organizations face today' (TCFD, 2017, p. ii). The *Recommendations of the TCFD* suggests that information on climate change risks be disclosed in mainstream financial filings:

> Disclosure in Mainstream Financial Filings
>
> [...] Importantly, organizations should make financial disclosures in accordance with their national disclosure requirements. If certain elements of the recommendations are incompatible with national disclosure requirements for financial filings, the Task Force encourages organizations to disclose those elements in other official company reports that are issued at least annually, widely distributed and available to investors and others, and subject to internal governance processes that are the same or substantially similar to those used for financial reporting (TCFD, 2017, p. iv).

In the financial sector, which the *Recommendations of the TCFD* were designed to serve 'three-quarters of the world's globally systemic banks, 8 of the top 10 global asset managers, the world's leading pension funds and insurers, major credit rating agencies and the Big Four accounting firms', for a total of almost US$110 trillion in assets, and 'over 600 organisations, with a total market capitalisation of US$9 trillion, have endorsed the TCFD recommendations since 2017' (Carney, 2019, pp. 2–3). Additionally, 'companies representing over 90% of all shareholder advisory services now support the TCFD' (Carney, 2019, p. 3).

However, a June 2019 status report from the TCFD reviewing the general uptake of the recommendations builds a less promising picture of climate-related financial disclosures. The key findings from the review are:

- Disclosure of climate-related financial information has increased since 2016, but is still insufficient for investors [...]
- More clarity is needed on the potential financial impact of climate-related issues on companies [...]
- Of companies using scenarios, the majority do not disclose information on the resilience of their strategies. [...]
- Mainstreaming climate-related issues requires the involvement of multiple functions. [...]

> The Task Force believes its climate-related financial disclosures review and survey results highlight the need for continued efforts to support implementation of the recommendations, especially in terms of companies using scenario analysis to assess the resilience of their strategies under a range of plausible future climate states (TCFD, 2019a, pp. iv–v).

Given its level of international support, it must be acknowledged that the *Recommendations of the TCFD* fill a void left by international accounting institutions.

In the McGuinness Institute's view, the *Recommendations of the TCFD* are only one aspect of the solution for the climate reporting emergency and therefore should not be embedded in legislation. While the TCFD's overarching framework of principles is useful, it would not be appropriate for its recommendations to be made mandatory across all entity types, given its focus on the financial sector. This means the recommendations may be of limited use in providing consistency and comparability across all types of entities. The *Recommendations of the TCFD* would deliver the disclosures necessary for its intended audience,

but may not serve broader stakeholders in civil society (see further discussion in Figure 28 in Section 7.6). Our concerns about the *Recommendations of the TCFD* arise firstly because of the urgency and importance of climate reporting, and secondly because adoption of the *Recommendations of the* TCFD is being advocated far outside its original, specific purpose. The purpose gap in the design of the TCFD framework is illustrated in Table 10 below.

Table 10: Purpose of the Recommendations of the TCFD
Source: (TCFD, 2017, p. iii)

Characteristics of the TCFD recommendations	Scope of the TCFD recommendations	Outside the scope of the TCFD recommendations
Disclosure type	'climate-related financial disclosures'	Climate-related environmental and social disclosures
Audience	'investors, lenders, and insurance underwriters'	The needs of other stakeholders such as employees, policy-makers and suppliers.
Purpose	'assess and price climate-related risks and opportunities'	The wider risks to the community, the country or the world.
Requirement	'voluntary'	Other forms of compliance such as opt-out, opt-in, comply or explain, or mandatory.

An EY report looking at climate-related disclosures based on TCFD metrics found that company engagement with climate change risks and opportunities does not match up to the 'major disruption from climate transition' likely faced by 'all sectors of the economy' (Nelson, 2018, p. 7). Looking at 500 companies across 11 sectors in 18 countries, the report found that the number of companies making TCFD disclosures and the quality of these disclosures changed drastically between countries and between industries, and ultimately found no strong correlation between quality of reporting and development of a country's economy (Nelson, 2018, pp. 5, 9). Companies with the 'most significant exposure to transition risk [...] namely mining, manufacturing, transport and energy, generally scored higher' in terms of quality and coverage of disclosure, while telecommunications companies were also found to score highly, possibly due to this industry, 'more than any other, embracing the opportunities associated with economy-wide low-carbon transformation' as well exposure of the sector's physical networks to climate risk (Nelson, 2018, p. 7). The rising trend of actions, lawsuits and shareholder resolutions against carbon-heavy emitters, along with the more general increase in investor attention being paid to climate change impacts, means that disclosure quality is likely to affect company valuations (Nelson, 2018, p. 7).

One of the strengths of the TCFD framework is that scenario work is provided as a safe harbour for directors to engage with the future without exposing themselves to the potential liability of forecasting or projections. Furthermore, the framework does provide the tools directors need to apply all three of the Institute's policy concepts – foresight, strategy and reporting – using the appropriate iterative relationship between them.

It is for this reason that the McGuinness Institute's proposed *Statement of Climate Information* builds on the four core elements of the TCFD disclosures, as outlined in Table 11 below.

Table 11: Comparing elements of the TCFD to elements of the proposed Statement of Climate Information
Source: (Adapted from TCFD, 2017, p. v)

TCFD core elements	Steps of problem solving to be disclosed in a Statement of Climate Information
Governance	Step 1: Risk identification
Strategy	Step 1: Risk identification
Risk Management	Step 3: Risk management
Metrics and Targets	Step 2: Risk measurement

We have reordered the core elements slightly to replicate the steps of problem solving that we identified during our research on *Working Paper 2018/03 – Analysis of Climate Change Reporting in the Public and Private Sectors* (McGuinness Institute, 2018c, p. 4).

6.6 How can we direct preparers and users to apply the best voluntary reporting frameworks for them?

Report preparers are overwhelmed by the guidance available.

Internationally, there has been increased interest in reporting on long-term risks and impacts to a company. This increased interest corresponds with an increase in the number of reporting initiatives, frameworks and guidance systems, which presents a problem for preparers, who are becoming overwhelmed. However, perhaps due to the pace of change and the level of complexity, there are not many initiatives that focus directly on climate reporting. A recent study found only 12 articles (0.06%) of the 20,725 articles published in 21 leading finance journals between January 1998 and June 2015 related in some way to climate finance (Diaz-Rainey et al., 2017). Since 2015, climate finance has certainly become a more prevalent subject of reporting guidance, but many such initiatives are too recent to evaluate their usefulness, relevance and longevity. Furthermore, the sheer abundance of reporting instruments (of significantly variable quality) impedes the development of consistent and comparable information in New Zealand's climate reporting landscape.

Chapman Tripp's 2019 report on trends and insights in New Zealand found '47 [NZX] issuers had a section in the annual report devoted to Environmental, Social and Governance Disclosure, or reported on it separately' (Chapman Tripp, 2019, p. 18). This suggests that the remainder did not report on ESG at all. Although the *NZX ESG Guidance* is voluntary, the *NZX Code* is mandatory for listed companies to apply and the aim of the *NZX Code*, as quoted in the *NZX ESG Guidance*, 'is to promote issuer disclosure of environmental, social and governance factors' (NZX, 2019a, p. 3). The *NZX ESG Guidance* note goes on to quote directly from the *NZX Code* about the qualities of effective financial reporting:

> Financial reporting should be balanced, clear and objective. An issuer should provide non-financial disclosure at least annually, including considering environmental, economic and social sustainability factors and practices. It should explain how operational or non-financial targets are measured. Non-financial targets should be informative and include forward looking assessment and align with key strategies and metrics monitored by the Board (NZX, 2019a, p. 3).

The UK's 2006 regulations requiring large and medium-sized companies to prepare strategic reports provides one example of mandatory reporting on environmental information, such as the impact of a company's business on the environment. It is difficult to determine whether or not the introduction of this requirement has significantly improved the quality of reporting in the UK. As with most reporting requirements, instruments and guidance, it appears to have been applied with varying degrees of transparency and cohesion. In its *2017/2018 Annual Review of Corporate Governance and Reporting*, the FRC noted that the strategic report was the third most commonly raised query with companies following a review, a ranking that was largely unchanged over the previous three years (FRC, 2018a, p. 13). The FRC went on to note that 'strategic reports lacking comprehensive information remains an issue', even more than ten years after the introduction of the requirement (FRC, 2018a, p. 19). Also, as with most reporting requirements, guidance surrounding the strategic report is continually revised and updated. Although 'the primary audience of the strategic report, as set out in legislation, remains the shareholders', the most recent revised guidance 'places greater emphasis on how a company generates and preserves value over the longer term and encourages companies to consider the sources of value that are not recognised on the balance sheet' (FRC, 2018a, pp. 26–27).

The issue of over-saturation of guidance can also be linked to a trend of increasing length of annual reports. Research indicating that 'the average page-length of printed reports has soared 45% in just two years – with no associated increase in overall report quality' has also acknowledged the pressure on companies to 'make their reports ever more complex', citing the expanded indicators section of guidelines such as GRI (Elkington & Kuszewski, 2002, p. 2; 2004, p. 34). Research published in *Working Paper 2018/01* found that the average length of the 2016 annual reports of NZSX-listed companies was 76 pages (McGuinness Institute, 2018b, p. 38).

6.7 How can we ensure consistent application of key terms such as 'materiality'?

Climate change brings together experts from many different professions, which results in inconsistent usage of terms such as materiality, scenario, reporting, strategy and ESG.

Varied expertise leads to varied definitions and applications of terminology in different contexts, resulting in inconsistency. This means caution is needed when considering embedding such terminology in legislation. Examples of key terms are discussed in further detail below.

6.7.1 Materiality

One of the most complex issues arising in relation to climate reporting is the conceptual challenge posed by materiality (Elkington & Kuszewski, 2004, p. 34). Two aspects of materiality make it a particularly challenging concept to apply to climate reporting. The first is its definition.

United Nations Environment Programme (UNEP) defines a material issue in relation to financial accounting as something that 'has the potential to affect your perception of the company and any decisions you might take as a result', yet they also acknowledge the 'nebulous' nature of the term (Elkington & Kuszewski, 2004, p. 34). However, the UNEP interpretation is a lot broader than the IASB definition.

The IASB revisited its definition of materiality in October 2018 (IFRS, 2018a), making it harder to apply the concept to capture climate information. For example, 'users' are now called 'primary users'. Compare the old and new definitions below:

> **Old definition:** Omissions or misstatements of items are material if they could, individually or collectively, influence the economic decisions that users make on the basis of the financial statements (*IAS 1 Presentation of Financial Statements*).
>
> **New definition:** Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the 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 (IFRS, 2018a).

Outside of financial accounting, materiality may refer more broadly to significance. A recent development in the definition of materiality has been led by the EU with its conception of a 'double materiality perspective' (see Figure 28 in Section 7.6). This considerably broadens the concept of materiality to include 'financial materiality' and 'environmental and social materiality'. How materiality is defined and applied is critically important to not just climate reporting, but how directors, in their chair's report, reports to shareholders. For example, in New Zealand under s 211 of the Companies Act 1993, the content of the annual report requires the board to consider what is (or is not) material with shareholders in mind when preparing their annual report:

> Section 211 – Contents of annual report
>
> (1) Every annual report for a company must be in writing and be dated and, subject to subsection (3), must—
>
> (a) describe, so far as the board believes is **material** for the shareholders to have an appreciation of the state of the company's affairs and will not be harmful to the business of the company or of any of its subsidiaries, any change during the accounting period in—
>
> (i) the nature of the business of the company or any of its subsidiaries; or
>
> (ii) the classes of business in which the company has an interest, whether as a shareholder of another company or otherwise; and [...] [bold added]

The second challenging aspect of materiality is its application, because of its close links to judgement and probability. In the accounting profession, judgement is centre stage for a risk-based approach, which is the most appropriate approach for dealing with uncertain matters such as climate change. However, where there

are high levels of uncertainty (as in the case of climate change, for which most risks are high magnitude/low probability), preparers may use judgement to deem the probability too low to disclose the risk. This has significant implications, particularly if the information deemed immaterial was of key interest to shareholders and stakeholders, because 'one of the most important decisions that auditors make is with regard to determining what a material misstatement is for a particular client' (Van Peursem & Pratt, 2017, p. 151). As noted by Deloitte, preparation of an annual report requires a focus on and understanding of the users of financial information in order to make a judgement about what information is material to them (Deloitte, 2017, p. 9). Climate-related materiality requires the same judgement. Deloitte go on to caution against prematurely concluding 'that climate-related risks and opportunities are not material based on perceptions of [their] longer-term nature' (Deloitte, 2017, p. 9).

Further, the voluntary *IFRS Practice Statement 2: Making Materiality Judgements* notes the following:

> The objective of general purpose financial statements is to provide financial information about a reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. The entity identifies the information necessary to meet that objective by making appropriate materiality judgements (IASB, 2017a, p. 5).

This treatment of materiality in relation to climate change risks is also evident in the *Recommendations of the TCFD*, which have garnered significant international attention. The solution TCFD proposes is that climate-related risks that cannot be deemed material (and are therefore considered not appropriate for inclusion in the notes to the financial statements) should be disclosed outside financial filings so that they can then be incorporated into the financial filings once they become material (TCFD, 2017, p. 34).

This is in contrast to the Institute's underlying assumption of this paper that all material information should be disclosed in the annual report and that the annual reports of significant organisations (however they are defined) should be filed on a public register. This further emphasises why the term materiality is so important for preparers and users to understand and apply in regard to climate information.

The *TCFD Good Practice Handbook* recommends clearly addressing the materiality of climate-related impacts. They note that disclosures often did not directly explain the process by which companies assessed and determined the materiality of risk to their business (TCFD, 2019c, p. 44).

6.7.2 Scenario

The term scenario can be used from a climate science perspective to refer to climate models that have applied scientific data. It can also be used from a futures studies perspective to refer to descriptions of future worlds that aid in exploring possible climate change impacts. Further complications can arise with the use of this terminology because of the differences between 'forecasting' and exploring 'possible futures', which have relevance in terms of director liability and safe harbour provisions.

The *TCFD Good Practice Handbook* recognises that resilience of organisational strategy, when viewed through different future climate states, is important. Scenario analysis can be helpful to inform this assessment but should not be the end focus for disclosures (TCFD, 2019c, p. 44).

6.7.3 Strategy

This term can be defined very broadly or very specifically, depending on context. For example, the *Recommendations of the TCFD* could use the term 'strategic implications' (rather than 'strategy') as it is exploring possible futures through the use of scenarios and then using these insights to 'disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material' (CDSB, n.d.).

6.7.4 ESG

ESG first emerged as a concept from a study from the UN Global Compact titled *Who Cares Wins: Connecting Financial Markets to a Changing World*, which 'made the case that embedding environmental, social and governance factors in capital markets made good business sense and leads to more sustainable markets and better outcomes for societies' (UN Global Compact, 2004; Kell, 2018). In 2005 another report produced by the United Nations Environment Programme – Finance Initiative (UNEP FI), indicated that ESG issues are also relevant for financial valuation (UNEP FI, 2005). Together, the 'two reports formed the backbone of the launch of the Principles for Investment (PRI) at the New York Stock Exchange in 2006' (Kell, 2018).

In practice, ESG reporting typically refers to how corporations 'respond to climate change, treat their workers, build trust and foster innovation and manage their supply chains' (Npower, 2019). Initial traction for incorporating ESG issues into corporate governance was slow, with investors arguing that it was directors' fiduciary duty to place shareholder value at the core of decisions rather than the externalities of ESG issues. However, the growth of ESG accelerated in 2013 and 2014 when new studies revealed that 'good corporate sustainability performance is associated with good financial results (Kell, 2018). Since then, '80% of the world's largest corporations use GRI standards' and the concept of green investment now accounts for a substantial amount of investments made globally (Kell, 2018). The 2017 *Recommendations of the TCFD* initiated a further push towards considering the materiality of ESG issues with its encouragement for companies to view climate change as a material risk that should be included in the financial statements (TCFD, 2017). This development has been made in the context of the emergence of a wide variety of frameworks dealing with ESG over recent years, with the concept continuing to drive the dialogue about non-financial information.

In a recent Oxford paper *Should FASB and IASB Be Responsible for Setting Standards for Nonfinancial Information?*, under the subheading 'Inadequate ESG information', authors Richard Barker and Robert G. Eccles write that:

> Financial statements – by design – report on the past: they concern transactions and events that have happened, not those which have yet to happen. This is fine, for the purpose of investment analysis, if past performance is a good predictor of the future. If it is not, however, and there is instead the disruptive effect of events such as climate change, then there is a need to supplement financial information with whatever information we have that will enhance investors' confidence in their anticipation of the future (Barker & Eccles, 2018, p. 11).

Arguments about ESG are now turning towards transparency and trust between issuers and their investors. In January of this year the International Organization of Securities Commissions (IOSCO) released a *Statement on Disclosure of ESG Matters by Issuers*, which reiterates IOSCO Principle 16 that 'issuers should provide "full, accurate and timely disclosure of financial results, risk and other information which is material to investors' decisions"'(IOSCO, 2019, p. 1). The *Statement* goes on to argue that ESG matters should be considered material as they may have 'short-term and long-term impact[s] on the business operations of the issuers as well as on risks and returns for investors and their investment and voting decisions' (IOSCO, 2019, p. 1). This argument implies that it may be the fiduciary duty of issuers to disclose ESG information and that withholding ESG matters may lead to misinforming investors, with implications for their investment decisions.

6.8 How can we ensure companies feel safe in making transparent disclosures (e.g. safe harbour provisions)?

The question of including some kind of 'regulatory safe harbour' for directors was raised in relation to Canadian legislation in *Time to Act* (Sarra & Williams, 2019, p. 98). Safe harbours are considered in addition to the protections already afforded to directors in relation to their fiduciary duties. The argument for the inclusion of safe harbour protections is made predominantly in relation to the inevitable period of development and trial involved in implementing reporting requirements specific to forward-looking climate-related financial disclosures. This trial period will be required for the development of both standards and metrics and the inclusion of safe harbour provisions is seen by some as a way of indicating this to users. In other words, it would indicate that this type of information is evolving and 'the disclosure may change as understanding of risks, opportunities and how to measure them improve' (Sarra & Williams, 2019, p. 101). The proposed safe harbour provision, as well as providing a disclaimer for users of the information, also focuses on the issuer's options in terms of determining whether or not the disclosure is material. In this way, it seems not substantially different from existing provisions in international accounting standards for issuers to only disclose material information in their financial reporting.

Counterpoints against safe harbour provisions include that disclosure of climate-related risk is actually likely to afford directors greater protection against liability and litigation. The Commonwealth Climate and Law Initiative found that 'the liability risk associated with compliance with the TCFD recommendations has been overstated' (Staker, Garton & Barker, 2017, p. 17). These arguments suggest that climate-related disclosures are already covered under directors' existing fiduciary duty and regulatory requirements to report their assessments and managements of risk. This raises concerns for the Institute that further safe harbour provisions could result in less information disclosed rather than more, by affording directors further

protection on top of their existing protection for instances where they 'accurately represent a robust, good-faith process of assessment' for forward-looking statements (Staker, Garton & Barker, 2017, p. 17). Safe harbour provisions for directors who share future-focus insights will need to be treated carefully to ensure they do not enable directors (and therefore climate information) to hide behind the law.

6.9 How can we ensure emissions are reported in a consistent, comparable and verifiable manner?

Reporting on emissions forms part of obligations under the *Paris Agreement* to help navigate the transition to a sustainable, low-carbon economy, as well as aligning with the recommendations of the TCFD. As noted in the *Paris Agreement,* 'all Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances' (UNFCCC, 2015, p. 6). There are a number of questions to be resolved within the area of emissions reporting: who should report, where this information should be disclosed, what methodologies should be used, what scopes should be reported (1–3), and whether emission disclosures should be assured. The Institute will explore these questions more comprehensively in the upcoming *Working Paper 2019/07 – A Review of the Accounting and Assurance of GHG*. This policy knot deals particularly with three sub-points discussed below: whether disclosure of scope 3 emissions should be required, where emission disclosures should be published, and whether emission disclosures should be assured and by whom.

6.9.1 Disclosure of scope 1, 2 and 3 emissions

In New Zealand, the accounting and reporting of emissions is managed and shaped by MfE. The Ministry's voluntary guidance supports entities to adopt either the GHG Protocol or ISO 14064-1:2018, while specific mandatory reporting requirements have their own methodologies outlined in the climate change regulations that support the Climate Change Response Act 2002 (MfE, 2019e, p. 6). ISO 14064-1:2018 classifies emissions into either direct or indirect sources. A comparison of these two methodologies can be found in *Measuring emissions: A guide for organisations – 2019 Quick Guide* (MfE, 2019e, p. 12).

The *GHG Protocol* classifies emissions into three scopes:

- Scope 1: Direct emissions from sources owned or controlled by the organisation (i.e. within the organisational boundary). For example, emissions from combustion of fuel in vehicles owned or controlled by the organisation.
- Scope 2: Indirect GHG emissions from the generation of purchased energy (in the form of electricity, heat or steam) that the organisation uses.
- Scope 3: Other indirect GHG emissions occurring because of the activities of the organisation but generated from sources it does not own or control (e.g. air travel) (MfE, 2019e, p. 8).

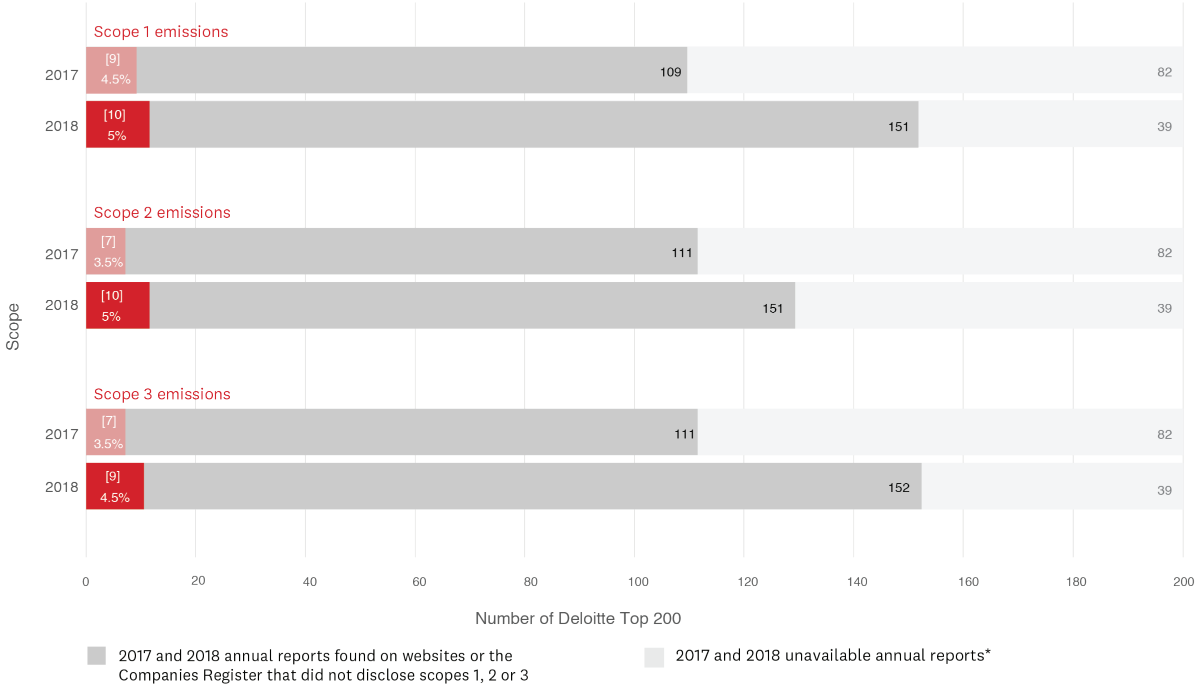
Unlike the UK system, listed or 'large' companies in New Zealand are not required by law to calculate and make public their emissions inventory. Instead, the 2019 voluntary *NZX ESG Guidance* encourages listed entities to report against scopes 1 and 2 and, 'if appropriate', scope 3 (NZX, 2019a, p. 10). As illustrated in Figure 26 (opposite), this has not resulted in significant disclosure of the three scopes of emissions by Deloitte Top 200 entities. While results were sparse, they do indicate an overall increase in uptake of the GHG Protocol's scope approach between 2017 and 2018. In order to improve uptake of the GHG Protocol's scopes, the Government will need to develop mandatory reporting on GHG emissions. Figure 18 (Z Energy's scopes 1–3, Section 4.2), is an example of how useful reporting on scopes 1 to 3 can be in terms of illustrating an entity's impact on the climate and the impact of its strategy on emissions over time.

Reporting on scope 3 emissions is a case of tension between public good and private good. The intention of the GHG Protocol was that companies would report on all three scopes. However, companies have been reticent in disclosure of scope 3 emissions, particularly given the leniency of the *NZX ESG Guidance* in requiring scope 3 disclosures only 'if appropriate'. This may be exacerbated by the fact that emissions under scopes 1 and 2 are often easier to gather data on and report. However, 'Scope 3 emissions make up, perhaps, 85% of the emissions of an oil and gas company' and their inclusion in an emission inventory therefore presents the greatest opportunity for positive return on investment (*Environmental Finance*, 2019). As an example of this, Z Energy discloses four sub-categories of scope 3 emissions in its 2019 annual report (see

Appendix 2). The vast majority of its emissions fall into this category and their omission would result in a vastly different representation of the company's carbon footprint. As noted by Mark van Baal, founder of the activist group Follow This, 'we are convinced that without targets for Scope 3, you can never commit to the *Paris Agreement*' (*Environmental Finance*, 2019).

Figure 26: Disclosure of scope 1, 2, and 3 emissions in the 2017 and 2018 annual reports Deloitte Top 200 entities

Source: (Original McGuinness Institute research for this paper)



Note: * A set of financial statements on its own does not meet the definition of an annual report (see s 211 of the Companies Act 1993).

6.9.2 Assurance

While it is not mandatory for companies to have their emissions inventories verified in New Zealand, the MfE recommends that entities opting in for verification choose a verifier who is independent, suitable, experienced, effective in peer reviews and quality control processes, and knowledgeable about ISO 14064 and the GHG Protocol (MfE, 2019e, p. 13). Similarly, in the UK, the 2019 *Environmental Reporting Guidelines* outline that there is 'no statutory requirement to have [...] environmental information audited' and notes 'Where your company publishes a separate environmental or sustainability report, your auditor is not required to read it although they may consider it as contributing to a knowledge of the business' (DEFRA & BEIS, 2019, p. 20). Although not related to climate change, the following examples indicate the challenges that the industry is currently facing. KPMG may be facing a lawsuit from Carillion in the UK over negligence and complicity in the collapse of the company given that it 'issued a profit warning four months after KPMG signed off on its accounts [and] collapsed five months later' (Kinder, 2019). The FRC are undertaking a second investigation of the case this year following the parliamentary inquiry of Carillion in May 2018, which stated 'KPMG [...] failed to challenge the company's management and missed warning signs in its statements' and also raised questions 'about the FRC's ability to police accounting firms', recommending the replacement of the 'watchdog' (Kinder, 2019; Jones, 2019). In another case, UK company Sports Direct has turned to the UK Government for advice to avoid becoming 'the first major listed business to fail to appoint an auditor' after Grant Thornton resigned from the role and all the 'Big Four' auditing companies declined to audit the company due to conflicts of interest (Kinder & Eley, 2019).

7.0 The international accounting and assurance context

Three research questions identified in Section 1.1 set out the purpose of this paper. This section aims to answer the first of these questions:

Question 1: What international protocols does New Zealand currently follow and to what extent do those protocols set standards or guidance on climate reporting?

7.1 What international protocols does New Zealand currently follow?

Globally, the IFRS Foundation is responsible for the governance and oversight of the International Accounting Standards Board (IASB). The IASB is responsible for developing and issuing international financial reporting standards (commonly referred to as IFRS). The IASB also issues non-mandatory guidance in the form of IFRS practice statements. Entities wishing to claim they comply with IFRS standards do not need to comply with IFRS practice statements (XRB, n.d.). The two IFRS practice statements are discussed in more detail below. The IASB is an independent body and no government can require it to produce climate reporting standards or guidance, although jurisdictions, stock exchanges and other prominent organisations may be able to exert influence.

New Zealand adopts IASB standards, which are assessed and reissued by the XRB for for-profit entities. New Zealand also adopts International Public Sector Accounting Standards (IPSAS) which are issued by the International Public Sector Accounting Standards Board (IPSASB) for its public benefit entities. These are also assessed and reissued by the XRB. Together, these accounting standards enable New Zealand entities to prepare comparable and trusted financial statements for users, regardless of where users are based.

The IASB has been monitoring developments in what it refers to as 'wider corporate reporting' (WCR), but a November 2017 staff paper indicates that there has been no substantial progress made (IASB, 2017b, p. 1). It is worth noting that the IASB sometimes uses the term 'broader financial information' to refer to a subset of wider financial reporting aimed at primary users (which includes management commentary) (IFRS, 2019a). In New Zealand, the XRB uses the term 'extended external reporting' (EER) (see Figure 27 in Section 7.3).

The other major international organisation that issues financial standards (other than the IFRS Foundation, via the IASB) is the Financial Accounting Standards Board (FASB), designated by the Securities and Exchange Commission (SEC) as the organisation responsible for setting accounting standards for public companies in the United States. While there have been attempts to develop a single set of high quality global accounting standards, this process has stalled. It is worth noting that, although there has been a level of convergence achieved on some standards and memorandum of understanding (MoU) has been signed between the IASB and FASB, it remains unlikely that a single international financial standard-setter will be established in the short term (IFRS, 2017a, p. 3).

In addition to the accounting standard-setters, the International Auditing and Assurance Standards Board (IAASB) issues international standards for auditing, quality control, review, other assurance, and related services, and facilitates the convergence of international and national standards (IAASB, 2019a). New Zealand adopts the auditing and assurance standards issued by the IAASB; for example, International Standards on Auditing (ISA). New Zealand also adopts the *International Code of Ethics* issued by the International Ethics Standards Board for Accountants (IESAB). These are assessed and reissued by the XRB.

The IFRS Foundation is not a membership organisation:

> [It] is a not-for-profit, public interest organisation established to develop a single set of high-quality, understandable, enforceable and globally accepted accounting standards—IFRS Standards—and to promote and facilitate adoption of the standards. IFRS Standards are set by the IFRS Foundation's standard-setting body, the International Accounting Standards Board (IFRS, n.d.[a]).

The IFRS Foundation constitution outlines the full criteria for the composition of the IASB.

The International Federation of Accountants (IFAC) is a membership organisation whose members are professional accountancy organisations. IFAC is home to a range of independent standard-setting boards, three of which have an important impact on New Zealand reporting practices.

In summary, the major standard-setters that shape New Zealand's regular external reporting practices are listed in Table 12.

Table 12: List of major standard-setters that shape reporting and assurance practices in New Zealand

Reporting		
Boards	**Standards**	**Further information**
IASB	IFRS	'The Board is an independent group of experts with an appropriate mix of recent practical experience in setting accounting standards, in preparing, auditing, or using financial reports, and in accounting education. Broad geographical diversity is also required. [...] Board members are responsible for the development and publication of IFRS Standards.' (IFRS, n.d.[b])
IPSASB	IPSAS	'The International Public Sector Accounting Standards Board® (IPSASB®) works to improve public sector financial reporting worldwide through the development of IPSAS®, international accrual-based accounting standards, for use by governments and other public sector entities around the world.' (IPSASB, n.d.)
Assurance		
Boards	**Standards**	**Further information**
IAASB	ISA, ISAE, ISRE	The International Auditing and Assurance Standards Board sets high-quality international standards for auditing, assurance, and quality control that strengthen public confidence in the global profession. (IAASB, 2019a)
IESBA	International Code of Ethics for Assurance Practitioners	The International Ethics Standards Board for Accountants® (IESBA®) is an independent standard-setting body that serves the public interest by setting robust, internationally appropriate ethics standards, including auditor independence requirements, for professional accountants worldwide.' (IESBA, n.d.)

7.2 To what extent do those protocols set standards or guidance on climate reporting?

7.2.1 What is the IASB's view on climate reporting?

The IASB has no plans at present to produce a climate-related disclosure standard. The IASB considers the existing framework of financial reporting standards and guidance, combined with a review and refresh of the voluntary *IFRS Practice Statement 1: Management Commentary* (see excerpt in Appendix 4), to be sufficient to cater for the reporting of climate-related information to meet investors' needs (Deloitte, 2019b).

The revised management commentary is not specific to climate change but it may provide further guidance on how to report climate information where it is material to the entity and affects financial prospects. An exposure draft of *IFRS Practice Statement 1: Management Commentary* is expected to be published in late 2020. The exposure draft will go through a consultation period (the duration of which is yet to be confirmed but usually ranges between three and six months), followed by further review by the IASB before being issued as a revised *IFRS Practice Statement 1: Management Commentary*. This process as a whole may take two years or longer.

Background

The objectives of the IFRS Foundation are set out in its constitution as follows:

a) to develop, **in the public interest**, a single set of high quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles. These standards should require high quality, transparent and comparable information **in financial**

statements and other financial reporting to help investors, other participants in the world's capital markets and other users of financial information make economic decisions.

b) to promote the use and rigorous application of those standards.

c) in fulfilling the objectives associated with (a) and (b), to take account of, as appropriate, the needs of a range of sizes and types of entities in diverse economic settings.

d) to promote and facilitate adoption of the IFRS Standards, being the Standards and IFRIC® Interpretations issued by the Board, through the convergence of national accounting standards and IFRS Standards [bold added] (IFRS, 2018b, p. 3).

In a 2019 speech the chair of the IASB, Hans Hoogervorst, discussed climate reporting and the role of the IASB. In particular he used the example of the aviation industry to illustrate the relationship between climate change and financial markets:

> Climate change is a massive example of such market failure. Just look at aviation. It is one of the fastest growing sources of green-house gas emissions and the most climate-intensive form of transport. Yet the price of international airline tickets in no way reflects the negative externalities of flying. Substantial taxes would be necessary to adequately price in its negative environmental impact, but instead, aviation is not subject to fuel tax or VAT. It is heavily subsidised compared to other sectors of the economy. As a result, a gas-guzzling flight from London to Amsterdam can be cheaper than the eco-friendly hybrid taxi to the airport! The economics of the aviation industry is a market failure, compounded by a public policy failure (IFRS, 2019a).

However, he went on to make it clear that the main focus of the IASB is to preserve the status quo:

> While **classical financial reporting will remain the cornerstone of our work**, the IASB has always recognised its limitations. For example, the financial statements provide little information about a company's business model or the economic environment it is operating in. They also do not contain information about all the intangible resources and relationships that drive business success. **This information is excluded from the financial statements for good reasons. Trying to capture the value of intangibles is a hugely subjective exercise and would pose enormous recognition and measurement challenges** [bold added] (IFRS, 2019a).

The above statements from Hoogervorst illustrate that climate change and its impacts are too uncertain to fit within the tight international reporting requirements that New Zealand and other international adopters currently apply.

Uncertainty (and therefore judgement) is not the only characteristic of climate change that challenges the existing reporting framework. Hoogervorst also acknowledges that short time-horizons required by standards are at odds with the medium to long-term views that investors and other users may want to be taken into account by preparers of reports and assurance practitioners:

> The financial statements also **contain limited forward-looking information**, including information on emerging sustainability issues. This makes it very difficult for investors to see whether a company is prioritising short-term financial targets at the expense of longer-term value creation that is not immediately recognised in the financial statements. That can lead to capital being diverted from companies pursuing long-term strategies in favour of those prioritising short-term earnings [bold added] (IFRS, 2019a).

There are two existing mechanisms that may, over time, impact climate reporting.

(i) Revision of guidance on management commentary

The IASB is currently undertaking a review and refresh of *IFRS Practice Statement 1: Management Commentary*. The *Statement* defines management commentary as:

> **What is management commentary?**
> Management commentary is a narrative report that provides a context within which to interpret the financial position, financial performance and cash flows of an entity. It also provides management with an opportunity to explain its objectives and its strategies for achieving those objectives. Users routinely use

> the type of information provided in management commentary to help them evaluate an entity's prospects and its general risks, as well as the success of management's strategies for achieving its stated objectives. For many entities, management commentary is already an important element of their communication with the capital markets, supplementing as well as complementing the financial statements [...] (IFRS, 2010, p. 5).
>
> The *Practice Statement* refers to 'management' as the persons responsible for the decision-making and oversight of the entity. They may include executive employees, key management personnel and members of a governing body [bold and italics added] (IASB, 2010, pp. B836–B837).

The IASB chair Hoogervorst implies that 'broader financial information' is confined to the annual report:

> In 2010 we published what we call our *Management Commentary Practice Statement*—basically a non-mandatory guide **for how to write the front of an annual report. It should help management provide a broader context for the financial statements**, which is why I like to refer to broader financial information [bold and italics added] (IFRS, 2019a).

Since the publication of the 2010 *IFRS Practice Statement 1: Management Commentary*, the IASB has become aware of a number of emerging issues in relation to reporting (e.g. intangibles, ESG, IR and the EU NFRD) (IFRS, 2019a). The IASB chair suggests that these issues could be addressed by reviewing and updating the 2010 *IFRS Practice Statement 1: Management Commentary*. The IASB website notes the following:

> Management commentary should provide users of financial statements with **integrated information** providing a context for the related financial statements, including the entity's resources and the claims against the entity and its resources, and the transactions and other events that change them. It also provides management with an opportunity to **explain its objectives and its strategies for achieving those objectives.**
>
> The 2010 *IFRS Practice Statement* makes clear that management commentary should be consistent with the following principles:
>
> - Provide **management's view** of the entity's performance, position and progress (including forward looking information)
> - **Supplement and complement** information presented in the financial statements (and possess the qualitative characteristics described in the Conceptual Framework for Financial Reporting) [bold added] (IFRS, n.d.[c]).

Notes from an IASB meeting dated 15 May 2019 outline the IASB staff's proposed approach to the revision of the *IFRS Practice Statement 1: Management Commentary*, as well as the areas in which they request more guidance from the Board:

> The current *Practice Statement* will be used as a starting point and then fill the gaps where it is incomplete, update it to reflect innovations and clarify where it is unclear. The staff expect to retain the existing approach of providing guidance based on principles rather than rules.
>
> Based on the research to date, the staff recommend that the Board provide additional guidance on:
>
> - The objective of management commentary
> - Considering qualitative characteristics of useful financial information in providing management commentary
> - Content elements of management commentary [italics added] (IASPlus, 2019).

Given the emergence of the *Recommendations of the TCFD*, there is strong interest in understanding how the TCFD fits with the management commentary. The McGuinness Institute's conclusions are as follows:

1. Both IASB standards and the FSB's TCFD focus on financial disclosures aimed at investors; the *Recommendations of the TCFD* suggests that disclosures be included in mainstream financial filings (not necessarily the financial statements). This is in contrast to other voluntary guidance setters who tend to focus on disclosures aimed at meeting the public interest and therefore the disclosures sit outside the financial statements.

2. There are four possible locations where TCFD information may be disclosed:

   a. TCFD disclosures that focus solely on investors and financial risks to the company may sit within the financial statements.

   b. TCFD disclosures may sit outside the financial statements, but still form part of the IASB's management commentary. For example, the recognition of material liabilities in financial statements is subject to strict criteria as per the standards, which may mean that high and medium-probability, high-magnitude risks are discussed in the management commentary section of the annual report. Low-probability, low-magnitude risks may still appear in the annual report if management determined such disclosure to be necessary or if they were required by regulation.

   c. TCFD disclosures may sit outside both the financial statements and the IASB's management commentary but still be included in the annual report.

   d. TCFD disclosures may sit outside the annual report but be made available in the public arena (e.g. in a separate sustainability report).

3. Since the *Recommendations of the TCFD* focus on material financial disclosures, *IFRS Practice Statement 2: Making Materiality Judgements* could be applied to determining TCFD disclosures. In risk-management terms, magnitude (or possible impact) will help determinate whether a risk is disclosed (or not) and where it is disclosed.

4. The revised *IFRS Practice Statement 1: Management Commentary* is likely to continue to be voluntary and is unlikely to include specific requirements for climate reporting.

5. The revised *IFRS Practice Statement 1: Management Commentary* will continue to focus on commentary that complements and gives context to the financial statements, but may also provide primary users with information related to the entity's future and long-term impacts on future net cash flows and to the management stewardship of the entity's economic resources.

The management commentary may include non-financial information, particularly on risks that are not yet captured by the financial statements but that may become relevant for inclusion in the financial statements at a later point in time. This may include financial and non-financial information that is more forward-looking than traditional financial information, and information on intangibles, which are becoming increasingly important in the global economy and which therefore do still need a place in the annual report. It is still relatively early in the review process and, given the need for an urgent and useful reporting response to climate change, there is a great deal of interest in the commentary.

(ii) Sustainability reporting and ESG

The use of the terms sustainability reporting and ESG can be confusing and the terms are sometimes used interchangeably (see quote below). ESG is often seen as a way of extending the information relevant to investors (see discussion in Section 4.6.1).

At this stage the IASB has made it clear that it does not have the resources to produce standards on sustainability but that some sustainability information in the form of ESG could be included under the *IFRS Practice Statement 1: Management Commentary*. However, such ESG information would only be included in the management commentary if it was deemed material or was expected to influence users' assessments of future cash flows.

In a speech on 18 September 2017, Hoogervorst discussed the unlikelihood of extending existing standards to include sustainability reporting and ESG:

> Nevertheless, I do not think the IASB is equipped to enter the field of sustainability reporting directly. **Our focus on financial reporting for capital market participants is deeply embedded in our DNA; widening the audience and scope of our work would most likely lead to loss of focus and identity**. Moreover, our main area of competence is economics. **ESG reporting to wider stakeholder groups requires expertise that we simply do not have.**
>
> If we want to create more clarity in the somewhat chaotic world of wider corporate reporting, we all need to define clearly what our responsibilities and competences are. If we all try to do everything, the most

likely outcome is that nothing gets done properly [bold added] (IFRS, 2017b).

At this stage, sustainability reporting is clearly outside the IASB's remit and ESG is only covered in terms of voluntary guidance as part of the management commentary if it is information relevant to primary users.

7.2.2 What is IPSASB's view on climate reporting?

In its *Strategy and Work Plan 2019–2023*, IPSASB approved some strategic themes which include developing guidance to meet users' broader financial reporting needs. For the period 2019–2023, IPSASB has decided to monitor developments in the broader financial reporting area, rather than undertaking any specific projects. There was no specific reference to climate reporting in the strategy (IPSASB, 2019).

7.2.3 What are the IAASB and IESBA's views on climate reporting?

There is no evidence to suggest that the IAASB is planning to undertake any specific work in the area of climate reporting either, as indicated by the fact that climate change is not mentioned at all in its *Proposed Strategy for 2020–2023 and Work Plan for 2020–2021* (IAASB, 2019b). However, the IAASB is currently working on a project on 'Extended External Reporting Assurance', which aims to achieve the following:

> enable more consistent and appropriate application of ISAE 3000 (Revised) to emerging forms of external reporting (EER) and greater trust in the resulting assurance reports by users of EER. This will be achieved primarily through:
>
> (i) Developing non-authoritative guidance in applying ISAE 3000 (Revised) to EER;
>
> (ii) Continuing to provide thought leadership on assurance issues in relation to EER; and
>
> (iii) Coordinating the work of the project with related initiatives of other relevant international organizations (IAASB, 2019c).

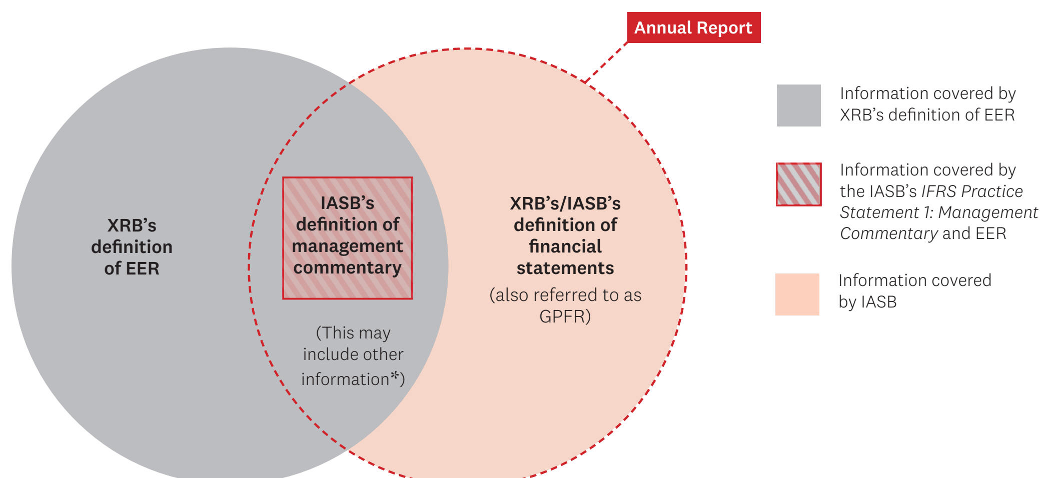
There is no mention of climate change in IESBA's *Strategy and Work Plan*.

7.3 The New Zealand response

In New Zealand, the XRB has issued a position statement on EER. While the IASB's 'broader financial information' is seen as confined to the annual report, EER is used by the XRB to also include information outside the annual report.

Figure 27 has been adapted from Figure 9 (in Section 2.3.3) to illustrate what the IASB means by management commentary.

Figure 27: Distinctions between XRB definition of EER and IASB definition of management commentary



Note: * In addition to the financial statements, the annual report may contain a wide range of other information. Some of this information may be treated as management commentary by the IASB, but other information may not.

XRB A1: Application of the Accounting Standards Framework notes the following in relation to general purpose financial reports (GPFR):

> The objectives of this Standard are to establish:
>
> a. the accounting standards framework for those entities that have a statutory obligation, or that opt under an enactment, to prepare financial statements or financial reports that comply with generally accepted accounting practice (GAAP) or non-GAAP standards that are issued by the External Reporting Board (XRB), hereafter referred to as general purpose financial reports (GPFR) (XRB, 2015d, p. 5).

The XRB's Accounting Standards Framework is limited to information included within an entity's GPFR. Currently, this excludes management commentary, given that management commentary is not required by law in New Zealand.

7.4 The Australian response

The IASB's *IFRS Practice Statement 2: Making Materiality Judgements* was issued in September 2017 to provide entities with guidance for making materiality judgements and assessing their implications when preparing financial statements in accordance with IFRS. In December 2017, the AASB approved the voluntary guidance as an Australian practice statement. The Australian practice statement is essentially equivalent to the IFRS, except that the AASB also provides guidance for not-for-profit entities as well. In December 2018 (and updated in April 2019), the AASB and the Australian Auditing and Assurance Standards Board (AUASB), published a joint bulletin titled *Climate-related and other emerging risks disclosures: assessing financial statement materiality using AASB Practice Statement 2* to assist preparers and auditors of financial statements to make materiality judgements on climate-related and other emerging risks using the Australian practice statement.

7.5 The United Kingdom response

In regard to reporting on emissions, UK quoted companies, large unquoted companies and large limited liability partnerships (LLPs) are required under the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 to disclose in their directors' report key information on annual emissions and their intensity ratio (in a New Zealand context this requirement covers publicly listed and selected private unlisted companies). The 2018 Regulations came into force on 1 April 2019. Directors' reports form part of UK companies' filing obligations with the Companies House (DEFRA & BEIS, 2019, p. 35).

In March 2019, the UK Department for Environment, Food & Rural Affairs (DEFRA) and the UK Department for Business, Energy and Industrial Strategy (BEIS) published the *2019 Environmental Reporting Guidelines*, which includes guidance on what is referred to as the Streamlined Energy and Carbon Reporting (SECR) policy. The Carbon Trust, an international consultancy based on London, has stated that the new regulations 'will require an estimated 11,900 companies incorporated in the UK to disclose their energy and carbon emissions' (Carbon Trust, 2019).

The Carbon Trust notes:

> Three groups of businesses are affected by the new regulations. Companies that fall within the following definitions must comply unless they meet certain exemption criteria:
>
> - Quoted companies of any size that are already obliged to report under mandatory greenhouse gas reporting regulations.
> - Unquoted companies incorporated in the UK that meet the definition of 'large' under the Companies Act 2006 will have new reporting obligations. This applies to registered and unregistered companies. Note that the criteria for 'large' differs from the ESOS Regulations.
> - 'Large' Limited Liability Partnerships (LLPs) will be required to prepare and file a 'Energy and Carbon Report'.
>
> Unquoted companies or LLPs are defined as 'large' if they meet at least two of the following three criteria in a reporting year:

- a turnover of £36million or more;
- a balance sheet of £18million or more; or
- 250 employees or more.

Public bodies do not fall under the new regulations, but they are subject to other legislation which requires carbon reporting.

It is worth noting that charities, not-for-profit companies or others undertaking public activities – such as companies owned by universities, academies or NHS Trusts – will need to check whether they meet the above qualifying criteria.

Private sector organisations which fall outside of the scope of the new regulations are encouraged to voluntarily report in a similar manner. [...]

The methodology used must be disclosed and although no methodology is prescribed, it must be robust, transparent and widely accepted.

Companies are encouraged to go beyond the minimum requirements and voluntarily include any other material source of energy use or GHG emissions outside these boundaries, as well as reporting on scope 3 emissions. The use of forward-looking science-based targets on emissions, and adopting the reporting recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) is also encouraged.

Disclosures should cover the same annual period as the financial year, or an explanation should be provided as to why this is not the case.

There is also a 'comply or explain' clause, which allows carbon and energy information to be excluded where it is not practical to obtain it, or in exceptional circumstance that disclosure would be 'seriously prejudicial' to the interest of the organisation. A statement explaining what information has been omitted and why must be included. Steps should then be taken to fill any material gaps in the future.

Whilst not a requirement, external verification or assurance is recommended as best practice to ensure the accuracy, completeness and consistency of data for both internal and external stakeholders (Carbon Trust, 2019).

The most commonly 'recognised methods' that provide methodologies for calculating greenhouse gas emissions are the GHG Protocol and ISO 14064:1 (EcoAct, n.d.).

In July 2019 the UK Government published *Green Finance Strategy: Transforming Finance for a Greener Future*. This strategy puts in place ways to have integrated discussions over a range of finance and green topics with a range of people (e.g. from the public and private sectors).

Actions covered by the *Green Finance Strategy* include the establishment of a Green Finance Institute (GFI), as well as other UK Government actions (BEIS & HM Treasury, 2010, p. 3). Below are some examples of particular interest:

The Government setting out its expectation for all listed companies and large asset owners to disclose in line with the TCFD recommendations by 2022;

- Establishing a joint taskforce with UK regulators, chaired by Government, which will examine the most effective way to approach disclosure, including exploring the appropriateness of mandatory reporting; [...]
- Clarifying responsibilities for the Prudential Regulation Authority, the Financial Conduct Authority (FCA) and the Financial Policy Committee to have regard to the *Paris Agreement* when carrying out their duties, and including climate-related financial issues in Government's allocation letter to The Pensions Regulator; [...]
- Aligning the UK's Official Development Assistance (ODA) with the *Paris Agreement*; [...]
- The Government will consider the financial risk exposure relating to climate change and the low carbon transition as part of the 2020 Managing Fiscal Risks report; [...]

- Using the forthcoming Environment Bill to place the 25 Year Environment Plan on a statutory footing; [...]
- Launching the GFI to strengthen public and private sector collaboration and cement the UK's position as a global hub for green finance; [...]
- Engaging with professional bodies to drive green finance competencies- notably through the launch of a Green Finance Education Charter- upskilling the UK's diplomatic networks and building capacity on green finance across the public sector (BEIS & HM Treasury, 2019, pp. 8–11).

The *Green Finance Strategy* also makes some broad observations:

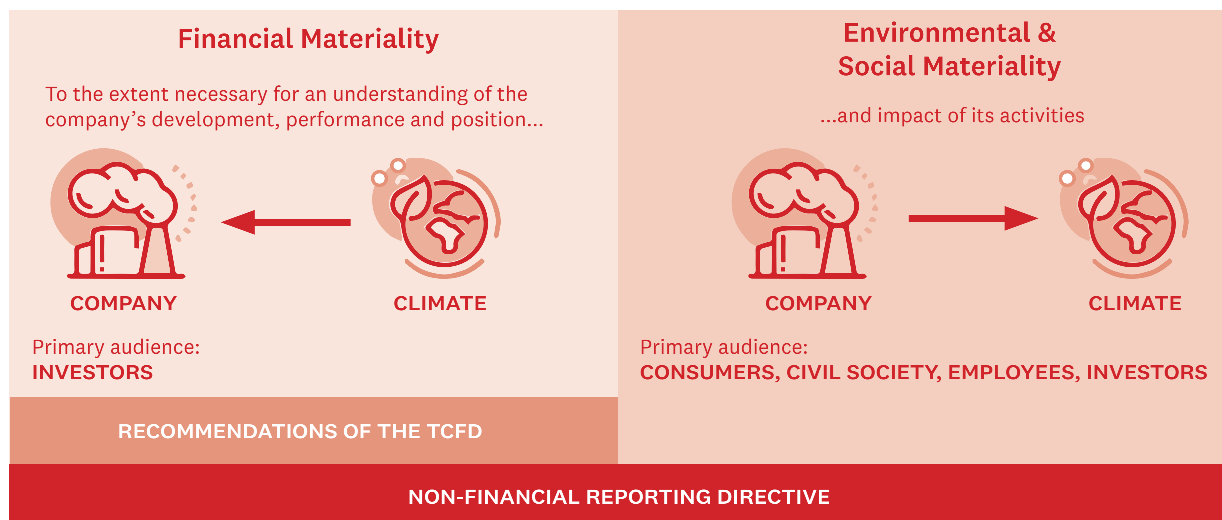
> The Government recognises that delivering the systemic changes required to align private financial flows with clean, resilient and environmentally sustainable growth will require collaborative efforts across the public and private sector, and that leadership on green finance will in turn strengthen the competitiveness of the UK financial sector.
>
> We will also explore actions Government can take to ensure a just transition and linkages with related policy areas, such as impact investing. We will formally review progress against the aims and objectives of this strategy in 2022 (BEIS & HM Treasury, 2019, p. 11).

Interestingly, both of these initiatives is leading to some voluntary frameworks being directly or indirectly made mandatory. For example TCFD (via the *Green Finance Strategy*) and GHG Protocol and ISO 14064:1 (via SECR policy).

7.6 The European Union response

In 2014, the European Union developed a non-financial reporting directive: *Directive 2014/95/EU*. In 2019, *Directive 2014/95/EU* was reinforced with supplementary 'non-binding guidelines' on reporting climate-related information: Guidelines on non-financial reporting: Supplement on reporting climate-related information (the Guidelines) (EU, 2019, p. 1).

Figure 28: The double materiality perspective
Source: (EU, 2019, p. 5)



The diagram from the EU (Figure 28) illustrates a 'double materiality perspective': the distinction between the impacts of climate change on the company and the impacts of the company on the climate (EU, 2019, p. 5). The *Recommendations of the TCFD* focus on the first perspective while, for example, the Climate Change Response (Zero Carbon) Amendment Bill focuses on the second perspective. The Guidelines also state '[i]t is very important for stakeholders to understand the company's view of how climate change impacts its business model and strategy, and how its activities can affect the climate, over the short, medium and long term' (EU, 2019, p. 8).

7.7 Observations and ideas

The above analysis indicates that the IASB, as a respected standard-setter, will be slow to develop climate reporting standards. This is supported by the reasoning outlined by Richard Barker and Robert G. Eccles' green paper as to why the IASB is unlikely to broaden its standard-setting to non-financial information. Generally speaking, their points are concerned with 'the in-principle feasibility of setting standards, the in-principle appropriateness of FASB and IASB as nonfinancial standard-setting bodies, and the practicality of assigning responsibility to FASB and IASB' (Barker & Eccles, 2018, p. 32). In our view, their third point is the most relevant:

> It is questionable, for example, whether nonfinancial is within remit, and whether political support and funding could realistically be found to extend the scope of activity. Further, it might be the case that extending to nonfinancial information would dilute focus on the existing remit of FASB and IASB, in some way compromising financial reporting. It might also be that, at least in their current respective states of evolution, the financial and nonfinancial worlds are just so different that they call for a fundamentally different institutional approach. There is, for example, greater urgency in the rapidly-changing nonfinancial sphere, to keep up with corporate, investor, political and scientific developments on issues such as climate change, and to respond to those developments in a timely fashion. In contrast, it is more 'natural' for the financial standard-setting response to be more institutionalised and slower, as was the case even in the 'urgent' case of revising accounting for financial instruments in the wake of the 2008 credit crisis (Barker & Eccles, 2018, p. 33).

To summarise, the challenges faced by the different standard-setters and regulators include the following:

- The term 'management commentary' is problematic. In our view, management commentary is prepared by the managers and is operational in nature. This is in contrast to the chair's report, which is strategic in nature. This view is similar to that expressed in the *Recommendations of the TCFD*, which defines 'management' as 'those positions an organization views as executive or senior management positions and that are generally separate from the board' (TCFD, 2017, p. 63). Currently, the existing IASB's *IFRS Practice Statement 1: Management Commentary* does include the entity's strategy and is meant to include broader strategic information.

  The *TCFD Good Practice Handbook* acknowledges the importance of adequately differentiating between the role of the Board and of management:

  > Adequately differentiating between the role of the board and management in respect of climate related risks and opportunities – Disclosures need to be clear on how the board exercises its oversight function and how this differs from management roles and responsibilities. This is the key distinction between leadership and management (TCFD, 2019c, p. 44).

- The IASB's *IFRS Practice Statement 1: Management Commentary* is voluntary and is designed to build on information that is reported in the financial statements by supplementing and complementing it. This could mean that, unless climate change information is determined to have a financial impact (now or in the future), it will not be discussed in a practice statement.

- It is still unclear who will provide guidance on climate-related information and whether that guidance should be mandatory or voluntary.

- The current international regime is likely to leave climate-related information scattered throughout an annual report and/or supporting documents outside the annual report. It is difficult to see the current system supporting companies, entities and nation states to deliver on the *Paris Agreement*. The *TCFD Good Practice Handbook* emphasises the important of the connectivity of climate-related information (TCFD, 2019c, p. 43).

- The multiplicity of voluntary reporting frameworks and their lack of alignment. This is acknowledged as a problem by the CRD (which includes the IASB). Its involvement in addressing this so far has been to strongly recommend to voluntary standard-setters that some form of merger is necessary in order to create a less chaotic world for preparers and reduce the risk of disclosure overload, which is already a problem. Interestingly, many of these climate-related sustainability standards focus on the impact of an entity's activities on the environment (environmental and social materiality), rather than the environment's financial impact on the entity (financial materiality). However, the former may also

have financial relevance as the entity's impacts on the environment and the environment's impact on the entity have a circular relationship.

- Developing voluntary guidance for SMEs will be particularly important for New Zealand, given that 97% of New Zealand enterprises have fewer than 20 employees as at February 2016 (MBIE, 2017).

There is no doubt that New Zealand must continue to apply the IASB reporting requirements; to not do so would disadvantage businesses by reducing certainty for overseas investors and therefore reducing investment. However, if the IASB does not develop standards to cater for climate reporting, a gap is left for New Zealand entities. For this reason, New Zealand should seek to influence the IASB to develop climate reporting standards and, at the same time, develop domestic standards or regulations (see discussion in Sections 8.1 and 8.4 of this paper and Appendix 4 respectively).

New Zealand is now well behind international best practice. New Zealand is behind the United Kingdom and possibly many of our trading partners. Areas of key concern in New Zealand's reporting infrastructure are as follows:

1. No detailed content requirements in New Zealand legislation or guidance for the chair's/directors' report or for management commentary

While the chair's/directors' report is a commonly recognisable component of many New Zealand annual reports there is no requirement for a management commentary. This is in contrast report requirements in the UK (see Section 4.3.4).This could be easily be clarified in s 211 of the Companies Act 1993.

2. No requirement for chair's/directors' reports to be filed with the Companies Office

In New Zealand, listed companies are not required to make their chair's/directors' report publicly available on the Companies Register. Because the intention of the *Recommendations of the TCFD* is to use mainstream national filings to make disclosures public, New Zealand only has one mechanism to meet this: the financial statements (TCFD, 2017, p. iv). In contrast to New Zealand, companies in the UK are required to disclose their GHG emissions in the directors' report (the UK equivalent to the chair's report), and to make the directors' report publicly available (see Section 7.5). As UK directors' reports are part of mainstream national filings, they act as an additional repository for disclosures made in line with the *Recommendations of the TCFD*.

In order for New Zealand to align with international best practice, we recommend greater filing obligations for entities already required to file their financial statements with the Companies Office. Such entities should be required to file their full annual report (including a directors' report and a new *Statement of Climate Information* – see Section 8 of this paper), or at the very minimum, their financial statements should be required to be accompanied by the chair's/directors' report and/or the *Statement of Climate Information*. This would align New Zealand's reporting infrastructure with that of the UK and improve the accessibility of climate reporting such as GHG emissions and TCFD disclosures for users.

3. No specific guidance on climate risk reporting

In April 2019, the AASB and the AUASB published the joint bulletin *Climate-related and other emerging risks disclosures: assessing financial statement materiality using AASB Practice Statement 2* (see Appendix 4). This bulletin looks at materiality and applies the concept to climate risk, and could be adapted or adopted by XRB. New Zealand does not have specific standard or guidance on climate risk reporting.

4. No green finance strategy

The United Kingdom published a *Green Finance Strategy* earlier this year (see Section 7.5). New Zealand would benefit from generating its own green finance strategy. Such an approach would enable government, regulators and investors to discuss and develop innovative ways to undertake a just-transition to a low-emissions economy.

5. No mandatory reporting of GHG emissions for listed companies, 'large' companies or other key entities

In New Zealand the NZ ETS has been designed to be 'upstream' in the supply chain, to ensure that obligations fall on the largest distributor of the emissions rather than those who consume the emissions

further down the supply chain. Entities in the scheme are required to report their GHG emissions, but this information was not made public as individual data by MFE or by individual entities in their annual reports. This covers approximately 2500 entities (nearly 300 mandatory participants and nearly 2200 voluntary participants) (MfE, 2018f; EPA, 2018, pp. 4, 6). In a May 2019 Cabinet Paper, the Minister for Climate Change recommended that the Cabinet Environment, Energy and Climate Change Committee '[A]gree to require the EPA to publish all NZ ETS participant level removals data in tCO_2-e at least annually and as soon as practicable, beginning with returns submitted to the Government in 2021' (Shaw, 2019b, p. 9).

Entities that fall outside the ETS scheme are able to voluntarily report their greenhouse gas emissions using the MfE's guidance documents. This suggests preparers use the GHG Protocol or ISO 14064-1:2018 (MfE, 2019e, p. 6). In New Zealand, listed companies are not required by law to calculate and make public their emissions inventory, but the voluntary *NZX ESG Guidance* quotes the *Recommendations of the TCFD*, which suggests companies should report on GHG emissions by doing the following:

> (1) disclosing the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process;
>
> (2) disclosing Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks; and
>
> (3) describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets. (TCFD recommendations quoted in NZX, 2019a, p. 10).

To summarise, climate reporting has two goals: first, to report on how climate change will impact the entity and second, to report on how the entity will impact the climate (see Figure 28 in Section 7.6).

Climate reporting is a rapidly evolving space that results in significant uncertainty: uncertainty over how citizens, investors and consumers will respond to climate change; uncertainty over how climate change will impact on infrastructure; and uncertainty over how reporting frameworks can deliver consistent, useful and comparable climate information in a timely manner and for a wide range of users. Climate change also poses a challenge to the assurance industry, given the growing levels of uncertainty and subjectivity internationally around the 'Big Four' (e.g. perceptions of conflicts of interest and negligence, and the evolving purpose and quality of audit reports), which are likely to reshape the assurance space (see Section 6.9.3).

Amidst the uncertainty of the impacts and effects of climate change, the pressure on the accounting and assurance frameworks is mounting. There are two international bodies shaping the content of financial information, particularly the financial statements – the IASB and the TCFD. The IASB may move too slowly, which has already resulted in a multiplicity of reporting frameworks, indicating a disconnect between the IASB and members of the accounting profession, as well as between preparers and users of annual reports. The TCFD, which has gained significant global support, is still a new player, and is yet to be independently reviewed for whether it and its recommendations are fit for purpose. Some wildcards threaten to further disrupt the status quo. For example, other international standard-setters, such as the EU or the OECD, could create their own accounting and assurance standards to meet the existing standards gap.

The climate reporting framework should ultimately be designed to contribute to achieving the goals of the *Paris Agreement*. This dialogue is quickly moving to a discussion of short, medium and long-term goals. All parties to the agreement need to develop and publicly share strategies to achieve net zero carbon by 2050. New Zealand urgently needs guidance, especially given the economy's reliance on sectors such as agriculture and tourism, which are particularly vulnerable to the effects of climate change. Changes in the global reporting space will be particularly relevant for New Zealand as it seeks to build an integrated climate reporting strategy ideally building on emerging international best practice (see Appendix 4). In Section 8 of this discussion paper, we consider ways to design New Zealand's climate reporting strategy so that it is cost-effective and efficient, reducing repetition and improving its ability to inform investors, policy-makers and citizens.

8.0 Proposed design

Three research questions identified in Section 1.1 set out the purpose of this paper. This section aims to answer the second and third research questions:

Question 2: How might international protocols be influenced or strengthened to improve climate reporting and how likely is it for an international climate reporting standard to be developed in the short term? This question assumes that New Zealand can influence the quality of climate reporting standards through consultation with the international standard-setter.

Question 3: Given the current situation, what direct changes could New Zealand policy-makers and standard-setters make to improve climate reporting in New Zealand? This question assumes that New Zealand actively pursues other ways to strengthen climate reporting.

The proposed solutions are at various stages of development. Some are well-developed and could be trialled immediately, while others require more research, consultation and thinking before implementation. Given both the urgency and the complexity, there will be many years of trial and error before a robust climate reporting framework is developed. The testing and trialing of reporting will be a key component of any strategy to develop a climate reporting framework and tackle climate change.

Given the level of complexity and the range of levers that exist within the system, our recommendations are discussed in terms of four high-level design goals:

Goal 1: Improve the quality and accessibility of climate-specific information in New Zealand.

Goal 2: Ensure those who are responsible for governance in New Zealand think long-term and are future-focused.

Goal 3: Cater to the information disclosure needs of broader stakeholders in New Zealand.

Goal 4: Improve the existing international framework of reporting standards to cover climate-related information.

The remainder of this section discusses opportunities for progressing each of these four goals.

8.1 Goal 1: Improve the quality and accessibility of climate-specific information in New Zealand

Overview

1. Review the entity reporting framework with a view to developing an integrated, flexible and robust strategy on climate reporting (see Section 8.1.1).
2. Require a *Statement of Climate Information* to be included in the annual report by amending s 211 of the Companies Act 1993. This could be limited to say a maximum length of four pages, to be signed by the chair and to include risk identification (e.g. by using scenarios and developing priorities), measurement (e.g. GHG emissions reporting) and management (e.g. the entity's strategy to the *Paris Agreement*).
3. Consolidate and centralise all reporting in the annual report (see Section 8.1.3):
   - (a) Require a corporate governance statement to be included in the annual report by amending s 211 of the Companies Act 1993.
   - (b) Require all entities that currently file financial statements with the Companies Office to instead file their full annual reports (including the *Statement of Climate Information*). This could be voluntary for the first 24 months.
   - (c) Treasury to produce a consolidated annual report of the Government in addition to the consolidated financial statements of the Government, which includes the equivalent of a chair's report, a corporate governance statement and *Statement of Climate Information*.

8.1.1 Review the entity reporting framework and develop a strategy on climate reporting

The complexity of the current framework and the multiplicity of voluntary guidance available is restricting the accessibility, completeness, conciseness, consistency, comparability and connectivity of climate-specific information. Removing repetition and creating a shared taxonomy that aligns with international practice is critical.

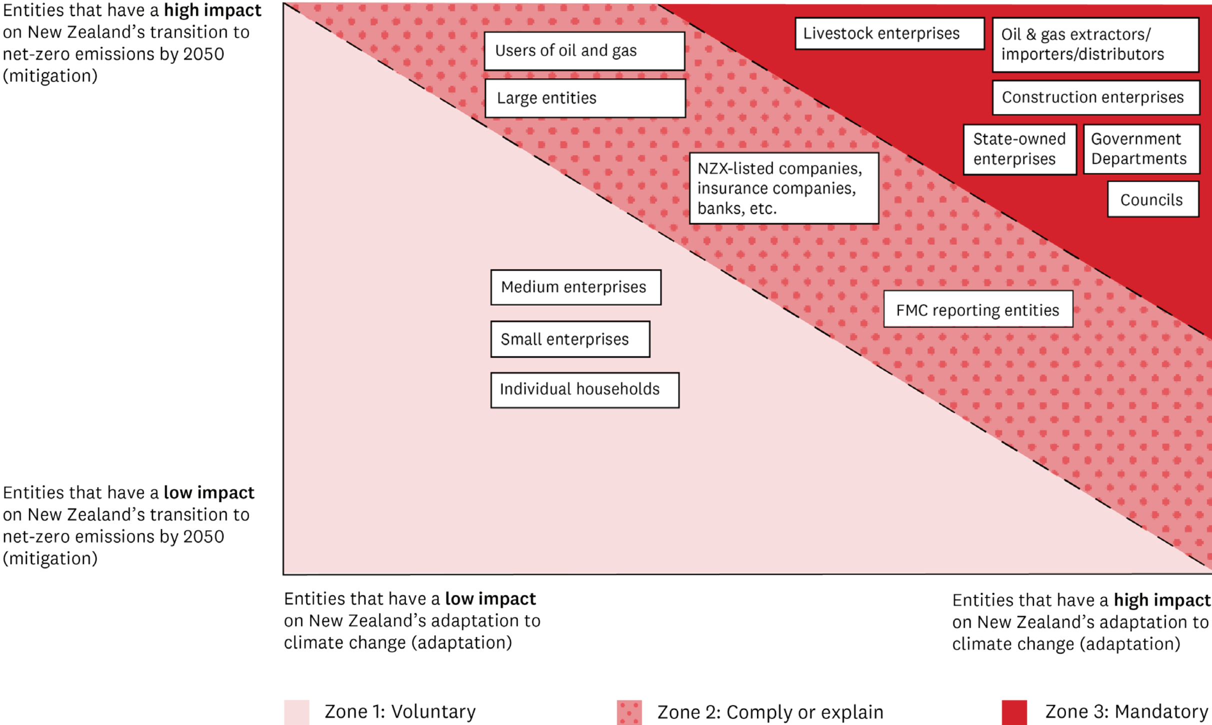
The Institute believes the fragmentation of legislation, instruments and the institutional framework is a barrier to principles such as accessibility and transparency. For this reason, we recommend the development of a single integrated reporting framework for all entity types. This could be achieved by amending the Financial Reporting Act 2013 to become the External Reporting Act, bringing together all reporting requirements in one piece of legislation. The content requirements in the Institute's proposed External Reporting Act could be further strengthened and supported with standards produced under s 17(2)(iii) of the Financial Reporting Act 2013 (see Appendix 1).

As part of the development of this new reporting framework, we recommend careful re-evaluation and consideration of the 'who', 'what', 'when' and 'where' of climate reporting.

1. Who

We will need to establish specifically which entities should be captured by the climate reporting framework, and with what level of requirement (i.e. mandatory, comply or explain, or voluntary). Figure 29 is a brief attempt to illustrate this.

Figure 29: Who should report and why



Using existing legal classifications of entity types may prove beneficial. For example, the reporting entities covered by climate-related disclosure requirements could include FMC reporting entities (as currently defined under s 451 of the Financial Markets Conduct Act 2013) and/or 'large' entities (as currently defined under s 45 of the Financial Reporting Act 2013). It is important to note that in s 45, an overseas company or subsidiary of an overseas company has a lower threshold to meet the 'large' company criteria (MBIE, 2019b). When selecting which entities should report, it will also be important to consider any unintended consequences. For example, if NZX-listed companies are required to make climate-related disclosures but 'large' entities are not, the new disclosure regime may unintentionally create an incentive for existing listed companies to delist, or for private companies not to list at all.

There are a number of existing examples of instruments for each level of requirement. For example, *NZX Listing Rules* are mandatory, the *NZX Corporate Governance Code* is 'comply or explain', and the *NZX ESG Guidance* is voluntary. In the mandatory area, there is also the possibility of applying a tiered approach, which can be opted into by other entities. Table 13 below sets out a range of options.

Table 13: Types of reporting obligations for preparers

Type of reporting obligations	Example/explanation
Mandatory legislation	Example: The Financial Reporting Act 2013 and Companies Act 1993.
Mandatory standards	Example: XRB standards or the *NZX Listing Rules*.
Comply or explain	Example: Parts of the *NZX Corporate Governance Code*.
Opt-out	Explanation: Similar to comply or explain, but without the requirement to explain.
Opt-in	Explanation: Enables smaller entities to decide to engage for branding or simply because they want to be seen as a responsible company. For some, reporting will be seen as a competitive advantage and, in our view, any scheme that aims to report on climate change must enable smaller companies and entities to opt-in.
Voluntary	Explanation: These mechanisms tend to be unmanaged and therefore result in poor uptake or produce information that is of limited usefulness and comparability. Examples include: The MfE's *Measuring emissions guide*, NZX's many guidance notes or the TCFD recommendations (see Figure 22 in Section 5.2).

Also in relation to the 'who' of the reporting framework, the integration of legislation would create the opportunity to assign stewardship responsibility of the whole reporting system to a single institution.

It may also be worth considering the possibility of introducing a consistent and cohesive system for sector reporting, particularly given the proportionally high climate change impacts in some sectors. Sector reporting could follow the same structure as budget appropriations and votes.

2. What

Under the belief that we manage what we measure, what we measure needs to be much broader and more comprehensive. We will need to explore the range of possible options for what the content of climate-related disclosures might be. At a very high level, having an integrated framework for climate reporting would introduce consistent definitions for key terms such as 'risk', 'strategy', 'scenario', etc. Table 14 below outlines a number of different strategic options (see also Section 8.1.2).

For example, in the UK, there is no statutory requirement to audit environmental information in the Strategic or Directors' Reports within the annual report. However, the statutory auditor of the financial statements will be required to:

- consider whether the information is materially inconsistent with the financial statements, or the auditor's knowledge obtained in the audit;
- consider whether the information has been prepared in accordance with applicable legal requirements; and
- report on these matters in the auditor's Report.

Where a UK company publishes a separate environmental or sustainability report, the auditor is not required to read it although they may consider it as contributing to a knowledge of the business (DEFRA & BEIS, 2019, p.20).

Assurance over the content of disclosures is another aspect of the framework to consider. Risk assurance is currently regulated under a 2011 standard, ISA (NZ) 315, which sets out the 'auditor's responsibility to

identify and assess the risks of material misstatement in the financial statements, through understanding the entity and its environment' (XRB, 2011b). This requires auditors to read the other information in the annual report and consider whether the information is materially inconsistent with the financial statements or other knowledge obtained during the audit, or whether it otherwise appears to be materially misstated.

The assurance profession is already under pressure (see Section 6.9.3), and the emerging area of climate information assurance is contributing to tensions. One such tension is due to the fact that audit reports are prepared for a very specific audience of existing shareholders and, in some cases, even more specifically, the 'shareholders as a collective' (see Figure 16 in Section 4.1). This is at the exclusion of other users such as prospective investors (which are included by the TCFD), bankers, lenders, creditors, suppliers or customers and other users, meaning reports are out of date with the needs of society. Secondly, assurance of GHG emission disclosures in annual reports are not always undertaken by members of the auditing profession. This contributes to uncertainty over accounting methodologies and responsibility for assuring of this key information if it sits outside the financial statements.

Table 14: Strategic options for 'material' content requirements in an annual report

Strategic option	Explanation
Option one: **Expand financial statements (and notes) and existing instruments**	Expand the financial statements and notes to recognise and report on climate risks and opportunities; and/or expand announcements to the NZX (this could be achieved by requiring adoption of TCFD in the NZX's *ESG Guidance)*. In the public sector the OAG could produce an assurance standard that may indirectly shape reporting.
Option two: **Adopt an extended external annual report**	Focus on the process by first integrating financial and non-financial information and then building climate disclosures within that. Many companies are already extending their reporting to reflect their integrated thinking. This could be legislated or developed as an XRB reporting standard. This may be the most appropriate for New Zealand, given XRB's *Position Statement on EER* (see Section 2.3.3).
Option three: **Adopt an outcomes approach**	Use other instruments, such as the 'Living Standards' Framework, to expand content requirements for annual reports. Although this is not yet a reporting framework, its focus on outcomes make it a plausible option for reporting against in the future.
Option four: **Expand directors' reporting responsibilities**	This is an emerging trend that is likely to continue to evolve (see UK response in Section 7.5).
Option five: **Require A Statement of Climate Information**	See Section 8.1.2.
Option six: **Require A Statement of Corporate Governance**	See Section 4.6.

3. When

In designing the new framework, the desired frequency and time horizons of climate-related disclosures will be an important consideration (e.g. annual disclosures and providing assurance of a going concern for five years).

4. Where

Centring the annual report as the one place where an entity provides all key climate-related information would align the New Zealand reporting framework with emerging best practice, which is to place broader information of a material nature in the annual report (see Figure 28 in Section 7.6). For example, the Bank of England has announced it will disclose 'how it integrates climate-related financial risks across its balance sheet and processes' as part of its 2019/2020 annual report (Bank of England, 2019a). The value of placing such information in the annual report is one of the underlying assumptions set out in Section 1.1 of this discussion paper.

8.1.2 Require Statements of Climate Information

Given the complexity of the current entity reporting framework and the urgency of the risks posed by climate change, we recommend implementation of a requirement for a category of entity called 'climate reporting entities' to file a *Statement of Climate Information*. Although this seems like adding complexity to the system (and compliance costs for entities), it is intended as an interim measure to address the urgency of the situation, much like how the Interim Climate Change Committee was established as a precursor to the Climate Change Commission.

The 'climate reporting entity' category could use existing legal definitions, such as FMC reporting entities, 'large' entities, state sector entities, local government entities, registered charities (Tier 1) and other significant entities either connected to vulnerable infrastructure or with significant carbon emissions and pollutions (see definitions proposed in Appendix 1).

In the short term, *Statements of Climate Information* could be collected in a simple survey-type format designed by MfE or the ICCC (or the proposed Climate Change Commission) that enables the information to be collated immediately for public release. In the medium to long term, requirements to produce the *Statement of Climate Information* could be embedded in legislation such as regulations under the Zero Carbon Bill or the amended Financial Reporting Act 2013/External Reporting Act.

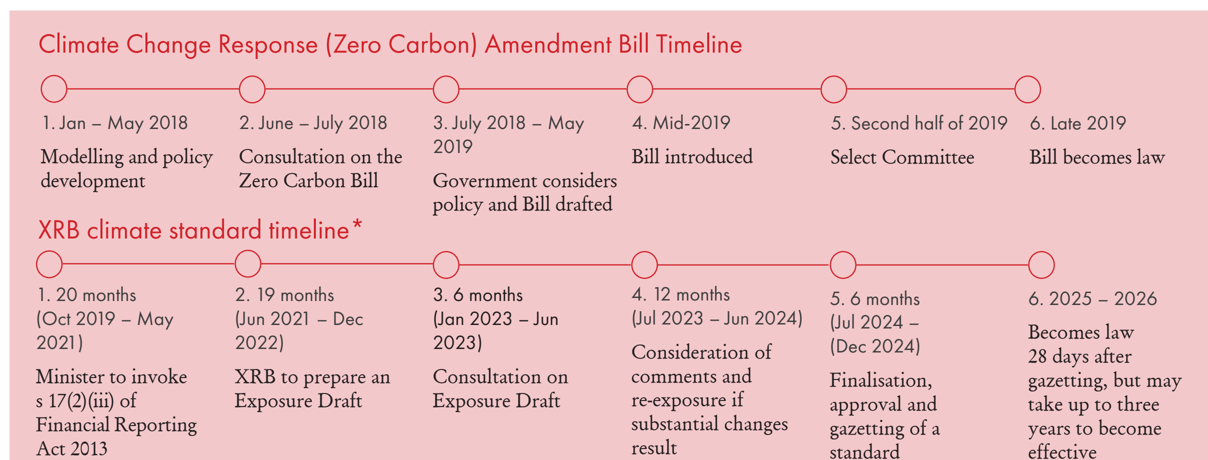
Because of the speed at which this area of reporting is developing, it is important to retain legislative and regulatory flexibility and to create a responsive policy environment. This is why we would recommend that any reporting requirements in legislation remain high-level, with more specific climate reporting requirements outlined in separate instruments; for example an XRB standard on climate information (and an accompanying assurance standard) issued under s 17 of the Financial Reporting Act 2013, in line with the Productivity Commission's Recommendation 7.4 (NZPC, 2018, p. 199).

Alternatively, the requirement to produce the Statement could be introduced for companies by amending existing legislation such as s 211 of the Companies Act 1993. Other legislation or amendments would need to introduce the requirement for other respective entity types, although implementation for the public sector could be achieved without legislative changes by updating existing guidance documents (see list in Table 14). If other legislation were considered, another option would be to create 'Climate Reporting Regulations'.

The move towards extended external reporting may also present an option for assuring the *Statement of Climate Information*. For example, the International Auditing and Assurance Standards Board (IAASB) is currently seeking feedback on developing draft guidance in the first phase of a project that might result in guidelines for assurance on EER (IAASB, 2019d).

Figure 30 compares the tentative timelines for enactment of the Zero Carbon Bill and the development of XRB reporting standards under s 17(2)(iii) of the Financial Reporting Act 2013.

Figure 30: Comparing the tentative timelines for enactment of the Zero Carbon Amendment Bill and the development of XRB reporting standards on climate-related disclosures



Note: * See discussion in Section 8.5 to understand why this is unlikely.

We recommend that a variety of organisations be involved in the development of the *Statement's* content requirements, including the proposed Climate Change Commission, Stats NZ, climate scientists, researchers, LGNZ, XRB, MBIE and MfE. The *Statement* should be targeted at a broad range of stakeholders, although it may be useful to separate these into primary stakeholders (e.g. investors, shareholders, creditors, insurers, bankers, employees, customers, neighbours and suppliers) and non-primary stakeholders (e.g. local and central government, policy-analysts, NGOs, researchers and the wider community in which the entity operates). The requirements could be revisited in an iterative process as users and their specific information needs become more apparent.

As a starting point, the *Statement* could be structured around identification, measurement and management of climate change impacts and opportunities. Disclosures could consider both the impact of climate change on the entity and the impact of the entity on climate change. The identification section could include use of scenarios and the development of priorities. Within the measurement section, entities could be required to disclose their emissions in line with the GHG Protocol's scopes. MfE's *Measuring emissions: A guide for organisations*, the 2019 update of the 2016 *Guidance for Voluntary Greenhouse Gas Reporting*, is an existing instrument which could be incorporated into the content requirements of the *Statement of Climate Information*. The risk management section should include the entity's strategy. The statement should be a maximum length of four pages to ensure conciseness, and should be signed by the chair of the entity (or equivalent).

The Climate Change Commission would have the potential to oversee both the *Statements of Climate Information* and the Emissions Trading Scheme. This would be in line with the agreement of 97% of respondents to MfE's 2018 consultation that the Climate Change Commission advise and monitor progress on climate goals (MfE, 2018i, p. 28). It would also present an opportunity for further consolidation by providing a resource hub that centralises national and international guidance frameworks/instruments. It could also be responsible for developing the climate strategy discussed in more detail below, in collaboration with central and local government, the private sector and other stakeholders.

8.1.3 Consolidate and centralise all reporting in the annual report

A significant part of improving the accessibility of entity reporting is reducing fragmentation. In order to address this, we recommend emphasising the annual report as the central repository of all material information. To support this, all entities that currently file financial statements with the Companies Office should have a new obligation to prepare and file full annual reports (including the *Statement of Climate Information*). This would allow Stats NZ to regularly collate and interpret the data in terms of industries, sectors and other frames of interest. Our research indicates that over 70% of NZX companies already file their full annual report when they file their financial statements (McGuinness Institute, 2018b, p. 49).

Corporate governance statements (as required by the FMA and the NZX) should also be required to be included in the annual report. This could be achieved by amending s 211 of the Companies Act 1993.

Public sector

In the public sector, the need for consolidation and centralisation is tied to the need to be more resilient to changes of government. This is particularly significant because Treasury announced in April 2019 that it will no longer publish 'a regular report on the status of major public sector investments' (Pullar-Strecker, 2019). These reports were introduced in 2015 and were designed to ensure that there was valuable, developmental information on major investments that assessed 'costs, benefits, progress and challenges'; however, Treasury indicated that there was a resourcing issue due to the broad scope of projects that this report was required to assess (Pullar-Strecker, 2019). In order to reinstate some form of strategic reporting, we recommend that Treasury produce a consolidated annual report of the Government (in addition to the existing consolidated financial statements of the Government). This would include the equivalent of a chair's report from Treasury, a corporate governance statement and a *Statement of Climate Information*. The new content would still be audited by the OAG, but only in terms of its broad alignment with the content of the financial statements and would include disclosure of climate change information. We believe this change would improve public understanding of central government's strategic narrative and enable citizens to act as an accountability-check on the action (or inaction) of the Government.

For local government, we recommend that DIA produces the consolidated financial statements and an annual report of local government. This may be costly, but it would provide a way to consolidate all material information in the annual report.

To further support the process of consolidation, we recommend the creation and maintenance of a Crown Register of annual reports (prepared by Treasury), similar to the Companies Register for the private sector. This would improve transparency and access to climate information. This could be achieved without new legislation through the update of existing guidelines for reporting, such as Treasury's year-end reporting guides for government departments and Crown entities, and the OAG's discussion paper about improving the usefulness of local government annual reports (Treasury, 2018a; 2018b; OAG, 2011). The Crown Register would be a cost-effective and timely way to update and consolidate the existing guidance on the preparation of annual reports in the public sector and therefore to drive consistent reporting (see Table 15).

Table 15: Voluntary guidance documents

Voluntary guidance documents in New Zealand
1. *Annual Reporting to Charities Services – A Guide for Tier 3 Charities* (Charities Services, n.d.[a]).
2. *Annual Reporting to Charities Services – A Guide for Tier 4 Charities* (Charities Services, n.d.[b]).
3. *Crown Research Institute Toolkit* (MBIE, n.d.). See section 'Planning and reporting requirements for CRIs'.
4. *Local government: Improving the usefulness of annual reports* (OAG, 2011).
5. *Measuring emissions: A guide for organisations–2019 Quick Guide* (MfE, 2019e).
6. *Preparing the Annual Report and End-of-Year Performance Information on Appropriations: Guidance for Crown Entities* (Treasury, 2018b).
7. *Public Finance Act: Strategic Intentions Guidance* (Treasury, 2015).
8. *Year End Reporting: Departmental Annual Reports and End-of-Year Performance Information on Appropriations* (Treasury, 2018a).

8.1.4 Other observations and ideas

- Explore the possibility of creating an open source database of natural hazard risk for all New Zealand properties. There is particular interest in this from the Insurance Council, given that international assessments of New Zealand's risk are unlikely to accurately represent our risk with a level of useful detail.
- Require the national climate change risk assessment and national adaptation plan proposed under the Climate Change Response (Zero Carbon) Amendment Bill to be prepared every three years, within 12 months of the publication of the atmosphere and climate domain report prepared under the Environmental Reporting Act 2015, as recommended by MFE in the *Our Climate Your Say* discussion document (MfE, 2018c, p. 46). Three-yearly reports provide an appropriate frequency for data collection considering the high level of uncertainty over climate-related risks and impacts.
- Issue a National Environmental Standard for Flooding, Fires and Sea-level Rise under s 43 of the Resource Management Act 1991 (RMA) as a way of providing certainty to local and central government regarding climate change risk policy. This could be positioned as a further development to the elevation of natural hazards in amendments to the 2017 amendments of the RMA and aligned with the second stage of a resource management review intended to focus more directly on climate change in 2019 (Parker, 2018, p. 12).

8.2 Goal 2: Ensure those who are responsible for governance in New Zealand think long-term and are future-focused

Overview

1. Require a Climate Change Mitigation and Adaptation Strategy for New Zealand to be prepared to help guide reporting requirements (see Section 8.2.1).
2. Amend s 131 and/or s 137 of the Companies Act 1993 to strengthen directors' duty of care by including a duty of care to be future-focused (see Appendix 1).
3. Amend s 211(1) of the Companies Act 1993 to require a chair's report to:
   (a) Be from the board only (i.e. not jointly signed with the CEO). This is to ensure that the lines of accountability are clear and that governance/strategic matters are distinct from operational matters.
   (b) Require the board to be strategic and consider long-term risks, opportunities and impacts (see Appendix 1 for amendment suggestions to ss 131 and 137).
   (c) Require the chair's/directors' report to be filed with the Companies Office (as in the UK).
4. Amend s 211 of the Companies Act 1993 to require the inclusion of a strategic report in the annual report and outline its key contents (similar to the UK Companies Act). To assist entities in implementation, XRB (or the FMA) should prepare and issue guidance or a standard outlining specific content requirements of the strategic report. The XRB has the widest remit.
5. Amend s 211 of the Companies Act 1993 to require selected entities to prepare a range of climate change scenarios to be included in their *Statement of Climate Information*. For example, specific types of scenarios could be prescribed for local bodies, such as 1°C increase in temperatures, or a 1 m rise in sea levels. Climate change scenarios will assist boards in identifying, measuring and managing risks and improving their preparedness for a range of eventualities. This will capture risks that are not currently material (i.e. not currently in the financial statements) but are likely to become material in the longer term (i.e. may be included in the financial statements at a later date) (see Goal 1).
6. XRB to extend the 'relevant period' of consideration for going concern from the current 12-month basis to five years from the date of the auditor's current report to take the nature of climate risks into account. This would specifically involve reissuing the auditing and assurance standard ISA (NZ) 570 with an amended paragraph NZ 13.2 (XRB, 2015b, p. 9).
7. Government departments to be required to replace their four-year plans with 10-year plans. These should align with local government plans and should be written for the general public as shareholders. The 10-year plans should be prepared every three years (in alignment with local government).

8.2.1 A Climate Change Mitigation and Adaptation Strategy for New Zealand

As noted by the Reserve Bank, 'it is essential that all sectors of the economy work within a coherent national strategy on climate change' to ensure that 'decisions about future investment and development [...] factor in long-term climate risks' (Reserve Bank, 2018, p. 15). In the past the NZ ETS was seen as New Zealand's primary instrument for reducing GHG emissions, but the challenge is no longer simply one of mitigation but also of adaptation (MfE, 2018f). A strategy is needed to integrate both goals in a timely and cost-effective manner.

The closest instrument New Zealand has to a climate strategy is a Cabinet paper that sets out a policy framework for climate change related decisions (Shaw, 2018). Although the Cabinet paper asks Cabinet to agree to an 'all-of-government framework to serve as the basis for climate change policy development and decision-making, including understanding benefits and trade-offs' and sets out three pillars for the transition to a low-carbon economy, it does not constitute a coherent national strategy (Shaw, 2018).

The importance of a climate strategy for New Zealand cannot be overstated in terms of developing a climate reporting framework. The fact that we have historically not had a comprehensive whole-of-government

strategy has made it difficult to either analyse the current climate reporting framework or conceive of an updated framework that is fit for purpose. A strategy is only as good as the information available to inform its development and re-evaluation, leading to a catch-22 situation where we do not have a strategy against which to report and provide data, to inform decision making to develop a strategy.

The *NZX ESG Guidance* notes 'strategy should drive reporting, rather than reporting driving strategy' (NZX, 2019a, p. 15). However, both strategy and reporting are important when dealing with a high degree of uncertainty (as is the case with climate change). The reporting of relevant, accurate and timely information is needed to explore strategic options, while strategy, once agreed, will drive the need for specific information to indicate whether the strategy is working or not. Given the high degree of uncertainty over the risks, costs and benefits of climate change, New Zealand will need a significant amount of information to first design a strategy and then a lesser amount of specific information to inform progress. Both types of information will largely be made up of entities' external reporting.

The Climate Change Response (Zero Carbon) Amendment Bill presents the opportunity to enshrine the requirement to produce a whole-of-government climate change strategy in legislation. This would ensure that the strategy outlasted any one government and could provide a stable outline of New Zealand's priorities in terms of both climate change mitigation and adaptation. A move such as this would not be unprecedented; for example, there is a provision in s 317 of the Gambling Act 2003 allowing the Government to 'allocate responsibility for an integrated problem gambling strategy to a department'.

Te ao Māori presents an invaluable opportunity for New Zealand in forming the basis for long-term, intergenerational thinking and environmental stewardship. Furthermore, te Tiriti o Waitangi provides a legislative and constitutional framework for integrating such thinking into our national instruments, as evident in s 5 of the Environmental Reporting Act 2015 and s 8 of the Resource Management Act 1991.

A climate change strategy should explain the approach to be taken, how success will be measured, and analyse the benefits, costs or risks it will deliver. The content of the strategy would also be expected to build on the recommendations and research of many other reports mentioned in this paper from institutions such as the Productivity Commission, CCATWG, LGNZ and PCE.

8.3 Goal 3: Cater to the disclosure needs of broader stakeholders in New Zealand

Overview

1. Extend the audience of the annual report to include stakeholders more broadly, rather than only shareholders or primary users (investors, creditors, etc.).
   (a) Amend s 211(1)(a) of the Companies Act 1993 to replace shareholders with stakeholders. This will clarify the role of the chair's report (our early research indicates that the chair's report is already stakeholder-focused, see Survey Highlights: A summary of the 2017 Extended External Reporting Surveys).
   (b) NZX Code to require disclosure of the impacts of the company on its broader stakeholders. This would be more in line with the current consideration of stakeholder interests required in Principle 9 of the FMA *Corporate Governance Handbook*. For greater consistency and alignment, the NZX Code and FMA Handbook could be jointly revised and published, producing one code with different criteria for different entities.
2. XRB to provide climate-related disclosure guidelines based on the IASB's *IFRS Practice Statement 2: Making Materiality Judgements.* Alternatively, New Zealand could adopt the Australian Accounting Standards Board (AASB) and Australian Government Audit and Assurance Standards Board (AUASB) 2019 guidelines in *Climate-related and other emerging risks disclosures: assessing financial statement materiality using AASB/IASB Practice Statement 2*.
3. Preparers to ensure that all related risks (financial and non-financial) are appropriately grouped in the notes to the financial statements (this is implied in accounting standards but could be better applied in practice). The XRB could undertake a review and provide guidance on this.

4. Amend s 137 of the Companies Act 1993 to strengthen the directors' duty of care by including a duty of care owed to stakeholders.

McGuinness Institute research indicates that there are gaps between what information preparers currently provide, the information shareholders and primary users are demanding, and the information more broadly required by stakeholders (see Figure 4 in Section 1.3). This widening gap may be due to an increased awareness that value creation involves many different types of capital, not just financial capital, and that these are linked to corporate citizenship and social licences to operate. This will also entail a shift in the general understanding of directors' duty of care as outlined in s 137 of the Companies Act 1993.

These issues are heightened by the fact that climate change affects everyone, not just shareholders and primary users of corporate reporting. Focusing on shareholders and primary users limits and may omit critical and material information from annual reports. This constitutes a defining difference between the traditional emphasis on historical reporting and primary users to a focus on the future reporting and stakeholders needs (broader than shareholders).

8.4 Goal 4: Improve the existing international framework of reporting standards to cover climate-related information

Overview

1. Stakeholders to directly/indirectly influence and liaise with the IASB to strengthen existing standards and develop new standards and guidance to cover climate-related information. This may include XRB working directly with the IASB to extend the framework as outlined in Table 15.
2. Voluntary frameworks need to converge or at least develop a set of shared principles to align and prevent confusion for preparers and users alike.

New Zealand is dependent on international trade and capital investment. As such, New Zealand entities must continue to report in such a way that is comparable with other international entities. This is why New Zealand is committed to adopting international reporting standards. It is in New Zealand's interest that the IASB improves its framework to cater for the challenges of climate change. It is also important for comparability that the framework can be applied and data can be benchmarked and assured. If the IASB is not going to step up, this needs to be made clear so countries that adopt IFRS can look elsewhere for an international reporting framework on climate change mitigation and adaptation.

Table 16 outlines the existing scope and purposes of the IASB framework and the expansion of scope that might help it become a more effective climate reporting standard-setter.

Table 16: Comparing the current and possible future focus areas of IASB standards

Focus area	Current IASB pronouncements	Future direction/expansion of IASB pronouncements
Purpose (why)	Provided for accountability and decision-making purposes.	Provided for transparency, building social licence, accountability and decision-making purposes.
Audience (who)	Primary users.	Primary users and other stakeholders.
Horizon (when)	Past and the next 12 months.	Past and the next ten years.
Information (what)	Financial statements and notes (primarily financial information and possibly management commentary).	Everything in the annual report (financial and non-financial information and all commentary).

Focus area	Current IASB pronouncements	Future direction/expansion of IASB pronouncements
Level of certainty (what)	Primarily retrospective with a focus on known risks with high probability/certainty in the near future.	Retrospective and prospective, allowing for the use of exploratory tools such as scenario development to inform strategies.
Instruments (how)	Standards, practice statements and other guidance.	Standards, practice statements and other guidance.
Materiality for climate matters (how)	Minimal.	Guidance followed by a standard for climate reporting.
Accessibility (where)	Dependent on the jurisdiction. In New Zealand, information can be accessible via NZX, the Companies Register or entities' websites.	Will always be dependent on jurisdiction, but ideally the focus will move beyond access to financial statements to include access to the annual report.
8. Accessibility (where)	Dependent on the jurisdiction. In New Zealand, information can be accessible via NZX, the Companies Register or entities' websites.	Will always be dependent on jurisdiction, but ideally the focus will move beyond access to financial statements to include access to the annual report.

8.5 Final comment and next steps

As this paper was in the final stages of preparation, the Government published the report *Transitioning to a low-emissions future – the Government response to the Productivity Commission's Low Emissions Economy*. The Institute supports the Government's response to the Productivity Commission's Recommendations 7.3 and 7.4 (see excerpts in Section 2.3.6 of this paper), and asks the following questions

8.5.1 Key questions

1. **Where should climate-related requirements be placed in law?**

   The Institute considers changes to the existing legislation and/or reporting framework to be necessary. The policy levers are illustrated in Figure 31 overleaf. It is worth noting that some parties, such as the XRB, may argue that the current framework is sufficient for meeting climate reporting requirements if applied correctly.

   The Financial Reporting Act 2013 (and equivalent legislation for other relevant entities, such as local government) would be the best place to embed climate-related disclosure requirements in law.

   As the XRB is an independent Crown entity, government ministers (e.g. the Minister of Commerce and Consumer Affairs) are not able to direct the XRB to require specific domestic climate-related disclosures. However, if the XRB considered there to be a need for a financial reporting standard to cover such disclosures, they could request that the Minister invoke s 17(2)(iii) of the Financial Reporting Act 2013, which involves the Minister making a recommendation to the Governor-General for an Order-in-Council that, if the Governor-General agreed, would then authorise the XRB to develop such a standard.

   If the review and refresh of the IASB's *IFRS Practice Statement 1: Management Commentary* does not extend voluntary guidance on EER to the satisfaction of the XRB, the XRB could provide voluntary guidance on EER outside the financial statements (including climate-related information) by preparing and issuing domestic practice statements on EER. However, the process of producing a practice statement would take years (see Section 7.2.1) and could only ever deliver voluntary guidance.

2. **What classes of entities should report?**

   Figure 28 in Section 7.6 of this discussion paper provides an exploratory attempt at illustrating which entities should be required to disclose climate-related information. The figure includes government departments, state-owned enterprises and local government in the reporting regime due

to their impacts on the economy in terms of GDP and their roles in managing key infrastructure. The precedent for the public sector to be covered by climate reporting requirements has been set by the Zero Carbon Bill, which outlines the ability for the Minister to request information on climate change adaptation from the public service, local authorities, council-controlled organisations, Crown entities (excluding school boards of trustees), 12 non-listed companies of which the Crown is majority or sole shareholder, 13 specified state-owned enterprises, lifeline utilities (which includes a number of private sector entities), New Zealand Police and the New Zealand Defence Force.

Any 'comply or explain' disclosure regime should be accompanied by a voluntary regime that allows entities not covered by requirements to also disclose using the same reporting regime. Providing all entities with the opportunity to report against a shared standard would enable comparability of annual reports across a range of entities or for one entity over time. It would also ensure that entities that are covered by the requirements do not gain branding and reputational advantages over those that are not covered (e.g. SMEs).

3. **Where should an entity's climate-related information be made public?**

Reporting entities captured by this reporting regime should be required by law to include climate-related information in their annual reports. Furthermore, their annual reports should be required by law to be filed on the Companies Register (or other similar register).

The Institute advocates for the creation of a *Statement of Climate Information* to be included in annual reports of selected entities. This is an alternative to such information being provided in financial statements and/or corporate governance statements, thereby improving its accessibility and enabling content requirements to be updated more easily to reflect the evolving needs of users. The *Statement* should be signed by the chair of the entity on behalf of the board of directors (or equivalent). To date, the Institute has worked with Z Energy to develop an example *Statement of Climate Information*, illustrating how it might operate in practice (see Appendix 2).

4. **Who are the users of climate-related information?**

Users of climate-related information will extend beyond a company's shareholders and this will need to be taken into consideration when designing disclosure requirements. Climate-related information can still complement and align with the information in financial statements, but it should not be constrained by the criteria and short-term horizons applied in the accounting and assurance framework, or the boundaries that shape the content of financial statements. The *Statement of Climate Information* should be aimed at a broader set of stakeholders than just primary users.

Designing a comprehensive and transparent reporting regime that is easy for users to access, understand and assess will contribute to a cost-effective and timely transition to a low-emissions economy. Emerging issues, opportunities and challenges mean that the design of New Zealand's climate reporting regime should focus on creating durable and flexible platforms where content requirements can be changed over time to respond to a broad range of developments and user needs (e.g. investors, bankers, consumers, citizens and policy-makers).

Developing a climate reporting regime could be supported by an advisory or working group under the Climate Change Commission (proposed under the Zero Carbon Bill). This group could work to integrate New Zealand's framework to prevent a siloed response to climate reporting. The group could take advice from international regulators and authorities such as the European Union and the UK Prudential Regulation Authority (see Appendix 4), and consider voluntary frameworks such as the IIRC's *International <IR> Framework* and the *Recommendations of the TCFD*.

The emerging reporting regime will need to help entities report on and manage stranded assets, use carbon accounting and internal carbon pricing to shape investment decisions, assess risks and develop and share strategy. In terms of sharing strategy, it may become a future requirement for large entities to produce strategies aligned with the *Paris Agreement* (possibly including short-term, medium-term and long-term goals).

8.5.2 Next steps

The research outlined in this discussion paper has reinforced the importance of the annual report as the repository of all material information about an entity (i.e. both aspects of the EU's double material perspective illustrated by Figure 28 in Section 7.6); the need to draw a distinction between the roles of the board, the

CFO (and management team) and the shareholder; the need to draw a distinction between information that is provided only to shareholders and information that is prepared for shareholders and made public to wider stakeholders; and the necessity of working towards a shared climate reporting framework for the public and private sectors to improve the accessibility and comparability of climate-related disclosures.

Given these insights, the Institute has identified several next steps for our work in relation to climate reporting. The first of these were completed while this discussion paper was still in press:

1. **Submission to the Zero Carbon Bill**

   The Institute provided both a written submission and an oral submission to the Select Committee on the Zero Carbon Bill. Both submissions focused on the reporting aspects of the Bill as outlined in cl 5ZV(4), as well as recommending that the Climate Change Commission be specified as a repository for the reported climate information.

2. **Think Piece 32 – Exploring Ways to Embed Climate Reporting into the Existing Framework**

   This think piece formed the bulk of the oral submission made by the Institute to the Zero Carbon Bill Select Committee. The think piece is centred around a diagram that maps out the existing reporting framework in terms of relevant international organisations and pronouncements and legislation, and the New Zealand framework and legislation. Policy levers that could be used to embed climate reporting requirements into the existing framework are indicated with the numbered key (see Figure 31).

Further next steps:

3. **Report 17 – ReportingNZ: Building a Reporting Framework Fit for Purpose (in press)**

   This *Project 2058* report will aim to contribute to a discussion about the quality of New Zealand's external reporting infrastructure. The end goal is to make it fit for purpose for both users and preparers by making information useful, accessible, accurate, timely, cost-effective and comparable.

4. **Working Paper 2019/07 – A Review of the Accounting and Assurance of GHG Emissions (in press)**

   This working paper will attempt to answer a series of questions about the reporting of GHG emissions as disclosed under a range of international climate reporting regimes. Such questions may include the following: Which entities should report? Where should GHG emissions be disclosed? What methodologies should be used? What GHG Protocol scopes (1–3) should be reported? Should emission disclosures be assured?

5. **Working Paper 2019/08 – A Review of Directors' Report Requirements in New Zealand and Selected Overseas Countries (in press)**

   This working paper will provide a comparison of directors' reporting requirements in New Zealand and internationally and is expected to highlight weaknesses in New Zealand's external reporting infrastructure.

6. **FSB-TCFD Workshops: Practical steps for implementation**

   The Institute is partnering with law firm Simpson Grierson to deliver two workshops in Auckland and Wellington that will explore the implementation of the Recommendations of the TCFD in the context of New Zealand's climate reporting framework. The purpose of the workshops will be to raise awareness and assist in navigation of a (currently voluntary) climate reporting framework that has had significant international uptake and for which there is growing interest in New Zealand. Speakers include the Policy & External Affairs Director of the CDSB, as well as policy-makers, regulators, private sector leaders and early implementers of the TCFD recommendations.

7. **Explore the idea of a New Zealand Green Finance Strategy**

   The Institute is exploring the possibility of the government creating a strategy document similar to the UK's *Green Finance Strategy* (see Section 7.5).

Figure 31: Exploring ways to embed climate reporting into the existing framework

Relevant International Framework

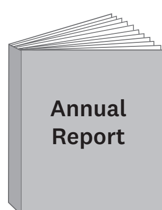
Organisation	Body	Content	Lever
IFAC	IPSASB	• IPSAS*#	1
IFAC	IAASB	• ISA* • ISAE* • ISRE*	
IFAC	IESBA	• International Code of Ethics*	
IFRS Foundation	IASB	• IFRS* • PS 1 – Management Commentary+ • PS 2 – Materiality+	1
FRC 'E' (Aus)	AASB/AUASB	• CC related and other emerging risks disclosures assessing PS 2 'V'	2
FSB	TCFD	• Recommendations 'V' • Other guidance 'V'	3

New Zealand Framework

Organisation	Content	Lever
Public Sector	• Guidance documents for reporting 'V' (See Table 14 in DP)	
XRB 'E' • NZASB* • NZAuASB*	• NZ IFRS 'M' • PBE Standards# 'M' • Assurance and ethical standards 'M'	2, 3
FMA	• CG Handbook 'V' (Financial reporting entities excluding listed companies)	5
NZX	• *Rules* 'M' • *CG Code* 'C/E' • *ESG Guidance* 'V' (Listed companies only)	5
MBIE	• Companies Register	4

New Zealand Legislation

Legislation	Lever
Public sector legislation	
CC Response (Zero Carbon) Amendment Bill; cl 5ZW(c)	7
Financial Reporting Act 2013; s 8; s 17(2)	7
Financial Markets Conduct Act 2013 ss 3, 4; Companies Act 1993 ss 131 and s 137; s 211	4, 6
Companies Act 1993; s 207D; s 207E	4



Content of an Annual Report

- Directors' report
- Financial statements
- Auditors' report
- Corporate Governance Statement
- *Statement of Climate Information* [new]

* International standards are issued for voluntary adoption at the international level and are mandatory when adopted by the XRB as New Zealand standards (e.g. NZ IFRS or ISA (NZ)).

\+ IFRS PS 1 and PS 2 are issued for voluntary adoption at the international level but have not been adopted by the XRB. For-profit entities applyingIFRS Standards are not required to comply with IFRS PS 1 and IFRS PS 2 in order to state compliance with IFRS Standards.

\# XRB's PBE Standards are based on IPSAS.

'E' FRC, AASB and AUASB are the Australian equivalents to the XRB, NZASB and NZAuASB respectively.

Other Abbreviations

CC Climate change
CG Corporate governance
CR Companies Register
DP MI Discussion Paper
FS Financial statements
PS Practice Statement

Reporting Obligations

'C/E' Comply or explain
'M' Mandatory
'V' Voluntary

○ **Organisations**

□ **Pronouncements and Legislation**

Policy levers

1. A: IPSASB (public sector only)
   (a) Create a CC standard
   B: IASB (for-profit only)
   (a) Create an IFRS CC standard
   (b) Expand PS 1
   (c) Expand PS 2
2. XRB create new CC standard or guidance and/or adopt Australian guidance
3. Embed TCFD in the NZ reporting regime (similar to UK Green Finance Strategy)
4. Strengthen chair's/directors' report
   (a) Embed CC information outside of the FS (similar to UK requiring GHG missions in chair's/directors' reports of 12,000 companies) – s 131 and s 137
   (b) Expand directors' duties – s 131 and s 137
   (c) Expand contents of annual report – s 211
   (d) File chair's/directors' report on the Companies Register
5. Expand Corporate Governance – FMA and NZX
6. Create new *Statement of Climate Information* for inclusion in annual report – s 211 for selected entities
7. Create new regulations under the Bill and/or a domestic standard is developed by XRB under section 17(2)(iii)

Abbreviations

AASB	Australian Accounting Standards Board
ACCA	Association of Chartered Certified Accountants
APRA	Australian Prudential Regulation Authority
ARC	Audit and Risk Committee members
BEIS	Business, Energy and Industrial Strategy (UK)
BOI	Board of Inquiry
CA ANZ	Chartered Accountants Australia and New Zealand
CBI	Climate Bonds Initiative
CCATWG	Climate Change Adaptation Technical Working Group
CDP	Carbon Disclosure Project
CDSB	Climate Disclosure Standards Board
CEMARS	Certified Emissions Measurement And Reduction Scheme
CEO	Chief Executive Officer
CES	Conference of European Statisticians
CRD	Corporate Reporting Dialogue
CSR	Corporate Social Responsibility
DIA	Department of Internal Affairs
DJSI	Dow Jones Sustainability Indices
DTI	Debt-To-Income
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
EER	Extended External Reporting
EPA	Environmental Protection Authority
ESG	Environmental, Social, Governance
ETS	Emissions Trading Scheme
EU NFRD	European Union Non-Financial Reporting Directive
FASB	Financial Accounting Standards Board
FMA	Financial Markets Authority
FMC	Financial Markets Conduct
FRC	Financial Reporting Council
FSB	Financial Stability Board
GAAP	Generally accepted accounting principles
GBP	Green Bond Principles
GDP	Gross Domestic Product
GDS	Government Department Strategy
GHG	Greenhouse Gas
GIS	Geographic Information System
GLEC	Global Logistics Emissions Council
GPFR	General Purpose Financial Reports
GRI	Global Reporting Initiative
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IAASB	International Auditing and Assurance Standards Board
ICCC	Interim Climate Change Committee
IEA	International Energy Agency
IFRS	International Financial Reporting Standards
IGCC	Investor Group on Climate Change
IIRC	International Integrated Reporting Council
IoD	Institute of Directors
IPCC	Intergovernmental Panel on Climate Change

IPPU	Industrial Processes and Product Use
<IR>	Integrated Reporting
ISA	International Standard on Auditing
KAM	Key Auditing Matter
LGNZ	Local Government New Zealand
LiDAR	Light Detection and Ranging
LLP (UK)	Limited Liability Partnership (UK)
LSE	London Stock Exchange
LULUCF	Land Use, Land-Use Change, and Forestry
MBIE	Ministry for Business, Innovation and Employment
MDC	Marlborough District Council
MfE	Ministry for the Environment
MHWS	Mean High-Water Springs
MoU	Memorandum of Understanding
MPI	Ministry for Primary Industries
MPI BERG	Ministry for Primary Industries Biological Emissions Research Group
NES	National environmental standard
NGER	National Greenhouse and Energy Reporting scheme
NGFS	Network for Greening the Financial System
NGO	Non-Governmental Organisation
NIWA	National Institute of Water and Atmospheric Research
NZASB	New Zealand Accounting Standards Board
NZAuASB	New Zealand Auditing and Assurance Standards Board
NZKS	New Zealand King Salmon
NZPC	New Zealand Productivity Commission
NZSX	New Zealand Stock Exchange
NZU	New Zealand Units
OAG	Office of the Auditor General
OECD	Organization for Economic Cooperation and Development
PBE	Public Benefit Entity
PCE	Parliamentary Commissioner for the Environment
RIAA	Responsible Investment Association Australia
RMA	Resource Management Act
SASB	Sustainability Accounting Standards Board
SDG	Sustainable Development Goal
SEC	Securities and Exchange Commission
SECR	Streamline Energy and Carbon Reporting
SFF	Sustainable Finance Forum
TCFD	Taskforce on Climate-related Financial Disclosures
UN	United Nations
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value Added Tax
VNR	Voluntary National Review
VUCA	Volatile, uncertain, complex and ambiguous
WCR	Wider corporate reporting
XRB	External Reporting Board

Appendix 1: Proposed legislative changes

Suggested amendments are indicated in green font.

(i) ~~Financial~~ External Reporting Act 2013

Section 17 – Reporting standards may cover non-financial reporting

(1) A reporting standard may relate to reporting on—

(a) an entity's performance; or

(b) an entity's related party transactions; or

(c) any other non-financial matter that directly relates, or is incidental or ancillary, to an entity's financial reporting; or

(d) other non-financial matters authorised by an Order in Council made under subsection (2).

(2) The Governor-General may, on the recommendation of the Minister, by Order in Council,—

(a) authorise the Board to issue financial reporting standards that relate to reporting on 1 or more of the following matters:

(i) an entity's governance:

(ii) an entity's strategic direction and targets:

(iii) the social, environmental, and economic context in which an entity operates:

(iv) climate-related disclosures:

(v) any other matter relating to an entity's performance or position; and

(b) specify conditions to which the authorisation is subject.

(3) The Minister may make a recommendation only if he or she is satisfied that it is desirable for standards referred to in subsection (2)(a) to be issued in order to provide for the integrated reporting of an entity's performance or position in terms of both financial and non-financial information.

(4) This section does not limit section 15.

(ii) Companies Act 1993

Section 2 – Interpretation

(1) In this Act, unless the context otherwise requires,—

climate reporting entity means all FMC reporting entities, 'large' companies, state sector entities, local governments, registered charities (Tier 1), heavy carbon entities, and other major infrastructures or entities.

climate risks means all physical risks, transitional risks and liability risks arising from, or that have an effect on, climate change.

climate-related disclosure means any disclosures made in accordance with the reporting requirements outlined in the Climate Reporting Regulations.

climate risk identification means description of current or potential climate risks.

climate risk measurement means metrics or measures of past, present and future climate risks, including costs.

climate risk management means actions that have been implemented or are proposed with the aim of mitigating and/or adapting to climate risks to the business, the country or the planet.

significant climate risks means climate risks that could reasonably be expected to influence the decisions of a prudent investor, supplier, insurer, consumer, employee or other interested stakeholder if omitted, misstated or obscured.

stakeholders means any parties that have an interest in an organisation and can either affect or be affected by its operations.

Directors' duties

Section 131 – Duty of directors to act in good faith and in best interests of company

(1) Subject to this section, a director of a company, when exercising powers or performing duties, must act in good faith and in what the director believes to be the best interests of the company and in doing so have regard (among other matters) to the —

(a) likely consequences of any decision in the long term;

(b) interests of the company's employees;

(c) need to foster the company's business relationships with suppliers, customers and others;

(d) impact of the company's operations on the community and the environment;

(e) desirability of the company maintaining a reputation for high standards of business conduct; and

(f) need to act fairly as between shareholders of the company.

Section 137 – Director's duty of care

A director of a company, when exercising powers or performing duties as a director, must exercise the care, diligence, and skill that a reasonable director would exercise in the same circumstances taking into account, but without limitation,—

(a) the nature of the company, with particular regard to its social licence to operate; and

(b) the nature of the decision, with particular regard to the future-focus of the company and the effects of the decision on stakeholders; and

(c) the position of the director and the nature of the responsibilities undertaken by him or her.

Section 211 – Contents of annual report

(1) Every annual report for a company must be in writing and be dated and, subject to subsection (3), must—

(a) describe, so far as the board believes is material for the stakeholders to have an appreciation of the state of the company's affairs and will not be harmful to the business of the company or of any of its subsidiaries, any change during the accounting period in—

(i) the nature of the business of the company or any of its subsidiaries; or

(ii) the classes of business in which the company has an interest, whether as a shareholder of another company or otherwise; and

(b) describe, so far as the board believes is significant for stakeholders to have an appreciation of the state of the company's affairs, the business' climate risk identification, measurement and management; and

(c) include a strategy report; and

(d) include any financial statements or group financial statements for the accounting period that are required to be prepared under Part 11, Part 7 of the Financial Markets Conduct Act 2013, or any other enactment (if any); and

(c) if an auditor's report is required under Part 11, Part 7 of the Financial Markets Conduct Act 2013, or any other enactment in relation to the financial statements or group financial statements included in the report, include that auditor's report; and

(d) [Repealed]

(e) state particulars of entries in the interests register made during the accounting period; and

(f) state, in respect of each director or former director of the company, the total of the remuneration and the value of other benefits received by that director or former director from the company during the accounting period; and

(g) state the number of employees or former employees of the company, not being directors of the company, who, during the accounting period, received remuneration and any other benefits in

their capacity as employees, the value of which was or exceeded $100,000 per annum, and must state the number of such employees or former employees in brackets of $10,000; and

(h) state the total amount of donations made by the company during the accounting period; and

(i) state the names of the persons holding office as directors of the company as at the end of the accounting period and the names of any persons who ceased to hold office as directors of the company during the accounting period; and

(j) state the amounts payable by the company to the person or firm holding office as auditor of the company as audit fees and, as a separate item, fees payable by the company for other services provided by that person or firm; and

(k) be signed on behalf of the board by 2 directors of the company or, if the company has only 1 director, by that director.

(2) A company that is required to include group financial statements in its annual report must include, in relation to its subsidiaries, the information specified in paragraphs (e) to (j) of subsection (1).

(3) The annual report of a company need not comply with any of paragraphs (a), and (e) to (j) of subsection (1), and subsection (2) if shareholders who together hold at least 95% of the voting shares (within the meaning of section 198) agree that the report need not do so.

(iii) Public Finance Act 1989

Section 27 – Annual consolidated report ~~financial statements~~ of Government

(1) The Treasury must, as soon as practicable after the end of each financial year, prepare an annual consolidated report and annual consolidated financial statements for the Government reporting entity for that financial year.

(2) The annual ~~financial statements~~ consolidated report of the Government must—

(a) include its assessment of significant national risks; and

(b) include its statement of climate information; and

(c) include its statement of intent.

(d) be prepared in accordance with generally accepted accounting practice; and

(e) include the forecast financial statements prepared under section 26Q, for comparison with the actual financial statements; and

(f) include, in addition to those financial statements required by generally accepted accounting practice,—

(i) a statement of borrowings that reflects the borrowing activities for that year, including budgeted figures for that year and comparative actual figures for the previous financial year:

(ii) a statement of unappropriated expenses and capital expenditure and unauthorised capital injections (excluding any capital injection to an intelligence and security department):

(iii) a statement of emergency expenses and capital expenditure incurred under section 25 and emergency capital injections (excluding any capital injection to an intelligence and security department) made under section 25A:

(iv) a statement of trust money administered by departments and Offices of Parliament:

(v) any additional information and explanations needed to fairly reflect the consolidated financial operations of the Government reporting entity for the financial year and its consolidated financial position at the end of that year.

(3) The annual financial statements of the Government must include the Government reporting entity's interests in—

(a) all Crown entities named or described in the Crown Entities Act 2004:

(ab) all Schedule 4 organisations:

(b) all Schedule 4A companies:

(ba) all mixed ownership model companies listed in Schedule 5:

(bb) all legal entities named or described in Schedule 6:

(c) all State enterprises named in Schedule 1 of the State-Owned Enterprises Act 1986:

(d) all Offices of Parliament:

(e) the Reserve Bank of New Zealand:

(f) any other entity whose financial statements must be consolidated into the financial statements of the Government reporting entity to comply with generally accepted accounting practice.

Section 29 – Responsibility for annual consolidated report ~~financial statements~~ of Government

(1) Every annual consolidated report ~~financial statement~~ shall be accompanied by a statement of responsibility signed by the Minister, any other Minister designated by the Prime Minister for either or both of the purposes of paragraphs (a) and (d) of subsection (2), and the Secretary.

(2) The statement of responsibility shall comprise—

(a) a statement of the responsibility of the Minister, and of any other Minister designated by the Prime Minister for the purpose of this paragraph, for the integrity of the financial statements; and

(b) a statement of the Treasury's responsibility for establishing and maintaining a system of internal control designed to provide reasonable assurance that the transactions recorded are within statutory authority and properly record the use of all public financial resources by the Government reporting entity; and

(c) a statement by the Secretary that the Treasury has prepared the financial statements in accordance with generally accepted accounting practice; and

(d) a statement that, in the opinion of the Minister, and of any other Minister designated by the Prime Minister for the purpose of this paragraph, the financial statements fairly reflect the consolidated financial position and operations of the Government reporting entity for the reporting period.

(iv) Local Government Act 2002

Section 67 – Annual report

(1) Within 3 months after the end of each financial year, the board of a council-controlled organisation must deliver to the shareholders, and make available to the public, a report on the organisation's operations during that year.

(2) The annual report must include the information required to be included by—

(a) sections 68 and 69; and

(b) its statement of intent.

(3) The annual report must include a statement of climate information.

Section 68 – Content of reports on operations of council-controlled organisations

A report on the operations of a council-controlled organisation under section 67 must—

(a) contain the information that is necessary to enable an informed assessment of the operations of that organisation and its subsidiaries, including—

(i) a comparison of the performance of the organisation and its subsidiaries with the statement of intent; and

(ii) an explanation of any material variances between that performance and the statement of intent; and

(iii) a statement of climate information.

(b) state the dividend, if any, authorised to be paid or the maximum dividend proposed to be paid by that organisation for its equity securities (other than fixed interest securities) for the financial year to which the report relates.

Appendix 2: Z Energy's statement of climate information

The following 'Climate Change Statement' is excerpted from Z Energy's 2019 annual report *See You Soon*. This is the first time that Z Energy has chosen to include a Climate Change Statement, which 'gives an overview of [Z Energy's] approach to managing and reporting on climate change risks' (Z Energy, 2019a, p. 2). Z Energy supports the McGuinness Institute's belief 'that all listed issuers should report on climate change in a standardised and comparable way' (Z Energy, 2019a, p. 2).

About this report

This is our third integrated report as defined by the Integrated Reporting <IR> Framework. It covers the financial year 1 April 2018 to 31 March 2019 and focuses on the following <IR> capitals: people and culture, capability, environment, assets, our place in New Zealand, and finances. We also use the Global Reporting Initiative (GRI) Standards: Core option.

We continue to report on remuneration and corporate governance more broadly than required in response to shareholder requests for greater transparency around how we operate and how we reward our people. We have been guided by the New Zealand Shareholders Association CEO Remuneration Reporting Framework in this area.

Finally, in consultation with policy think tank the McGuinness Institute, we have chosen for the first time to include a Climate Change Statement that gives an overview of our approach to managing and reporting on climate change risks. The McGuinness Institute believes that all listed issuers should report on climate change in a standardised and comparable way. We support this, so we have used its recommended framework in our report.

This document, in conjunction with Z Energy's Corporate Governance Statement 2019, constitutes the 2019 Annual Report to shareholders of Z Energy Limited. It complies with the NZX Corporate Governance Code and the NZX Environmental, Social and Governance Guidance Note.

Ka kite anō

Environmental Sustainability

Our Climate Change Statement

Our Environmental Sustainability stand commits us to three outcomes with targets to achieve by 2020. We are making good progress against many of the targets, although some are proving more challenging than others. A summary is set out at right. Full details on our targets are available at z.co.nz.

Key

	We are on track and doing well
	We've made some good progress, but we need to do more
	We are not on track and need to do more

Outcome	Actions	Status
Use less and waste less in our operations		
Reduce carbon emissions	Operational and New Zealand supply chain emissions decreased due to lower emissions in Supply, for example in coastal shipping and ground freight of fuel to our sites. We voluntarily offset 58,000tCO2e this year to cover our operational emissions, including those from corporate travel, retail electricity, coastal shipping and hauliers.	
Reduce waste to landfill	We measure and manage our waste. As a proportion of waste, landfill volumes increased this year.	
Reduce electricity use	Electricity consumption is measured across our offices and retail network. This year electricity consumption decreased at our retail sites.	
Making purchasing decisions that support sustainability		
Supply chain	Our supplier Code of Conduct is being used for procurement decisions and contracts for major suppliers, including for ground fleet distribution of fuel and refined imported products. Our minimum energy standard for shipping was implemented, increasing the use of the most energy efficient ships.	
Customers reduce fossil fuel use	Biodiesel production is underway (500,000+ litres B100 in FY19) and we are focusing on ramping up production and rolling out delivery to our customers.	
Lower-carbon products and services	Our investment in climate-positive car sharing company Mevo is consistent with a pathway to the future of mobility we foresee. The Mevo team have established a strong presence in the Wellington market and are well positioned to grow the unique free-floating car sharing product with both consumers and businesses, with its registered members up by more than 340% and monthly trips up by more than 270%.	

“We stand for an environmentally sustainable New Zealand that is an example to the rest of the world and an inspiration to Kiwis. Z will move from being a part of the climate change problem to the heart of the solution.

We will be bold and provide leadership and a range of solutions to enable our customers, stakeholders and communities to join us on the journey to a lower carbon future.”

Key

- (green) We are on track and doing well
- (orange) We've made some good progress, but we need to do more
- (red) We are not on track and need to do more

Outcome	Actions	Status
Enable others to reduce their impact		
Customers experience emerging transport technologies	A social media campaign allowed customers to try EVs in Wellington. The Z network contains eight EV charging sites, providing around 12,000 charges in the past year. Our Z Vivian Street site is one of the most used EV charging points in New Zealand.	(green)
Carbon offsets	We are actively looking at ways to enable customers to purchase carbon offsets online and we continue to look actively at ways to make this service available to all customers.	(orange)
Partnerships for low-emission economy	We continued to develop our association with Trees That Count. In this year's season, Z supported 30 planters establishing more than 20,000 trees. Z also joined forces with Air New Zealand, Contact Energy and Genesis Energy to form Dryland Carbon to accelerate afforestation and planting in New Zealand for carbon sequestration. See the next page for more details on Dryland Carbon.	(green)
Local permanent forest providers	We are the largest single purchaser of voluntary carbon credits in New Zealand, partnering with Permanent Forests NZ. At an average cost of around $25 per tonne, this comes to an annual cost of about $1.5 million per year. The credits are created through the protection and covenanting of domestic forestry projects — these are a mixture of exotics (blackwoods, eucalypts and pine) and native trees (mānuka, kānuka and tōtara).	(green)
Policy	We were a founder and convener of the Climate Leaders Coalition, a collaboration of major businesses in New Zealand with 86 signatories representing over 50 percent of this country's emissions. The coalition was described as “globally significant” by Chris Stark, CEO, United Kingdom Committee on Climate Change. No other country has managed to do this. The initiative is in alignment with the thinking of global investors like BlackRock and is a key part of using our leadership position and those of others to influence New Zealand business overall.	(green)

Measuring our emissions

We have been measuring our emissions since 2012, but reset our base year to FY17 following the acquisition of Caltex. We follow the principles of the Greenhouse Gas Protocol to measure our greenhouse gas emissions. We measure direct emissions, such as those from the vehicles we own, and indirect emissions, such as the electricity we consume, travel and waste, our Z retail sites and Caltex operations. We include emissions across the entire supply chain and from the products we sell. Emissions from Flick are not included. Information on the greenhouse gas emissions profile of Flick is available at FlickElectric.co.nz.

While Z continues to focus on lowering operational emissions we are also committed to reducing indirect emissions from our customers through greater production of biodiesel and supporting the growth of EV use in New Zealand.

Greenhouse gas emissions

	FY19	Calendar year 2017 (base year)
Scope 1 — Z offices and retail sites	**3,837**	3,907
Scope 2 — Z offices and retail sites	**4,195**	4,045
Scope 3 — Z offices and retail sites	**4,495**	3,339
Scope 3 — New Zealand supply chain	**37,910**	40,031
Scope 3 — Share of refinery	**555,892**	634,848
Scope 3 — Rest of supply	**902,215**	807,542
Scope 3 — Z product emissions from our customers	**11,640,509**	9,488,277
Total emissions	**13,149,051**	10,981,989

We also have a liability under Liquid Fossil Fuels in the New Zealand Emissions Trading Scheme (ETS). We surrendered five million units for obligations in the 2018 calendar year. See note 13 in the financial statements.

Z invested in a long-term carbon farming and afforestation partnership to produce a stable supply of forestry-generated New Zealand Unit (NZU) carbon credits to help Z meet a portion of its ETS surrender obligation. Z will participate as a limited partner, contributing capital in an initial five-year period (subject to certain pre-agreed investment criteria/hurdles being meet), but we will not be involved in the day-to-day operations of Dryland Carbon.

Climate change risks
Forecasting future demand for fossil fuels becomes more complex when considering technology developments that may emerge over time. We use the BusinessNZ Energy Council scenarios as outlined on page 46 of this report.

As a company selling around 45 percent of New Zealand's total transport fuel; or put another way, primarily through the products we sell, nine percent of New Zealand's total emissions, Z is at risk from both the transition to a low-carbon economy and the physical impacts of climate change. However, as a downstream energy company, with no exposure to upstream drilling and extraction operations, we are well-placed to manage the change to a low-carbon economy.

There are also valuable opportunities to transition the company from fossil fuels to a low-carbon future and to do it in a way that's good for all our stakeholders.

We've been more deliberate in linking our overall risk profile to our direct and indirect exposure to climate change risks. With climate change being one of the material issues we focus on, we are working on the impact of, and adaptation to, climate change risks for Z. Our Sustainability team recently merged with the Strategy and Risk team in order to respond to these risks more deliberately.

Close to half the material topics we've reported on this year relate to management of our climate change risks. These topics are: Flick purchase, renewable energy, VUCA future, responsible consumption and production, climate action, increased regulation, supply chain resilience, ethical procurement and brand value. These topics are interrelated.

We manage risks associated with these topics to reduce the negative impacts on our capitals (our assets, our finances, our capability, our people and culture, our environment, and our place in New Zealand).

Waste measures

▼ 6%

tonnes

Recycling — cardboard and paper

FY18: 2,681 tonnes

▼ 27%

tonnes

Recycling — plastics, cans and glass

FY18: 1,250 tonnes

▼ 3%

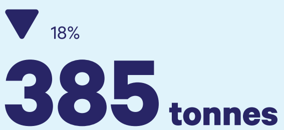
tonnes

Total waste

FY18: 6,554 tonnes

These waste figures are estimated based on actual volumes from 70% of retail sites.

▼ 18%



tonnes

Composting and organics

FY18: 471 tonnes

▲ 18%

tonnes

Waste to landfill

FY18: 2,142 tonnes

Appendix 3: Reserve Bank of New Zealand's results of industry survey on the potential impacts of climate change

Source: (Reserve Bank, 2019, pp. 22–23)

Box B

Industry survey on the potential impacts of climate change

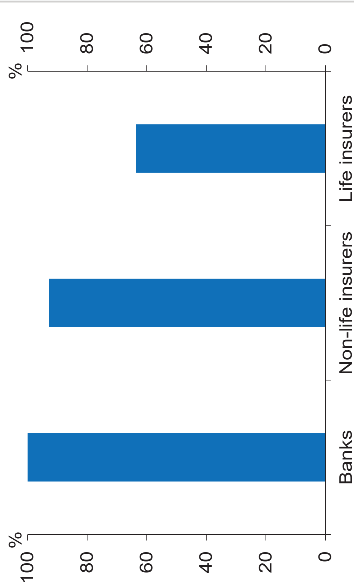
Climate change is widely expected to impact the financial system…

The previous *Financial Stability Report* outlined the potential impact of climate change on New Zealand's financial system. As part of its climate change strategy, the Reserve Bank is engaging with insurers and banks in New Zealand and with international agencies. In 2018, the Reserve Bank joined the Central Banks and Supervisors Network for Greening the Financial System and the Sustainable Insurance Forum.

The Reserve Bank recently surveyed a sample of New Zealand insurers and banks, as part of a global survey on the implementation of disclosure recommendations developed by the Task Force on Climate-related Financial Disclosures (TCFD). The survey highlighted broad consensus that climate change will impact the financial system (figure B1). All banks and 90 percent of non-life insurers thought climate change is a risk to their businesses. Around 60 percent of life insurers recognised climate change as a risk to their businesses, reflecting their less direct exposure to climate change risks.

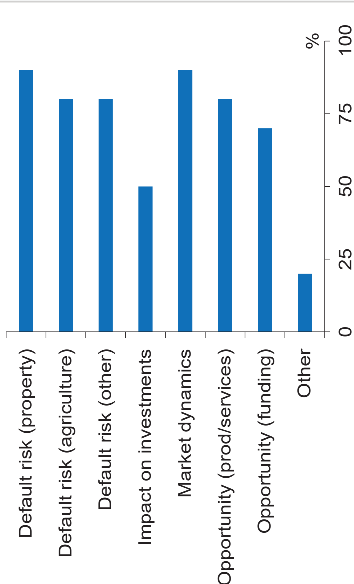
Respondents were asked to identify areas where they thought their businesses could be affected. There was a clear expectation that climate change will have a business-wide impact on the banking system, with the majority of responses identifying likely impacts on all their material business lines (figure B2).

Figure B1
Respondents who believe climate change will impact their businesses
(% of surveyed institutions)



Source: RBNZ.

Figure B2
Expected impact of climate change on banks
(% of surveyed banks)

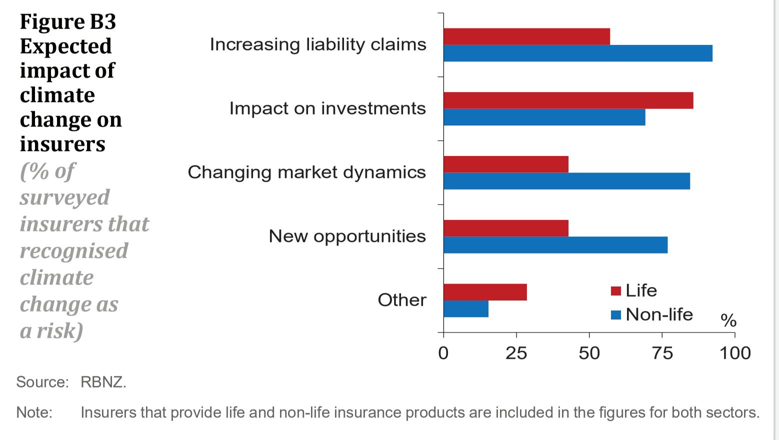


Source: RBNZ.

22 RESERVE BANK OF NEW ZEALAND / *FINANCIAL STABILITY REPORT*, MAY 2019

Non-life insurers identified a broad range of potential impacts, with particular emphasis on the potential for increasing liability claims (figure B3). Life insurers were less concerned around increasing claims, but many expected impacts on their investments.

Figure B3
Expected impact of climate change on insurers
(% of surveyed insurers that recognised climate change as a risk)



Source: RBNZ.

Note: Insurers that provide life and non-life insurance products are included in the figures for both sectors.

...but climate risks must still be better integrated within business practices.

Given the widespread acknowledgement that the financial system is exposed to climate change risks, boards of financial institutions should work to understand the potential impacts on their businesses. The survey responses provided little evidence that concerns about climate change risks are influencing day-to-day business decisions. Management and boards must consider all material risks when setting the strategic directions of their businesses. The Reserve Bank will continue to engage with banks and insurers on this issue.

New Zealand currently enjoys good access to general insurance products, but that could change as banks and insurers progressively factor climate change risks into their business decisions (see the insurance section). The availability and pricing of financial products could alter significantly for some communities and individuals. As banks and insurers respond to climate change risks, some risks may ultimately end up with other parties, such as central and local government. It is important that these potential market dynamics are understood and managed appropriately.

Enhanced disclosure will facilitate better risk management.

The disclosure of institutions' exposure to climate change risks is important for there to be a coordinated response to the risks. 60 percent of surveyed banks and around a third of surveyed insurers already disclose some information on climate risk. A number of banks and insurers operating within New Zealand are part of wider groups that are actively supporting the implementation of international standards for disclosure of climate risks, developed by the TCFD. But not all disclosures are aligned with those international standards.

There are some barriers to the broader implementation of the TCFD disclosure standards in New Zealand, including the availability of data, capacity and resources. The Reserve Bank places significant emphasis on disclosure as part of its regulatory framework, and is committed to working with industry and wider stakeholders to develop an appropriate climate risk disclosure framework for New Zealand.

Appendix 4: Timeline of selected key reports and events regarding climate change risks

Year	Report/Event	Quote
1992, December (United Kingdom)	The Cadbury Report (*Financial Aspects of Corporate Governance*)	*No system of corporate governance can be totally proof against fraud or incompetence. The test is how far such aberrations can be discouraged and how quickly they can be brought to light. The risks can be reduced by making the participants in the governance process as effectively accountable as possible. The key safeguards are properly constituted boards, separation of the functions of chairman and of chief executive, audit committees, vigilant shareholders and financial reporting and auditing systems which provide full and timely disclosure.* (The Committee on the Financial Aspects of Corporate Governance & Gee and Co. Ltd., 1992, para 7.2)
2006, October (United Kingdom)	The Stern Review (*The Economics of Climate Change*)	*Using the results from formal economic models, the Review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. In contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP each year*. (LSE Grantham Research Institute on Climate Change and the Environment, n.d.; Stern, 2007, p. vi)
2010, December (IASB)	*IFRS Practice Statement 1: Management Commentary*	***Elements of management commentary*** *Although the particular focus of management commentary will depend on the facts and circumstances of the entity, management commentary should include information that is essential to an understanding of:* *(a) the nature of the business;* *(b) management's objectives and its strategies for meeting those objectives;* *(c) the entity's most significant resources, risks and relationships;* *(d) the results of operations and prospects; and* *(e) the critical performance measures and indicators that management uses to evaluate the entity's performance against stated objectives.* […]

<table>
<tr><th>Year</th><th>Report/Event</th><th>Quote</th></tr>
<tr><td></td><td></td><td>Nature of the business

Management should provide a description of the business to help users of the financial reports to gain an understanding of the entity and of the external environment in which it operates. That information serves as a starting point for assessing and understanding an entity’s performance, strategic options and prospects. Depending on the nature of the business, management commentary may include an integrated discussion of the following types of information:

(a) the industries in which the entity operates;

(b) the entity’s main markets and competitive position within those markets;

(c) significant features of the legal, regulatory and macro-economic environments that influence the entity and the markets in which the entity operates;

(d) the entity’s main products, services, business processes and distribution methods; and

(e) the entity’s structure and how it creates value

(IASB, 2010, pp. B841–B842).</td></tr>
<tr><td>2014, December (European Union)</td><td>EU Directive 2014/95/EU [on amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups]</td><td>In order to enhance the consistency and comparability of non-financial information disclosed throughout the Union, certain large undertakings should prepare a non-financial statement containing information relating to at least environmental matters, social and employee-related matters, respect for human rights, anti-corruption and bribery matters. Such statement should include a description of the policies, outcomes and risks related to those matters and should be included in the management report of the undertaking concerned. The non-financial statement should also include information on the due diligence processes implemented by the undertaking, also regarding, where relevant and proportionate, its supply and subcontracting chains, in order to identify, prevent and mitigate existing and potential adverse impacts.

(European Parliament & European Council, 2014, Para. 6)</td></tr>
<tr><td>2015, July (International)</td><td>The cost of inaction: Recognising the value at risk from climate change</td><td>These findings indicate that climate change is likely to represent an obstacle for many asset owners and managers to fulfil their fiduciary duties. Fiduciary duty requires managers to act in the best interest of their beneficiaries. In practice this means they need to deliver the best, risk-adjusted returns possible. Unfortunately, too many investors currently overemphasise short-term performance at the expense of longer-term returns. If investment managers are aware of the extent of climate risk to the long -term value of the portfolios they manage, then it could be argued that to ignore it is a breach of their fiduciary duty. Indeed, fiduciaries arguably have an obligation to reduce the climate risk embedded in their portfolios. Yet to date few asset managers have measured the climate-related risks embedded in their portfolios, much less tried to mitigate them. According to estimates by the Asset Owners Disclosure Project,6 only 7% of asset owners calculate the carbon footprint of their portfolios, and only 1.4% have an explicit target to reduce it.

(The Economist Intelligence Unit, 2017, p. 2; 2015, p. 3)</td></tr>
</table>

Year	Report/Event	Quote
2015, September (International)	*Transforming our world: the 2030 Agenda for Sustainable Development*	*SDG 13 is to 'take urgent action to combat climate change and its impacts'* (UN, n.d. [a])
2017, June (International)	*Recommendations of the Task Force on Climate-related Financial Disclosures*	*The Task Force recommends that preparers of climate-related financial disclosures provide such disclosures in their mainstream (i.e., public) annual financial filings. In most G20 jurisdictions, companies with public debt or equity have a legal obligation to disclose material information in their financial filings—including material climate-related information. The Task Force believes climate-related issues are or could be material for many organizations, and its recommendations should be useful to organizations in complying more effectively with existing disclosure obligations.[4] In addition, disclosure in mainstream financial filings should foster shareholder engagement and broader use of climate-related financial disclosures, thus promoting a more informed understanding of climate-related risks and opportunities by investors and others.* (TCFD, 2017, p. iv)
2017, August (Australia)	McVeigh v REST (Mark McVeigh in Federal Court, Australia)	REST case to set climate risk precedent: *In a world first, 23-year-old Mark McVeigh has filed a legal action alleging the trustee of his retirement fund, the Retail Employees Superannuation Trust (REST), breached the fiduciary duties owed to him by failing to adequately consider climate change risks. … McVeigh's case and Hutley's opinion are both founded on principles of fiduciary duty that require fund managers to:* • *act in the best interests of beneficiaries, and* • *act with care, skill and diligence.* (Environmental Justice Australia, 2019; Barnden, 2019)
2017, October (International)	International Auditing and Assurance Board (IAASB): Extended External Reporting (EER) Assurance Project	*The key objective of the project is to enable more consistent and appropriate application of ISAE 3000 (Revised) to emerging forms of external reporting (EER) and greater trust in the resulting assurance reports by users of EER. This will be achieved primarily through:* *(i) Developing non-authoritative guidance in applying ISAE 3000 (Revised) to EER;* *(ii) Continuing to provide thought leadership on assurance issues in relation to EER; and* *(iii) Coordinating the work of the project with related initiatives of other relevant international organizations.* (IAASB, 2019c)

Year	Report/Event	Quote
2017, November (International)	IFRS, Management Commentary Project	*On 14 November 2017, the Board added a project to its agenda to revise and update the IFRS Practice Statement 1 Management Commentary (Practice Statement) issued in 2010. In undertaking the project, the Board will consider how broader financial reporting could complement and support IFRS financial statements. To support the Board's work on updating the Practice Statement, the Board established the Management Commentary Consultative Group.* *Next step* *The Board will discuss guidance on the fundamental qualitative characteristic of faithful representation and the enhancing qualitative characteristics at a future meeting. The Board noted that an additional meeting of the Management Commentary Consultative Group will take place in December 2019. To allow time to consider the input from this additional meeting, the publication of the planned Exposure Draft is now expected in the second half of 2020 rather than the first half.* (IFRS, n.d.[d]; 2019b)
2018, August (New Zealand)	New Zealand Productivity Commission Low-emissions Economy	*R7.3 – The Government should endorse the recommendations of the Task Force on Climate-related Financial Disclosures as one avenue for the disclosure of climate risk.* *R7.4 – The Government should implement mandatory (on a comply or explain basis), principles-based, climate-related financial disclosures by way of a standard under section 17(2)(iii) of the Financial Reporting Act 2013. These disclosures should be audited and accessible to the general public.* (New Zealand Productivity Commission, 2018, pp. 195, 199).
2018, October (United Kingdom)	Future of Corporate Reporting	*The FRC will review current financial and non-financial reporting practices, consider what information investors and other stakeholders require and fundamentally, the purpose of corporate reporting and the annual report. The different types of corporate communications produced by companies will also be examined. [...] The FRC expects that this project will result in a series of calls for action for changes to regulation and practice. During the second half of 2019, the FRC will publish a thought leadership paper consolidating the outcomes of the project.* (FRC, 2018b)
2019, February (Australia)	*Final Report of the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry*	*3.2.2 The importance of non-financial risks* *Obviously, the prudent management of financial risks by financial services entities is and will always remain important. But financial services entities must now accept that financial risks are not the only risks that matter. The prudent management of non-financial risks is equally important. Financial services entities must give sufficient attention, and devote sufficient resources, to the effective management of non-financial risks. APRA should give consideration to how that requirement can be made more prominent in its prudential standards.* (Commonwealth of Australia, 2019, p. 406)

Year	Report/Event	Quote
2019, March (New Zealand)	XRB Position Statement on EER	*The purpose of this Position Statement is to state the XRB's position on the reporting of EER information by entities within their annual report.* *... Extended External Reporting (EER) is an umbrella term adopted by the XRB to refer to broader and more detailed types of reporting beyond the types of information presented in an entity's statutory financial statements. EER can include reporting information on an entity's governance, business model, risks, opportunities, prospects (including forward-looking financial information), strategies and economic, environmental, social and cultural impacts.* (XRB, 2019a)
2019, March (United Kingdom)	*Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance (Updated Introduction and Chapters 1 and 2)*	*The Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 come into force on 1 April 2019 and apply to financial years starting on or after 1 April 2019. The 2018 Regulations impose new obligations for what must be included in the Directors' Report for quoted and large unquoted companies as well as imposing an obligation on large LLPs to prepare a new kind of report ('the Energy and Carbon Report').* *Quoted companies have been required to make carbon disclosures in their Directors' Reports since 30 September 2013.* *The new requirements, imposed by the 2018 Regulations on quoted companies and on large unquoted companies and large LLPs apply to reports for financial years starting on or after 1 April 2019. [...]* ***6. SECR reporting requirements for Quoted Companies*** *Many quoted companies already have established reporting practices using GHG accounting methodologies and programmes, such as the GHG Protocol Corporate Standard, ISO 14064-1 and CDP. These companies should satisfy themselves that their existing GHG accounting approaches cover the required emissions from activities for which they are responsible. [...]* *You are required to quantify and report on emissions of the following greenhouse gases - carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF6). Additionally, while not a legal requirement, you should consider reporting on nitrogen trifluoride NF3, especially if material to your operations. [...]* *You are not required to report on other emissions associated with inputs into your company (such as emissions from your supply chain) or emissions linked with outputs from your company (such as emissions from your products when they are used by your customers). However, you should consider reporting these separately to give a wider picture of your organisation to investors and shareholders and where these expose the reporting company to material risks, opportunities or financial impacts (see the recommendations on Scope 3 emissions in the following chapter on voluntary reporting).*

Year	Report/Event	Quote
		7. SECR reporting requirements for large unquoted companies and large limited liability partnerships [See definition of 'large unquoted companies' in Section 7.5 of this discussion paper]. *Unquoted organisations in scope of SECR are required to report: […] [on UK energy use, electricity, gas combustion, transport and greenhouse gas emissions].* *Energy not in scope* *The following types of energy are not mandatory for large unquoted organisations under SECR but may still be reported on voluntarily, especially where it forms a substantial part of your organisation's energy or emissions.* • *Unconsumed energy that your organisation does not use or supplies to a third party.* • *Energy consumed outside the UK (unless you are an offshore undertaking).* • *Energy consumed for international travel or shipping where the journey does not start or end in the UK (unless the organisation wishes to include their international travel).* ***8. Common Requirements that apply for both quoted and unquoted large companies and LLPs*** *For effective emissions management and transparency in reporting, it is important that robust and accepted methods are used. It is recommended that you use a widely recognized independent standard, such as:* • *GHG Reporting Protocol - Corporate Standard.* • *International Organisation for Standardization, ISO (ISO 14064-1:2018).* • *Climate Disclosure Standards Board, CDSB.* • *The Global Reporting Initiative Sustainability Reporting Guidelines.* *You must state in your Directors' Report, or Energy and Carbon Report, the methodology or methodologies used.* [Footnotes removed] (DEFRA & BEIS, 2019, pp. 7–44)
2019, April (Australia)	*Climate-related and other emerging risks disclosures: assessing financial statement materiality using AASB/ IASB Practice Statement 2*	*Given investor statements on the importance of climate-related risks to their decision making, the impact of the materiality definition and APS/PS 2 is that entities can no longer treat climate-related risks as merely a matter of corporate social responsibility and may need to consider them also in the context of their financial statements.* (AASB & AUASB, 2019, p. 3)

Year	Report/Event	Quote
2019, April (United Kingdom)	Prudential Regulation Authority (PRA) Policy Statement (PS): *Enhancing banks' and insurers' approaches to managing the financial risks from climate change*	*1.2 Climate change, and society's response to it, present financial risks which are relevant to the PRA's objectives. While the financial risks from climate change may crystallise in full over longer time horizons, they are also becoming apparent now.* *1.3 The PRA's reviews of current practice in the banking and insurance sectors have highlighted that, while firms are enhancing their approaches to managing the financial risks from climate change, few firms are taking a strategic approach that considers how actions today affect future financial risks.* [footnote removed] [...] *3.18 Banks and insurers have existing requirements to disclose information on material risks within their Pillar 3 disclosures (as required under Capital Requirements Regulation (575/2013) (CRR) and Solvency II), and on principal risks and uncertainties in their Strategic Report (as required under the UK Companies Act).* *3.19 In addition to meeting these existing disclosure requirements, firms should consider whether further disclosures are necessary to enhance transparency on their approach to managing the financial risks from climate change, in line with the expectations set out in this SS. In particular, all firms within the scope of this SS should consider disclosing how climate-related financial risks are integrated into governance and risk management processes, including the process by which a firm has assessed whether these risks are considered material or principal risks.* *3.20 The PRA expects firms to develop and maintain an appropriate approach to disclosure, reflective of the distinctive elements of the financial risks from climate change. Firms should look to evolve their disclosures to make these as insightful as possible, and in particular should ensure they reflect the firms' evolving understanding of the financial risks from climate change. Firms should recognise the increasing possibility that disclosure will be mandated in more jurisdictions, and prepare accordingly.* *3.21 The PRA expects firms to engage with wider initiatives on climate-related financial disclosures and to take into account the benefits of disclosures that are comparable across firms. Various initiatives have done work on this area. For example, the 'Taskforce on Climate-related Financial Disclosures' published recommendations in June 2017, and other initiatives have since then provided tools or case studies for organisations making climate-related financial disclosures. The PRA expects firms to consider engaging with the TCFD framework and other initiatives in developing their approach to climate-related financial disclosures.* *3.22 In addition, firms would benefit from greater disclosure in the wider economy, and they would be in a strong position to encourage it through their ownership of financial assets.* (Bank of England, 2019b pp. 1, 7–8)
2019, May (New Zealand)	*Climate Change Response (Zero Carbon) Amendment Bill*	*Power to request provision of information* *5ZV Minister may request certain organisations to provide information on climate change adaptation* *(1) The Minister may, in writing, request that a reporting organisation provide all or any of the following information:*

Year	Report/Event	Quote
		(a) an assessment of the current and future effects of climate change in relation to the organisation's functions, including any metrics and costs used to understand and benchmark the effects of climate change in relation to the functions: *(b) a statement of the organisation's proposals and policies for addressing the effects of climate change in relation to the organisation's functions, including—* *(i) targets set by the organisation to address the effects of climate change:* *(ii) controls that the organisation has put in place to address the effects of climate change:* *(iii) the time frames for implementing those proposals, policies, targets, and controls:* *(c) an assessment of the progress made by the organisation towards implementing its proposals, policies, and controls and achieving its targets:* *(d) any matters specified in regulations.* *(2) The reporting organisation must comply with a request made under subsection (1).* *(3) The Minister must, as soon as practicable, provide the Commission with a copy of any information received.* *(4) For the purposes of this section and section 5ZW, the following are reporting organisations:* *(a) the Public Service, as defined in section 27 of the State Sector Act 1988:* *(b) local authorities, as defined in section 5(1) of the Local Government Act 2002:* *(c) council-controlled organisations, as defined in section 6(1) of the Local Government Act 2002:* *(d) Crown entities, as defined in section 7(1) of the Crown Entities Act 2004, but excluding school boards of trustees:* *(e) companies listed in Schedule 4A of the Public Finance Act 1989:* *(f) organisations listed in Schedule 1 of the State-Owned Enterprises Act 1986:* *(g) lifeline utilities listed in Schedule 1 of the Civil Defence Emergency Management Act 2002:* *(h) the New Zealand Police:* *(i) the New Zealand Defence Force.*
		5ZW Regulations relating to requiring provision of information *(1) The Governor-General may, by Order in Council made on the recommendation of the Minister, make regulations specifying all or any of the following:* *(a) requirements that relate to information that is provided in response to a request under section 5ZV(1), including different requirements for different sectors, classes of activity, or geographical areas:* *(b) a date by which or time within which requested information must be provided to the Minister:* *(c) ongoing or recurring reporting requirements (for example, requiring the provision of further information at regular intervals following a request):* *(d) any administrative matters relating to responses to requests.*

Year	Report/Event	Quote
		(2) In preparing the regulations, the Minister must consider— *(a) the ability to tailor a request to reflect the size and capability of the reporting organisation; and* *(b) the potential extent and significance of climate change effects on the functions of the reporting organisation; and* *(c) the avoidance of unnecessary duplication of information provided within existing reporting frameworks.* *(3) Before recommending the making of the regulations, the Minister must consult the Commission and the reporting organisations that the Minister considers may be affected by the proposed regulations.*
2019, June (European Union)	*Communication from the Commission — Guidelines on non-financial reporting: Supplement on reporting climate-related information*	*As indicated in the Commission's 2017 Non-Binding Guidelines on Non-Financial Reporting, the reference to the 'impact of [the company's] activities' introduced a new element to be taken into account when assessing the materiality of non-financial information. In effect, the Non-Financial Reporting Directive has a double materiality perspective:* — *The reference to the company's 'development, performance [and] position' indicates financial materiality, in the broad sense of affecting the value of the company. Climate-related information should be reported if it is necessary for an understanding of the development, performance and position of the company. This perspective is typically of most interest to investors* [climate change impact on company]. — *The reference to 'impact of [the company's] activities' indicates environmental and social materiality. Climate-related information should be reported if it is necessary for an understanding of the external impacts of the company. This perspective is typically of most interest to citizens, consumers, employees, business partners, communities and civil society organisations. However, an increasing number of investors also need to know about the climate impacts of investee companies in order to better understand and measure the climate impacts of their investment portfolios* [company impact on climate]. *Companies should consider using the proposed disclosures in these guidelines if they decide that climate is a material issue from either of these two perspectives.* *These two risk perspectives already overlap in some cases and are increasingly likely to do so in the future. As markets and public policies evolve in response to climate change, the positive and/or negative impacts of a company on the climate will increasingly translate into business opportunities and/or risks that are financially material.* *The materiality perspective of the Non-Financial Reporting Directive covers both financial materiality and environmental and social materiality, whereas the TCFD has a financial materiality perspective only.* *[...] The materiality perspective of the Non-Financial Reporting Directive covers both financial materiality and environmental and social materiality, whereas the TCFD has a financial materiality perspective only.* *[...] It is very important for stakeholders to understand the company's view of how climate change impacts its business model and strategy, and how its activities can affect the climate, over the short, medium and long term.* (EU, 2019, pp. 4, 8)

Year	Report/Event	Quote
2019, July (United Kingdom)	*Green Finance Strategy: Transforming Finance for a Greener Future*	*The Government formally endorsed the TCFD recommendations in September 2017. We welcome the progress being made implementing the recommendations on a voluntary basis. The Government expects all listed companies and large asset owners to be disclosing in line with the TCFD recommendations by 2022 [footnote removed].* (BEIS & HM Treasury, 2019, p. 23)
2019, August (New Zealand)	*Transitioning to a low-emissions future – the Government response to the Productivity Commission's Low Emissions Economy report*	Response to R7.3 (see Section 2.3.6 of this discussion paper): *The Government agrees that material financial risks and opportunities associated with climate change should be disclosed. In June 2017, the TCFD published a set of recommendations for disclosing clear, comparable and consistent information about the risks and opportunities presented by climate change. Several other governments have endorsed the TCFD's recommendations. The New Zealand Government also endorses them as one avenue for the disclosure of climate change financial reporting.* *Responsible agencies: Ministry of Business, Innovation and Employment and the Ministry for the Environment* *Responsible Ministers: Minister of Commerce and Consumer Affairs and the Minister for Climate Change* *Timeline: N/A* Response to R7.4 (see Section 2.3.6 of this discussion paper): *The Government agrees with the comments of the Productivity Commission that investment needs to be redirected towards low-emissions investments to ensure New Zealand's economy remains resilient to the impacts of climate change. High quality disclosures will help investors, lenders and insurers make more informed decisions. They will also provide reporting entities with incentives to manage risks and take advantage of opportunities.* *To achieve this further consideration is required in relation to the following matters:* *1. Whether the Financial Reporting Act is the most appropriate means for implementing climate-related disclosure requirements.* *2. Consideration of the classes of entities the disclosure requirements should apply to. Subject to consultation, the Government considers that listed issuers, registered banks and licensed insurers should be covered. It is less clear whether any other classes of entities should also have climate-related disclosure requirements.* *3. What, specifically, the disclosure requirements should require entities to disclose and whether the disclosures should be different for different classes of entity. Officials will work closely with a range of stakeholders on these issues over the coming months.* *Responsible agencies: Ministry of Business, Innovation and Employment and the Ministry for the Environment* *Responsible Ministers: Minister of Commerce and Consumer Affairs and the Minister for Climate Change Timeline: Decisions will be made on approach to this in July 2019.* (MfE, 2019b, pp. 5–6.)

Appendix 5: Professional contacts and reviewers

Australia	
CA ANZ	Karen McWilliams
England	
ACCA	Jimmy Greer
BEIS Green Finance Team	Nathaniel Smith
CDSB	Mardi McBrien
ClientEarth	Daniel Wiseman
EcoAct	James Ramsay, Anita Baranyi, Gavin Tivey
Financial Reporting Council	Hannah Armitage, Thomas Toomse-Smith, Andrea Tweedie
IASB	Matt Chapman, Marie Claire Tabone
IIRC	Jonathan Labrey, Juliet Markham
New Zealand	
BusinessNZ	John Carnegie
CCATWG	Judy Lawrence
Climate Leaders Coalition	
(Z Energy)	Mike Bennetts, Debra Blackett, Gerri Ward
(Synlait)	Nigel Greenwood
EECA	Nina Campbell, Wendy Jackson, Jeremie Madamour
EPA	David Hodson, Michelle Ward
EY and SFF	Pip Best, James Roper
FMA	Robert Sloan
Future Steps	Morgan Williams
Green Party	Minister James Shaw
Insurance Council	Tim Grafton
LGNZ	Grace Hall, Mike Reid, Tom Simonson
MBIE	Geoff Connor, Sheree McDonald, John McPherson
Minister for Climate Change	Minister James Shaw
MfE	Jack Bisset, Sue-Ellen Fenelon, Olia Glade, Ben Nistor
National Party	Todd Muller
NIWA	Andrew Tait
NZ Super Fund	Anne-Maree O'Connor
NZX	Julian Cheah, Lucy Revill
OAG	Kristin Aitken, Jonathan Keate
PCE	Greg Briner
Productivity Commission	Amelia Sharman
Reserve Bank	Adrian Orr, Simone Robbers, Christina Hood, Kevin Hoskin, Cavan O'Connor-Close, Jeremy Richardson
Simpson Grierson	Mark Baker-Jones, Mace Gorringe
Stats NZ	Adam Tipper
Treasury	Paul Helm, Ben Temple, Ken Warren
VUW	Belinda Storey
XRB	Warren Allen, Sylvia van Dyk, David Bassett, Misha Pieters

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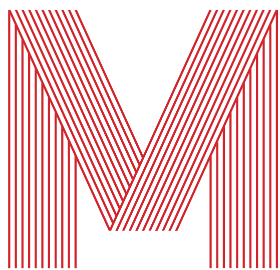
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