



Ministry for the  
**Environment**  
*Manatū Mō Te Taiao*

# Ministry for the Environment's climate-related disclosure

2020/21



**Te Kāwanatanga o Aotearoa**  
New Zealand Government

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# Context

## Our purpose is a flourishing environment for every generation – he taiao tōnui mō ngā reanga katoa.

As the Ministry for the Environment Manatū Mō Te Taiao we have a simple purpose statement – we want to see a flourishing environment for every generation.

Our **Statement of Intent 2020–2025** outlines the six operating principles that describe how we go about our work.

- |  |  |
|--|--|
| <b>1</b> We bring the environment to the heart of decision-making                | <b>4</b> Our advice and actions are grounded in science and evidence |
| <b>2</b> We connect the wellbeing of people to the environment                   | <b>5</b> We lead across the environmental system                     |
| <b>3</b> We bring the Treaty of Waitangi and te ao Māori into our work every day | <b>6</b> We accelerate change on the ground                          |

## We are on a journey to be at the leading edge of understanding and addressing our climate-related risk

Climate change presents a challenge of unprecedented scope and complexity. As a government agency operating at the forefront of climate-related policy development, we are committed to understanding and addressing the actual and potential effects of climate change on our own operations, strategy, and financial plans. As one of the agencies leading the development of New Zealand’s new climate-related reporting regime, we have high ambitions around assessing, managing, and disclosing our own climate-related risks and opportunities.

We have been publicly reporting our greenhouse gas emissions since 2017, but this disclosure is our first to align with the recommendations of the Taskforce on Climate-related Financial Disclosure (TCFD), commonly referred to as best-practice guidance. The TCFD framework is based around four domains: Governance; Strategy; Risk Management; and Metrics and Targets.

We recognise that being at the leading edge, means being committed to self-reflection, transparency, and ongoing improvement. An independent assessment of our climate-related policies and processes in 2021 identified opportunities for improvement across all four TCFD domains, while noting that our Metrics and Targets efforts already demonstrate an advanced level of maturity relative to leading practice.

We intend to use our climate-related disclosures to share our actions and performance as we progress on our journey to address our climate-related risk, build organisational resilience, and achieve carbon neutrality.

## We are committed to ongoing improvement

To date, our efforts have focused on:

- ◆ using scenario analysis to identify and interrogate our climate-related risks and opportunities
- ◆ committing to carbon neutrality by 2025 as part of the Carbon Neutral Government Programme and setting targets to reduce our emissions by 26 per cent by June 2022 and halve our absolute emissions by 2030 from 2017/18 levels
- ◆ publicly disclosing our emissions reduction performance each year and developing an action plan to reduce our carbon emissions under the **Toitū carbonreduce programme**.
- ◆ joining the Climate Leaders Coalition and Sustainable Business Council to signpost our intentions and be part of a network of organisations who are committed to improving performance.

As part of our commitment to ongoing improvement, our plans for the 2021/22 financial year include:

- ◆ setting up governance arrangements for managing climate-related risk
- ◆ setting up risk management processes and accountabilities for climate-related risk
- ◆ conducting regular scenario planning to identify and assess our climate-related risk
- ◆ reviewing stakeholders and partner plans to ensure we are supporting them well with climate change knowledge and tools
- ◆ ensuring climate-related risk is consistently and systematically considered in our investments and policy work.

# Our approach to disclosure

## Applying the TCFD framework in a public sector context

As a public sector organisation, we are demonstrating leadership by aligning with the Taskforce on Climate-related Financial Disclosure (TCFD) framework and associated guidance.

The TCFD's framework adapts financial risk management and reporting mechanisms to help organisations address and disclose their climate-related risks to capital markets, investors, and other stakeholders. It covers four domains and 11 sub-domains, as shown in figure 1. We have followed and, where necessary, adapted the TCFD framework to align with our public sector context.

## TCFD principles for effective disclosure

Our disclosure has been prepared in accordance with TCFD guidance material. For example, the TCFD recommends that climate-related disclosures should have the following characteristics:

1. Represent relevant information
2. Be specific and complete
3. Be clear, balanced, and understandable
4. Be consistent over time
5. Be comparable among organisations within a sector industry or portfolio
6. Be reliable, verifiable, and objective
7. Be provided on a timely basis.

**FIGURE 1: THE TASKFORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURE FRAMEWORK**

**Recommendations and supporting recommended disclosures**





# Governance

## Executive leadership’s oversight of climate-related risks and opportunities

Given the importance and complexity of climate change issues, responsibility for overseeing the management of climate-related risks and opportunities sits with Te Pūrengi, our highest governance body. Our leadership teams are structured as follows:

LEADERSHIP TEAM	MEMBERSHIP	KEY RESPONSIBILITIES
Te Pūrengi	Chief Executive Officer, Chief Operating Officer, Chief Māori Advisor, Chief Science Advisor, Deputy Secretaries	<p>Te Pūrengi is accountable for setting and achieving our overarching organisational strategy. This includes:</p> <ul style="list-style-type: none"> <li>◆ establishing appropriate governance and organisational structures and processes</li> <li>◆ setting the overarching strategic direction and priorities that are aligned with our purpose, and actively monitoring the execution of these priorities</li> <li>◆ understanding and monitoring risks, setting risk appetite and tolerances, taking decisions to manage risks, ensuring appropriate risk management frameworks and governance are in place, and agreeing and overseeing the internal audit programme.</li> </ul>
Te Mīmiro	Chief Operating Officer, and a number of Directors and Chief Advisors	<p>Te Mīmiro is responsible for advising Te Pūrengi on the successful delivery of our strategy. This includes testing and providing advice on items relating to organisational strategy and performance that require Te Pūrengi decisions or oversight, and ensuring these items are robust and incorporate a wide range of perspectives.</p>

- ◆ Te Pūrengi’s oversight of risks and opportunities is supported by the Audit and Risk Committee. The committee is an advisory body providing independent advice, review, and oversight of:
  - strategic direction, and associated risks and opportunities
  - organisational risk management and internal control systems and processes
  - financial and non-financial performance and reporting
  - internal and external audit functions
  - governance arrangements
  - legislative compliance processes and systems.

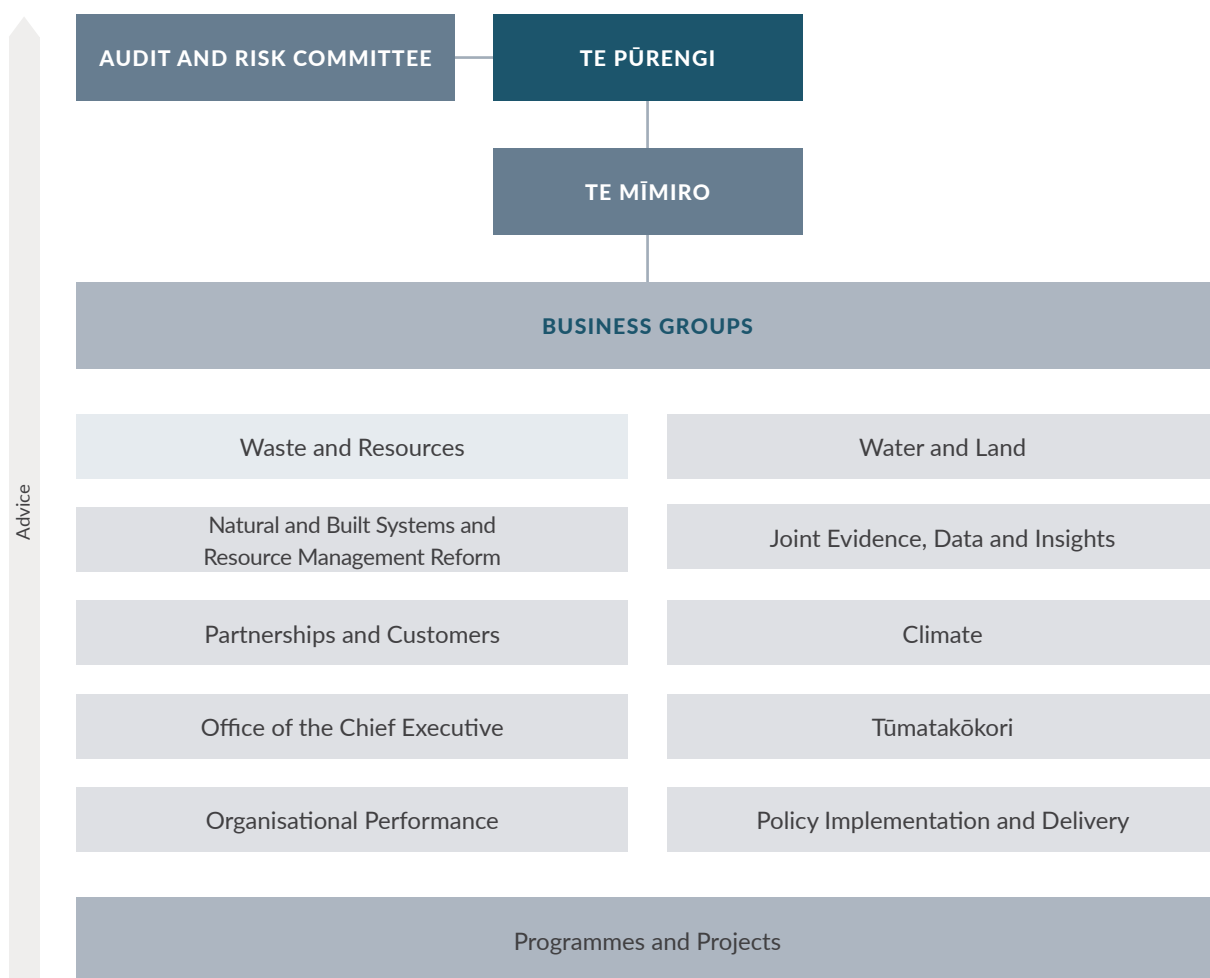
The Committee meets quarterly to update our operational and strategic risk profile. It has no executive powers regarding its findings and decisions. The Chief Executive and Te Pūrengi are responsible for ensuring resolution of issues.



- ◆ The Chief Operating Officer is responsible for climate-related risks covered in our Sustainability Strategy and risks and opportunities relating to our operations.
- ◆ The Deputy Secretaries are responsible for climate-related risks and opportunities of policy delivery in their respective business groups.
- ◆ The Principal Risk Advisor provides advice to identify and manage risk to our objectives.

**FIGURE 2: THE MINISTRY FOR THE ENVIRONMENT’S GOVERNANCE MODEL AND LEADERSHIP TEAMS**

Ministry for the Environment Governance Model (as at May 2021)



## **We recognise the importance of demonstrating climate leadership**

As the Ministry for the Environment, climate change issues are integral to our core purpose and strategic priorities. This includes supporting New Zealand's transition to a climate-resilient, low-carbon economy. Our leadership teams collectively possess technical, strategic, and risk management expertise in relation to climate change and are required to remain at the forefront of climate science and policy developments.

To ensure we can fulfil our strategic priorities, we recognise the importance of understanding and addressing our own climate-related risks and opportunities. We have already demonstrated leadership by joining and fulfilling membership requirements of the Climate Leaders Coalition and Sustainable Business Council, by setting ambitious emissions reduction targets for our corporate emissions, publicly disclosing our emissions and emission reduction performance since 2017, and, beginning this year, by releasing a climate-related disclosure in accordance with the TCFD's recommended framework.

We are establishing and formalising governance processes to align with leading practice and our own ambitions in this area. In the 2021/22 financial year we are committed to:

- ◆ formally documenting and regularly reviewing the climate-related roles and responsibilities held by Te Pūrengi
- ◆ formalising the policies and processes for updating Te Pūrengi about our climate-related risks and performance to enable informed debate and decision-making.

## **Management's role in assessing and managing climate-related risks and opportunities**

Climate change issues are integral to the execution and management of our strategic priorities. Te Mīmiro, as the governance group responsible for governing key functions across the Ministry for the Environment, plays a critical role in ensuring our own climate-related risks and opportunities are appropriately and systemically managed. We are currently formalising these internal processes.

In the 2021/22 financial year we are committed to:

- ◆ formalising Te Mīmiro's roles and responsibilities for our climate-related risks and performance
- ◆ formalising the policies and processes teams use to keep Te Mīmiro informed about our climate-related risks and performance.



# Strategy

## Climate-related risks and opportunities over the short, medium, and long term

### Our approach to climate-related risk

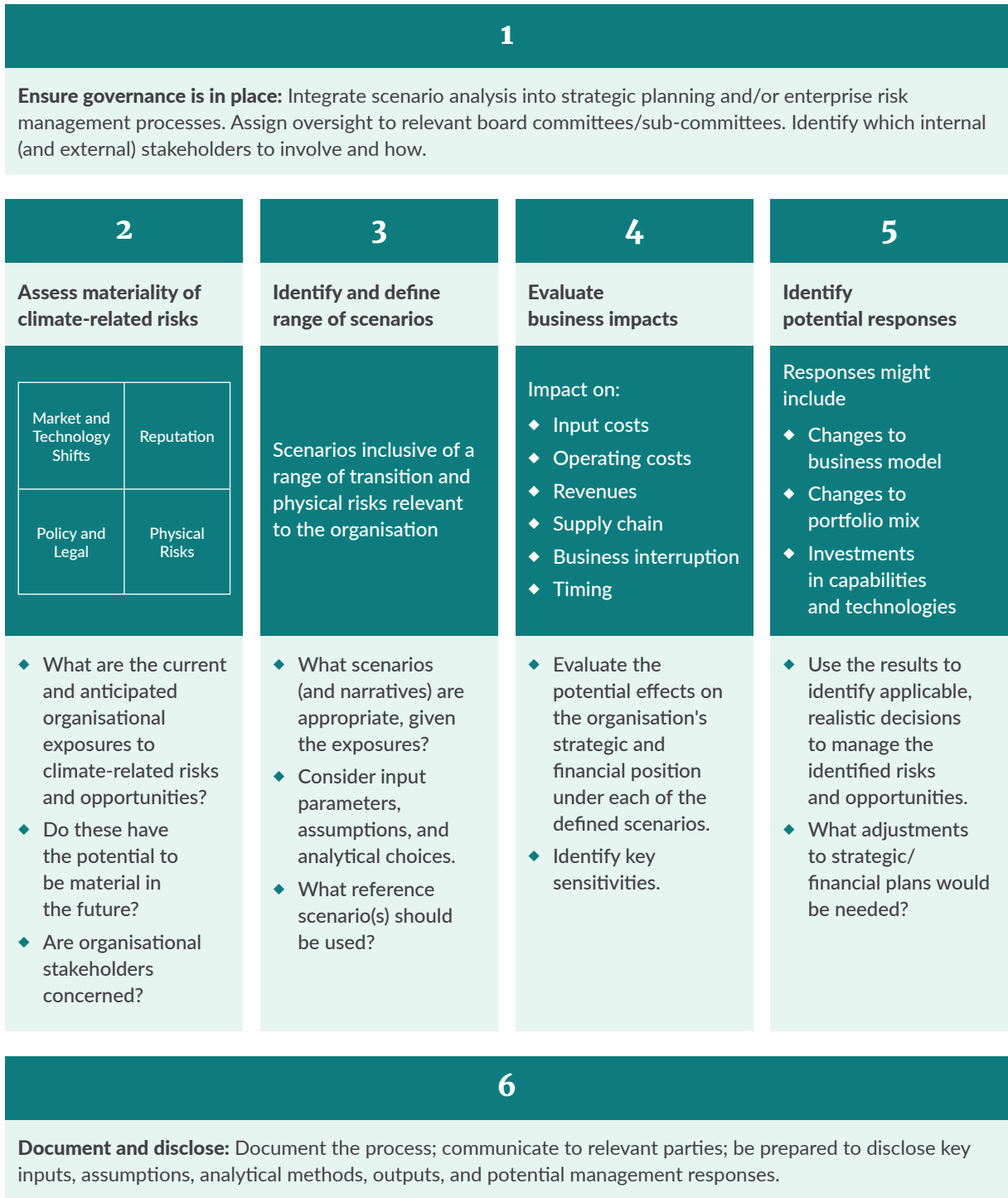
New Zealand is exposed to a range of climate-related risks, such as those set out in **Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa**, New Zealand's first National Climate Change Risk Assessment (2020). These 'physical' risks may be acute, such as extreme weather events, or chronic, such as sea-level rise and warming temperatures. Physical risks threaten natural and human systems, including operations, supply chains, and employee safety.

We also recognise that climate-related risks and opportunities will arise as New Zealand necessarily transitions to a resilient low-emissions economy to mitigate the potential devastating physical risk of a high emissions future. For us, these 'transition' risks and opportunities may relate to technology uptake, socio-economic changes, public trust and reputation, regulatory reform, and climate-related legal and financial risks. Transition risks may also combine with physical risks to affect different organisations in diverse ways.

### Using scenario analysis to explore climate-related risk

In accordance with the process recommended by the Taskforce on Climate-related Financial Disclosure (figure 3), we used scenario analysis to identify, assess, and interrogate our climate-related risks and opportunities over the different time horizons. These time horizons align with our internal risk management framework and reflect the importance of assessing both the immediate and longer-term impacts of climate change.

**FIGURE 3: THE TASKFORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURE'S RECOMMENDED SCENARIO PROCESS**



Scenario analysis is a validated tool to help organisations interrogate material risks and opportunities and analyse their strategic resilience by exploring how they might perform under challenging but plausible futures. We developed and interrogated three climate-related risk scenarios:

1. **'Orderly'**: Describes a world where New Zealand follows global momentum to rapidly decarbonise by mid-century.
2. **'Disorderly'**: Describes a world where New Zealand undertakes climate action which is late, disruptive, and out of sync with the wider world.
3. **'Hothouse'**: Describes a world where an insufficient level of decarbonisation results in significant warming and high exposure to physical risks.

Our material climate-related risks and opportunities identified as a result of this process are set out on the following page, and our scenario analysis methodology is described in more detail on pages 15–16.

The potential risks, opportunities, and uncertainties were identified to affect our strategic intent if the plausible scenarios or stressors in the scenarios were to occur in the future. Although we cannot predict our future organisational attributes, operating environment, or whether these risks will materialise, it is essential that we identify potential risks, opportunities, and uncertainties to improve the resilience of our strategy to possible change that will be driven by climate change.

## Our potential climate-related risks and opportunities as identified through scenario analysis

### Physical risks

- ◆ Climate change impacts: extreme weather events, drought, wildfire, sea-level rise, biodiversity loss.
- ◆ Risk for our operations, facilities and staff.
- ◆ Implications for our strategic priorities such as risk to environmental restoration efforts, risk for land and food systems, and environmental trade-offs caused by climate-induced pressures.

### Transition risks

- ◆ Risk of differing public/political expectations, rapid changes to our role without a corresponding timeframe to increase capability (eg, an increased operational role).
- ◆ Risk of a siloed approach to climate change issues, disjointed thinking across public and private sector.
- ◆ Risk of a loss in trust/reputation in us due to the challenging nature of climate-related policy.
- ◆ Risk of prioritisation and trade-offs preventing us from fulfilling our other strategic priorities.
- ◆ Risk of New Zealand's resource management and/or food system failing to cope with climate-induced stressors.
- ◆ Opportunity to drive New Zealand's transition to a climate-resilient, low-carbon economy.
- ◆ Opportunity to support best practice responses to climate-related risks and opportunities.
- ◆ Opportunity to establish long-term-oriented processes, mechanisms, and solutions.
- ◆ Opportunity to work more closely with those that may be most affected by climate change including iwi/hapū/Māori partners and local councils.

**Resourcing and staff wellbeing**

- ◆ Risk of high workload and expectations for staff, limited resourcing, potential adverse treatment of our staff or work, and high staff turnover due to climate-related pressures.
- ◆ Risk of insufficient expertise in critical/emerging areas, and staff composition not reflecting the skills needed in an increasingly complex environment.
- ◆ Opportunity to attract talented people due to our relevance in driving change.
- ◆ Opportunity to fully embed and expand current wellbeing approach.

**Treaty of Waitangi**

- ◆ Risk of failing to uphold Tiriti o Waitangi obligations.
- ◆ Opportunity to work in meaningful partnership with iwi/Māori and apply te ao Māori and mātauranga Māori to navigate New Zealand's transition to a climate-resilient low-carbon economy.

**Partnerships and stakeholders**

- ◆ Risk of civil instability, loss of trust in public/scientific institutions, and polarised social perspectives.
- ◆ Opportunity to build consensus, strategic partnerships, and cross-government and public/private collaboration.

**Legal risks**

- ◆ Risk of failing to meet legislative, regulatory, and/or international obligations (eg, Zero Carbon Act targets, Paris Agreement and our Nationally Determined Contribution) and a perception that the Ministry didn't do enough to prevent this.
- ◆ Risk of unintended consequences caused by short-term policymaking (eg, insufficient engagement).
- ◆ Risk of the Ministry being held legally accountable for harm caused by escalating climate-related impacts.
- ◆ Opportunity to develop new legal structures and processes, particularly to address adaptation issues.

**Financial risks**

- ◆ Risk of lost investments, opportunity cost, and insufficient/mismanaged climate-related funds.
- ◆ Opportunity to drive co-benefits by financing climate solutions (eg, reduced waste, improved urban form).
- ◆ Opportunity to mainstream climate-related risk and systems thinking into economic analysis/modelling.

## Impact of climate-related risks and opportunities on our strategy and financial planning

### Our strategic response to climate-related risks and opportunities

As the Ministry for the Environment, understanding and responding to the risks and opportunities of climate change is fundamental to fulfilling our purpose.

In 2017, we assessed our operational emissions and set out key metrics and emissions reduction targets in our **Sustainability Strategy 2018–20** and then again in 2020–22. Progress towards achieving this strategy is monitored by the Chief Operating Officer and reported to Te Pūrengi.

In addition to our more evident physical and transition risks, we recognise that climate change is a systemic threat which creates issues for our supply chains, the preservation of trust and confidence, and wellbeing. Our strategic focus on climate-related risks and opportunities extends to how we approach strategic partnerships, stakeholder relationships, and the health and wellbeing of our people. For example, we are working alongside the Ministry for Business, Innovation & Employment in our pursuit of sustainable procurement outcomes and are applying a long-term lens to our wellbeing baseline and Workforce Strategy.

In the 2021/22 financial year we are committed to:

- ◆ continuing to systematically analyse our climate-related risks and opportunities that may have a material impact over the short, medium, or long term
- ◆ exploring alternatives to standard decision-making tools which are limited in their capability to represent the dynamic and uncertain nature of climate-related risk
- ◆ developing a coherent vision for the future to mitigate the chance of climate fatigue and establish trust with those most affected by the transition
- ◆ continuing to invest in being scientifically credible, equitable, and evidence led to enhance our reputation for reason and reliability
- ◆ continuing efforts to enhance staff wellbeing for the long term, with an understanding of possible future pressures
- ◆ better utilising remote working options to enhance staff wellbeing and stakeholder relations
- ◆ improving our workforce's adaptive capacity by building resilience and dynamic capabilities
- ◆ conducting a forward-looking analysis of our current relationships using scenario analysis
- ◆ front-footing strategic partnerships with those who will be at the centre of change
- ◆ taking the opportunity to have difficult, future-orientated conversations with stakeholders about climate-related risk.

### The impact of climate risk on our financial planning

The TCFD's recommended framework was developed to prevent climate-related financial risks from cascading through the global economy and is primarily focused on the financial implications of climate change.

As a central government organisation with a limited asset base, our overarching focus is on the extent to which climate-related risks may challenge the fulfilment of our strategic priorities, of which financial planning is a key underpinning consideration.

We have established policies requiring climate change to be factored into our operations-related financial planning, including travel and facilities. We are also continuing to focus on developing processes to ensure the financial implications of climate change are factored into policy development, including non-climate policy. For example, we are responsible for overseeing and releasing guidance for the Climate Implications of Policy Assessment process.

## Resilience of our strategy, taking into consideration different climate-related scenarios

### Analysing our strategic resilience

Due to uncertainties in the magnitude, timing, and velocity of climatic change, the TCFD recommends using climate scenarios, including at least one <2°C transition scenario, to analyse resilience. We recognise that scenarios are not standalone artefacts; they are tools to help interrogate assumptions about the future and analyse how these assumptions interact with strategic priorities. The most valuable outputs of scenario analysis are the strategic insights gained from the process, rather than the scenarios themselves.

To sharpen the focus of global and national climate risk information around the Ministry for the Environment's specific context, we used our *Statement of Intent 2020–2025* as our platform to analyse. This document outlines seven strategic priorities and supporting functions which became the focus of scenario analysis:

1. Transform the environmental management system
2. The Treaty of Waitangi is reflected in environmental decision-making
3. Improve the quality of New Zealand's urban environments
4. Build a sustainable and resilient land and food system
5. New Zealand transitions to a climate-resilient, low-emission, and circular economy
6. Improve how New Zealand's natural resources are allocated
7. Connect people and communities with te taiao.

### Climate change is a profound challenge

Considering our organisational purpose and strategic priorities, we developed and interrogated three climate risk scenarios to explore how we might perform under challenging but plausible climate futures. Key insights to emerge from the process included:

- ◆ a deeper understanding of the systemic, dynamic, and interconnected nature of climate-related risk
- ◆ how climate-related stressors, trajectories, and trigger points may unfold over the short, medium, and long term
- ◆ the extent to which physical and transition risks may challenge the fulfilment of our strategic priorities.

Overall, the scenario analysis process crystallised our understanding of the profound implications that climate change poses for our strategic priorities and our capacity to deliver on these outcomes. Undertaking this forward-looking analysis has enabled us to better prepare for the future. Considering this analysis, our next steps include:

- ◆ implementing a systematic forward-looking function to identify and assess climate-related risks to operations and policy-making
- ◆ strengthening key existing relationships and building further relationships in areas which will be vital in achieving strategic goals in a climate-influenced future
- ◆ building on existing efforts to improve staff wellbeing, with the knowledge that the future will likely put added pressure on the wellbeing of staff.



## Our scenario analysis methodology

As set out above, our approach to scenario analysis followed the TCFD's recommended process and scenario guidance. We worked with KPMG to develop and interrogate our climate risk scenarios to maintain rigour and alignment with leading practice. These steps included:

- ◆ A materiality assessment of our climate-related risks. This involved expert stakeholders identifying key drivers of change in relation to climate risk, ranked by significance and uncertainty.
- ◆ Defining a focal question to guide the analysis: "How might climate-related risk impact MfE's ability to achieve its strategic priorities (as set out in our *Statement of Intent 2020-2025*)? How should we respond to these risks?"
- ◆ Developing a set of scenarios by nesting global scenario data down to New Zealand at a national scale (see next page).
- ◆ Convening a series of scenario workshops where multi-disciplinary teams from across the organisation interrogated each scenario, identified material risks and opportunities, prioritised key risks for further response, and developed recommended actions.

We developed three scenarios, 'Orderly', 'Disorderly' and 'Hothouse', in accordance with the following principles:

- ◆ **Integrated.** To ensure plausibility and internal coherence, the scenarios reflect an integrated array of global, national, climate, and socio-economic models. We followed the overarching framework of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), which employs three scenarios to analyse climate-related risk. The NGFS uses two scenarios to explore different configurations of transition risk (an 'Orderly' and 'Disorderly' transition), and the third scenario explores extreme physical risk ('Hot House World').
- ◆ **Exploratory.** Our scenarios are exploratory, narrative-led, and semi-quantitative. Because scenario analysis is not about modelling the 'most likely' probabilistic forecast, a single scenario would have limited value. We developed a set of scenarios to interrogate the boundaries of how we might plausibly expect the future to unfold.
- ◆ **Three timeframes: 2021-25; 2026-35; 2036-50.** Developing the scenarios around three timeframes enabled us to explore uncertainties, and analyse our strategic priorities and potential responses, across different temporal horizons.

Our three scenarios were 'nested' within the following global, national, climate, and socio-economic models, pathways, and policy assumptions.

### Orderly

**Representative Concentration Pathway (RCP) 2.6**, where developed economies decarbonise rapidly, as well as supporting mitigation and adaptation in the developing world. Efforts are on track to achieve global net zero CO<sub>2</sub> by 2070, which means a 67% chance of limiting warming to below 2°C. However, climate inertia means the benefits of strong mitigation are not fully felt until later in the 21st century. We relied on NIWA's RCP2.6 projections for New Zealand (2016–2035, 2046–2065).

**Shared Socioeconomic Pathway (SSP) 2 ('Middle of the Road')**, where global population growth is moderate, and political, socio-economic, and technological trends unfold unevenly. There is overall improvement in health and education, but income inequality and environmental challenges remain widespread.

**Shared Policy Assumptions for New Zealand (SPANZ) F ('100% Smart')**, where New Zealand undertakes stringent mitigation and proactive adaptation. There is an increasing emphasis on natural resource preservation and upholding indigenous rights, both of which underpin New Zealand's competitive advantage.

**New Zealand Climate Change Commission (NZCCC) 'Tailwinds' scenario**, where New Zealand's transition to a low emission economy is supplemented by widespread behavioural change and technological developments.

### Disorderly

**RCP 2.6**, where developed economies decarbonise rapidly, as well as supporting mitigation and adaptation in the developing world. Efforts are on track to achieve global net zero CO<sub>2</sub> by 2070, which means a 67% chance of limiting warming to below 2°C. However, climate inertia means the benefits of strong mitigation are not fully felt until later in the 21st century. We relied on NIWA's RCP 2.6 projections for New Zealand (2016–2035, 2046–2065).

**SSP 2 ('Middle of the Road')**, where global population growth is moderate, and political, socio-economic, and technological trends unfold unevenly. There is overall improvement in health and education, but income inequality and environmental challenges remain widespread.

**SPANZ B ('Techno-garden')**, where New Zealand's mitigation efforts are based on minimising costs and exploiting new technology and trade opportunities. Transformative actions are avoided unless there is a business case consistent with near-term economic metrics.

**NZCCC's Current Policy Reference (CPR) scenario**, where New Zealand does not achieve net zero long-lived emissions by 2050. We broadly followed the CPR up to 2036 and then simulated an abrupt transition to divert New Zealand onto a trajectory more closely aligned with the NZCCC's 'Headwinds' scenario.

### Hothouse

**RCP 6.0**, where developed economies fail to rapidly decarbonise and developing nations remain reliant on fossil fuels. Global warming is therefore highly unlikely to remain under 2°C by 2100. We relied on NIWA's RCP 6.0 projections for New Zealand (2016–2035, 2046–2065).

**SSP 5 ('Fossil-fuelled development')**, where global GDP growth is strong, and development rapidly accelerates. With growth dependent on fossil fuels there is a global recognition of the need to invest heavily in health, education, and institutions which can enhance human and social capital, primarily to deal with the rapidly escalating impacts of climate change.

**SPANZ D ('Homo-Economicus')**, where New Zealand's mitigation efforts lag behind even the weak efforts undertaken globally. Instead, transformative adaptation to what are viewed as the inevitably worsening impacts of climate change take centre stage.

**NZCCC's Current Policy Reference (CPR) scenario**, where New Zealand does not achieve net zero long-lived emissions by 2050. There is a gradual reduction in emissions through technological advances and efficiency gains, but there is no concerted effort to prioritise the decarbonisation of the economy above other policy aims.



# Risk Management

## Processes for identifying and assessing climate-related risks

To date, our identification and assessment of climate-related risks has relied on the subject matter expertise of staff. This approach has been possible because, unlike most organisations, we have a considerable pool of in-house climate knowledge to assess climate-related risks and opportunities.

Because of this reliance on highly informed in-house climate expertise, we have not yet codified our approach into an enduring or systematic process. We are committed to formalising this process in the 2021/22 financial year to ensure we have:

- ◆ dedicated resource to identify and assess climate-related risks
- ◆ clarity around where climate-related risk information is required as a specific input in decision-making
- ◆ risk management structures and disciplines which allow for climate-related risks to be contextualised and prioritised alongside other risks we manage over various timescales.

## Processes for managing climate-related risks

We manage climate-related risks through our existing risk management channels (see below), rather than following a discrete process for managing climate-related risks. However, we recognise that this approach creates the potential for risks to arise which do not have a defined channel for climate-related risk management purposes.

In the 2021/22 financial year we are committed to:

- ◆ developing a strategy or plan to manage (mitigate, transfer, accept, or control) our climate-related risks
- ◆ establishing new structures, policies, and processes to manage climate-related risks
- ◆ establishing new processes to measure, monitor, and report on progress in managing climate-related risks.

## How processes for identifying, assessing, and managing climate-related risks are integrated into our overall risk management

As set out in figure 4, our overall approach to risk management involves distinguishing between the following types of risk:

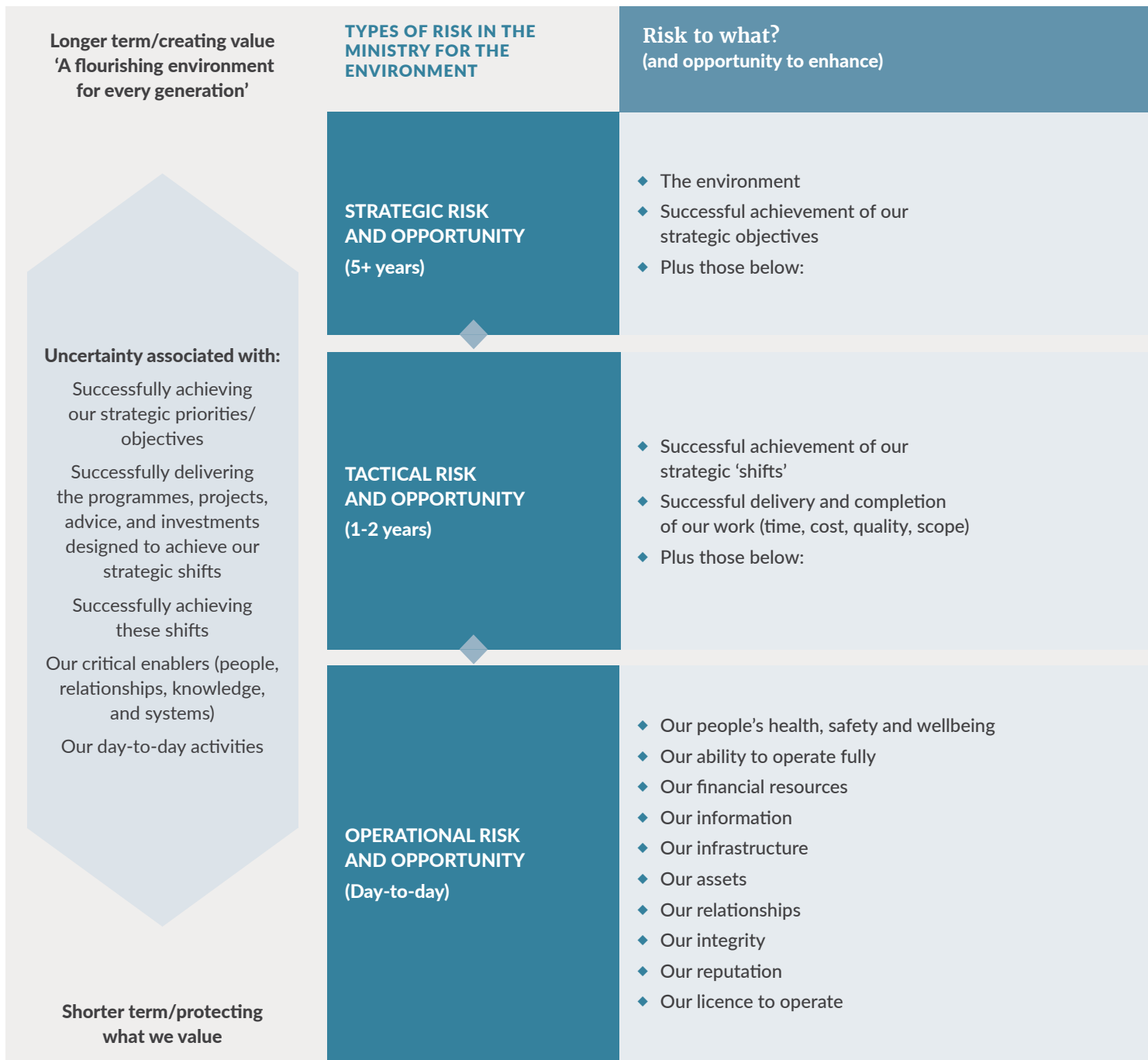
- ◆ **strategic risk:** uncertainty associated with our longer-term strategic objectives
- ◆ **tactical risk:** uncertainty associated with our decisions, investments, and plans to execute our strategy
- ◆ **operational risk:** uncertainty associated with shorter-term, day-to-day operational activities and functions.

Our recent scenario analysis work demonstrated that climate-related risks and opportunities crystallise over time horizons and risk categories which align with our 'Strategic / Tactical / Operational' framework. Accordingly, in the 2021/22 financial year we are committed to:

- ◆ integrating our climate-related risks into our broader risk register
- ◆ integrating our new processes for identifying, assessing, and managing climate-related risks, once formalised, into our overall risk management processes.

**FIGURE 4: AN OVERVIEW OF OUR RISK MANAGEMENT FRAMEWORK, INCLUDING WHO IS RESPONSIBLE AND THE TOOLS AND PROCESSES USED TO MANAGE EACH TYPE OF RISK**

**Ministry for the Environment risk management overview**



RISK IS 'UNCERTAINTY THAT MATTERS TO THE MINISTRY FOR THE ENVIRONMENT'

Who manages risk? (Who is responsible?)	How do they manage it? (Tools, policies, processes, behaviours, strategies)	Who oversees and monitors it? (Governance)
<ul style="list-style-type: none"> <li>◆ Secretary for the Environment and Chief Executive</li> <li>◆ Deputy Secretaries</li> </ul>	<ul style="list-style-type: none"> <li>◆ Strategic planning and monitoring</li> <li>◆ Informed decision-making (understanding trade-offs between reward and risk, or 'risk appetite')</li> <li>◆ Scenario planning</li> <li>◆ Horizon scanning</li> <li>◆ Performance measurement</li> </ul>	<ul style="list-style-type: none"> <li>◆ Te Pūrengi</li> <li>◆ Te Mīmiro</li> <li>◆ Audit and Risk Committee</li> </ul>
<ul style="list-style-type: none"> <li>◆ Directors Group</li> <li>◆ Business Groups (directors, managers, and teams)</li> <li>◆ Programme managers</li> <li>◆ Project managers and teams</li> </ul>	<ul style="list-style-type: none"> <li>◆ Business planning and monitoring</li> <li>◆ Quality standards and controls</li> <li>◆ Programme/project management</li> <li>◆ Stakeholder management</li> <li>◆ Informed decision-making</li> <li>◆ Performance measurement</li> <li>◆ Financial planning and management</li> <li>◆ Risk assessments</li> <li>◆ Fit for purpose processes and controls</li> </ul>	<ul style="list-style-type: none"> <li>◆ Te Pūrengi</li> <li>◆ Te Mīmiro</li> <li>◆ Programme/project governance bodies</li> <li>◆ Audit and Risk Committee</li> </ul>
<ul style="list-style-type: none"> <li>◆ Organisational performance (design, controls, processes, and policies)</li> <li>◆ Everyone in the Ministry for the Environment</li> </ul>	<ul style="list-style-type: none"> <li>◆ Compliance with policies (including Te Iwituroa), procedures, delegations, legislation, internal controls, and processes</li> <li>◆ Advice and support from corporate and support teams</li> <li>◆ Financial management</li> <li>◆ Contract management</li> <li>◆ Stakeholder management</li> <li>◆ Risk assessments</li> <li>◆ Business continuity management</li> <li>◆ Performance measurement</li> <li>◆ Fit-for-purpose facilities</li> </ul>	<ul style="list-style-type: none"> <li>◆ Te Pūrengi</li> <li>◆ Te Mīmiro</li> <li>◆ Audit and Risk Committee</li> </ul>



# Metrics and Targets

## Metrics used to assess climate-related risks and opportunities

We are committed to measuring and monitoring:

- ◆ our overall emissions profile
- ◆ our operational emissions and related activity, such as travel behaviour and electricity consumption
- ◆ the resilience of our operations to the impacts of climate change.

### Measuring our emissions profile

We measure our Scope 1, Scope 2, and Scope 3 emissions in accordance with the GHG Protocol and ISO 14064-1:2018 standard. Our emissions boundary covers all of our business units and staff, and our emissions profile is publicly reported and externally verified. We have achieved Toitū carbonreduce certification annually since 2017 and this is available on the [Toitū Envirocare website](#).

### Measuring our operational emissions and related activity

Travel is the main source of emissions from our operations. We measure and monitor all business-related travel. We also measure and have reduced our electricity consumption, waste to landfill, and use a low-emissions procurement framework to choose low-emissions, low-waste office supplies. A regular meeting between our Sustainability, Finance and Facilities teams ensures we take an integrated approach to monitoring and evaluating our emissions, including the financial resources required to perform these tasks.

### Monitoring the resilience of our operations to the impacts of climate change

In addition to fast-tracking our conscious efforts to change our travel behaviour and optimise how we work remotely, COVID-19 highlighted the importance of understanding and improving our operational resilience.

We monitor our travel risks and have developed a staff travel plan to identify emission reduction opportunities and contingency options for staff commuting. We are also building our capability to measure and monitor the climate-related risks and opportunities of our wider operational activity, such as the implications of moving to a new building closer to Wellington Harbour.

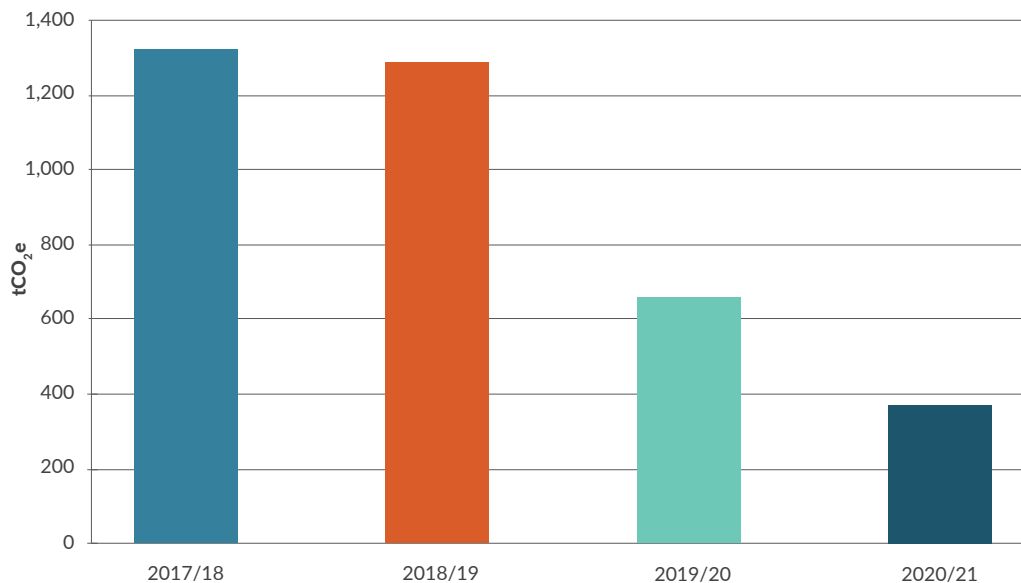
In the 2021/22 financial year, we are committed to:

- ◆ incorporating our metrics and targets into a monitoring plan that addresses the roles and responsibilities for monitoring, evaluation, and learning actions, and the roles allocated to external partnerships
- ◆ developing our technical capability to monitor travel emissions in real-time to empower staff to change their travel behaviour, relative to our overall travel emission budget
- ◆ integrating our structures, policies, and processes for monitoring climate-related risks and opportunities into our overall risk and performance monitoring processes.

## Our GHG emissions and related risks

In 2020/21, we emitted 367.46 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), 44 per cent lower than the previous year (660.31 tCO<sub>2</sub>e), and 72 percent less than our base year 2017/18 (1324.12 tCO<sub>2</sub>e).

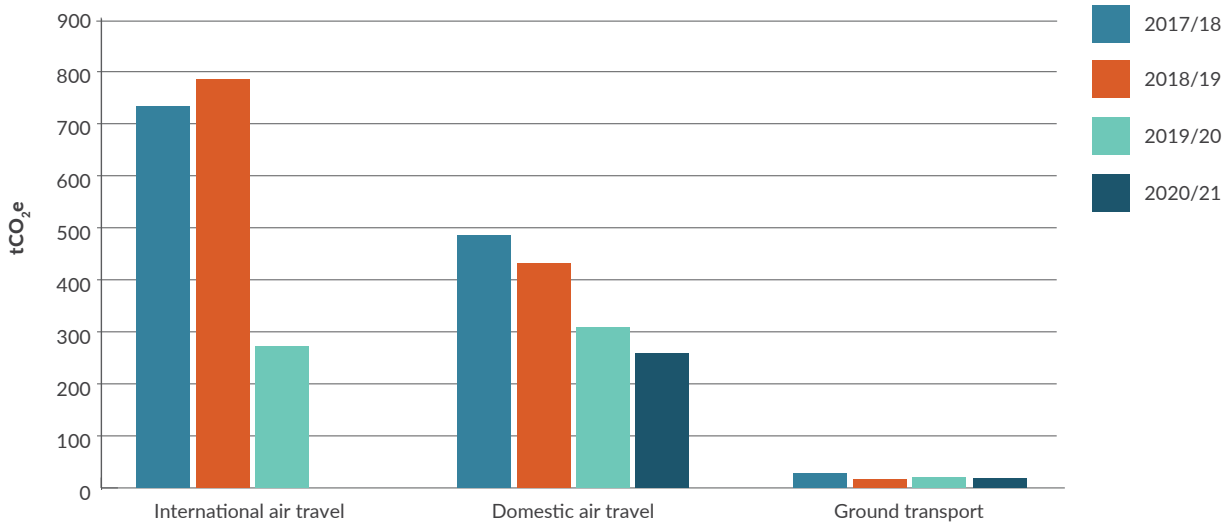
**FIGURE 5: TOTAL EMISSIONS (tCO<sub>2</sub>e) 2017/18 - 2020/21**



The bulk of our emissions come from international and domestic air travel. During 2020/21, we have continued to consciously reduce our travel emissions and promote sustainable travel options by:

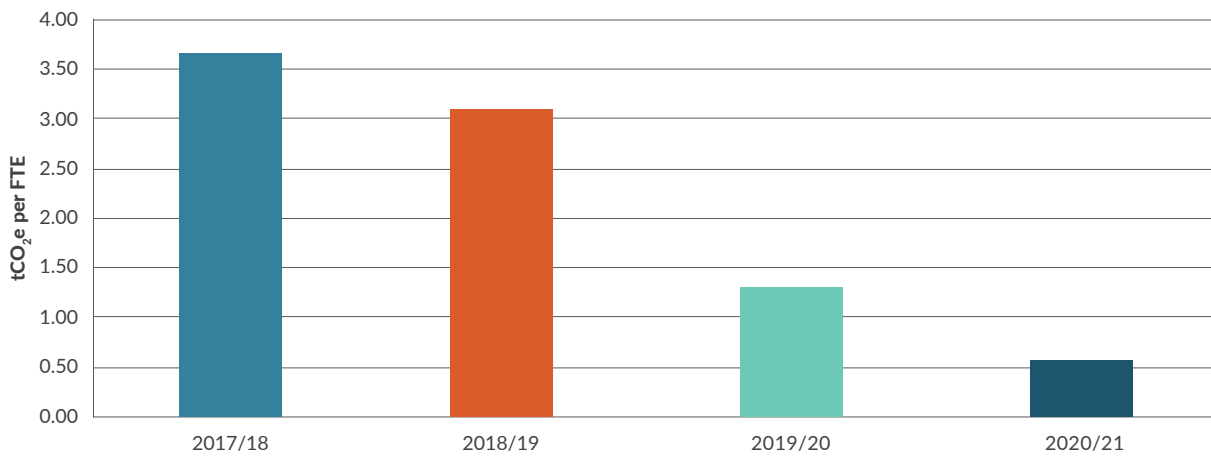
- ◆ guiding staff on sustainable travel options and behaviours, especially for air travel
- ◆ continuing to develop a cap-and-trade system for air travel and establish internal processes that link travel emission reductions to staff wellbeing and our overall emission budget as an organisation
- ◆ rolling out better video conference technology so staff can work remotely and meet with stakeholders around the country more effectively
- ◆ providing a low-emissions fleet of an e-bike, bikes, and scooters for staff to attend meetings.

**FIGURE 6: TOTAL TRANSPORT EMISSIONS (tCO<sub>2</sub>e) 2017/18 - 2020/21**



Despite growing our full-time equivalent (FTE) staff numbers over the past three years, our overall greenhouse gas (GHG) emissions and emissions per FTE have decreased.

**FIGURE 7: TOTAL GROSS EMISSIONS PER FULL TIME EQUIVALENT 2017/18 - 2020/21**





## Targets used to manage climate-related risks and opportunities and performance against targets

Looking ahead, we are committed to:

- ◆ achieving carbon neutrality by 2025 as part of the Carbon Neutral Government Programme
- ◆ halving our emissions by 2030, relative to a 2017/18 baseline
- ◆ ensuring our new head office building achieves at least a five-star Greenstar Building rating
- ◆ reducing waste to landfill from our head office by 50 per cent.

We are currently on track to meet the targets set out in our **Sustainability Strategy (2020–22)**. Progress is reported annually in our Annual Report.



*Ministry for the*

**Environment**

*Manatū Mō Te Taiao*



**Te Kāwanatanga o Aotearoa**  
New Zealand Government

**HEAD OFFICE**

Environment House  
23 Kate Sheppard Place  
Wellington  
New Zealand

**POSTAL ADDRESS**

PO Box 10362  
Wellington 6143  
New Zealand

**TELEPHONE AND EMAIL**

Freephone: 0800 499 700  
Telephone: +64 4 439 7400  
Email: [info@mfe.govt.nz](mailto:info@mfe.govt.nz)

**WEBSITE**

[environment.govt.nz](http://environment.govt.nz)