



Ministry for the
Environment
Manatū Mō Te Taiao

Ministry for the Environment's climate-related disclosure

2021/22



Te Kāwanatanga o Aotearoa
New Zealand Government

Published in October 2022 by the
Ministry for the Environment
Manatū Mō Te Taiao
PO Box 10362, Wellington 6143, New Zealand

ISSN: 2815-9535
Publication number: ME 1679

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environment.govt.nz.



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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 aim to ensure a flourishing environment for every generation – he taiao tōnui mō ngā reanga katoa.

Within our **Statement of Intent 2020–2025**, our operating principles describe how we will go about our work and are centred on six principles:

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

Our commitment to be at the leading edge of addressing our climate-related risk

As a government agency operating at the forefront of climate-related policy development, we set a high ambition around assessing, managing, and disclosing our own climate-related risks and opportunities.

Our second disclosure reiterates our commitment to understanding and addressing the actual and potential effects of climate change on our own operations, strategy, and financial plans. Our process and disclosure are aligned with the recommendations of the Taskforce on Climate-related Financial Disclosure (TCFD). This is commonly referred to as best-practice guidance and is based around four domains: Governance, Strategy, Risk Management, and Metrics and Targets.

We have been publicly reporting our greenhouse gas emissions since 2017 and have recently released our **Sustainability Strategy for 2022–2025**. We have updated the strategy with challenging goals and ensured our gross emissions reduction targets and emissions reduction plans meet the standards set by the Carbon Neutral Government Programme.

Our disclosure this year largely follows that of the 2020/21 financial year. We set ourselves an ambitious action plan, which we need to continue to progress and build on. We are committed to self-reflection, transparency, and ongoing improvement, and recognise that across all four domains we have more work to do. We will continue to use our climate-related disclosures to share our actions and performance as we progress our action plan to address our climate-related risk, build organisational resilience, and achieve carbon neutrality.

Reflections on our second year of disclosure

The backdrop to our second year re-emphasised the importance of action at the individual and collective level. The release of the Intergovernmental Panel on Climate Change's *Climate Change 2022: Impacts, Adaptation and Vulnerability* report is a stark reminder of the urgency with which we need to collectively better plan and prepare for climate change impacts and risks.¹

These risks are becoming increasingly complex and more difficult to manage. Multiple climate hazards will occur simultaneously, and multiple climatic and non-climatic risks will interact, resulting in a compounding of overall risk and risks cascading across sectors and regions. Our Chief Executive and Chair of the Climate Change Chief Executives' Board, Vicky Robertson, reiterated this in the draft national adaptation plan:

More change will come, and impacts will increase, disrupting nature and society, affecting people's health and wellbeing and damaging livelihoods. We need to change how we do things so we can thrive in a climate that continues to change.²

This year we also released Aotearoa New Zealand's first **emissions reduction plan** (ERP), requiring actions across every sector of the economy including transport, energy and industry, building and construction, agriculture, forestry, waste and fluorinated gases. The Carbon Neutral Government Programme and applying the Government's Procurement Rules are features of the ERP and are key actions for the public sector, and where we maintain our commitment to lead by example.

We continue to strive to improve environmental evidence and data and do so in a human-centric way: our **Environment Aotearoa 2022** report drew on a diverse set of evidence, including Māori knowledge (mātauranga Māori), and explored the importance of nature in our lives and to our livelihoods.

Our work programme continues to expand into implementation and delivery. In the year ahead, it will be important for us to monitor policy and operational shifts and their varying impacts on climate risk and opportunities. An overhaul of our existing scenarios, updated with the latest projections, and our annual scenario planning will support this.

Our progress and improvement in the year ahead

We know from our experience with developing and implementing our Sustainability Strategy, that success is grounded in a commitment to learning, practice and improvement. Consistent internal engagement and iteration to embed the approach and bring all staff along is a focus.

This was our first year implementing our ambitious list of actions. We have made headway on some and laid the groundwork for others. Consequently, many of the commitments we outlined in 2021/22 will roll into this next year. There are areas for improvement, particularly embedding familiarity with the TCFD-aligned framework across all business groups. This ensures our climate risks and opportunities are being articulated, where most relevant, through our shorter-term risk reporting cycles.

¹ *Climate Change 2022: Impacts, Adaptation and Vulnerability* and *Release from Minister Shaw on the national adaptation plan*.

² *Draft national adaptation plan | Ministry for the Environment*, p 7.

A commitment last year, and renewed focus for this year, is integrating climate risk as a lens to look at our investments and policy work to ensure they are considering climate-related risk. Funds and investments teams are integrating transition risks, as well as an understanding of physical risks and opportunities – for example, freshwater investment activities that mitigate climate change impacts. Looking across the whole system is timely, as our oversight of non-departmental expenditure has grown significantly over the past few years. A stocktake to scope and identify where we can pool our expertise to address areas we think can be further developed is a significant opportunity in the 2022/23 financial year.

To date, our efforts have focused on:

- ◆ conducting annual scenario analysis and planning to identify and interrogate our climate-related risks and opportunities
- ◆ renewing our Sustainability Strategy to ensure we are on track to carbon neutrality by 2025 as part of the Carbon Neutral Government Programme. We have targets to reduce our emissions by 35 per cent by June 2025 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 Envirocare carbonreduce programme
- ◆ joining the Climate Leaders Coalition (CLC) and Sustainable Business Council, and signing the CLC Statement of Ambition 2017 and 2019 to signpost our intentions and be part of a network of organisations that are committed to improving performance
- ◆ setting up governance arrangements for managing climate-related risk
- ◆ setting up risk management processes and accountabilities for climate-related risk.

As part of our commitment to ongoing improvement, in the 2022/23 financial year we will focus on:

- ◆ renewing our commitments to improving performance and signalling our intentions by signing the new Climate Leaders Coalition Statement of Ambition 2022 and joining the Sustainable Business Council
- ◆ using climate risk as a lens for our investments and policy work to ensure they consistently address climate-related risk
- ◆ investigating and developing tools to assess and scan investments for climate risk
- ◆ further work on our governance structures to ensure efficacy
- ◆ further work to ensure climate risks and opportunities are linked to work programmes and reported through short-term risk reporting cycles
- ◆ commitment to ongoing assessment of gaps and capability growth where required
- ◆ developing new scenarios based on latest projections, drawing on our in-house and subject matter expertise
- ◆ reviewing stakeholders' and partners' plans, supporting them effectively with climate change knowledge and tools
- ◆ preparing an annual 'Climate change risk and opportunities' report detailing our climate risk as discovered through scenario planning.

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 Ministry's 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"> ◆ establishing appropriate governance and organisational structures and processes ◆ setting the overarching strategic direction and priorities that are aligned with our purpose, and actively monitoring the execution of these priorities ◆ 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.
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 design and delivery of the Ministry's organisational strategies. This includes testing, advising, and taking decisions on items relating to organisational strategy and performance, and ensuring these items are robust and incorporate a wide range of perspectives. Te Mīmiro decisions and recommendations are noted, endorsed, and agreed to by Te Pūrengi.</p>

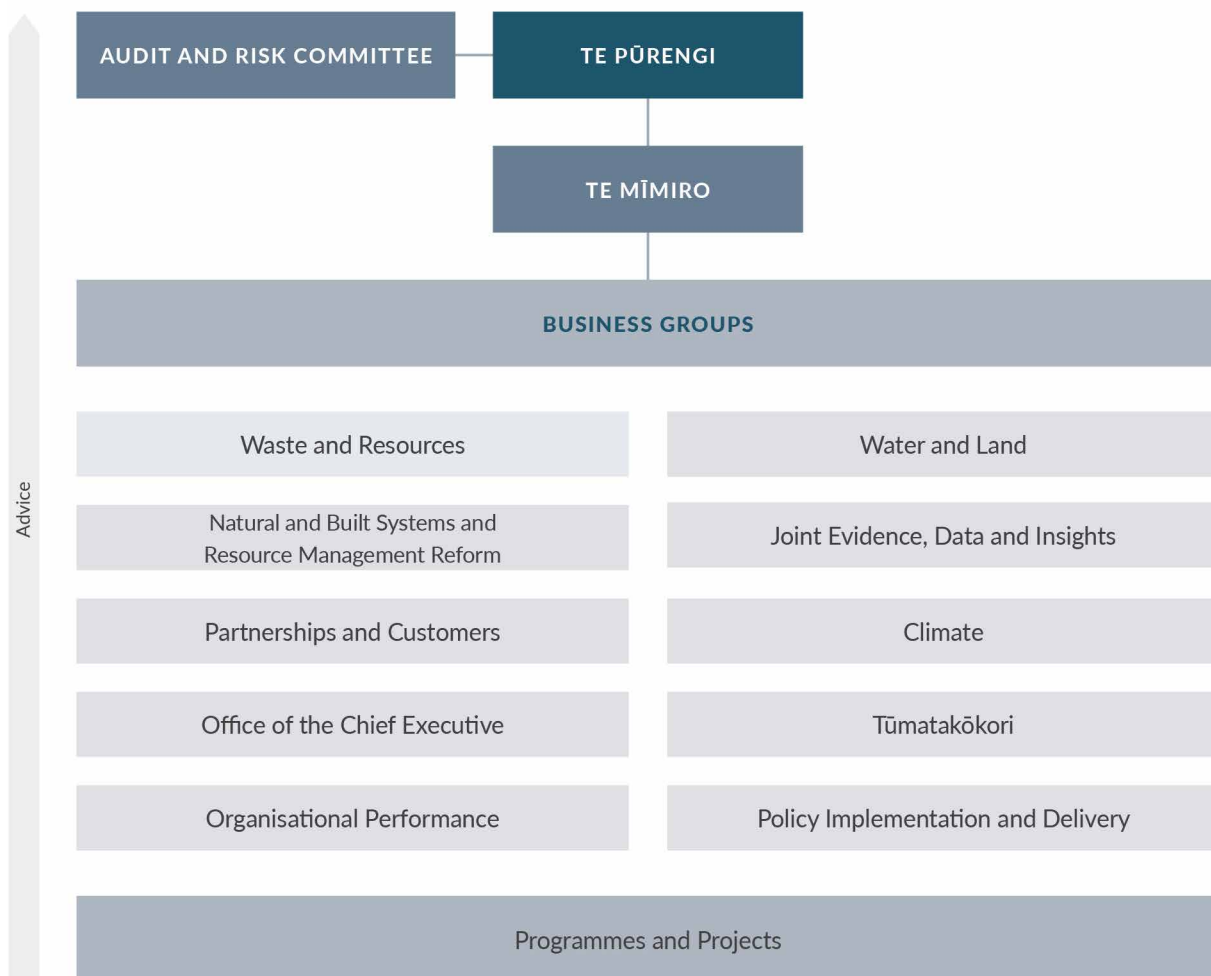
Te Pūrengi's oversight of risks and opportunities is supported by the work of our:

- ◆ Audit and Risk Committee, an advisory body that provides independent advice, review, and oversight of the following areas:
 - 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. The Committee has no executive powers regarding its findings and decisions. Primary responsibility for ensuring resolution of issues lies with the Chief Executive and Te Pūrengi.

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

FIGURE 2: THE MINISTRY'S GOVERNANCE MODEL AND LEADERSHIP TEAMS (AS AT JUNE 2022)



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-emissions economy. Our leadership teams collectively possess technical, strategic, and risk-management expertise on 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 strive to continue to show leadership by fulfilling the membership requirements of the Climate Leaders Coalition, including signing on to the new Statement of Ambition.

This is also the first year of emissions measuring, reporting, and setting gross emissions reduction targets, under the Carbon Neutral Government Programme. Our new Sustainability Strategy 2022–2025 resets our ambitious emissions reduction targets and reductions plans and ensures we meet the Carbon Neutral Government Programme requirements. As we have since 2017, we will continue to publicly disclose our emissions performance. This is the second year of disclosing our climate-related risk in accordance with the TCFD's recommended framework.

We established and formalised some of our governance processes to align with leading practice and our own ambitions in this area. We carry through commitments from last year, and in the 2022/23 financial year commit 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 is the governance group responsible for governing key functions across the Ministry. It plays a critical role in ensuring our climate-related risks and opportunities are appropriately and systemically managed, so we achieve our objectives.

This year we'll be focusing on climate-related risk governance capability within Te Pūrengi and Te Mīmiro, in the context of our expanding responsibilities. Even with our existing knowledge and expertise, regular review is important, and we have dedicated resource to review and provide support where required.

In the 2022/23 financial year we are committed to ensuring progress continues on formalising:

- ◆ roles and responsibilities held by Te Mīmiro for our climate-related risks and performance
- ◆ policies and processes operational units will 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. 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 recognise the Intergovernmental Panel on Climate Change's *Climate Change 2022: Impacts, Adaptation and Vulnerability* assessment that the risks are becoming more complex and difficult to manage. Multiple climate hazards will occur simultaneously, and multiple climatic and non-climatic risks will interact, resulting in a compounding of overall risk and risks cascading across sectors and regions.³

We also recognise that climate-related risks and opportunities will arise from transitioning to a resilient, low-emissions economy. These 'transition' risks and opportunities may relate to technology uptake, socio-economic disruption, 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 Taskforce on Climate-related Financial Disclosure's (TCFD) recommended process, in 2020/21 we used scenario analysis to identify, assess and interrogate our climate-related risks and opportunities over the short, medium, and long term. In the context of climate-related risk, we define these time horizons as:

- ◆ short term – 1 to 5 years
- ◆ medium term – 5 to 15 years
- ◆ long term – 15 years and beyond.

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.

³ Climate Change 2022: Impacts, Adaptation and Vulnerability, p 20.

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 stress-test their strategic resilience by exploring how they might perform under challenging but plausible futures. In the 2020/21 financial year, 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 that is late, disruptive, and out of sync with the wider world.
3. **'Hothouse'**: Describes a world with significant warming and high exposure to physical risks.

Stress testing our strategic resilience

Scenarios are tools to help interrogate assumptions about the future and stress-test strategic priorities. The most valuable outputs of scenario analysis are the strategic insights gained from the process, rather than the scenarios themselves. We continue to use our *Statement of Intent 2020–2025* as our platform for stress-testing. It 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.

Our material climate-related risks and opportunities that have been identified from this process are set out below, and our scenario analysis methodology is described in detail in our **first climate-related disclosure**.

Reiterating scenarios for the 2021/22 financial year

In the 2021/22 financial year, we revisited the 'Orderly' and 'Disorderly' scenarios in our annual scenario planning with directors. We updated the scenarios with new political, social, and economic context. For example, the war in Ukraine and energy security, oil prices and inflation, latest extreme weather events occurring domestically and internationally, major new policy, ongoing COVID-19 disruption, and social unrest.

The risks and opportunities identified in our first disclosure remained relevant for all directors. Risks re-emphasised included social license to operate, mistrust, the importance of policy cohesion, and the ongoing challenges from social, economic, and COVID-19 pressures. Opportunities revisited included funds and investment, engagement and creating a vision for the future, and partnerships. We also considered where critical discussions and relationship-building could be facilitated through cross-sector collaboration; with business, communities, councils, and rangatahi, with Māori and Pasifika representation.

The potential risks and uncertainties were identified to be a risk to our strategic intent if the hypothetical scenarios or stressors in the scenarios were to occur at a future date. Although we cannot predict our future organisational attributes, operating environment, or whether these risks will materialise, identifying these potential risks will allow us to improve the resilience of our strategy to a wide range of possible futures.

Our climate-related risks and opportunities to address these risks

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, 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 in capability (eg, an increased operational role).
- ◆ Risk of a siloed approach to climate change issues and 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, 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 our 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, 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 approach 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.

We have developed and released a Sustainability Strategy for 2022–2025, that meets our ambition and the requirements of the Carbon Neutral Government Programme. This is our third consecutive Sustainability Strategy. Progress towards achieving this strategy is monitored by the Chief Operating Officer and reported to Te Pūrengi.

In addition to our more obvious physical and transitional risks, we continue to recognise that climate change is a systemic threat that creates issues for our supply chains, the preservation of trust and confidence and wellbeing. We also acknowledge the Intergovernmental Panel on Climate Change commentary that its assessment clearly shows tackling the different challenges climate change presents involves everyone – governments, the private sector and civil society – working together to prioritise risk reduction, as well as equity and justice, in decision-making and investment.⁴

This heightens the importance of our focus on relationship building, partnerships, cross-sector collaboration, and working in meaningful partnership with iwi/Māori. Approaching evidence and data in a human-centric way is also crucial, together with strategic science investment. For example, our latest environmental report, *Environment Aotearoa 2022*, built towards a more sophisticated understanding of how to bring different bodies of knowledge together in future reporting, using Te Kāhui o Matariki (the Matariki star cluster) to organise the report's evidence. It also collated perceptions of wellbeing in relation to the environment.

In the 2022/23 financial year we reiterate our commitments to:

- ◆ continue to systematically analyse our climate-related risks and opportunities that may have a significant impact over the short, medium or long term
- ◆ explore alternatives to standard decision-making tools which are limited in their capability to represent the dynamic and uncertain nature of climate-related risk
- ◆ develop a coherent vision for the future to mitigate the chance of climate fatigue and establish trust with those most affected by the transition
- ◆ continue to invest in being scientifically credible, equitable and evidence-led to enhance our reputation for reason and reliability
- ◆ continue efforts to enhance staff wellbeing for the long term, with an understanding of possible future pressures
- ◆ improve our use of remote working options to enhance staff wellbeing and stakeholder relations
- ◆ improve our workforce's ability to be adaptative by building resilience and dynamic capabilities

⁴ Press release: <https://www.ipcc.ch/report/ar6/wg2/resources/press/press-release/>.

- ◆ conduct a forward-looking analysis of our current relationships using scenario analysis
- ◆ front-foot strategic partnerships with those who will be at the centre of change
- ◆ take 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 with the objective of preventing climate-related financial risks from cascading through the global economy, and is therefore 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. The growth in our non-departmental expenditure brings renewed focus on management and climate-related risk governance and capability.

We have established policies requiring climate change to be factored into our operations-related financial planning, including travel and facilities. 'Putea – Our finances' remains a pillar in our new Sustainability Strategy for 2022–2025. 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.



Risk Management

Process for identifying and assessing climate-related risks

We have made headway on our commitments to formalise our identification and assessment of climate-related risk. In the 2020/21 financial year these commitments were:

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

Three areas have laid the groundwork for these commitments:

1. our second annual scenario planning
2. resource dedicated to oversight, clarification, and coordination of our processes
3. the focus in 2022/23 on our non-departmental expenditure, funds, and investments.

Combining our considerable in-house knowledge and subject matter expertise will support this, and we are dedicating more resource to scenario analysis. We also see an opportunity to improve climate-related risk integration in planning cycles.

We recognise we haven't systematised our approach entirely across all business groups. Our identification and assessment of climate-related risks still relies on our staff's subject matter expertise in fulfilling their management and planning functions. We will continue to build on the commitments we set.

Process for managing climate-related risks

We assessed our existing risk management channels (see below) in more depth, to better understand how they identify and manage climate-related risks. In 2022/23, we will clarify oversight of, and the best approach to, manage and monitor climate-related risks overall through our core strategic and organisational performance functions.

This year our second annual scenario planning session with directors, and the subsequent report to Te Mīmiro, played a crucial role in synthesising risks across the different channels. In the year ahead, reinforcing and embedding familiarity with the TCFD-aligned framework among governance and work programmes will also support reporting through our existing channels. Further support will result from improved capability for monitoring and management of climate-related risk by those holding existing risk management channels.

In the 2022/23 financial year, we maintain our commitments to:

- ◆ develop and implement a strategy and/or plan to manage (ie, mitigate, transfer, accept, or control) our climate-related risks
- ◆ establish new structures, policies, and processes to manage climate-related risks
- ◆ establish 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

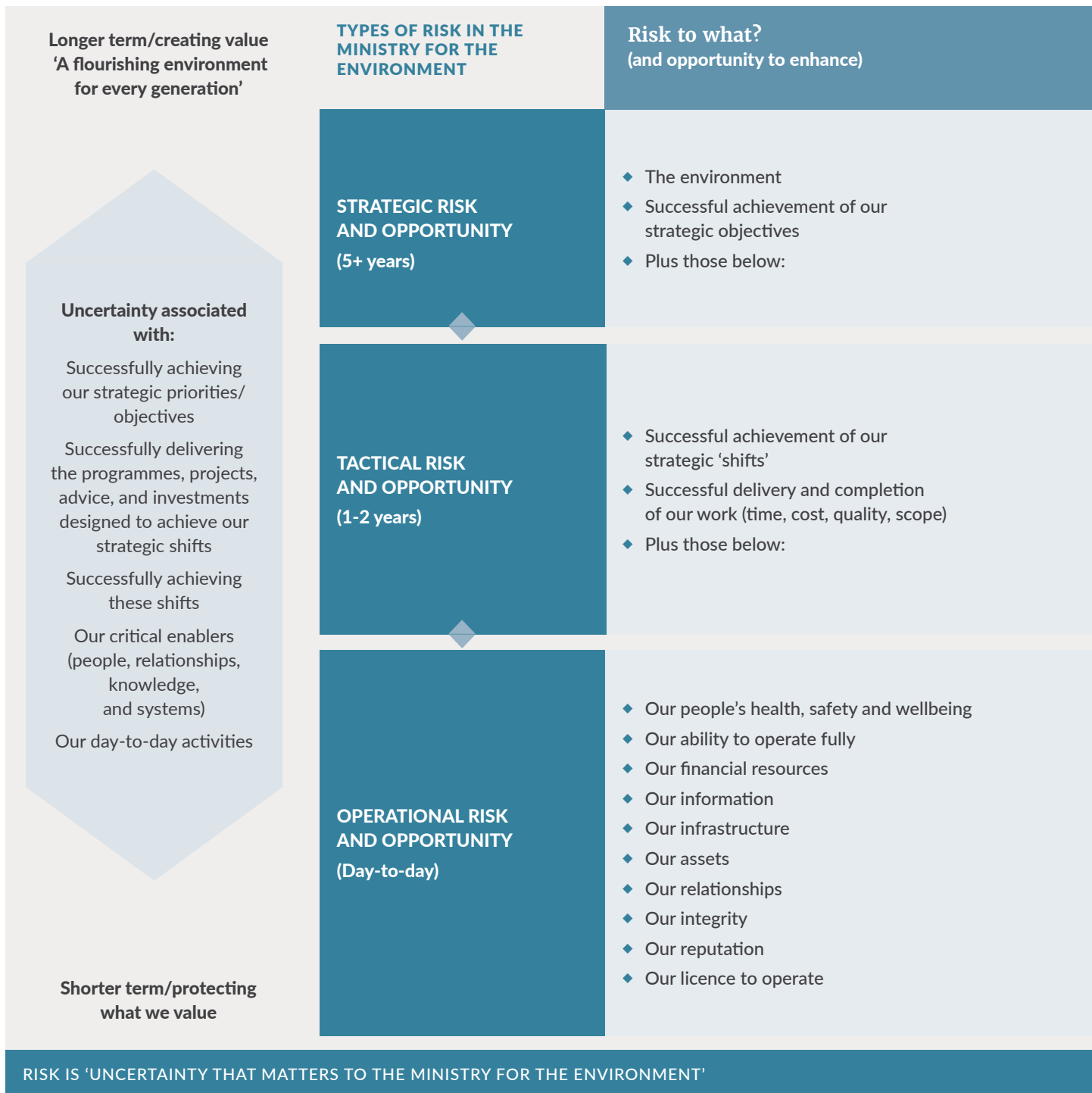
As set out in figure 4, our overall approach to risk management involves distinguishing between the following types of risk:

- ◆ **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 showed that climate-related risks and opportunities crystallise over time horizons and risk categories that align with our 'Strategic/Tactical/Operational' framework. In the 2022/23 financial year, we are committed to integrating:

- ◆ our climate-related risks into our broader risk register
- ◆ 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



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



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 Greenhouse Gas Protocol and ISO 14064-1:2018 standard. Our emissions boundary covers all the Ministry's business groups and staff, and our emissions profile is publicly reported and externally verified. It also meets the expectations of the Carbon Neutral Government Programme.

We have achieved Toitū Envirocare's *carbonreduce* certification annually since 2018 and this is available on [Toitū's website](#).

Measuring our operational emissions and related activity

Travel is the main source of emissions from our operations, with long-haul international business class flights the greatest source of travel emissions. 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. We will also meet regularly with our colleagues in Stats NZ, with whom we share our new office building in Wellington.

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

We continue to focus our efforts on changing our travel behaviour and optimising how we work remotely and expand our operations, with remote working more important than ever as COVID-19 restrictions ease and our work programme grows. Our operational resilience continues to be at the forefront of our minds, particularly with our remote and regional presence.

We monitor our travel risks and have developed a staff travel plan to identify emissions-reduction opportunities. We need to continue growing our capability to measure and monitor the climate-related risks and opportunities of our wider operational activity, particularly in our implementation areas. We pursued and achieved a 6 Green Star rating in our new building and, with its proximity to the Wellington Harbour, will be monitoring the potential climate-change impacts – for example, from sea-level rise or flooding.

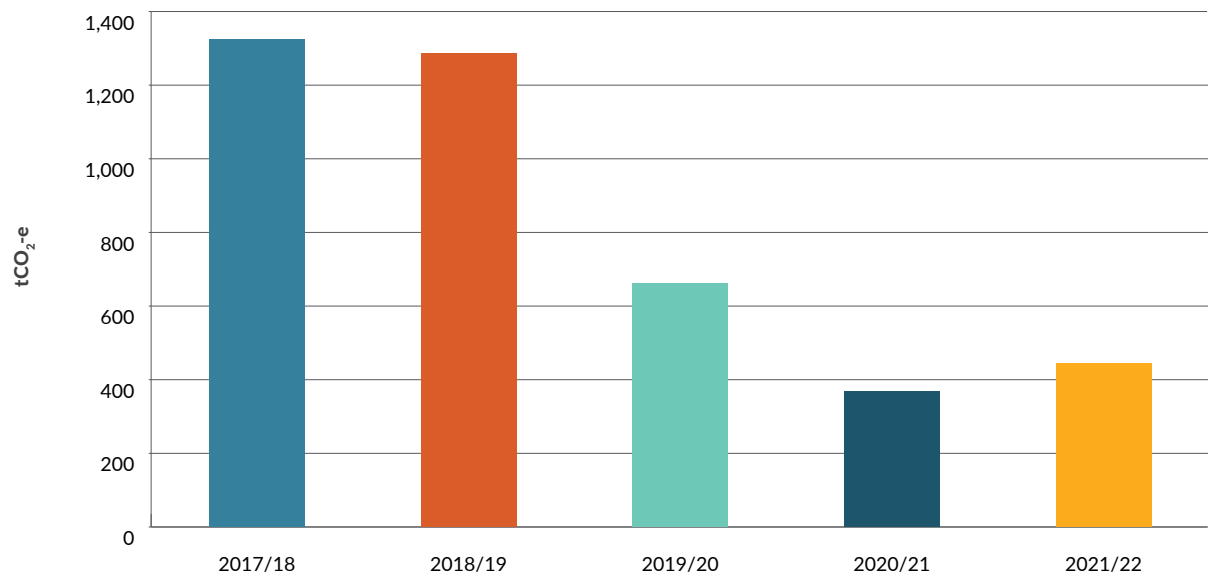
In the 2022/23 financial year, we are committed to:

- ◆ 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 emissions budget
- ◆ integrating our structures, policies and processes for monitoring climate-related risks and opportunities into our overall risk and performance monitoring processes.

Our greenhouse gas emissions and related risks

In 2021/22, we emitted 442.97 tCO₂-e, which is a 20.55 per cent increase on the previous year (367.46 tCO₂-e), and 66.55 per cent lower than our base year 2017/18 (1,324.12 tCO₂-e). The increase from the previous year is due to the easing of COVID-19 travel restrictions, and some international travel resuming to meet our international obligations. Despite this, we have achieved our 2025 and 2030 reduction targets for the third consecutive year.

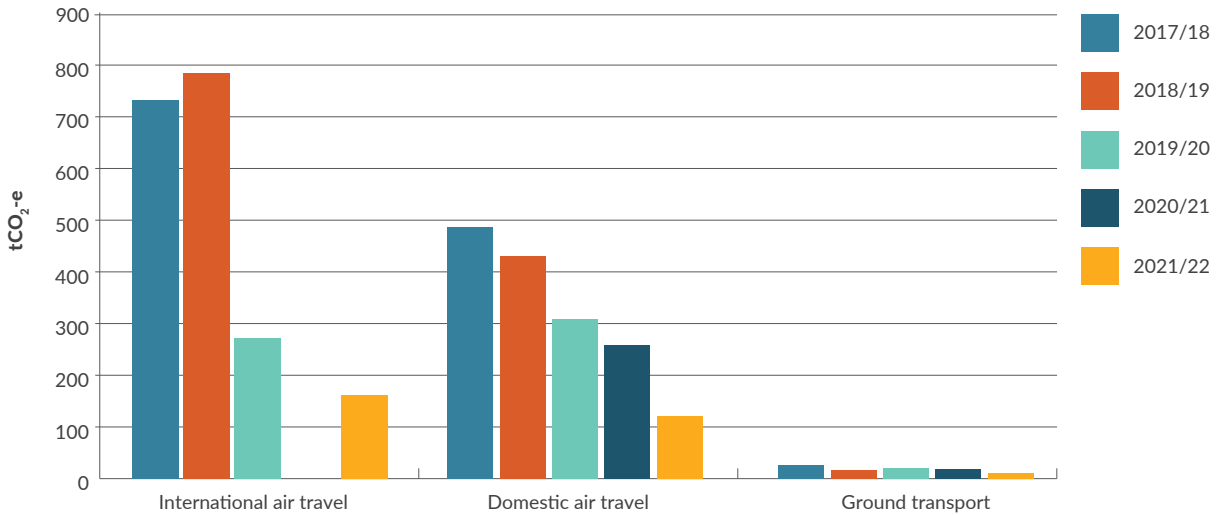
FIGURE 5: TOTAL EMISSIONS (tCO₂-e), 2017/18 - 2021/22



The bulk of our emissions come from international and domestic air travel. During 2021/22, we 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
- ◆ setting internal emissions budgets, alongside financial budgets
- ◆ providing improved video conference technology (particularly in our new head office) so staff can work remotely and meet with partners and stakeholders around the country more effectively
- ◆ providing a low-emissions fleet of an e-bike, bikes, and scooters for staff to attend off-site meetings in the Wellington CBD.

FIGURE 6: TOTAL TRANSPORT EMISSIONS (tCO₂-e), 2017/18 - 2021/22



No international flights were taken in 2020/21 as we suspended all international travel. We instead met our international obligations by using technology to participate in meetings online. With the easing of COVID-19 restrictions, we saw the resumption of some international travel in 2021/22.

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

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

We have set the following targets:

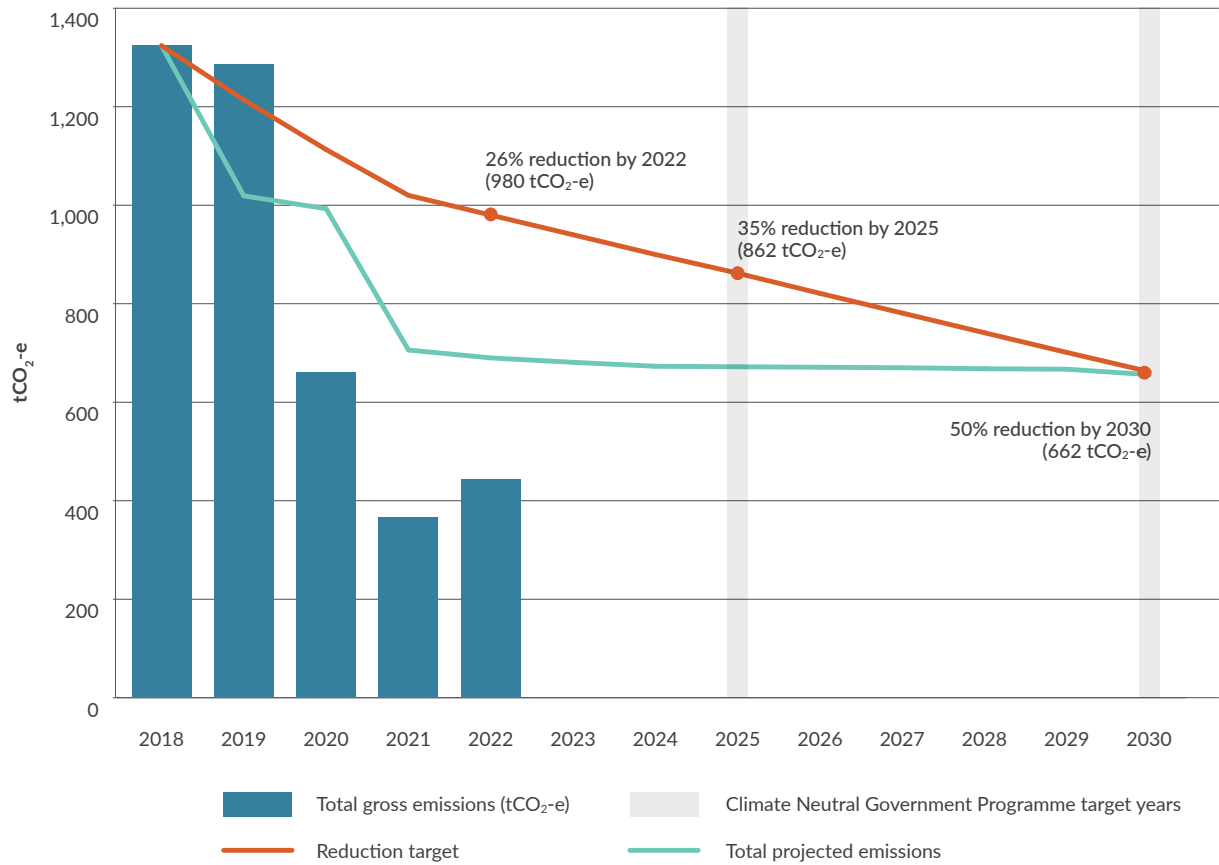
Emissions:

- ◆ 2025 target: reduce emissions by 35 per cent from the 2017/18 base year by 2025
- ◆ 2030 target: halve emissions from the 2017/18 base year in 2030, in line with reducing global warming by 1.5° Celsius.

Waste:

- ◆ reduce our waste to landfill from our head office by 70 per cent.

FIGURE 7: EMISSIONS REDUCTION TARGETS BY 2022, 2025 AND 2030



We achieved most of our targets set out in our 2020-2022 Sustainability Strategy. We have launched our Sustainability Strategy for 2022-2025, where we have increased our ambition for sustainability across the Ministry and carried over any targets left outstanding.



Ministry for the
Environment
Manatū Mō Te Taiao



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