National Climate Change Risk Assessment for Aotearoa New Zealand (2026)

Summary

He Pou a Rangi
Climate Change Commission

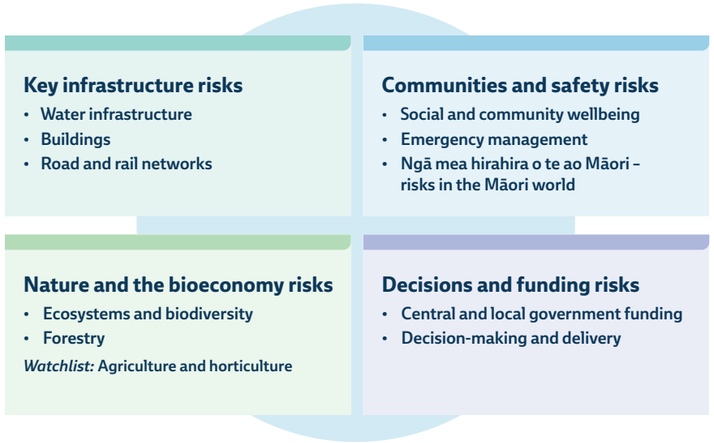
This summary contains excerpts from the Priorities for action report. See also the Full assessment report.

Aotearoa New Zealand faces serious climate-related risks that reach into every corner of our lives – putting pressure on the things we rely on every day: our water systems, homes, roads, emergency services, natural environments, and even the way decisions are made.

Priorities for action

The most significant risks are the climate-related risk areas where focused action in the Government's next adaptation plan can make the biggest difference and achieve the greatest system wide impact.

The ten most significant climate-related risks



For detail, see 'Most significant risks in the 2026 national climate change risk assessment' on the next page.

Many of these significant risks relate to the systems that support people's quality of life and economic resilience: like roads and railways, drinking water, and natural resources. Effective adaptation to reduce those risks will depend on strengthening the country's underpinning structures and tools – such as funding and financing systems, trust in democratic institutions, social connections and wellbeing.

Acting through uncertainty

Scientific understanding is growing about many of the hazards the country faces, but there will always be uncertainty.

This uncertainty is part of what motivates a risk assessment. It is important that uncertainty does not prevent action or obscure the urgency of acting. Enough is already known about the changes Aotearoa New Zealand will face over the coming decades to put the country in a good position to prepare for those impacts.

Comprehensive scan at national level

The scope of the assessment is national and broad ranging, considering not only how climate change could change the natural environment and the towns and cities that people live in, but also the economy, te ao Māori, the health and wellbeing of communities, and potential future implications for decision-making and funding.

Decision-makers have a range of options available to address the risks. These include accelerating and joining up work already underway and supporting coordinated adaptation around the country. Providing clarity about how costs can be shared and met is important.

Action to address the challenges presented by climate change can return benefits that strengthen the economy, society and the environmental foundations of the country. Investing attention and resources in carefully prioritised adaptation action would substantially reduce future costs and losses associated with climate change.

Acting to strengthen the country's underpinning structures and tools – such as funding and financing systems, trust in democratic institutions, social connections and wellbeing – will be important to support the adaptation needed for climate change.

A view of what is underway

Action has begun in many ways across the country. The assessment reflects what is underway, as well as identifying what other actions can help to reduce the impact of climate change. This report includes examples of what is happening already within local communities and businesses – the kinds of adaptation action that will be essential across the country, and which can be strengthened with comprehensive national planning.

What happens next: responding with a plan

After publication of a national climate change risk assessment, the Minister of Climate Change must respond, within two years, with a new national adaptation plan. This needs to address the most significant risks identified in the risk assessment.

The Commission has a role advising on the implementation and effectiveness of the national adaptation plan, and on how future plans can be more effective. Our next progress report on adaptation is due by August 2026. That report will review progress under the existing plan, and will also contain advice for the next one.

Read more at climatecommission.govt.nz/NCCRA-2026

Context for the assessment

Today's climate and future projections

Climate change is reshaping the hazards that the country faces

Communities, ecosystems and infrastructure in Aotearoa New Zealand are exposed to shifting and intensifying pressures in 2026. As well as the physical hazards people in this country are used to dealing with, the intensifying hazards from climate change are creating challenges outside historical experience.

Climate change is shifting the country's 'normal'

Damaging climate-related events are hitting with greater frequency, severity, and unpredictability, while the underlying conditions like sea level and air, freshwater, marine and soil temperatures are changing. This combination is going to require ongoing adaptive management – systems will need to change in response: how water is managed, how homes are kept safe, how people farm, how decisions are made.

Supporting global efforts to limit warming is integral to climate risk management

Higher global warming levels drive more severe and widespread hazards, reduce the feasibility and cost effectiveness of adaptation options, and increase residual risks and losses. Continued support for and contribution to global efforts to reduce emissions and limit warming shapes this country's future hazard environment – it would help keep risks manageable and avoid reaching adaptation limits for communities and sectors.

Projected future climate change impacts in Aotearoa New Zealand

By mid to late century, climate change is expected to bring:

- rising temperatures (nearly 2°C above pre-industrial levels by 2050 and up to 3.5°C by 2090)
- more hot days and fewer frost days
- shifting rainfall patterns, with drier conditions across the North Island and the north and east of the South Island, and wetter conditions in the west and south of the South Island
- more extreme rainfall events, particularly in the west and south
- increased drought exposure in already drought-prone northern and eastern coastal areas
- changing wind patterns, with fewer strong winds in the north of the North Island and more across much of the South Island
- sea level rise.

Downscaled from global emissions scenarios, these projections indicate potential climate change impacts for Aotearoa New Zealand.

For more information, see Box 2.5 in Priorities for action report.

Most significant risks in 2026 national climate change risk assessment

Key infrastructure

Risks to water infrastructure This is about the infrastructure that provides people with drinking water, carries stormwater away from towns, and manages sewage. Climate change will put increasing pressure on every part of this system, which is already under strain.

Risks to buildings This is about how buildings across Aotearoa New Zealand are exposed to a range of climate-related hazards that threaten both their structural integrity and performance.

Risks to road and rail networks This is about how climate hazards are putting increasing pressure on the country's road and rail networks, causing both short-term disruption and long-lasting damage.

Communities and safety

Risks to social and community wellbeing This is about the increasing impacts on people's wellbeing from the effects of climate change – particularly risks to individuals' mental health and to the ways society holds together.

Risks to emergency management This is about how the country's emergency management system is under acute pressure and may struggle to respond to the increasing frequency, severity and extent of disasters that can result from climate hazards.

Ngā mea hirahira o te ao Māori – risks in the Māori world This is about how climate hazards interact with longstanding structural factors to create a set of interconnected risks that specifically affect whānau, hapū and iwi. For iwi/Māori, climate change is not only a physical or economic problem. It reaches into identity, language, knowledge, governance and intergenerational wellbeing.

Nature and the bioeconomy

Risks to ecosystems and biodiversity This is about how climate change impacts the country's ecosystems and indigenous biodiversity. Increasing land and marine temperatures change the ongoing environmental conditions species live in, while extreme weather events and wildfire cause shocks to ecosystems.

Risks to forestry This is about how climate change will affect the country's managed and production forests, and how the sector can better prepare for these impacts, including extreme weather, drought and wildfire, and new pests and disease.

Decisions and funding

Risks to central and local government funding This is about the growing pressure that climate change places on both central and local government finances, in the context of many councils, especially smaller ones, already facing constrained budgets or having reached their debt limits. As climate impacts intensify, governments face higher costs for disaster response, infrastructure repair, welfare and health services, and long-term adaptation.

Risks to decision-making and delivery This is about how climate-related demands are placing Aotearoa New Zealand's ability to plan, decide and act together under increasing pressure. The country needs to be able to drive forward on adaptation, to reduce the escalating impacts and costs of climate change. Otherwise, decision-makers will be increasingly caught up in urgent responses that take time and resources away from planning for the future and reducing harm, and which could result in locking in future vulnerabilities.

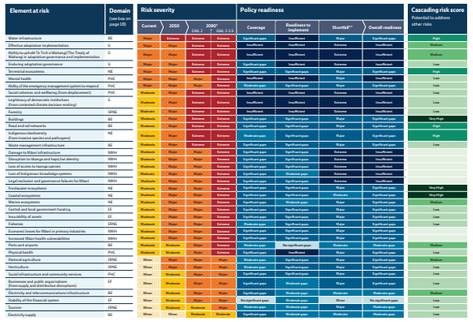
How to read the table of risks and scores

The risks are assessed in three ways

How severe it is: the severity assessment looks at the nature and scale of the potential consequences of each risk; this is rated from 'minor' to 'extreme' for three periods (present day, mid-century, and end of the century).

How ready the country is: the policy readiness assessment reviews existing government policies and plans and assesses how well they can address each risk; this is rated from 'no significant gaps' to 'insufficient'.

Connections to other risks: the indirect and cascading risks assessment examines the relationships between different areas, and identifies options for action in one area that could reduce multiple risks.



What the severity ratings mean

- **Minor:** there could be occasional, minor loss and damage, and temporary impacts.
- **Moderate:** there could be repeating loss and damage, and climate impacts could upset how well key systems run.
- **Major:** there could be large or frequent loss and damage, serious or long-term disturbance to people, places and ways of life, and disruption to whole systems.
- **Extreme:** there could be very large, very frequent loss and damage, permanent effects on people and the environment, and failure of systems. At this level, there is a high chance of reaching thresholds, when changes cannot be reversed.

See *Chapter 1: Introduction* of the priorities for action report for the formal assessment criteria for risk severity, as well as for policy readiness and cascading risk scores.

The risks we identified and how they scored in the 2026 assessment

Element at risk	Domain	Risk severity				Policy readiness				Cascading risk score Potential to address other risks
		Current	2050	2090* GWL 2	2090* GWL 3-3.5	Coverage	Readiness to implement	Shortfall**	Overall readiness	
Water infrastructure	Built environment	Major	Extreme	Extreme	Extreme	Significant gaps	Insufficient	Major	Significant gaps	High
Effective adaptation implementation	Governance	Major	Major	Extreme	Extreme	Insufficient	Insufficient	Extreme	Insufficient	Medium
Ability to uphold Te Tiriti o Waitangi/The Treaty of Waitangi in adaptation governance and implementation	Governance	Major	Major	Extreme	Extreme	Insufficient	Insufficient	Extreme	Insufficient	Medium
Enduring adaptation governance	Governance	Major	Major	Extreme	Extreme	Significant gaps	Insufficient	Extreme	Insufficient	Low
Terrestrial ecosystems	Natural environment	Major	Major	Extreme	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	High
Mental health	People, health and communities	Major	Major	Major	Extreme	Insufficient	Insufficient	Major	Insufficient	Low
Ability of the emergency management system to respond	People, health and communities	Major	Major	Major	Extreme	Moderate gaps	Significant gaps	Major	Significant gaps	Low
Social cohesion and wellbeing (from displacement)	People, health and communities	Moderate	Major	Extreme	Extreme	Insufficient	Insufficient	Extreme	Insufficient	Low
Legitimacy of democratic institutions (from contested climate decision-making)	Governance	Moderate	Major	Extreme	Extreme	Insufficient	Insufficient	Extreme	Insufficient	Low
Forestry	Sectors relying on the natural environment	Moderate	Major	Extreme	Extreme	Insufficient	Insufficient	Extreme	Insufficient	Low
Buildings	Built environment	Moderate	Major	Extreme	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	Very High
Road and rail networks	Built environment	Moderate	Major	Extreme	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	High
Indigenous biodiversity (from invasive species and pathogens)	Natural environment	Moderate	Major	Extreme	Extreme	Moderate gaps	Significant gaps	Major	Significant gaps	High
Waste management infrastructure	Built environment	Moderate	Major	Extreme	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	Low
Damage to Māori infrastructure	Ngā mea hirahira o te ao Māori	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Extreme	Insufficient	
Disruption to tikanga and hapū/iwi identity	Ngā mea hirahira o te ao Māori	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Extreme	Insufficient	
Loss of access to taonga species	Ngā mea hirahira o te ao Māori	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Extreme	Insufficient	
Loss of Indigenous knowledge systems	Ngā mea hirahira o te ao Māori	Moderate	Major	Major	Extreme	Significant gaps	Moderate gaps	Extreme	Insufficient	
Legal exclusion and governance failures for Māori	Ngā mea hirahira o te ao Māori	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Extreme	Insufficient	
Freshwater ecosystems	Natural environment	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	Very High
Coastal ecosystems	Natural environment	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Moderate	Significant gaps	Very High
Marine ecosystems	Natural environment	Moderate	Major	Major	Extreme	Significant gaps	Moderate gaps	Major	Significant gaps	Medium
Central and local government funding	Economy and finance	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	Low
Insurability of assets	Economy and finance	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	Low
Fisheries	Sectors relying on the natural environment	Moderate	Major	Major	Extreme	Moderate gaps	Significant gaps	Major	Significant gaps	Low
Economic losses for Māori in primary industries	Ngā mea hirahira o te ao Māori	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	
Increased Māori health vulnerabilities	Ngā mea hirahira o te ao Māori	Moderate	Major	Major	Extreme	Significant gaps	Significant gaps	Major	Significant gaps	
Ports and airports	Built environment	Moderate	Moderate	Major	Extreme	Moderate gaps	No significant gaps	Moderate	Moderate gaps	Medium
Physical health	People, health and communities	Moderate	Moderate	Major	Extreme	Significant gaps	Insufficient	Major	Significant gaps	Low
Pastoral agriculture	Sectors relying on the natural environment	Minor	Major	Major	Major	Moderate gaps	Significant gaps	Major	Significant gaps	Medium
Horticulture	Sectors relying on the natural environment	Minor	Major	Major	Major	Moderate gaps	Significant gaps	Major	Significant gaps	Low
Social infrastructure and community services	People, health and communities	Minor	Moderate	Major	Major	Significant gaps	Significant gaps	Major	Significant gaps	Low
Businesses and public organisations (from supply and distribution disruptions)	Economy and finance	Minor	Moderate	Major	Major	Significant gaps	Moderate gaps	Major	Significant gaps	Low
Electricity and telecommunications infrastructure	Built environment	Minor	Moderate	Major	Major	Significant gaps	Moderate gaps	Moderate	Moderate gaps	Medium
Stability of the financial system	Economy and finance	Minor	Moderate	Major	Major	No significant gaps	Moderate gaps	Minor	No significant gaps	Low
Tourism	Sectors relying on the natural environment	Minor	Moderate	Moderate	Major	Moderate gaps	Moderate gaps	Major	Moderate gaps	Low
Electricity supply	Built environment	Minor	Minor	Moderate	Moderate	Significant gaps	Moderate gaps	Moderate	Moderate gaps	Low

*Global warming levels for 2090 indicate lower and higher climate impact scenarios. The low climate impact scenario is based on global warming of 2.0°C by 2090 (GWL 2). The high climate impact scenario is based on global warming of 3.0–3.5°C by 2090 (GWL 3–3.5).

**Policy shortfall scores are a measure of residual risk: The scale is the same as for risk severity.

Read more at climatecommission.govt.nz/NCCRA-2026