Webinar

National climate change risk assessment

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Why this matters

- People are facing more and more disruption from climate-related events.
- Climate change is reshaping the hazards we're facing as a country.
- This is not business-as-usual hazard management.
- The assessment prioritises where focused and coordinated action can make the biggest difference.

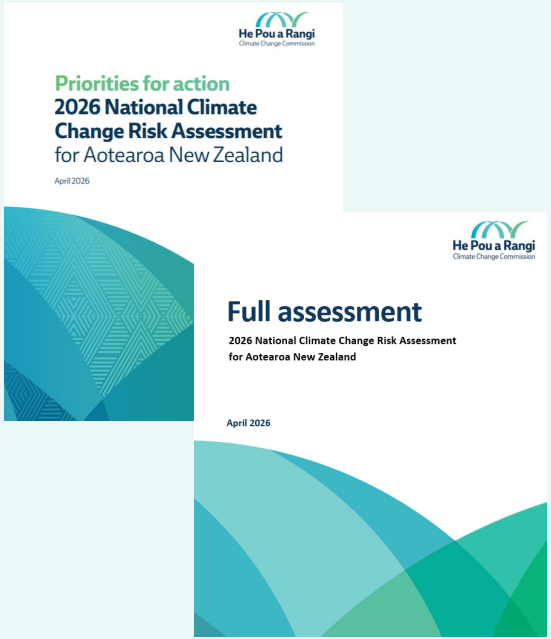
Purpose

Assess the risks

Identify the most significant

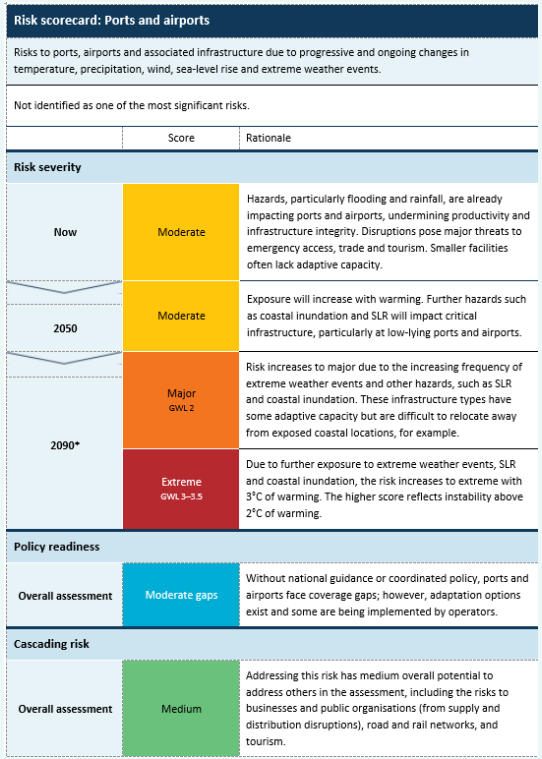
What the assessment provides

- A comprehensive scan of climate risks at a national level
- A view of what is underway to address them
- Descriptions of the ten most significant risk areas
- Detailed analysis and scoring for all 37 risks
- A summary of projected climate change and related hazards



How we assessed the risks

- Severity
  - Scale: Minor > Extreme
  - Time: Now, 2050, 2090 under two scenarios
- Policy readiness
  - Scale: No significant gaps > Insufficient
- Cascading risk
  - Scale: Low > Very high
  - A measure of potential to address other risks
- Significance



Risk scorecard: Ports and airports

Risks to ports, airports and associated infrastructure due to progressive and ongoing changes in temperature, precipitation, wind, sea-level rise and extreme weather events.

Not identified as one of the most significant risks.

	Score	Rationale
Risk severity		
Now	Moderate	Hazards, particularly flooding and rainfall, are already impacting ports and airports, undermining productivity and infrastructure integrity. Disruptions pose major threats to emergency access, trade and tourism. Smaller facilities often lack adaptive capacity.
2050	Moderate	Exposure will increase with warming. Further hazards such as coastal inundation and SLR will impact critical infrastructure, particularly at low-lying ports and airports.
2090*	Major GWL 2	Risk increases to major due to the increasing frequency of extreme weather events and other hazards, such as SLR and coastal inundation. These infrastructure types have some adaptive capacity but are difficult to relocate away from exposed coastal locations, for example.
	Extreme GWL 3–3.5	Due to further exposure to extreme weather events, SLR and coastal inundation, the risk increases to extreme with 3°C of warming. The higher score reflects instability above 2°C of warming.
Policy readiness		
Overall assessment	Moderate gaps	Without national guidance or coordinated policy, ports and airports face coverage gaps; however, adaptation options exist and some are being implemented by operators.
Cascading risk		
Overall assessment	Medium	Addressing this risk has medium overall potential to address others in the assessment, including the risks to businesses and public organisations (from supply and distribution disruptions), road and rail networks, and tourism.

Examples of a risk and domain scorecard

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Risk	Severity rating				Policy readiness score	Cascading risk score (Potential to address other risks)
	Current	2050	2090* GWL 2	2090* GWL 3—3.5		
Risks to potable water, wastewater and stormwater infrastructure due to progressive and ongoing changes in temperature and precipitation, sea-level rise and increased extreme weather events.	Major	Extreme	Extreme	Extreme	Significant gaps	High
Risks to buildings due to progressive and ongoing changes in temperature and precipitation, sea-level rise, extreme weather events, and associated impacts like flooding and wildfires.	Moderate	Major	Extreme	Extreme	Significant gaps	Very high
Risks to road and rail networks due to progressive and ongoing changes in temperature and precipitation, sea-level rise and extreme weather events.	Moderate	Major	Extreme	Extreme	Significant gaps	High
Risks to waste management infrastructure, including landfills and contaminated sites, due to progressive and ongoing sea-level rise and extreme weather events.	Moderate	Major	Extreme	Extreme	Significant gaps	Low
Risks to ports, airports and associated infrastructure due to progressive and ongoing changes in temperature, precipitation, wind, sea-level rise and extreme weather events.	Moderate	Moderate	Major	Extreme	Moderate gaps	Medium
Risks to electricity and telecommunications infrastructure due to progressive and ongoing changes in temperature, precipitation, wind, sea-level rise, extreme weather events and associated impacts like wildfires.	Minor	Moderate	Major	Major	Moderate gaps	Medium
Risks to the security of electricity supply due to progressive and ongoing changes in precipitation, temperature, and wind and extreme weather events.	Minor	Minor	Moderate	Moderate	Moderate gaps	Low

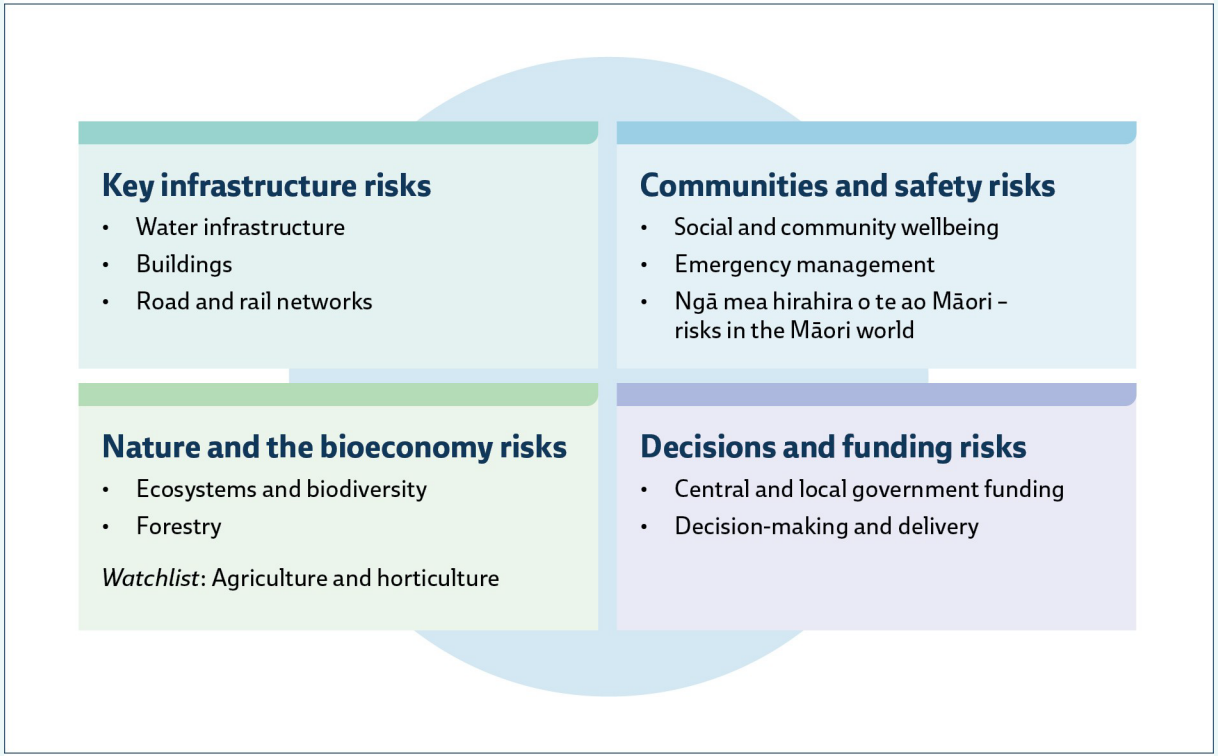
Minor
Moderate
Major
Extreme

No significant gaps
Moderate gaps
Significant gaps
Insufficient

Low
Medium
High
Very high

*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).

The ten most significant climate risks



Source: Commission analysis

Key infrastructure; Communities and safety

- Risks to water infrastructure
- Risks to buildings
- Risks to road and rail networks

Key infrastructure

Communities and safety

- Risks to social and community wellbeing
- Risks to emergency management
- Ngā mea hirahira o te ao Māori – risks in the Māori world

Nature and the bioeconomy; Decisions and funding

- Risks to ecosystems and biodiversity
- Risks to forestry
- *Ones to watch – agriculture and horticulture*

Nature and the bioeconomy

Decisions and funding

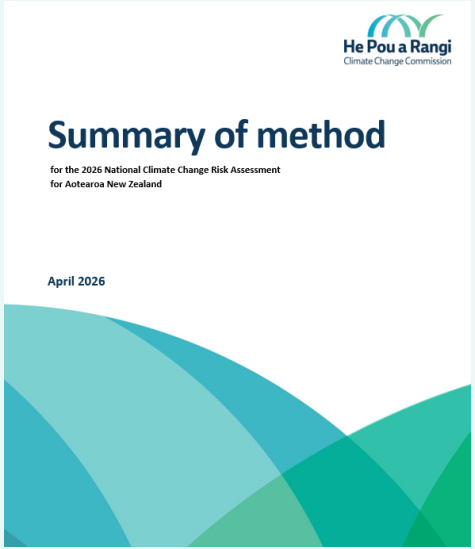
- Risks to central and local government funding
- Risks to decision-making and delivery

Navigating the future

- We know enough to know what to expect, and we know enough to act.
- The risk assessment is a tool to help prioritise actions and resources to put the country in a good position. It is not a prediction.
- Improving the evidence base = even greater precision in future assessments.

Supporting material and evidence

- Summary of method
- Independent analysis of Ngā mea hirahira o te ao Māori
- Other supplementary material and commissioned research



Key takeaways

- The assessment sets out the priorities for decision-makers, businesses and communities.
- It shows where planning and investment can make the biggest difference.
- Acting sooner rather than later will minimise the cost.
- Reducing global emissions is also needed to slow climate change

Questions?

For more information:
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