Summary of international reviews of the 2026 National Climate Change Risk Assessment

April 2026

This document summarises the three international reviews undertaken for the second National Climate Change Risk Assessment (NCCRA), how key feedback has been addressed, and possible areas for attention in future risk assessments.

He Pou a Rangi Climate Change Commission (the Commission) engaged three international experts to review elements of the project methodology, process and conclusions. Each reviewer was engaged to review specific aspects of the assessment, with the reviews staged to allow the Commission to make changes in response to the feedback. Reviewers were provided with draft documents for their feedback.

The reviewers were:

- Paul Watkiss (Director, Paul Watkiss and Associates, United Kingdom). Watkiss reviewed the project methodology based on an advance draft of the Summary of method report in late 2025.
- Marc Zebisch (Head of Center for Climate Change and Transformation, Eurac Research, Italy). Zebisch reviewed the project's approach to assessing cascading risk in late 2025.[1]
- Kevin Hennessy (Director, Climate Comms, Australia). Hennessy reviewed draft results and conclusions of the assessment in early 2026.

Summary of feedback

There was broad consensus across the three reviews that the NCCRA 2026 represents a substantially improved, credible, and internationally aligned national climate risk assessment. All three reviewers noted methodological advances since the first assessment. Collectively, they identified several areas where clarity and consistency could be strengthened in the final write up of the assessment, as well as broader comments for consideration in future assessments.

Watkiss concluded that the methodology is fundamentally robust, valid, and aligned with international best practice, noting substantial improvements since the first assessment in 2020.

Zebisch reviewed the project's approach to assessing cascading risk, based on a bespoke document and his time with the Commission as a visiting scientist in 2025. He

[1] Marc Zebisch was also a visiting scientist at the Commission between July and October 2025.

agreed with the Commission's own observation that cascading risk assessment is still an emerging field with no current global best practice. Within that context, he found the Commission's chosen approach sound, pragmatic, and aligned with current international practice, particularly its structured treatment of interdependencies between primary and downstream risks.

Hennessy reviewed the assessment's results and conclusions based on a sample of the full risk templates (one from each domain) and around three-quarters of the final risk summaries in advanced draft form. He also had access to the draft method report, and both other reviewers' reports. He commended the Commission's work as comprehensive and methodologically sound, and found that the assessment provides a credible, defensible, and coherent account of Aotearoa New Zealand's most significant climate-related risks.

In addition to the international expert reviews, the Commission established expert review groups for each domain. These groups provided substantial and robust feedback on the evidence base and analysis of risks in July and August 2025, and on the draft scores for risk severity and policy readiness in September 2025.

Themes identified from international reviews

1. Transparency of scores and traceability of evidence

Hennessy and Watkiss both emphasised the need for clearer linkage between the underlying evidence (risk templates, scoring spreadsheets) and the risk summaries and conclusions. Watkiss highlighted potential inconsistencies in how the draft method report addressed present-day risk, global warming level (GWL) assumptions, and severity scoring. Both recommended including risk scores directly in summaries, improving quantification of impacts and exposures, and adopting more explicit benchmarking and equivalency metrics.

The Commission addressed this feedback by:

- Including risk justification scorecards for each risk in the Full assessment report.
- Clarifying the Summary of method report regarding present-day risk, GWL assumptions, and severity scoring, including commentary on quantitative versus qualitative risk scoring. There were with some consequential clarifications to the Full assessment report.

Areas to explore in future risk assessments:

- Use of benchmarking and equivalency metrics to compare across risks.

2. Treatment of time horizons and global warming levels

Hennessey and Watkiss both identified potential ambiguity in the draft Summary of method report around the application of global warming levels and their relation to emissions pathways. Hennessy recommended renaming GWLs using updated Intergovernmental Panel on Climate Change (IPCC) median projections; Watkiss went further, cautioning that 1.5°C by 2050 is implausible under current trajectories and any reference to scenarios that assume this level of warming may understate risk.

The Commission addressed this feedback by clarifying and contextualising the relationship between GWLs and other climate change scenarios, and how they were used in the assessment, in all three NCCRA reports.

Areas to explore in future risk assessments:

- the role and level of a plausible low climate impact scenario in the assessment of mid- and end-of-century risk severity.
- Integration of cascading and systemic risks

Zebisch acknowledged the Commission's cascading risk assessment as an emerging and forward-looking innovation but thought it might be under-utilised in final prioritisation. He noted that the pair-wise scoring method captured only single-level cascades and excluded deeper chains of interdependencies. He recommended elevating cascading risk findings to the level of key messages, using impact-chain methodologies, standardising causal loop diagrams, and embedding cascading risk considerations earlier and more systematically in analysis and policy assessments. Hennessy similarly urged inclusion or cross-referencing of cascading results in summaries.

The Commission addressed this feedback by:

- Updating the Summary of method and Full assessment reports to show how cascading risk assessment influenced final prioritisation.
- Adding an appendix to the Priorities for action report summarising key relationships between the most significant risks and others, based on the analysis.

Areas to explore in future risk assessments:

- Application of full impact chain methodologies.

3. Governance risks and policy readiness

Watkiss raised concerns about the inclusion of a governance domain, arguing these risks should be considered as part of the policy readiness assessment in the other domains, not as risks in their own right. He recommended moving

implementation-related risks out of the risk severity assessment entirely. He also argued for reintroducing an explicit *urgency* metric to improve transparency and reduce reliance on "strategic judgement", which otherwise risks being seen as subjective.

We addressed this feedback by:

- Adding commentary about the 2020 risk assessment's urgency metric to the method report, including why we did not use it.

Areas to explore in future risk assessments:

- The approach to incorporating governance risks in the assessment.

4. Incorporation of opportunities, hotspots, and actors

Both Hennessy and Watkiss raised questions about how the assessment has treated opportunities, expressing concern that it may obscure their importance for adaptation planning. Hennessy also highlighted inconsistent treatment of hotspots, limited quantification of exposure, and government-centric descriptions of adaptive capacity. All reviewers recommend explicitly identifying spatial hotspots, articulating opportunities, and broadening the range of actors considered.

We addressed this feedback by:

- Including an explanation of how the assessment considered climate change opportunities (e.g. changing electricity demand and regional pasture growth) in the *Summary of method* and *Priorities for action* reports.
- Adding case study-related content to illustrate adaptive capacity in non-government contexts.

Areas to explore in future risk assessments:

- Further quantification of exposure.
- Increased attention on spatial hotspots, which would require better quantification of exposure.
- Considering inclusion of devolved/non-government adaptive capacity analysis, while recognising that the Act is clear that the primary purpose of the NCCRA is to inform government policy choices in the National Adaptation Plan.