National climate-change risk assessment: Context and framework

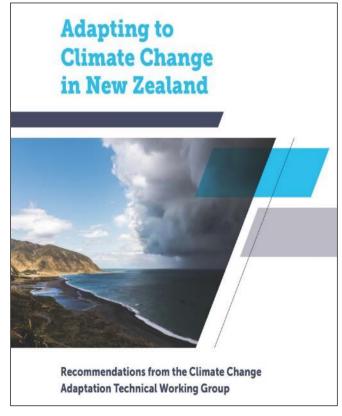
Dr Rob Bell NIWA, Hamilton New Zealand



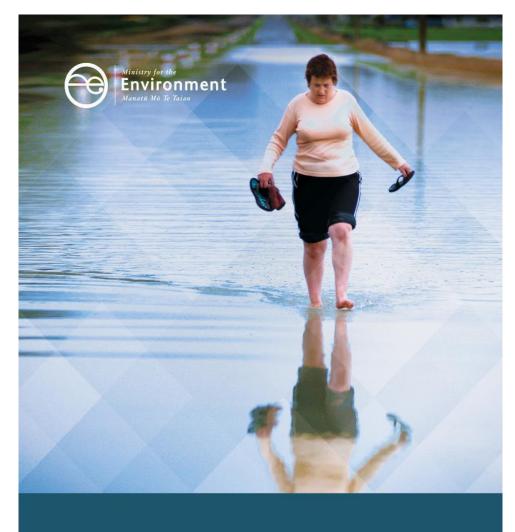
Context for action

- Paris Agreement COP21 (2015) Article 7
 - Adaptation action should follow a ... participatory and fully transparent approach, ... consideration vulnerable groups, communities and ecosystems, ... guided by the best available science and, as appropriate, ... knowledge of indigenous peoples...
 - The <u>assessment of CC impacts and vulnerability</u>, with a view to formulating nationally determined prioritized actions ...
- Climate Change Adaptation Technical Working Group
 - Action 3: Develop a <u>national methodology and framework</u> for assessing climate change risks and vulnerabilities
 - Action 4: Develop and regularly update a <u>national</u> <u>climate change risk assessment</u>
- Climate Change Response (0-Carbon) Amendment Act 2019
 - Established the independent Climate Change Commission (CCC):
 s5ZP: one of their roles will be to prepare a <u>national</u> climate change risk assessment at <6 year intervals





Framework: National climate change risk assessment



Arotakenga Huringa Āhuarangi

A FRAMEWORK FOR THE NATIONAL CLIMATE CHANGE RISK ASSESSMENT FOR AOTEAROA NEW ZEALAND

- Risk framework prepared by an Expert Panel convened by MfE – who coordinated 1st NCCRA
- Covers all Living Standards domains e.g. social, economic, infrastructure, environment, cultural
- Tiered approach:
 - Risk screening: high emission projection RCP8.5
 - Detailed risk assessment: on highest risks from screening, using RCP4.5 and RCP8.5
 - Urgency assessment for highest priority risks requiring adaptation actions (could be targeted research)
- Weaves in Mātāpono (guiding principles) e.g.
 Whanaungatanga, Kaitiakitanga, ...
- Cascading risks difficult to build into conventional risk frameworks build storylines for some examples

National Climate Change Risk Assessment (NCCRA): Climate Change Response (Zero Carbon) Amendment Act

- Other countries producing national risk assessments e.g. UK (2012, 2017, 2022), USA, Canada, UAE
- A <u>national overview</u> of how various hazards and threats may be influenced by climate change and prioritize the "<u>most significant risks</u>" [s5ZP]
- Informs the National Adaptation Plan (NAP) 1st one now being prepared by the Govt (MfE)
- CCC to provide a NCCRA to Minister within a 6 year period taking into account[s5ZQ]
 - ✓ Economic, social, health, environmental, ecological & cultural effects of CC
 - ✓ Distribution of effects across society particularly vulnerable groups or sectors
 - ✓ Obligation under relevant international agreements
 - ✓ How it aligns & links with other national risk assessments
 - ✓ Current effects and likely future effects of CC
 - ✓ Scientific and technical advice
 - \checkmark Risk disclosure power to request information e.g. councils, financial institutions, etc [s5ZW]

Thank you

Rob Bell (PhD, CPEng, FEngNZ) rob.bell@niwa.co.nz

