

Weaving Indigenous Knowledge Systems for Climate Resilience

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Indigenous Knowledge for DRR – Bridging Wisdom and Innovation

2026 IRDR Young Scientists Lumos (4th)

Context & Research Gap

- Globally, Indigenous peoples are active climate leaders
- Māori adaptation is intergenerational and place-based
- Mainstream frameworks often exclude cultural dimensions



Southland flooding: Residents in low-lying areas told to evacuate

11:15 am on 5 February 2020

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Takutai o Te Titi Marae faces erosion challenges in Colac Bay

Damian Rowe · 06:33, Sep 14 2020



Concerns raised over historic Riverton burial site as erosion continues

Logan Savory · 17:27, Mar 07 2019



Climate change scientists look to Māori and other indigenous people for answers

Laura Goodall · 05:00, Feb 23 2019



Research Approach

- Kaupapa Māori (Māori-led and centred) methodology: Te Kahu Huruhuru o Kohikohi (the feathered cloak of Kohikohi)
- 20 interviews with Māori leaders and kaitiaki
- Framing theory (Callon): externalities vs. overflows



CLIMATE CHANGE EXTERNALITIES

- Cultural erasure
- Land dispossession
- Environmental degradation
- Transactional relationships
- Youth exclusion



MURIHIKU WHĀNAU SITE OF PASSAGE

ADAPTATION OVERFLOWS

- Whakapapa-based infrastructure
- Kaitiakitaka- guardianship
- Kotahitaka- unity
- Visioning Mokopuna futures

MŌ TĀTOU, ā, MŌ KĀ URI ā MURI AKE NEI (FOR US AND OUR CHILDREN AFTER US)

Whakapapa (ancestry) as Adaptive Infrastructure

- Living system of relationships and responsibilities
- Cultural continuity through wānaka (meetings) and storytelling
- Succession planning and rakatahi (youth) leadership



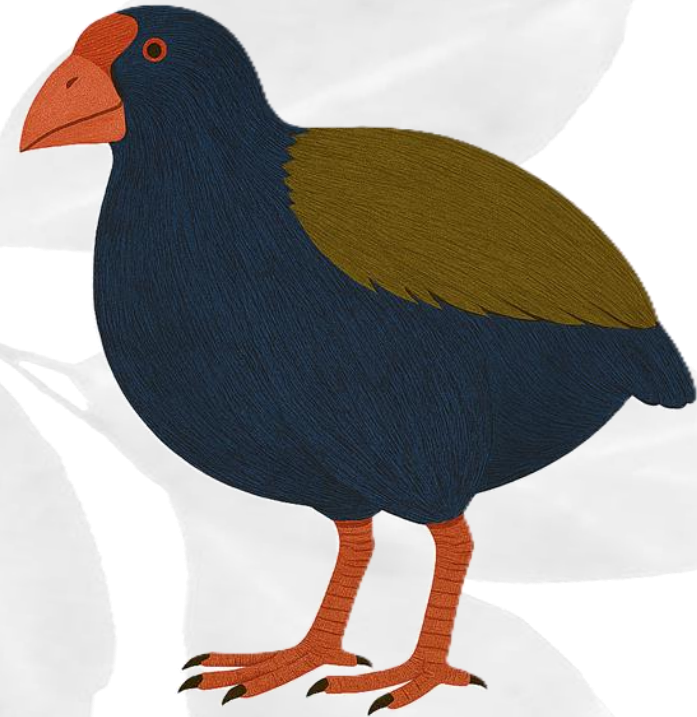
Kaitiakitaka as Guardianship

- Environmental stewardship
- Ahikā: maintaining ancestral presence
- Utu: Relational balance and reciprocity



Kotahitaka as Unity

- Collective partnerships
- Trust-building beyond formal consultation
- Collaborative action and plan



Visioning Mokopuna Futures



- Adaptation as obligation to future generations
- Youth leadership and cultural resurgence
- Economic strategy reframed through mokopuna wellbeing

Recommendations for Research, Policy & Practice

1. Centre Whakapapa in Climate & Hazard Governance
2. Resource Māori-led, Place-based Adaptation
3. Develop Culturally Grounded Relocation Guidance
4. Establish a National Māori Adaptation & Enterprise Fund
5. Reconceptualise Risk & Uncertainty

Conclusion

- Murihiku whānau are leading adaptation
- Strategies are cultural, relational, and intergenerational
- Mō tātou, ā, mō kā uri ā muri ake nei- for us and our children after us

