IRDR Strategic Actions: Priority 2

Responding to inequality, injustice and marginalisation in DRR from an Indigenous Perspective

Distinguished Professor Christine Kenney
Massey University , 16 Octobe4r, 2025

IRDR Indigenous Disaster Researchers' Network

- Indigenous Scientists' = critical mass globally
- Indigenous Scientists' relationships and networks already well established
- Potential Science Leaders situated/connected with ICoEs or National Committees
- Sendai Framework for DRR implementation
- Sustainable Development Goals
- Responds to UNDRR commitment to inclusivity
- Aligns with IRDR young researchers' development

Development of IRDR Work Streams and Pilot Studies

Risk Informed Development

Climate change and public health

DRR Financing

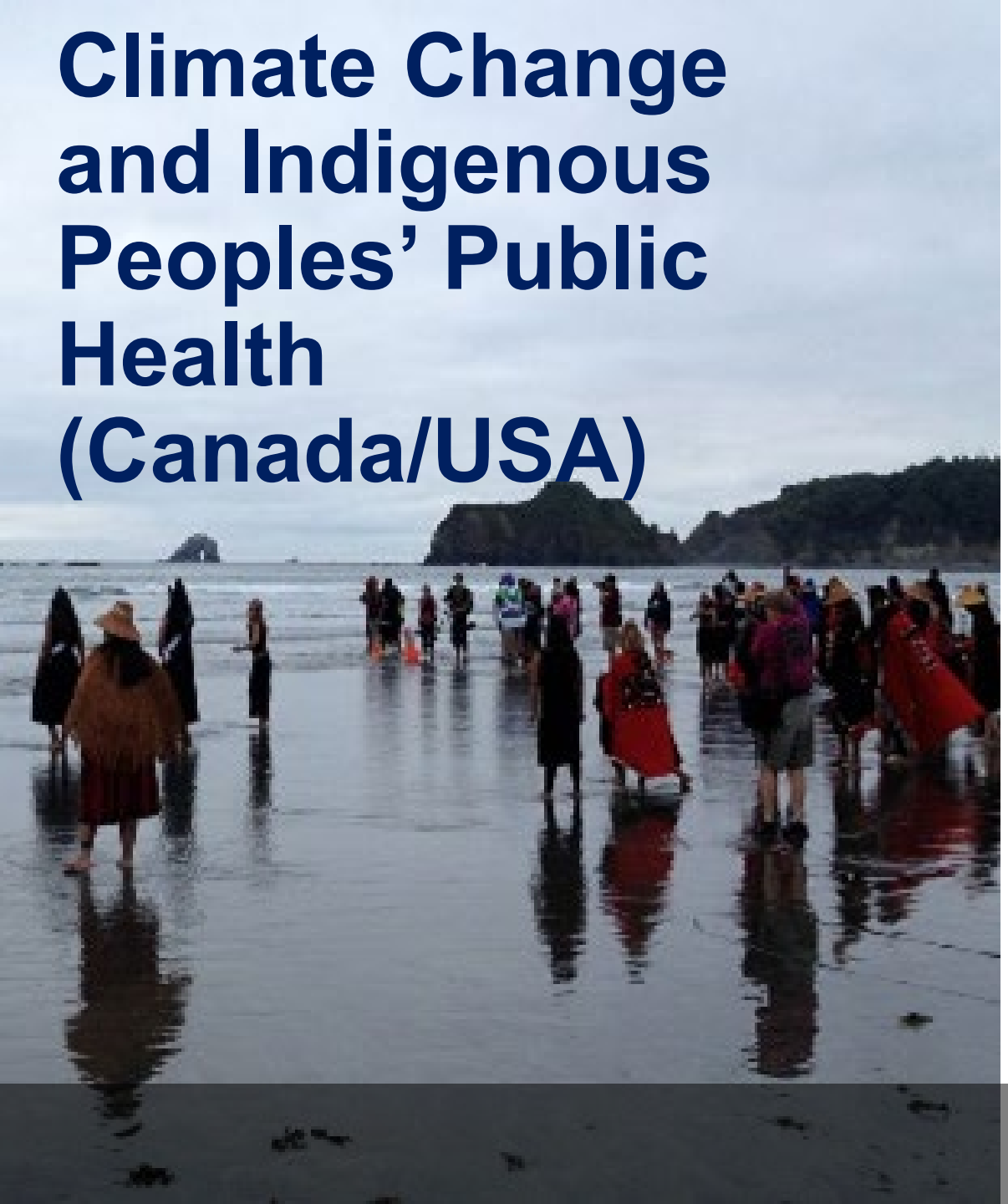
DRR Education

End to end early warning and response system

Risk Informed Development :An Arctic Tale of Infrastructure resilience

Northwest Territories Legislature, Yellowknife, (1993/1994)
Designed, financed and built by First Nations and Inuit for the people of the Northwest Territories of Canada

Climate Change and Indigenous Peoples' Public Health (Canada/USA)



The "Clam Hunger" Disaster (Canada/USA)

- Razor Clams traditional source of food & income for Quinault & Makah, British Columbia & North West Washington,
- Climate change → compromised clam beds
- "Clam Hunger"→ intake of toxins → morbidity

Cultural Response

- Makah ocean acidification impacts assessment (2015) →
- Salish climate change impacts assessments, community engagement plans, an adaptation plan, CO2 footprint analysis, and mitigation plan →
- Partnership with UoW to develop online climate change adaptation resources for 84 tribes in Pacific Northwest and Oregon, Nevada, and Utah's Great Basin

Uptake: "The Nez Perce have created stream temperature maps relevant to salmon survival for the Columbia River Basin" (Kravitz, Nez Perce Climate change coordinator)

Disaster Financing Australia

- **The Firesticks Alliance Indigenous Corporation** in South Australia teaching small-scale patch burning workshops as an environmental management tool.
- IK, experience and locale familiarity shape the frequency & intensity of patch-burns.
- **Bowman, Walsh & Prior (2004).** Landscape analysis of Aboriginal fire management in Central Arnhem Land, North Australia. Research in partnership with local Aboriginal communities.
- **Recommendation:** Contextualised implementation of Aboriginal burning practices is essential to reduce wildfire risk. Traditional patch burning is most effective for disrupting grass-fire cycles, is recommended

Early Warnings Early Actions: The “Weather Dilemma”

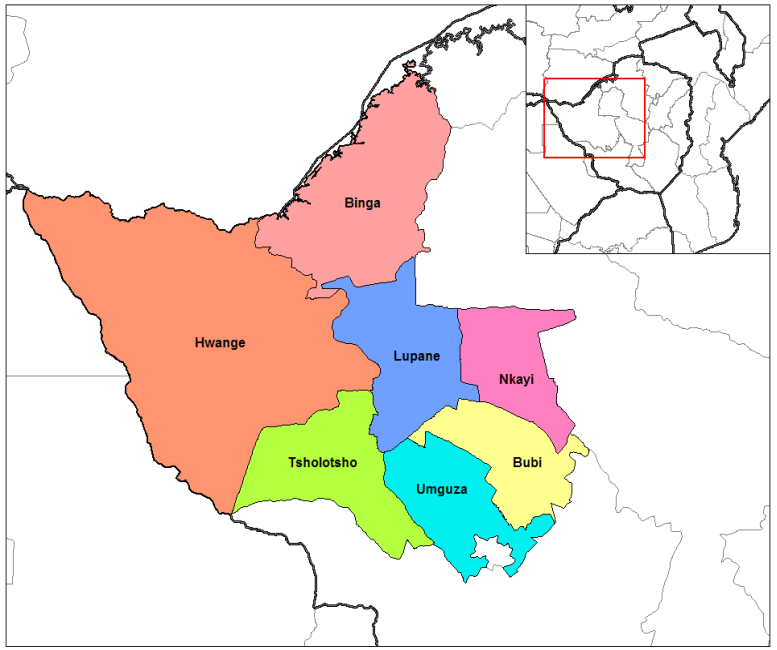


Fig: Tsholotsho district, Matabeleland, Zimbabwe : A very dry district but climate change-related floods → catastrophic impacts on local communities

Dube & Munsaka (2018) The contribution of indigenous knowledge to disaster risk reduction in Zimbabwe

Issue: Regional Emergency Managers ignoring and /or resistant to considering Ik indicators for flood risks because IK was ‘based on superstition’ and not ‘evidence-based’

Project: Community research partnership with UoZ to explore how IK can improve flood mitigation, response & recovery.

Findings: IK = early warning & vulnerability assessment system improved disaster response and recovery actions & outcomes.

- Effective hazard mitigation activities may be developed through interrelating cultural, Indigenous and scientific knowledge

Uptake: Increased joint engagement and application of IK by district environmental & DRM practitioners

Disaster Education

Te Toi Whakaruruhau o Aotearoa

- Establishment of a Māori DRR Research Centre to support Māori DRR science capability development
- Funded by New Zealand Natural Hazards Commission
- Purpose: Contribute to creating a resilient New Zealand through building Māori disaster risk reduction research and workforce capabilities as well as developing and applying indigenous innovation to minimise hazard risks and impacts on Aotearoa.

- https://www.tetoiwhakaruruhau.co.nz/

Thank You