

Risksapes and ‘Difficult Decisions’

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- 1) Inaction may not be a 'data deficit'.** We have huge data on risk/impacts. For many problems we know what to do. Science responded very well. The 1992 Earth Summit (UNFCCC) gained Climate Change consensus
- 2) Science has limits.** It struggles to 'solve' uncertain, complex, future-oriented, value-based problems. Some problems are more difficult for science (e.g. Wicked Problems, Deep uncertainty, etc). It is under attack (social media)
- 3) Institutions are conservative** (liability, professional cultures, etc) so inaction is more complex than a 'barrier' issue or policy 'fix'. E.g they may be designed to efficiently deliver *the same outcomes in the same ways*. Adopting characteristics like *adaptability, flexibility, and transformation for climate adaptation is hard*. Institutions can be 'resilient' in a bad way.
- 4) Importance of understanding forces that resist change.** Innovation holds Political, Reputational, and Professional Risk. So how can 'science' better acknowledge change is difficult. How to enable 'values' not 'facts' decisions?
- 5) Key Message: We need to shift focus from increasing our Technical understanding of Risk to the Political Risk of acting on it.**

Continuity and change in national 'Riskscapes' Research



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- “A key challenge for national and sub-national governance is to reconcile the long-standing political desire to provide an objective, settled state of the world—one that allows actors and agencies to invest capital and make quick decisions in a stable regulatory environment—with the real-world realities of a changing world that demands new ways of knowing and managing risk” (White & Lawrence, 2020: 216)
- Science makes **risks visible**, provides **order** (consequences/impacts/urgency) & **meaning** (costs/implications/options) for levels of Govt, Markets & Civil Society who then act (or not)
- **But everyone sees the same risk differently.** Different govts, political parties, interest groups, generations, individuals, etc. The ‘Riskscape’ concept emphasises that risk is not ‘fixed’ and people view the same risk differently, which may be influenced by their politics, lived experience, attitude to science/authority, etc.
- Just as people have their own riskscapes, so do countries. So understanding New Zealand’s riskscape can help understand (in)action on risk: if risk is *constructed* Govts can knowingly construct that via risk signals, maps, new policy, etc

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Continuity and change in national riskscapes: a New Zealand perspective on the challenges for climate governance theory and practice

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Climate change challenges how policy agents imagine and manage risks in space and time. The impacts are dynamic, uncertain and contested. We use riskscapes as a lens to analyse how New Zealand has perceived and mediated natural hazard and climate risks over time. We identify five different national riskscapes using a historical timeline, which have changed as global risks cascade into national and sub-national governance. We find that while there has been a major effort to reflect the dynamic and systemic language of risk theory in national policy, a significant challenge remains to develop appropriate governance and implementation strategies and to shift from long-held ways of doing and knowing.

Keywords: governance, risk, climate change, policy, riskscapes, New Zealand
JEL Classifications: D81 Q54 Q58.

Introduction

Climate change is challenging how policy agents imagine and seek to govern risks in space and time. While there is high scientific certainty that the effects of climate change will compound existing natural hazard risks, there is less certainty about the timing and extent of those changes. Not only are many effects dynamic and ambiguous, but future risk exposure will depend on the political context, such as how fast the world reduces its greenhouse gas emissions, the choices made regarding the management and use of land and resources, capital investment flows and the cascading effects of climate events globally and responses to them

(IPCC, 2019; World Economic Forum, 2020). As the physical effects of climate change have been observed and future trajectories become clearer, new areas for the attention of the social sciences are revealed. For example, the need to better understand how climate impacts and risks cascade across interconnected economic, social, cultural and environmental domains (Adger et al., 2005; Lawrence et al., 2018), or how to integrate climatic change with other public policy issues, such as urbanisation or social justice (Carter et al., 2015; Lawrence, 2016; O’Hare and White, 2017; Serrao-Neumann et al., 2017). The complex links between natural and social systems are heightened when

Era One	Era Two	Era Three	Era Four	Era Five
Up to early 20 th C	Early 20 th C to 1970s	1980s to 1990s	1990s to 2010s	2010s to ?
Experiential and Territorial Risks	Protect and control Landscapes	From Hazardscape to Riskscape	From Riskscape to Riskscapes	Contested and Political Riskscapes
Local Scale	National and regional scale	Global Scale Institutions	Multi-hazard	Intertwined risks
Individuals reactive and anticipatory	Rise of legal, institutional, and regulatory capacity	Rise in scientific capacity. New laws, tools, models, assessments, policies.	Multi-scalar	Cascading risks
	Siloed discipline (engineering)	Multi-discipline	Multi-temporal	Decision making under uncertainty
		Rise in public information and citizen engagement		

Figure 1. *The national riskscape eras of New Zealand.* From: White and Lawrence (2020: p224)

Figure 1 summarises the key characteristics and timing of the Eras and emphasises how previous perceptions and approaches are crucial in understanding the composition of the contemporary national riskscape. It demonstrates that the transition between Eras represent a gradual and messy layering of conceptual shifts that leave riskscape legacies. For example, the hard engineering of early approaches continues to play a vital role for protection, at the same time as critiques now firmly acknowledge how structures create a false sense of security that escalates development in ‘safe’ areas that are still exposed to the residual risk. Similarly, the long-standing focus on natural hazards as part of the national riskscape of New Zealand has created a history of institutions, technical disciplines and ways of working that has struggled to adapt to the more uncertain, contested and dynamic risks presented by climate change

Thank you, some wider research

Recent Relevant Academic Papers

- Hanna, C., White, I. and Glavovic, B. (2021), [Managed Retreats by whom and how? Identifying and delineating governance modalities](#), *Climate Risk Management*, 31: 100278.
- White, I. and Lawrence, J. (2020) [Continuity and change in national riskscapes: a New Zealand perspective on the challenges for climate governance theory and practice](#), *Cambridge Journal of Regions, Economy and Society*, 13 (2): 215-231.
- Hanna, C., White, I. and Glavovic, B. (2020) [The Uncertainty Contagion: Revealing the Interrelated, Cascading Uncertainties of Managed Retreat](#), *Sustainability*, 12 (2), 736.
- Connelly, A., O'Hare, P. and White, I. (2020) "[The best flood I ever had](#)": Contingent resilience and the (relative) success of adaptive technologies, *Cities*, 106: 102842.
- White, I. (2019) [Rigour and Rigour Mortis? Planning, calculative rationality, and forces of stability and change](#), *Urban Studies*, 57 (14): 2885-2900.

Ongoing Major Research Grants

- National Science Challenge: Resilience to Nature's Challenges (\$40m, 2019-2024),
- MBIE Endeavour project 'Reducing flood inundation hazard and risk across Aotearoa-New Zealand' (\$15.5m, 2020-2025).

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