

Adequacy of governance, institutions and practice for adaptation



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The governance challenge

Governance and institutions need to be flexible enough to address the uncertain and dynamic effects of climate change on human systems

Capacity within organisations and communities need to navigate the political and contested preferences of private and public interests

The research

Research question

Are decision-making institutions and practice for climate change adaptation adequate for addressing uncertainty and dynamic change?



Focus

- Institutions as formal and codified and their practice
- Sea-level rise and increased rainfall frequency/intensity

Location

- New Zealand's multi level governance and institutional framework devolved to local government
- Frequent extreme climatic events
- Statutory mandate for adaptation

The research

- Understanding the institutional framework
- Understanding the current practice
 - *Interviews (56) and workshops (7)*
 - *Practitioners and decision makers*
 - *4 different geographic regions*
 - *Multi-levels; different functions; different disciplines*
- Learning from non-climate decision settings that include uncertainty and dynamic change
 - *Sample of non-climate decision makers and advisors (13) across 6 domains*



Decision-making concepts and adequacy criteria

Decision-making concepts

- Precautionary principle
- Risk management
- Adaptive management
- Transformation

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Adequacy criteria

- Understanding and representing uncertainty and dynamic change
- Governance and regulations
- Organisations and actors

Adequacy criteria

1. Representing uncertainty and dynamic change

- Uncertainty and dynamic change treatment
- Lifetime of decisions
- Framing of climate change risk
- Consistency and accessibility of climate risk information

2. Governance and regulations

- Precautionary decision making
- Risk consideration over long timeframes
- Experimentation and learning
- Codification of changing risk and complementary measures
- Transition to new institutions

3. Organisations and actors

- Organisational learning across disciplines and scales
- Capability with complexity and changing risk across scales and functions
- Community engagement to reflect values

The institutional landscape

The existing decision making framework and its adequacy

Findings

- Precautionary principle reflected—gives little guidance on degree of precaution
- Risk management reflected – limited by use of historic projections and few scenarios
- Adaptive management is not reflected
- Transformation is not reflected
- Fragmentation across discrete statutes based on different motivating concepts
- Autonomous governance units and highly devolved regulatory powers

The legal mechanisms are limited for addressing uncertainty and dynamic change

Decision making practice

Current decision-making practices, their adequacy for addressing uncertainty and dynamic change.

Findings

How is climate change risk understood and represented?

- Static (mis-)representation of risk in time and space
- Reactive and 'event-driven'

How do governance and regulatory decision-settings affect practice?

- Un-coordinated across scales
- Responses not adaptive over time and space (lock-in)
- Options get closed off early

How do organisations and actors affect practice?

- Un-coordinated within and between regulatory functions
- Practice driven by different disciplinary traditions
- Nascent experimentation
- Some boundary organisations operate

Barriers, enablers and entry points

Barriers

- Framing of the risk
- Legacy effects of past decisions
- Nested governance and devolution
- Some instruments not used at national and regional scales
- Quasi-legal settings generate 'certainty' measures which reduce flexibility
- Mitigation of impacts have physical and affordability limits
- Organisational form and function
- Capability deficits

Characteristics of climate change impacts

Governance and regulations

Organisations and actors

Enablers and entry points

- Framing of climate change risk
- Roles and levels of government
- Evidenced-based practice
- Flexible measures
- Organisational design
- Disciplinary practices
- Capability and capacity
- Engagement with stakeholders

Can we learn from non-climate decision domains?

Findings

- Domains that *anticipate risk* (financial risk supervision, insurance, superannuation and surgical risk management) address uncertainty and dynamic change

Potential institutional design elements

- Stress-testing
- Professional practice norms, sanctions and education
- Integrated practice across disciplines and between governance levels
- Risk spreading over generations
- Monitoring, review and adjustment provisions
- Procedural and intuitive cognition addressed

The space for change

Scope for improved governance, institutions and decision-making practice?



Fit
Interplay
Scale
Young 2002