

Old Problems, New Solutions

Integrative research supporting natural resource governance



Old Problems, New Solutions research programme

Old Problems, New Solutions is a four-year research programme (2007-2011) on decision making for allocation and sustainable management of water resources. The research involves a range of case studies and draws on a range of social science, economic and legal disciplines. Integrating the insights gained through different studies and the perspectives brought by different disciplines, we will also develop a generalised framework for the analysis of common natural resource governance problems in New Zealand.

Background

Sustainable use of natural resources is the foundation for primary industries that play a major role in national and regional economies of New Zealand. Dairy and meat account for 33% (\$10.3b) of export income. Hydroelectricity provides about 75% of New Zealand's electricity, while other renewable energy resources are increasingly important. Equally, New Zealand's unique and spectacular environment is a primary draw card for international tourism, which accounts for 18.5% (\$7.4b) of exports. The success of these and other key industries including viticulture and forestry, depends in large part on their access to, and use of abundant and high quality natural resources. In addition to economic values, environmental quality is an increasing concern of New Zealanders, while the role of tikanga Māori in resource management is important to Māori and to the success of our bicultural society.

Economic and other resource uses and values are increasingly coming into conflict, creating difficult problems of resource governance. Conflicts over water (re)allocation are increasing (e.g. Waitaki catchment), as are problems of water pollution (e.g. Lake Taupo) and concerns about water scarcity. There are important and contested issues around what is physically, legally, economically and socially feasible and desirable in the management of common resources to provide products and services and to protect tikanga and environmental values.

Research Overview

Objective 1: Quantitative research to develop models to understand the role of water in economic production (for irrigation, electricity generation, recreation and tourism, etc) and as a source of social and cultural values.

Objective 2: Qualitative research to investigate stakeholders' views and experiences relating to water issues in Canterbury.

Objective 3: Investigation of the extent to which Māori issues and perspectives on resource governance are represented and heard, and how other stakeholders understand and interpret the 'Māori voice'.

Objective 4: Complementing detailed case study research, the final part of the project will involve integrating understanding across the different case studies and disciplines, and generalising methods and findings to support their application in other regions of New Zealand, and to governance of other natural resources (e.g. land, renewable energy).

North Canterbury was chosen as a key case study site because of its diversity of water issues (e.g. expanding irrigation for pasture and viticulture, possibility of large scale afforestation and/or deforestation, various proposed water storage options, substantial Māori commercial and traditional interests, significant tourism and recreational in-stream water uses) and the willingness of regional and local authorities to engage with the research community in developing solutions.

The project complements and supports a range of activities by central government, local government, iwi and business and community organisations. Research information will flow to end-users and stakeholders through their active engagement in aspects of the research, regular workshops, publications, and electronic communication. The research aims to support development and implementation of new approaches to governance that facilitate inclusion of multiple stakeholder perspectives; trade-offs within and between social, economic and environmental values; recognition of uncertainty and dynamics of coupled socioeconomic and biophysical systems; full integration of Māori tikanga; and new ways of working at increasingly complex science–policy interfaces.

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