

Climate Change Adaptation Research Grants Program

- Social, Economic and Institutional Dimensions Projects

Project title:

The Legal, Institutional and Cultural Barriers to Adaptation to Sea-Level Rise in Australia.

Principal investigators: Jon Barnett

Lead organisation: The University of Melbourne

Objectives:

To understand how legal, institutional, and cultural factors impede or facilitate effective, efficient, and equitable adaptation to sea-level rise in Australia.

Project design and methods:

The project will run for 24 months. **Phase 1** will last from months 1-6 of the project. It involves:

- appointing a postdoctoral fellow;
- applying and receiving research ethics approval;
- liaising with stakeholders in the case study areas to establish a detailed schedule of data collection tasks;
- a systematic review of multiple cases of adaptation to sea-level rise in Australia and a small number of targeted overseas examples (this will be based on documentary sources and supplemented by telephone interviews with key informants where required);
- a systematic review of the international literature on barriers to adaptation and adaptation to sea-level rise;
- writing of findings from the systematic reviews, and,
- submission for publication of one journal article comparing Australian with international cases of adaptation to sea-level rise, highlighting barriers to adaptation.

The information from this stage is necessary to guide the second phases and to enable the findings of the second phase to be compared with and applied to adaptation processes elsewhere.

Phase 2 will last from months 7-18. It involves six months of detailed data collection in each of Eurobodalla Shire and the Westernport Bay region. In each case a mixed methods approach will be used to examine how legal, institutional, and cultural processes impede or facilitate adaptation. These cases have been chosen on the basis of five criteria:

- *First*, the project method requires the identification of specific adaptation processes within the case study locations.
- *Second*, the project requires the investigation of examples of adaptation process as they occur (as opposed to those that have, or that might), therefore cases where adaptation processes are ongoing are necessary.
- *Third*, the project requires that the researchers observe these adaptation processes, so cases where local and state authorities are willing to have extensive participation of researchers are required.
- *Fourth*, for reasons of comparison, cases that occur in different states are required, and
- *Finally*, cases where adaptation processes are occurring at different scales are also desirable, as in some cases adaptation occurs within a single local government jurisdiction, in others it occurs in a region that encompasses multiple local government areas (for example the Great Barrier Reef).

Taking these criteria into account, the case study areas selected are the Eurobodalla Shire in NSW, and the Westernport Bay area in Victoria. Both have recently initiated adaptation planning processes that will run over the next 2 years, both are willing to have researchers from this project participate in and observe these adaptation processes as they transpire, and they are in different states (and states where

there have been legal challenges to adaptation plans). The Eurobodalla Shire is initiating an adaptation process within its own jurisdiction, whereas the Westernport Bay example involves multiple local councils as well as service providers and other statutory bodies.

The Victorian Government's Future Coasts Program is leading the response to sea level rise and other climate-induced hazards in Victoria, including developing policy and guidance materials to support coastal decision making. At a local level, the Program is working in four pilot locations, in partnership with local authorities. For the Western Port Bay project, the Future Coasts Program is working with Melbourne Water, the South-East Councils Climate Change Alliance (SECCA), four local governments (Mornington Peninsular Shire, City of Casey, Cardinia Shire Council and Case Coast Shire) as well as other agencies. Over the next 2 years the Future Coasts project will undertake a detailed coastal hazard assessment to inform risk assessments, land use planning and adaptation responses and strategies. This research project will follow this process, with a researcher embedded during the planning and strategy development phase.

The NSW Office of Environment and Heritage (OEH) works closely with coastal councils and communities through the Coastal zone management program. It assists local governments implement the NSW Sea Level Rise Policy Statement and supporting guidelines, and in this it has a history of working with the Eurobodalla Shire Council. The council will be implementing adaptation actions over a five year period, commencing with a coastal hazard management study and plan for Batemans Bay, which will update existing knowledge on the response of the physical and built environment to climate change. The Council has allocated a budget to address coastal and flood related risk at other priority sites as well. This research project will follow these processes, with a researcher embedded in adaptation planning processes.

Methods for collecting data in each case study will include:

- a comprehensive review of state and local government policies, local media sources, and council decisions in order to establish the institutional, legal, and cultural history and context of each site.
- Substantial use will also be made of secondary data, including small area population census data, to learn about the population growth and change of each study area;
- participant observation of decision-making processes to elicit knowledge about legal and institutional processes, to occur via a researcher embedded in decision making processes;
- observations of social practices as means to understand local culture, including of: patterns of transport within towns; consumption of private, public and club goods and services; participation in community events; forms of engagement among people, and between people and governments; Broker-Local-Tourist relations; public speeches and broadcasts; and recreational practices, to occur via researchers' participation in and observations of a range of regular social processes and events;
- semi-structured interviews with a stratified sample of community members to elicit information about the attitudes, expectations, preferences, values, practices and knowledge of the resident population;
- semi-structured interviews with decision-makers, members of councils, and with members of private sector and civil society groups, in order to better understand the legal and institutional dimensions of adaptation.

These methods will produce a body of rich and detailed body of data about the barriers to adaptation in each locality. Analysis of data will be ongoing throughout this phase.

The final phase, which covers the last 6 months of the project, involves: finalising the data analysis, including the comparative analysis of barriers and enablers in each case, and between these cases and the international and national cases reviewed in phase 1; testing of findings with lead end-users; writing of the final report; presentation of findings in the study areas; and writing and submitting four peer-reviewed journal articles.