



## Landscape-Scale Biodiversity Governance

As part of the Landscapes and Policy Research Hub, Ms Sarah Clement (PhD scholar) is evaluating how institutions support or constrain biodiversity conservation in the Australian Alps and Tasmanian Midlands. This information will help identify new opportunities and ways in which governance can be adapted to conserve biodiversity at a landscape scale. This doctoral research is contributing to the outputs of the Landscapes and Policy Hub. The research was funded by the Australian Government through the National Environmental Research Program (NERP), which supports science that informs environmental policy and decision making.



### 1. Why are we doing this study?

Despite global institutional commitments to significantly slow biodiversity loss, biodiversity continues to decline and pressures on ecosystems increase. The Hawke Review of the *Environment Protection and Biodiversity Conservation Act (1999)* recommended a number of policy and planning reforms to remedy perceived shortcomings in the act, including a shift to more landscape-scale approaches.

Governance has an important role to play in supporting this shift to more landscape-scale approaches. This requires the collective action of individuals and organisations, at multiple levels of governance, with the authority, capacity and responsibility for biodiversity conservation. The way individuals and organisations are organised is the subject of this research.

The aim of this study is to review current institutional arrangements, and develop alternative governance options that a) support biodiversity conservation at a landscape-scale and b) support ecosystem resilience.

The study has four objectives:

1. Identify and describe the current governance arrangements to conserve biodiversity.
2. Develop a framework to evaluate these arrangements.
3. Apply the framework to the two case study regions to identify governance conditions that support or constrain landscape-scale biodiversity conservation.
4. Identify opportunities to adapt governance to better support biodiversity conservation at a landscape scale.

### 2. What are we doing?

The study relies on the following stages:

- Stage 1** A literature review and analysis of key policy documents.
- Stage 2** Develop a framework to examine current institutional conditions and design institutional arrangements that fit the 'problem' of landscape-scale biodiversity conservation.
- Stage 3** Undertake in-depth interviews, using the framework as a guide, to describe and analyse existing institutional arrangements.
- Stage 4** Develop options, building on current institutional arrangements, to adapt governance in a way that supports landscape-scale biodiversity conservation efforts. These governance options will be further refined in a series of focus groups with policy makers, experts, and other key individuals.

These options will then be tested by other researchers in the Landscapes and Policy Hub in scenario planning workshops in the Australian Alps and Tasmanian Midlands to understand how governance can support biodiversity conservation under changing social, economic and biophysical conditions (for example, climate change).

### 3. How did we collect the data/information?

The research started with a literature review, and the design of research questions and methodology (Clement 2012). This was followed by further literature review and document analysis focusing on key policy documents in the two case study regions and at the Commonwealth level, as identified by the hub's knowledge brokers. This analysis was aided by a tool called the *Institutional Grammar Tool* (Crawford & Ostrom 2005), which provides a structured method to identify and categorise institutional statements in documents.

Next was development of a conceptual framework to assess current institutional arrangements. Contributing literature included adaptive governance, collective action in natural resource governance, political science, institutional theory, organisational studies, and institutional entrepreneurship and innovation. The framework has 12 components and is broadly based on the concept of an institutional diagnostic (Young 2002). Institutional diagnostics help understand how institutions 'fit' with the problem they are intended to address, which in this case is landscape-scale biodiversity conservation. The approach was selected because of its capacity to deal both with complexity and to incorporate important contextual conditions.

A total of 92 semi-structured, in-depth interviews with policy-makers, managers, NRM groups, non-governmental organisations, landholders and institutional entrepreneurs followed. This included 13 interviews with people from the Australian Government, 42 with people working in the Australian Alps and 36 with people working in the Tasmanian Midlands, plus 3 additional interviews with people with broader experience in biodiversity governance and innovation. More than half of the resultant interview transcripts have been coded and analysed using a hybrid approach to thematic analysis. This means that both induction from the data and deduction from the framework are being used to identify themes in the data.

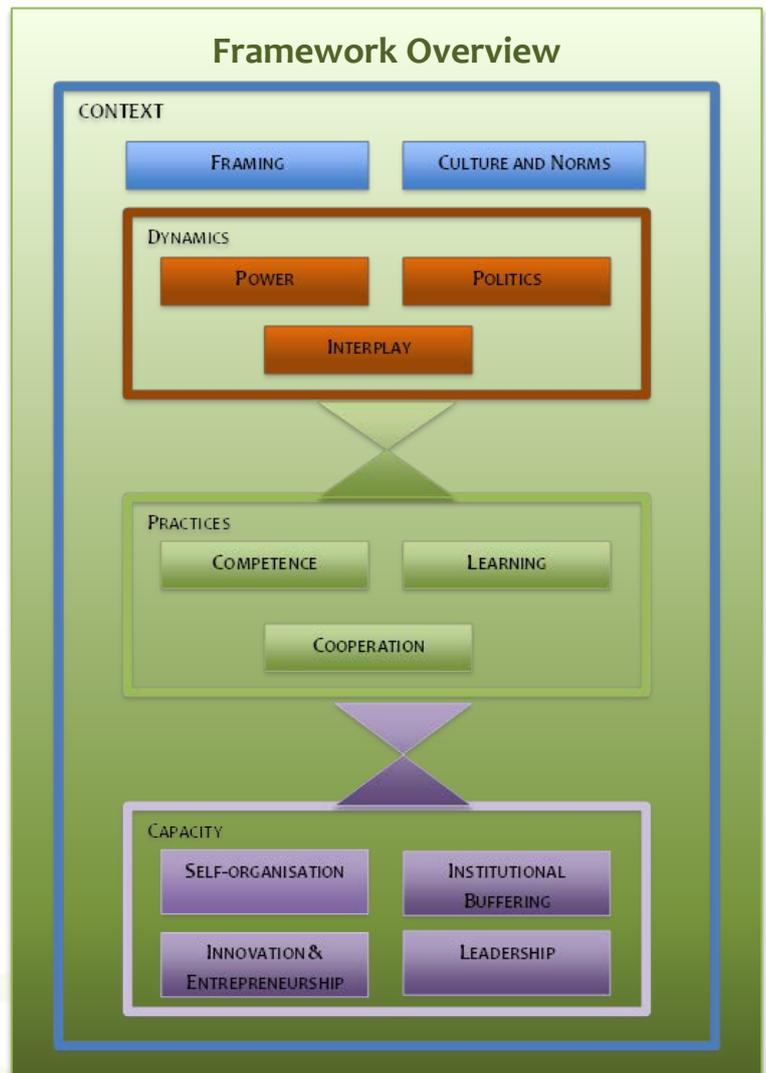




#### 4. What have we found so far?

As of November 2013, the research is about half way through and data analysis is still underway. Based on the analysis of 55 interviews, the following themes are emerging:

- a) The concept of landscape-scale biodiversity conservation is defined and understood in quite different ways, which affects the choice of solutions to the policy problem.
- b) The absence of legislative mandates to conserve biodiversity at a landscape-scale means leadership in governance is unclear, particularly at state levels and below. Research participants felt authority and legitimacy to undertake landscape-scale initiatives can be gained through cooperation and the acceptance of landholders.
- c) Policy documents place a heavy emphasis on shared responsibility and norms. Several aspects of the current arrangements make this difficult to achieve in practice.
- d) Roles and responsibilities for some aspects of biodiversity governance are unclear, including responsibilities for monitoring and attribution of impacts at the landscape scale.
- e) Politics and interplay dynamics between governance levels hinder some cooperative efforts, and objectives and strategies are not always aligned across governance levels.



#### 5. Where to from here?

The development of governance options to assist landscape-scale biodiversity conservation is currently underway. Focus groups in Canberra, the Australian Alps and Tasmanian Midlands to refine these options are planned for February 2014. The options will then be revised and summarised in a background document and be tested by other researchers from the Hub in scenario workshops in April and May 2014. The analysis of interview data will continue into early 2014.

A summary of this analysis will be provided to all participants in the research, interested policymakers and managers by the middle of 2014. Key findings and their utility for policymakers will be incorporated into the final Landscapes and Policy Hub outputs, as well as various elements of the research published in scientific journals.



6. Who are the researchers involved?

**Ms Sarah Clement**

(Murdoch University) is an environmental and social science researcher with experience in policy evaluation, environmental and strategic planning, social impact assessment, community engagement, behavioural change, and conflict resolution.

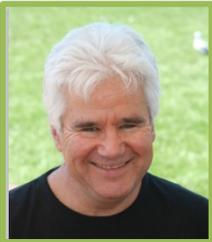


**Dr Susan Moore**



(Murdoch University) is an associate professor, environmental and social scientist with expertise in the social aspects of biodiversity conservation and natural area tourism. She leads the Nature Based Tourism Research Group at Murdoch; is Sarah's principle supervisor; and co-leader of the Social and Institutional Futures team in the Hub.

**Dr Michael Lockwood**



(University of Tasmania) is an environmental social scientist with expertise in environmental governance; the social and institutional dimensions of environmental conservation; and good-practice planning and management for protected areas. He co-supervises Sarah and is the co-leader of the Social and Institutional Futures team in the Hub.

*Where can I find out more?*

Ms Sarah Clement	☎ 0424 371 025	<a href="mailto:S.Clement@murdoch.edu.au">S.Clement@murdoch.edu.au</a>
Dr Susan Moore	☎ (08) 9360 6484	<a href="mailto:S.Moore@murdoch.edu.au">S.Moore@murdoch.edu.au</a>
Dr Michael Lockwood	☎ (03) 6226 2834	<a href="mailto:Michael.Lockwood@utas.edu.au">Michael.Lockwood@utas.edu.au</a>

**Further Reading:**

Clement S (2012) *Biodiversity Governance in the Tasmanian Midlands and Australian Alps- a preliminary literature review*. Murdoch University, Perth. Available on the hub website.

Crawford S & Ostrom E (2005). *A grammar of institutions. Understanding institutional diversity*. Princeton: Princeton University Press.

Young O (2008) Building regimes for socioecological systems: Institutional diagnostics. In: Young OR, King LA & Schroeder H (eds.) *Institutions and environmental change: Principal findings, applications, and research frontiers*. Cambridge: MIT Press.

*About the NERP Landscapes and Policy Hub*

The Landscapes and Policy Hub is a research collaboration that focuses on integrating ecology and social science to provide guidance for policy makers on planning and management of biodiversity at a regional scale. The research hub is developing tools, techniques and policy options to integrate biodiversity into regional scale planning. The University of Tasmania hosts the multi-disciplinary research collaboration that is one of five research hubs funded to study biodiversity conservation by the [National Environmental Research Program](#) (NERP) for four years (2011-2014).

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