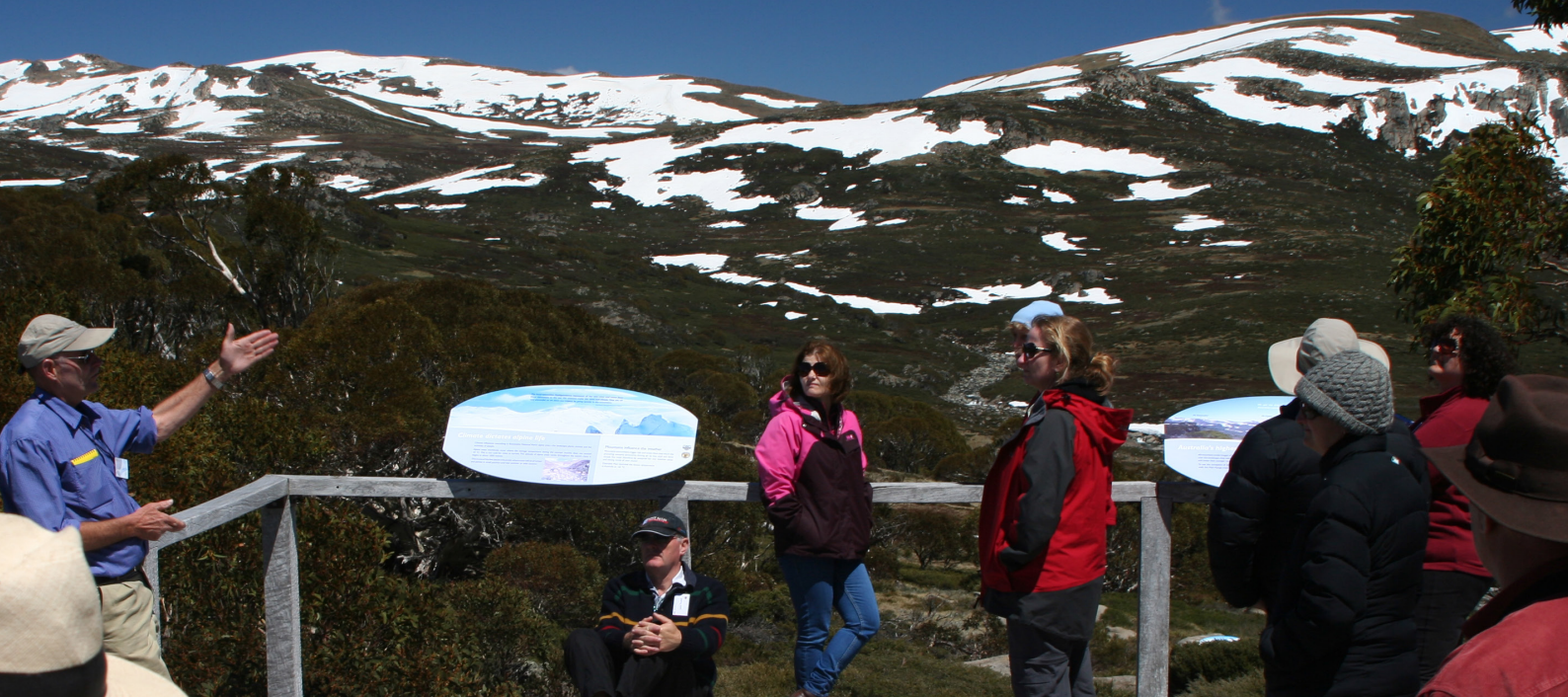




Analysing how social and ecological systems interact provides clues for improving conservation outcomes. Photo: Suzie Gaynor



Understanding and designing fit-for-purpose institutions for conserving biodiversity

The Australian Alps is a nationally significant landscape rich in biodiversity features, and cultural and natural heritage. The protected area status of most of this landscape means these features are under secure tenure, but they nevertheless face an uncertain future.

Pressures such as climate change, invasive species and bushfires are coupled with shifting community attitudes toward national parks and their use. We can mitigate many of these pressures by making better decisions and adapting to social and ecological change.

Institutions underpin decision-making, thus they are critical for achieving the goal of a healthy Australian Alps landscape. A recent legislative review has called on Australia to reform its institutions and look beyond threatened species to conserve biodiversity at the landscape scale. To advise on potential reforms, it is first necessary to analyse current arrangements.

Summary for policy makes, planners and managers

This document summarises the techniques we used to analyse the Australian Alps institutions relevant to biodiversity conservation. We outline what we found and propose how the current arrangements could be improved.

We worked with biodiversity management stakeholders from the Australian Alps, and the analysis was done concurrently with a focus on the contrasting landscape of the Tasmanian Midlands. A separate document describes the findings from the study focusing on the Tasmanian Midlands.

Key Terms

Landscape-scale biodiversity: a shift in policy away from individual species protection towards broader appreciation of the function, structure and composition of the landscape.

Institutions: these are the rules, norms, and strategies that shape the decision-making of individuals and organisations.

Governance: the processes through which people share power and responsibilities as decisions are made: by whom, for whom, and in whose interests. Institutions are integral to these processes.



Institutional diagnostics and misfits

An institutional diagnostic is a method for analysing institutions and how they fit with a purpose — in our case, biodiversity conservation. Institutional misfits occur when, for example, institutions provide a short-term solution to a long-term problem. Like a doctor diagnosing a patient, the diagnostic approach involves asking questions about current conditions in order to prescribe an appropriate course of treatment. The benefit of this approach is that it can be tailored to a specific context, and does not assume any single institutional design is ‘best’.

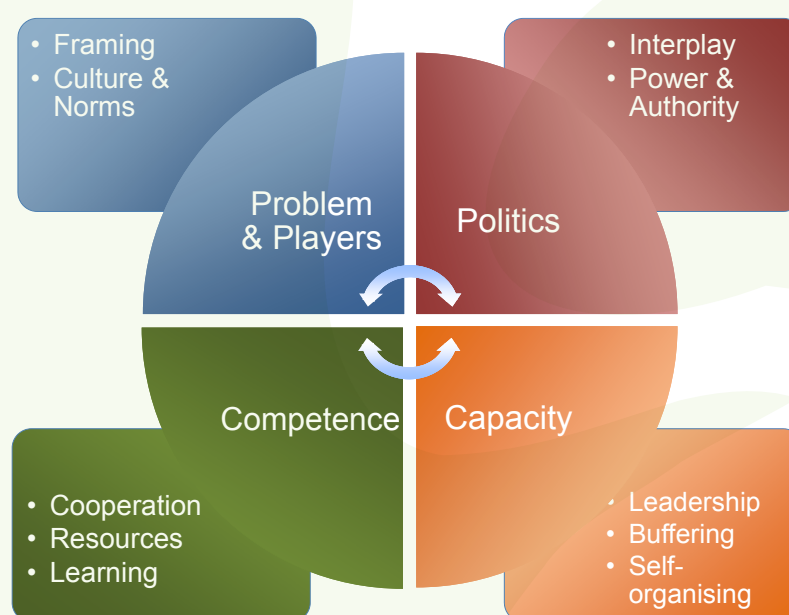
What is new?

What’s new about our approach is the creation of an original framework to design fit-for-purpose biodiversity institutions (see figure at right).

The framework builds on the idea of adaptive governance, based on the need for institutions to be more nimble and responsive to cope with environmental and socio-economic changes. A key advantage of the framework is it can transform academic theories into user-friendly tool (see table on page 2).

Asking and answering the questions in the diagnostic also raises deeper, more specific questions, the answers to which help us understand current institutional conditions and where improvements can be made.

Framework Diagram



Further reading

Clement S (2012) Biodiversity Governance in the Tasmanian Midlands and Australian Alps – a preliminary literature review. Murdoch University, Perth, Western Australia.

Abbreviated Framework and Questions

Framework Component	Questions
Problems and Players	
Framing: Understanding the biodiversity conservation agenda, nature of the problem, and the range of solutions.	<ul style="list-style-type: none"> How is biodiversity conservation currently approached in this landscape and at what scale? What (and who) is contributing to biodiversity decline? Who can help solve it? What solutions have been employed and how have they worked?
Culture and norms: Both influence behaviour by 'defining' what is proper and improper behaviour.	<ul style="list-style-type: none"> How does organisational culture influence policy and its implementation? What are the norms influencing decisions to participate (or not participate) in biodiversity conservation?
Politics	
Interplay: Institutions interact across governance levels and geographic scales. Biodiversity institutions also interact with other institutions (for example, economics, agriculture).	<ul style="list-style-type: none"> How do approaches to conserving biodiversity influence each other? How do the different levels of governance interact? How do politics influence practice at each level? How do institutions in other areas interact with biodiversity conservation?
Power and authority: Institutions empower individuals and organisations to act and cooperate. Authority to conserve biodiversity provides an important safety net.	<ul style="list-style-type: none"> How is power distributed between individuals and organisations? Does sufficient authority exist to deal with key drivers and take action? Where does it exist? Are roles and responsibilities clearly delineated?
Practices – competence	
Cooperation: Biodiversity attributes and threats occur across properties, tenures and jurisdictions, requiring cooperation between actors and across scales and governance levels.	<ul style="list-style-type: none"> What is the current level of cooperation? Are there particular areas or objectives requiring greater cooperation? What conditions are hindering efforts to cooperate?
Resources: Knowledge, capability, and the commensurate resources and competencies are necessary to achieving conservation objectives.	<ul style="list-style-type: none"> Do individuals and organisations have the necessary human resources? (for example: skills, knowledge, quantity and quality of employees) Do individuals and organisations have the necessary financial resources? How well do policies on paper match the problem of biodiversity conservation in practice in this landscape?
Learning: A process of adjusting goals and approaches in response to experience and information. It can enable change and sustain practices.	<ul style="list-style-type: none"> How do individuals and organisations get feedback on current approaches? (for example: monitoring practices, sources of information) Do individuals and organisations reflect on current practices, and adjust in response?
Practices – capacity	
Leadership and entrepreneurship: Leadership can be structural, entrepreneurial and intellectual. It can come from any level of governance.	<ul style="list-style-type: none"> Who is taking the lead on biodiversity conservation, and how are they influencing outcomes and practices? Are there individuals and organisations adopting innovative approaches to policy or management? Are there factors constraining leadership capacity?
Buffering: Institutions must recognise thresholds and disturbances and respond to buffer ecosystems. Organisations need to buffer against changes in external environments to achieve objectives over the long term.	<ul style="list-style-type: none"> Are there multiple institutions and organisations addressing biodiversity conservation? Are there multiple approaches to addressing biodiversity decline in this landscape, or are most resources devoted to only one or two? How do organisations cope with external factors, like political influence and budget cuts?
Self-organising: Self-organising networks can build institutional memory, fill gaps in formal responsibilities, and provide capacity.	<ul style="list-style-type: none"> Are individuals and organisations empowered to self-organise and act locally? Are there informal and formal networks for sharing information and making decisions?

What we've learned from the institutional diagnostic

The institutional diagnostic was applied to investigate the current biodiversity conservation institutions active in the Australian Alps. It included in-depth interviews with 51 individuals from federal, state, and local government; non-governmental organisations; catchment management groups; researchers. Key findings include:

- A. Despite the strengths of the cross-border cooperative program (see box below), it needs to be re-energised and taken to the next level. Responsibilities still lie with state and ACT jurisdictions, so collaboration remains an 'add-on' to day-to-day responsibility. While diversity can be used productively to learn across jurisdictions, this is not always the case and it can be a barrier to action on significant cross-border issues (for example, climate change adaptation, fire, feral horses).
- B. Community attitudes toward parks seem to be shifting away from parks as serving conservation purposes. Community concerns and political priorities are significant drivers of priorities in practice, even though they often differ significantly from those on paper and may even conflict with conservation purposes (inflexible, large prescribed burning targets). These jurisdictional drivers can also undermine cohesiveness of alps-wide management activities and call for strategies to work more productively with politics.
- C. Erosion of trust in public agencies has led to more control-oriented structures, constraining manager discretion. Appropriate manager discretion is critical to achieving conservation objectives in the parks.
- D. In addition to tight government budgets, most funding is tied to specific projects and actions, limiting continuity, innovation and flexibility to adapt. This issue is exacerbated by broader moves in the Australian public sector to place a disproportionately strong emphasis on how funds are spent (that is, financial accountability), with much less emphasis on what outcomes are achieved.
- E. There have been moves to more 'generalist' employees within some of the park agencies, which affects the capacity of these organisations. While robust links between researchers and the agencies have been developed, it is the agencies that hold formal authority and responsibility for managing the alps. The decline of specialist expertise and tendency to recruit high-level managers without conservation expertise was linked to a weakening of evidence-based decision-making.

What were the strengths?

The diagnostic also revealed several key strengths in the existing arrangements:

- Strong history of cooperative cross-border management and learning through the Australian Alps Cooperative Management Program.
- Concerted effort by the agencies to adaptively manage and link actions on the ground to priority assets.
- Keen scientific interest in the Australian Alps means there is high quality research to support management, and the potential to expand this research.
- Roles and responsibilities for conserving biodiversity are relatively clear in the protected areas of the Australian Alps.

The Language of Policy

In addition to the interviews, our diagnosis relied on document analysis using the Institutional Grammar Tool. For more information on the tool and our associated findings, see the separate summary on the hub's website.

Further reading

Clement S, Mitchell M, Lockwood M & Moore SA (2014) *Australian Alps: options to improve biodiversity governance arrangements*. Landscapes and Policy Hub, University of Tasmania, Hobart.

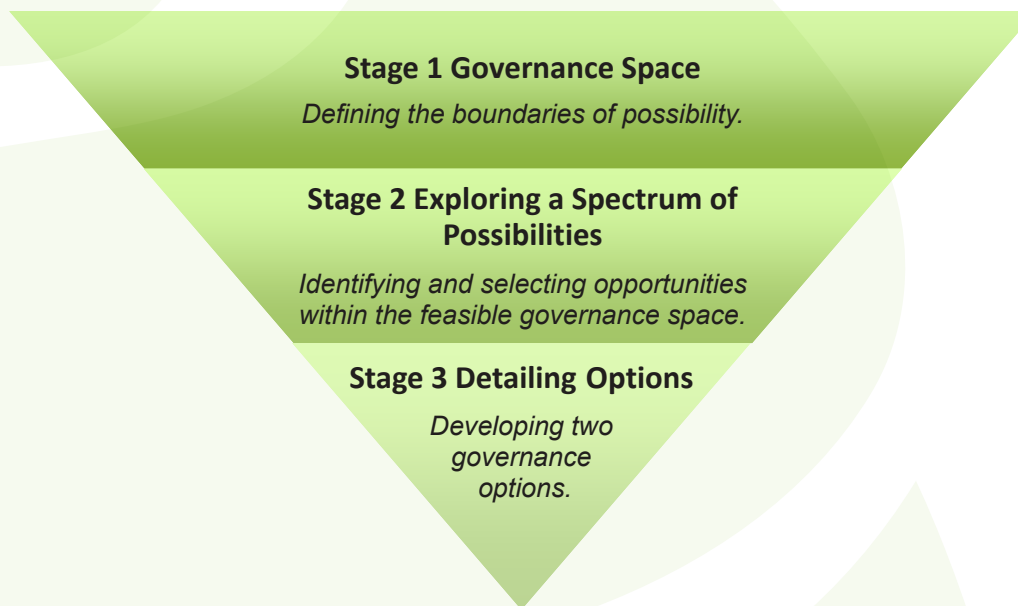
Clement S, Moore SA & Lockwood M (in press) Authority, responsibility and process in Australian biodiversity policy. *Environment and Planning Law Journal*.

Developing Governance Improvements

Our understanding of current institutional arrangements, gained through the diagnostic, identified strengths, institutional misfits and gaps. Collectively this information enabled development of proposals for altered governance arrangements to achieve better biodiversity outcomes. We developed two options for improving biodiversity governance in the Australian Alps and tested them in focus groups, one in Melbourne and one in Queanbeyan. Participants were primarily government decision-makers, along with a few non-government organisation staff and researchers.

What is new about our approach is combining theoretical and practical understandings about the institutions and our knowledge of the Australian Alps landscape to design the options. Although institutional design and reform are both frequently discussed in the literature, much of this discussion fails to connect general theoretical understandings to the practical reality of institutional environments.

The process of governance development



Snapshot of Stage 1: Governance Space

In this stage, we considered the factors limiting the feasible extent of change. These include Australia's system of government, political environment, and the Australian Alps context. Each of these has implications for potential governance options.

For example, given that land management responsibilities are held by the state jurisdictions under the Australian constitution, this limits Commonwealth involvement. Although legislative mechanisms to establish truly 'national' national parks do exist, this would be politically challenging and would not necessarily address the issues identified in the diagnostic. Australia's system of cooperative federalism was thus taken as a 'given' in developing the reforms.

Snapshot of Stage 2: Option mapping

In this stage, we identified a range of options from good practice case studies. We considered how each of these options might address the gaps and institutional misfits found in the diagnostic. Importantly, we also considered how they could build on the strengths of existing efforts.

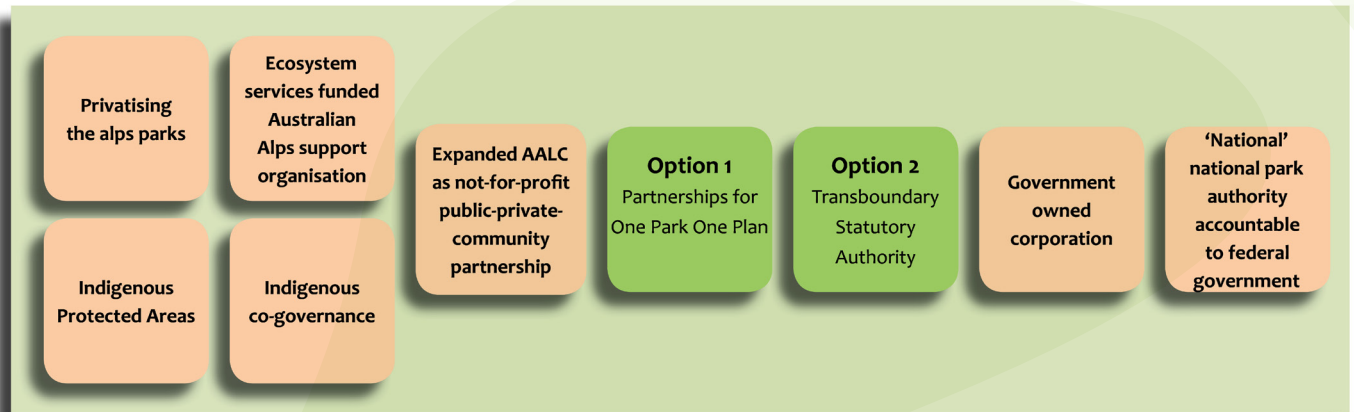
We placed all of these on a 'spectrum', and we revised both the options and the spectrum in response to focus group feedback. In particular, the option to move further to the left, to a public-private-not-for-profit network governance model, was discarded in favour of an option closer to existing arrangements. This change was made in response to concerns about managing more diverse networks.

Exploring Governance Possibilities for the Australian Alps

Spectrum of Governance Possibilities

Private or
Community

Government



Snapshot of Stage 3: Detailing options

We then detailed two different governance options, drawing on findings of the diagnostic (see table on page 7), and gaining insights from literature on what has worked elsewhere. The two options are summarised below. Refer to 'further reading' for more detailed information.

OPTION 1: Partnerships for One Park, One Plan

This option maintains the cooperative program structure, but seeks to reinvigorate it through agency champions. It includes the development of a shared management plan with shared objectives across the four Australian Alps jurisdictions. It enables regional discretion in how those objectives will be met, and encourages the development of expanded networks with the community, regional NRM bodies, and Indigenous Traditional Owners to promote learning and innovation.

OPTION 2: Transboundary Statutory Authority

This option suggests a statutory authority, the Australian Alps Management Authority, as a more formal way to provide the powers and duties to achieve conservation objectives across borders. Enacted through multilateral cooperation between the NSW, Victorian, ACT and federal governments, the purpose of the Authority would be to develop and oversee the implementation of whole-of-alps management plans, policies and programs, in consultation with stakeholders. Although authorities have been pursued elsewhere in Australia, the kind proposed in this option differs in important ways. This includes accountability in the enabling legislation, which is directly linked to meeting biodiversity and other outcomes. Delivery would remain the responsibility of the state and territory management agencies.

How the options address the diagnostic findings

In developing the governance options of Stage 3, we used a checklist to ensure we addressed the key findings of the diagnostic. The summary of features in each options appears below in the table.

Diagnostic Finding*	Features of Each Option	
	Option 1: Partnerships for One Park, One Plan	Option 2: Transboundary Statutory Authority
Finding A <i>Renewing interest and achieving greater consistency</i>	<ul style="list-style-type: none"> Recruits agency champions to re-invigorate the program and ensure it is influential in agency prioritisation. Provides common goals and objectives, but enables discretion in how those are met. Establishes intentional experiments when agencies decide to pursue differing approaches. 	<ul style="list-style-type: none"> Establishes an authority to renew interest in cross-border collaboration and achieve greater coherence across the landscape. Under legislation, each agency is accountable to the statutory authority for the delivering across-landscape goals and objectives. Continues agency discretion in how outcomes are met to ensure retention of benefits of institutional diversity.
Findings B <i>Coping with political and community pressures.</i>	<ul style="list-style-type: none"> Expands and diversifies reference groups in the cooperative program. Such a network approach can foster community support and buffer political influence. Requires proactive effort of senior managers and leaders to gain influence in the political arena. 	<ul style="list-style-type: none"> Additional buffer for agencies through independent authority status and enabling legislation. Raises the profile of the alps in the political arena and community, which can attract additional support and positive pressure.
Finding C <i>Enabling discretion</i>	<ul style="list-style-type: none"> Shared plan delegates day-to-day decision-making authority to regional and local staff, with central oversight to ensure consistency with the plan. 	<ul style="list-style-type: none"> Shared plan delegates day-to-day decision-making authority to regional and local staff, with central oversight to ensure consistency with the plan.
Finding D <i>Dealing with tight budgets and emphasis on financial accountability</i>	<ul style="list-style-type: none"> Establishes an Australian Alps Research and Management Trust fund to pursue more diverse funding sources (for example, ecosystem service payments). Legal incorporation of the Australian Alps Liaison Committee could enable access to greater quantum of funding. Accountabilities explicitly linked to a shared plan and monitored by a new reference group. 	<ul style="list-style-type: none"> Establishes an Australian Alps Research and Management Trust fund to pursue more diverse funding sources. Explicit linking of accountabilities to shared management plan and statutory objectives of the Authority. Regular review of how these accountabilities are met included in enabling legislation
Finding E <i>Accessing and integrating specialist expertise and evidence in decision-making</i>	<ul style="list-style-type: none"> Establishes a Centre for Australian Alps Social-Ecological Research. Funds research and specialist positions in each agency through the Trust. 	<ul style="list-style-type: none"> Establishes a Centre for Australian Alps Social-Ecological Research. Funds research and specialist positions in each agency through the Trust. Formalises reference groups' responsibilities in legislation to clarify how they inform decision-making.

* Letters correspond to summary of findings on page 4

Key findings

Using a diagnostic approach enabled us to understand current institutions, and develop recommendations for better addressing biodiversity conservation at a landscape scale.

Options for governance improvements should build on the strengths of existing arrangements. In the Australian Alps, this includes:

- Building on decades of cross-border collaboration, but adopting strategies to achieve greater coherence or make better use of jurisdictional diversity, when it exists.
- Building capacity to deal with community and political pressures by, for example, diversifying networks in governance and proactively pursuing support in the political arena.
- Diversifying and expanding existing funding sources, and identifying ways to ensure research is well-supported, funded and integrated into decision-making.
- Shifting to more outcome-focused metrics, and enabling manager discretion to meet those outcomes.

Who are the researchers involved?

Sarah Clement



Sarah is a human ecologist, whose PhD focuses on the social and institutional dimensions of environmental problems.

E: s.clement@murdoch.edu.au

Professor Susan A Moore



Susan is a researcher in the environmental and conservation sciences at Murdoch University, WA.

E: s.moore@murdoch.edu.au

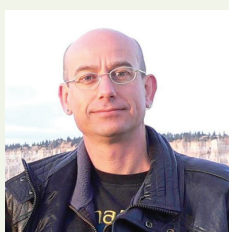
Dr Michael Lockwood



Michael is an environmental social scientist at the University of Tasmania.

E: Michael.Lockwood@utas.edu.au

Dr Michael Mitchell



Michael is a social researcher who specialises in the social dimensions of natural resource management.

E: Michael.Mitchell@utas.edu.au

Further Reading

Clement S, Mitchell M, Lockwood M & Moore SA (2014) *Australian Alps: options to improve biodiversity governance arrangements*. Landscapes and Policy Hub, University of Tasmania, Hobart.

About the NERP Landscapes and Policy Hub

The Landscapes and Policy Hub is one of five research hubs funded by the National Environmental Research Program (NERP) for four years (2011–2014) to study biodiversity conservation.

We integrate ecology and social science to provide guidance for policymakers on planning and managing biodiversity at a regional scale. We develop tools, techniques and policy options to integrate biodiversity into regional-scale planning.

The University of Tasmania hosts the hub.

www.nerplandscapes.edu.au



National Environmental Research Program



UNIVERSITY of TASMANIA



ANTARCTIC CLIMATE & ECOSYSTEMS CRC



Australian National University



Murdoch UNIVERSITY



Griffith UNIVERSITY



Charles Sturt University

December 2014