



Planning for biodiversity across landscapes: choosing the right approach

We present a framework to help policymakers select and design landscape level planning mechanisms.

The framework can rapidly identify the strengths and weaknesses of available planning mechanisms (for example, strategic assessment).

The framework can help you choose between different available planning mechanisms, or help you decide whether to use them in tandem.

It can be used as a guide to designing new mechanisms that comprehensively encompass the governance needs of good (leading edge) biodiversity planning.

How can the framework be used

The framework provides a way of choosing which planning mechanism to use for landscape level biodiversity planning. It does this by allowing the strengths and weaknesses of available mechanisms to be evaluated and compared.

Designing planning approaches and tools can be challenging. Our framework provides a checklist that informs the development of new planning mechanisms for biodiversity.

Policymakers and planners in government, and conservation non-government organisations could use this framework in biodiversity policy and planning. Development focused agencies will also find the framework valuable when including biodiversity in sustainability policy and planning.

Planning for biodiversity conservation

Australia has a rich, diverse collection of plants and animals found no where else. They face a myriad of threats, many of them occurring across landscapes.

Planning and action at the landscape level provide a strategic, cost-effective way of dealing with threats for species that move across landscapes. It can be challenging and difficult to determine the 'best' way to plan for action in landscapes.

We describe a new framework that can be used to understand the planning mechanisms available and provides a guide to choosing the one most fit for purpose.

We apply this new framework to a number of the mechanisms available, with particular attention to 'strategic assessment' and 'bioregional planning'. Both are detailed in the Environment Protection and Biodiversity Conservation Act 1999 (Cwlth).



Landscape-scale: Charlottes Pass, Mt Kosciuszko National Park

A landscape—scale approach

The need for landscape-scale approaches to biodiversity conservation has been clear within the Australian policy context for at least 20 years. Under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (the act), two mechanisms for planning and assessing landscape-scale biodiversity conservation — strategic assessment and bioregional planning — may be conducted. Australia's *Biodiversity Conservation Strategy 2010-2030* aims to conserve biodiversity so that it is healthy and resilient to threats. Planning and action at a landscape-level can help.

Developing a framework

Planning mechanisms are most effective when they are tailored to the issue at hand, but used with a checklist against international best practice. We developed an evaluation framework from a review of international and Australian literature on public policy, natural resource governance, and planning.

The framework particularly focuses on governance, given the strong influence such planning mechanisms can have in shaping how landscapes are managed. It was tested through application to strategic assessments and bioregional plans.

We reviewed the strengths and weaknesses of each, as this is the likely way policymakers would use the framework, that is, to compare mechanisms and then choose the most suitable one for their purposes. We also investigated four other mechanisms — regional forest agreements, natural resource management planning, strategic regional land-use plans, and the remnant native vegetation report (by the Victorian Environmental Assessment Council). Details of these findings can be found in the [final report](#).

We relied on information published in reports and other documents to evaluate the mechanisms and describe their strengths and weaknesses.

Analysis of strategic assessment and bioregional planning

Bioregional planning – strengths and weaknesses

A bioregional plan is developed proactively for the purpose of conserving biodiversity, and may also consider socio-economic issues. The geographical boundaries are flexible, and it supports adaptive management.

No terrestrial bioregional plans have yet been developed in Australia; they are a new mechanism. How to incorporate the impacts of future known developments and provisions for engaging stakeholders are as yet unclear.

The lack of monitoring, reporting and review requirements reduces the potential of the mechanism to deliver biodiversity outcomes. The federal Minister for the Environment is the only person required to take into account a bioregional plan when making decisions.

Strategic assessment – strengths and weaknesses

Strategic assessment is a reactive process, in that it is used to assess an existing policy, plan or program developed by another party, for purposes other than conserving biodiversity. It provides a degree of certainty for both biodiversity and development, which are considered simultaneously with a view to achieving balance.

Biodiversity outcomes included in a strategic assessment can be legally enforced. The potential for streamlined development approvals under the act is a proven incentive for uptake of this voluntary mechanism.

Assessment is limited to considering the development objectives and the Matters of National Environmental Significance defined in the act. The assessment area does not have to fit within any recognised ecological or social boundaries.

The need for enforceable planning outcomes may conflict with the principles of adaptive management. Opportunities for engagement may be limited to statutory comment periods, which are probably too short.

Recommendations for ‘best practice’

Collaboration is essential

With bioregional planning and strategic assessment, as the act is focused only on Matters of National Environmental Significance, other objectives must be delivered through mechanisms available to the partner jurisdiction (typically state and/or local governments). Collaboration is therefore essential if additional objectives are to be achieved.

The Framework

Framework for evaluating and choosing biodiversity conservation planning mechanisms:

1. How the mechanism is developed (process governance):

- initiation process
- institutional arrangements
- policy integration and alignment
- engagement.

2. Content of the mechanism:

- spatial scale
- scope and objectives
- potential impacts on biodiversity considered
- outcomes generated.

3. How the mechanism is implemented (implementation governance):

- implementation mechanisms
- monitoring and reporting
- review mechanisms.

Governance is as important as ecological inputs

Governance arrangements are just as important as high-quality ecological input, which is largely independent of the mechanism. People need incentives to use these mechanisms.

For planning and assessment activities such as these, collaboration needs to be strong, geographic boundaries need to be agreed and people must be meaningfully engaged. Implementation requires strong enforcement mechanisms; adaptive management mechanisms; and monitoring, reporting and review mechanisms.

Landowners should be involved in delivering outcomes and known future developments should be effectively managed.

Scale, scope and objectives are important

Plans must consider geographic scale, scope and objectives, such as impacts on biodiversity and the nature of the outcomes.

Mechanisms are not mutually exclusive

The mechanisms we evaluated may be able to be applied together or in sequence.

Regional sustainability planning has potential

The Australian Government's regional sustainability planning mechanism has considerable potential. This potential reaches beyond delivering biodiversity conservation outcomes with respect to Matters of National Environmental Significance and development outcomes.

Regional sustainability planning has the potential to progress sustainability agendas beyond biodiversity and immediate development proposals, and draw on the strengths of both strategic assessment and bioregional planning.

Who are the researchers?

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Further reading

Pope J & Moore SA (2013) *Planning and assessment for biodiversity conservation at a landscape-scale: an evaluation of current approaches and opportunities in Australia*. University of Tasmania, Hobart, Tasmania.

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.

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