



Submission to the Independent Biodiversity Legislation Review Panel

Introduction

This paper presents the NRC's thinking to date on the Independent Panel's review of the *Native Vegetation Act 2003*, *Threatened Species Conservation Act 1995* and related biodiversity legislation, policies and programs.

The NRC is an independent body set up to help government find evidence-based solutions to complex natural resource problems, reporting to the Premier. The NRC has previously advised Government on native vegetation regulations and management ranging from landscape vegetation management, multi-farm vegetation property planning and changes to the Environmental Outcomes Assessment Methodology.

The Terms of Reference for the review succinctly capture some of the key issues that must be addressed, namely, that the framework is fragmented, complex, and process driven with inconsistent standards across sectors; it does not deliver the right incentives for land managers and does not allow full triple-bottom-line considerations to achieve outcomes across environmental, social and economic objectives.

It is important to take the opportunity to reconsider the key objectives and drivers for biodiversity conservation and the mix of policies and tools, including regulation, that are needed to get the best outcomes across the landscape.

The context for biodiversity conservation is dynamic. Growing populations are putting ever changing and increasing demands on landscapes including for food, fibre, clean water, recreation and urban development, as well as native vegetation and biodiversity conservation. The opportunity now is to implement land use and land management principles that will allow the ongoing delivery of these services into a changing and sometimes unpredictable future. These principles should be implemented across all land uses, not just on private, rural land.

The focus of thinking needs to change from specific assets and individual species to an approach that considers the broader role of biodiversity in a functioning landscape.

While the planning legislation is not included as part of this review, the NRC considers that an integrated regulatory framework that aligns regulatory needs with the differing risks of land use planning and land management is needed. Biodiversity conservation should be incorporated into the social, economic and other environmental considerations for all land use planning and land management decisions. By creating consistent decision processes focused on sustainable development for both land management and use, more robust and enduring outcomes can be achieved.

Drivers for reform

This review is timely. At the state level, there are significant reforms occurring underpinned by NSW 2021 and the 2012 NSW Commission of Audit. The legislative framework for biodiversity conservation and threatened species is now outdated and out of step with emerging international best practice, and separate state regulations for native vegetation and biodiversity conservation impose significant complexity and unnecessary costs on landholders.¹ This section outlines some of the key drivers for change.

Inconsistent requirements across sectors and the landscape

The *Native Vegetation Act 2003* focuses on preventing clearing at the property scale in rural-zoned land only,² thereby forcing private conservation onto a small group of landholders. This is despite the fact that many of the most aggressive threats to biodiversity in NSW include housing and mining development pressures in urban and coastal areas where the *Native Vegetation Act 2003* does not apply. In general, decision-making in urbanised areas tends to favour decisions based on economic and social factors, whereas rural landholders are subject to strict rules that ensure environmental outcomes are maintained or improved.³

Under the *Native Vegetation Act 2003* (NSW), property vegetation management plans (PVPs), in particular continuing use PVPs, were intended to provide certainty to farmers so they could “get on with business.” However, PVPs have been criticised⁴ for being part of the clearing approval process rather than a genuine land management agreement.⁵ Evidence indicates that regulations preventing farmers from developing and managing their land reduce operating profits and negatively impact on land value.⁶

Despite best intentions, the native vegetation reform package does not sit comfortably with the rural community due to the imposed costs, rigid rules and the primary focus on environmental outcomes. The *Native Vegetation Act 2003* effectively put a regulatory “fence” around remaining native vegetation, and does not enable consideration of the social and economic factors, leading to considerable mistrust of government and some perverse outcomes. For example, it does not adequately value past actions that resulted in native vegetation being well managed. One unintended outcome of the legislation is that a landholder who may have degraded native vegetation can be rewarded over the landholder who previously managed vegetation well.⁷

The NRC is highlighting the opportunity for this review to promote long-term approaches that maximise the functional value of native vegetation across the landscape, not promoting a return to previous clearing regimes.

¹ Productivity Commission, 2004, *Impacts of Native Vegetation and Biodiversity Regulations*, Report no. 29, Melbourne.

² *Native Vegetation Act 2003*, Section 5.

³ Farrier, MD, Kelly, AH and Langdon, A, 2007, Biodiversity offsets and native vegetation clearance in New South Wales: The rural/urban divide in the pursuit of ecologically sustainable development, *Environmental Planning and Law Journal*, vol. 24, no. 6, pp. 427-499.

⁴ Submissions to the review of the Native Vegetation Regulation 2012, <http://www.environment.nsw.gov.au/vegetation/nvsubmissions.htm>.

⁵ Natural Resources Commission, 2007, *Final Report - A Landscape Approach to Vegetation Management*, June 2007.

⁶ Sinden, J, 2005, The impact and opportunity cost of native vegetation regulations: ten facts and one question, *Farm Policy Journal*, vol. 2, no. 4.

⁷ Natural Resources Commission, 2007, *Final Report - A Landscape Approach to Vegetation Management*, June 2007.

Need to consider multiple values and triple-bottom-line

Global trends in literature and in biodiversity conservation approaches by government and non-government organisations indicate a shift away from an asset-protection and rarity-focused approach towards providing healthy, functional landscapes that provide a range of goods and services.^{8,9,10} This recognises that use and protection are not necessarily mutually exclusive.

Approaches to biodiversity conservation in NSW tend to focus on scarcity values, and unrealistic reference points of pre-1750's asset condition and distribution. While the tools underpinning the *Native Vegetation Act 2003* do recognise some of the functional values of vegetation and its role in other biophysical processes, the Acts under review are largely driven by the protection of assets, and their distribution and status rather than landscape function¹¹ and the social, economic and environmental values provided. They do not encourage or motivate the maintenance and enhancement of ecological and landscape processes, particularly in the vast portion of the landscape that is not set aside solely for conservation. Focusing on threatened species and preventing extinction also risks losing sight of the rest of biodiversity that may not currently be rare, but that delivers most of the human benefits.

The goal for biodiversity conservation should be couched in the context of maintaining and improving landscape health and function across the whole landscape, including productive land. Improvements in biodiversity will be maintained by, for example, healthy soils, good ground cover, sufficient water quantity and quality or improvements in the condition of native vegetation, including the control of invasive plant and animal species. A landscape approach would deliver more biodiversity outcomes across a much larger proportion of the state than is possible within the reserve system, while also improving productivity and resilience.

Scale and timing of decision-making

There is growing evidence that the choice and effectiveness of conservation effort is scale dependent, especially when applied to traditional asset prioritisation (rare and threatened). For example, rarity depends on the size and the choice of the assessment region.¹²

Integrated, strategic planning at a scale more in line with important ecological and social systems is where different demands on landscapes should be debated and reconciled. At a site or development proposal scale, and in some cases the local government scale, most of the opportunities for effective landscape management can be missed. While the *Threatened Species Conservation Act 1995* provides for approvals at a broader scale through biodiversity certification, the Acts under review predominately focus on decisions at the site or property scale, at the time that clearing or a development is proposed.

⁸ European Commission, 2011, The EU Biodiversity Strategy to 2020, viewed 14 August 2014 at ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm

⁹ World Wildlife Fund, 2014, The biodiversity footprint of land use change, viewed on 13 August 2014 at www.wwf.org.au/our_work/saving_the_natural_world/what_is_biodiversity/conserving_biodiversity/

¹⁰ Watson, JEM, Bottrill, MC, Walsh, JC, Joseph, LN and Possingham, H, 2011, Evaluating threatened species recovery planning in Australia, Report to Department of Environment, Water, Heritage and the Arts.

¹¹ A functional landscape approach is one in which management decisions are designed to ensure underlying biophysical processes can support the economic, social and environmental values communities seek to realise in and from a landscape over time. See Cresswell (ed), 2004, Heartlands: Planning for sustainable land use and catchment health - a report of the Heartlands initiative, CSIRO and MDBC. See also Brunckhorst, DJ, 2000, Bioregional Planning - Resource Management Beyond the New Millennium, Hardwood Academic Publishers, Amsterdam.

¹² Anderson, BJ, Armsworth, PR, Elgenbrod, F, Thomas, CD, Gillings, S, Heinemeyer, A, Roy, DB and Gaston, KJ, 2009, Spatial covariance between biodiversity and other ecosystem service priorities, *Journal of Applied Ecology*, vol. 46, no. 4, pp. 888-896.

A potential model

The review is aiming to establish simpler, streamlined and more effective legislation that will facilitate the conservation of biological diversity, support sustainable development and reduce red tape.

This is not a trivial or incremental exercise. It will require a paradigm shift from an approach that primarily focuses on protecting assets and valuing scarcity, to one that values biodiversity both for its intrinsic value and for its role in healthy, functioning landscapes within a triple-bottom-line decision-making framework. There is a need to look beyond environmental values of biodiversity to understand the net-benefits of a functioning landscape.

Institutionally, a landscape approach requires mechanisms to identify and resolve conflicting societal values for particular landscapes. The logical place for this to happen is within the land use planning system through state and regional planning, local-scale zoning and development controls, and the interaction of markets and other social institutions.

Integrated regulatory framework

The NRC suggests that the panel explores an integrated legislative framework that builds whole-of-landscape management, including biodiversity conservation, into the land use planning system. This would be supported by the expertise and participation of all relevant agencies together with decision-frameworks that consider environmental, economic and social outcomes, and strategies to maintain environmental values within thresholds of landscape function.

This would ensure a more coherent planning system which would manage development while giving equal consideration to improving the functionality and resilience of landscapes to support the environmental, economic, social and cultural values of communities now, and in the future. It should involve identifying thresholds beyond which there are risks of irreversible changes in the way the landscape functions, and planning within the limits of what our landscapes can sustain.

Such legislation for NSW should have a single, well defined, sustainable development objective that considers the social, economic and environmental impacts and benefits of any development. This can draw from the experience in New Zealand with the *Resource Management Act 1991* (NZ) which has one, clearly defined sustainable development objective, adopts a risk-based approach and devolves decision making to regions. The *Resource Management Act 1991* (NZ) has a single purpose – to promote the sustainable management of natural and physical resources. There is also the opportunity to harmonise with the definition of ecologically sustainable development in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.¹³

In practice this means that all activities that impact upon the landscape, from building a home to clearing native vegetation, could be integrated under consistent legislation. The social and economic impacts from a proposed development, including any contributions to regional

¹³ The *EPBC Act 1999* defines the following *principles of ecologically sustainable development*:

- (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- (c) the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;
- (e) improved valuation, pricing and incentive mechanisms should be promoted.

economic and social capital, should be considered alongside any environmental impacts including potential reductions in ecosystem services.

This single regulatory framework should apply across the whole state, with regional planning processes allowing for regional variation in response to the needs of different landscapes and their communities.

Planning arrangements

The model should be overseen by both the Minister for Planning and the Minister for Environment. Key elements would include:

- **clear state-wide standards and policies to inform regional planning.** These would be prepared at the state scale by the Department of Planning and Environment (including Office of Environment and Heritage and Office of Local Government) with input from agencies across government to provide clear guidance and clarity on standards and expectations for regional plans.
- **regional planning that develops forward looking scenarios to generate a plan for desired future landscapes.** Processes for determining the inevitable trade-offs between social, ecological and economic objectives should be transparent and participatory. Regional plans would establish the desired future land use configuration and detail the land management rules and codes of practice necessary to achieve a sustainable development outcome, which could vary from region to region. The preparation of these plans would be facilitated by the Department of Planning and Environment (including Office of Environment and Heritage and Office of Local Government), with the full collaboration of other relevant agencies and state and regional organisations and communities.
- **risk-based processes for assessing individual proposals and determining consent conditions at a local scale.** Decisions would be based on the contribution of the proposal to the agreed future landscape in the regional plan, better aligning the regulatory burden with the degree of risk. Local government would continue to prepare local plans that must be consistent with the regional plans.

The legislation should provide for a number of consent types that cover the full range of activities that may impact on the landscape and would vary with the degree of risk posed, for example the scale of land use change or development. The regional plans would establish 'triggers' for bringing certain proposals into an approval process. Certain routine land management issues would be governed by codes of practice with oversight and any necessary consents issued by the relevant Local Land Service; Local Government would have consent authority for certain developments; and developments or land use changes with the highest potential impacts would be referred to the Department of Planning and Environment or the Planning Assessment Commission.

An independent body like the NRC should periodically review the effectiveness of the resource management system and make recommendations for improvement.

Consistent approach to offsets

This framework should build on and broaden the approach of the *draft NSW Biodiversity Offsets Policy for Major Projects* to establish consistent mechanisms for assessing the economic and social, as well as the environmental, impacts of proposals, and calculating the type and value of offsetting required. Regulation should mandate the use of a common instrument and metrics for all impact calculations and conservation transactions to transparently and consistently reconcile development and conservation objectives for a net public benefit.

The approach to offsets should be consistent with the proposed sustainable development objective for the legislation and a landscape approach. For instance, the NSW BioBanking instrument is considered good practice for biodiversity assets,¹⁴ that with adaptation may be able to be used to evaluate broader ecosystem service 'credits' at a landscape scale. The instrument and trading rules would need to be flexible about the type and location of offsets, provided the arrangements contribute to the land use configuration and priorities in the regional plan, within agreed thresholds.

Importantly, NSW needs to significantly improve monitoring of agreed offsets and auditing of compliance to ensure that offsets are legitimate and any agreed actions are implemented. An independent body should be responsible for auditing offsets.

Complement regulation with other policy responses

Regulation is only one of many tools available to conserve biodiversity. A mix of complementary policy mechanisms that regulate, incentivise, educate and encourage voluntary management of functional landscapes would provide social and economic benefits. It would also more equitably and effectively conserve biodiversity.

The Productivity Commission supported a regional planning approach where¹⁵:

- landholders bear the costs of actions that directly contribute to sustainable resource use and private benefits
- the wider community pays for the extra costs of providing 'public good' environmental services, such as biodiversity conservation where they are likely to impinge significantly on the capacity of landholders to utilise their land for production
- regional institutions coordinate and promote consistent approaches to the delivery of public good objectives.

The overall framework should focus on outcomes and build trust. Legislation should enable innovative approaches, such as those used by the Nature Conservation Trust and others, and the use of tools that allow adaptive responses to address the social, economic and environmental impacts on different landholders under a range of local conditions.

An emerging driver is to create policy that promotes and maintains the ecosystem service values of biodiversity in agricultural systems.¹⁶ This is broader than payments for ecosystem services options as it can include agricultural insurance products, regulatory assurances¹⁷, landscape and land use configuration schemes and the integration of large-scale conservation programs with agriculture partners.¹⁸

¹⁴ Robinson, D, 2011, Biodiversity banking in NSW: A critique. *The Australasian Journal of Natural Resources Law and Policy*, vol. 14, no. 2, pp. 115-137.

¹⁵ Productivity Commission, 2004, Impacts of Native Vegetation and Biodiversity Regulations, Report no. 29, Melbourne.

¹⁶ Land managed for agriculture includes a significant component of Australia's biodiversity assets. More than half of the agricultural businesses reporting native vegetation or wetlands, rivers and creeks on farm were protecting these resources for conservation purposes. See Barson, M, Mewett, J and Paplinska, J, 2012, Trends in on farm biodiversity management in Australia's agricultural industries, Caring for our Country Sustainable Practices fact sheet 5. Department of Agriculture, Fisheries and Forestry.

¹⁷ Wilcove, DS, and Lee, J, 2004, Using Economic and Regulatory Incentives to Restore Endangered Species: Lessons Learned from Three New Programs, *Conservation Biology*, vol. 18, no. 3, pp. 639-645.

¹⁸ Sauer, J, Walsh, J and Zilberman, D, 2013, Agri-Environmental Policy Effects at Producers Level – Identification and Measurement, *Proceedings of the 53rd Annual Conference of the German Society of Economic and Social Sciences in Agriculture*, pp. 1-15.

The specific choice of tools will depend on the desired outcomes and local social and economic circumstances. Key considerations when identifying and designing instruments include: landholder motivations and willingness to participate; the importance of partnerships and connectivity; the design of agreements including the length of contracts; cost efficiency; and the need to avoid perverse outcomes such as reducing motivation for voluntary action.^{19 20}

Monitoring, evaluation and reporting

Despite current efforts and halting of broad-scale clearing, biodiversity loss continues, even in those regions where reserves might be working for a given threatened species.²¹ Evidence Australia-wide and for NSW indicates negative trends for terrestrial ecosystem extent and quality and diversity of terrestrial plants and animals.^{22 23}

Significant efforts and some progress have been made to improve biodiversity outcomes. For instance, over one million hectares of native vegetation were conserved or improved in NSW in 2010²⁴ with a further 300,000 hectares of native vegetation conserved or improved in the 2012-13 financial year.²⁵

However, it is difficult to evaluate the full extent of the problem, or properly understand the benefits of interventions. A landscape approach requires a shift from simply recording status, inputs and outputs, to recording real changes and outcomes across the landscape.²⁶ Further, while direct monitoring and evaluation of desired biodiversity outcomes is currently limited²⁷, NSW does have a great deal of data related to ecosystem condition, which could be better used to assess current condition and trends as well as inform decision-making

Better uses for current tools

Evaluation and accounting tools are available to support decisions on appropriate interventions, incentive schemes and market-based mechanisms. NSW uses only a fraction of the potential of these evidence-based tools, and they tend to be used to make decisions, rather than to support decision-making.

In the past there has been a disjunct between policy development and the development and application of tools to deliver it. Therefore, while existing tools are impressive, those selected for future application will need modification to improve their alignment with policy objectives, especially in order to accommodate triple-bottom-line considerations.

¹⁹ Doremus, H., 2003. A policy portfolio approach to biodiversity protection on private lands. *Environmental Science & Policy*, 6(3), pp.217-232.

²⁰ Hanley, N., Banerjee, S., Lennox, G.D., Armsworth, P.R., 2012. How should we incentivize private landowners to “produce” more biodiversity?, Stirling Economics Discussion Paper 2012-2, viewed 20 August 2014, <http://www.management.stir.ac.uk/research/economics/working-papers>.

²¹ NSW Environment Protection Authority, New South Wales state of the environment 2012, viewed 1 September 2014, <http://www.epa.nsw.gov.au/soe/soe2012/index.htm>.

²² Australian State of the Environment Committee 2011, Australia state of the environment 2011, Department of Sustainability, Environment, Water, Population and Communities, Canberra, viewed 1 September 2014, <http://www.environment.gov.au/science/soe/2011>.

²³ Australian Bureau of Statistics 2009-10, Year Book Australia: Australia’s biodiversity, viewed 25 August 2014, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1301.0Feature+Article12009%E2%80%9310>

²⁴ NSW Office of Environment and Heritage 2010, NSW Annual Report on Native Vegetation 2010, <http://www.environment.nsw.gov.au/resources/vegetation/110685nvar2010.pdf>.

²⁵ NSW Office of Environment and Heritage 2014, NSW Report on Native Vegetation 2011-13, <http://www.environment.nsw.gov.au/resources/vegetation/2011-13NSWAnnRepNatVegFinal.pdf>.

²⁶ Kapos, V, Balmford, A, Aveling, R, Bubb, P, Carey, P, Entwistle, A and Manica, A, 2008, Calibrating conservation: new tools for measuring success. *Conservation Letters*, vol. 1, no. 4, pp. 155-164.

²⁷ Australia State of Environment Report 2011, NSW State of the Environment Report 2012, Australian Bureau of Statistics 2009-2010, p. 579.

New biodiversity legislation should:

- make evidence-based evaluation tools central to both the objectives and instruments of future policy and extend the use of evidence beyond asset classification to the evaluation and selection of interventions
- allow evidence-based accounting tools to support market mechanisms that can deliver biodiversity conservation outcomes across all tenures and land uses.

This paper outlines the NRC's views on a model that addresses the principles and objectives outlined in the terms of reference and would result in more strategic and enduring outcomes for biodiversity in NSW. The NRC would welcome the opportunity to provide the Panel with more detail about how such a model would be implemented.