

Emerging approaches to improving biodiversity in NSW

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Introduction

I have been asked to talk about current biodiversity challenges facing New South Wales – and emerging approaches the government is using to address these. In thinking about this I'm reminded of Aldo Leopold, who in the early 1900s said:

“One of the penalties of an ecological education is that one lives alone in a world of wounds. Much of the damage inflicted on land is quite invisible to laymen.”

We'll come back to this.

National parks alone are not enough

New South Wales has a strong history in national parks. Sydney's Royal National Park was established in 1879 – as the second national park to be declared in the world – after Yellowstone in the United States. We now have over 867 national parks and reserves, covering over 7 million hectares – or nearly 9 percent of NSW.

And over the last week, we successfully hosted the IUCN's sixth World Parks Congress – a one-in-ten-year event that brings together expertise from around the world to plan, inspire and innovate for the next decade of biodiversity conservation.

It all sounds very rosy, however:

- We still have nearly 1,000 species at risk of extinction (that we know of)
- There are key threatening processes that we have not controlled – feral cats, foxes, myrtle rust, chytrid fungus
- We continue to face erosion, salinity and water quality issues

National parks are only part of the solution. They are absolutely essential, but national parks alone will not solve our biodiversity challenges. Experts, such as Professor Michael Archer, have been saying this since the 1980s.

The need for conservation on private land in addition to the parks system is essential to conserving threatened species. Professor Archer has noted that, without a landscape-scale approach to conservation, protected areas are “islands within a sea of alienated land”. However, while we have known of the need for whole of landscape approaches for over thirty years, we have not yet implemented the complete solution.

Whole of catchment or landscape level effort requires the involvement of a variety of land tenures and all types of owners – from the private sector, to Aboriginal Land Councils, to individual landowners and NGOs.

The challenge remains: How do we prioritise private land conservation in a strategic way that complements the reserve system, is cost-effective and has strong land owner support – from all sectors?

¹ Paper presented at NELA Conference 2014: *Transformation or Train Wreck? Environmental and Climate Change Law at the Crossroads.*



We have learnt a few more things over the past thirty years (other than the need for landscape approaches):

- We know public concerns follow the issue of the day – According to the recent “Who Cares about the Environment?” survey, people currently cared about air pollution until largely fixed, water in drought and climate change
- New information is emerging around the challenges of dealing with a changing climate and intensification of weather events, including fire regimes, climate refuges and corridors
- We also know the population of New South Wales is predicted to grow by at least another 50% by 2060

Current government priorities

In that context, I will outline some of the priorities and current work of the NSW Government.

Responding to loss and fragmentation

These issues are not going away. NSW will continue to grow, there will be new needs for housing, food, energy, infrastructure.

We need to be smart about how we balance these increasing needs with impacts on biodiversity. We need to continue to protect and enhance our national parks.

But, as I mentioned earlier, we need to look at consolidation and connection of the landscape outside of the parks system.

Biodiversity Offsets Policy

We recently introduced a new Biodiversity Offsets Policy in NSW. While the focus of this policy is on offsetting for major projects, it provides some new directions that are relevant to biodiversity conservation more broadly.

The policy promotes the use of stewardship payments to private landowners as a form of offsetting. This is achieved through the legislative tool of a biobanking agreement.

Biobanking agreements allow developers to effectively pay landowners to manage their own land. The landowner receives an annual income stream in return for managing and improving the condition of biodiversity on their land. These exchanges between landowners and developers are quantified using biodiversity credits.

At present, developers often buy land to create biodiversity offsets that they manage themselves. This is not their core business and creates difficulties when the land is sold, or unstrategic ‘proposed’ additions to the protected area estate.

Using biodiversity credits to transfer biodiversity values and involve private landowners in offsetting provides the potential for real integration of biodiversity conservation across landscapes. It also moves some way towards realising an economic and market value for biodiversity.

What is also required, however, is some strategic vision in the location of offsets in the landscape. NSW Government intends to achieve this through development of a biodiversity offsets fund, which we are currently working on. The idea is developers pay money and the fund consolidates offset requirements and locates them in a more strategic manner.

Saving Our Species

Like national parks, biodiversity offsets are not the whole solution. NSW Government is also responding at the threatened species level. What has become clear since implementation of the *Threatened Species Conservation Act* is that protecting threatened species is not straight-forward. Nor is it cheap.

When the Act was introduced in 1995, recovery planning was tagged as “a very cost-effective and cooperative approach to rescuing species from extinction” (Pam Allan, Minister for the Environment, second reading speech, December 1995). However, by 2004 – when around 60 recovery plans had been approved and 900 were needed – it was clear this process was not rescuing species from extinction. The planning of recovery actions was not keeping up with the listings – leaving the actual undertaking of actions well behind.

It was at this time NSW moved towards the idea of prioritising recovery planning. Since then, a process of rethinking the way we approach species recovery has culminated in the launch of the NSW Saving Our Species program last year. This program has a clear and realistic goal of maximising the number of species retained in the wild for the next 100 years.

Prioritisation of actions and investment is based on the likelihood of success and the total cost of implementing the project. This prioritisation is a pragmatic recognition that threatened species recovery is expensive and we cannot try to do it all at once.

The program also makes the actions required more accessible and tangible to encourage real community and private sector participation. Actions include:

- breeding programs for species such as the brush tailed rock wallaby
- establishment of artificial areas that are disease-free for the corroboree frog

With the help of public-private partnerships, other actions include the reintroduction of species that have become extinct in NSW into predator-free areas of national parks – including numbats, bilbies and golden bandicoots.

Responding to pest plants and animals

Again, saving species is still not the whole picture. In addition to a species focus, we need to address the threatening processes that contribute to the decline of many species and ecosystems. Significantly, this includes pest animals. We have not yet won the battle against foxes, feral cats, rabbits, goats, pigs, toads and the rest.

We are investing in the science of pest animals and looking towards new techniques to maximise efficiencies.

Responding to climate change

All this work will be to no avail if we do not account for changing environments and make the mistake of thinking everything will remain as it currently is. It is therefore important to start building flexibility into our programs that recognise the potential impacts of changing climate on our biodiversity in NSW.

We have established the NSW Adaptation Research Hub, which is a collaboration between leading NSW universities and experts in climate change impacts and adaptation science. Its focus includes:

- risk assessment under future climates
- translocation of species
- identifying climate refugia and corridors
- assessing vulnerability of certain species.

Further directions – the environment and economic dilemma

I see the key to future environmental conservation is in recognising the social dilemma – society's values determine the environmental and economic outcomes.

There is opportunity in this that I do not believe governments have yet been able to fully realise. There are so many aspects of the environment that provide multiple benefits to society – soils, water quality, species and biodiversity, carbon capture and storing... not to mention tourism, recreation and well-being.

We are starting to acknowledge some of these multiple benefits through the biodiversity offsets policy, with the creation of tradable biodiversity values that realise economic value in biodiversity for private landowners.

We have an opportunity to acknowledge more of these benefits by rethinking how we define the role of government.

Classic public policy says 'government intervenes where there is a market failure'. In conservation, there has long been an assumption of complete market failure, causing all conservation to fall back on government. However, what government needs to do is work out how best to create public value.

We need to allow multiple values in the environment to be recognised and be able to be realised. This will allow the environment to be more integrated into the public value system. I think that only then will we be able to truly integrate biodiversity protection across landscapes.

Next steps

Much of the recent work by NSW Government towards more holistic biodiversity conservation has not required legislative change. It has been undertaken in the 'policies and programs' space.

While we have gradually built on biodiversity legislation over the past 20 years, it has become increasingly clear that the legislation is lagging somewhat behind the practice of conserving biodiversity.

We have our *National Parks and Wildlife Act* that focusses on the protected area system. We have the *Threatened Species Conservation Act* to list, protect and recover threatened species. We have the *Native Vegetation Act* to regulate native vegetation on rural land. And we have many other pieces of legislation that are related to biodiversity, such as the planning legislation in NSW.

While all these Acts focus on valid biodiversity issues and needs, they have each been implemented at very different points in time and then separately amended many times over the years.

Together, they do not necessarily provide a clear and holistic picture of biodiversity conservation in NSW. And their interactions with each other can be described, at best, as clunky and often duplicative.

I believe this is the right time to take a step back and look at how we are approaching biodiversity in a holistic way.

We have come a long way in terms of furthering our understanding of the outcomes we are seeking and the tools we need. So now, perhaps we are in a position to take a further step towards true whole-of-landscape biodiversity conservation.

As many of you would know, a review of NSW biodiversity legislation is currently underway, with an independent panel now preparing a report for government. I don't want to give the impression that, just because the timing is right, I think this will be easy. These issues are complex. And, while we have progressed significantly in our understanding of biodiversity needs, we still don't have all the answers.

I do, however, believe this is a significant opportunity to have our laws truly compliment where we have come in terms of our approaches to biodiversity conservation in practice – and to also be able to accommodate some of our forward-thinking. This is also an opportunity for government to work towards recognition of the real public value in biodiversity conservation.

What gives me a lot of optimism is:

- The Australian landscape is in most part resilient – although I do note caution on how far the tipping point might be
- Socially we, the public, business and government are not complacent
- We are today world class in our environmental management, the recent IUCN Congress helps confirm this.

Given all of this, I believe a landscape-scale and holistic approach to biodiversity conservation is not far off.

In returning to Leopold, we must reach a landscape scale and holistic approach to give us the greatest chance of providing a healthy, strong, vibrant environment that supports community endeavours and is not just a world of wonders that are invisible to the layman.

For the full set of papers and presentations from the NELA Conference 2014, go to www.nela.org.au/NELA/Events/National_Conference_2014_Presentation.aspx

