

Innovation in conservation

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The ‘perfect storm’ of ever increasing population growth, unprecedented urbanisation, huge increases in resource use and climate change’s growing impacts, has massively impacted on the natural ecosystems and species of the earth. The Global Outlook (CBD 2010) spelt out the consequences:

The action taken over the next decade or two, and the direction charted under the Convention on Biological Diversity, will determine whether the relatively stable environmental conditions on which human civilization has depended for the past 10,000 years will continue beyond this century. If we fail to use this opportunity, many ecosystems on the planet will move into new, unprecedented states in which the capacity to provide for the needs of present and future generations is highly uncertain.

The theme for this book, and for the symposium that preceded it – ‘Innovation for 21st Century Conservation’ – was chosen by partners from various sectors who hold that the only way forward is innovation – creating new models, new partnerships and new ways to manage and finance conservation, at scales appropriate to these challenges.

This does not mean that conservation policy to date has been a failure from which we must turn away. On the contrary, in Australia what we have done, especially the progress towards a truly ‘comprehensive, adequate and representative’ protected area system, remains centrally important; but it is clearly insufficient.

We are simply not succeeding in stemming the constant loss of species and ecosystems. In Australia we have a grim record of the loss of 22 mammals alone – a third of the world’s recent mammal extinctions (Commonwealth of Australia 2002). This continuing loss is true, despite steady growth of protected area systems.

Even our best protected areas face serious challenges. Kakadu National Park, an Australian Government park and World Heritage Area, has suffered a decline in species abundance in recent years which has been described by scientists as ‘catastrophic’. Dr Jon Woinarski and others have identified a ‘cocktail’ of feral cat predation, inappropriate fire regimes and over-grazing as likely causes for these dramatic declines (e.g. Fitzsimons et al. 2010).



The Kakadu decline explains a good deal of the momentum for the fundamental change this volume discusses. We cannot manage conservation only in isolated 'islands' of nature in a 'sea' of land degradation and increased fragmentation, where inappropriate fire and grazing management and uncontrolled invasive species weaken both species and ecosystems. For many decades, scientists like Michael Soulé and other conservation biologists have argued the case for creating large-scale, 'permeable' landscapes, where management does not stop at arbitrary boundaries (Soulé and Terborgh 1999). The theme has been taken up by IUCN and other science and policy circles for several decades, becoming the key focus of the IUCN World Parks Congress 'Benefits Beyond Boundaries' in 2003 which promoted ecosystem connectivity, social inclusiveness and justice (IUCN 2005).

In the decade since the Congress, this momentum has encouraged a much richer tapestry of approaches to conservation: more varied actors, governance and management models. Change has been driven not just by the continuing downward trajectory of biodiversity but also by the alarming upward curve of the climate change temperature graphs. There are many terms for landscape-scale approaches but IUCN has endorsed 'connectivity conservation' (Worboys et al. 2010). In particular, IUCN's World Commission on Protected Areas (WCPA) has been promoting 'connectivity conservation' as a 'natural solution' – the most appropriate approach to biodiversity conservation in a time of changing climate. The approach advocates buffering and linking protected areas into large-scale mosaics of lands managed cooperatively by many owners across tenures.

As protected area policy and management practitioners have increasingly looked outside parks to the wider land and marine environments, the need to engage with, motivate, and factor in, the rights and perspectives of other land owners and managers has become a priority. Social sustainability has become a much larger discussion with the realisation that the vision of connectivity requires the willing cooperation and motivation of many elements of society. For Australia, with over 70% of its land managed by various private land owners including some 20% managed by Indigenous Traditional Owners, no strategy would succeed without models and mechanisms to bring effective conservation to these lands.

Australia has been building key components of this more diverse and inclusive approach over two decades. We have been fortunate to have a bipartisan commitment to build the core of connectivity – the National Reserve System, underpinned by a strong planning framework (the Interim Biogeographic Regionalisation of Australia – IBRA). Using IBRA, the Commonwealth, state and territory agencies, and non-government organisations have been able to develop strategies for new declarations and purchases from the data which identified gaps and then determined priorities. The funding of the National Reserve System Program was significantly boosted in 2008 with \$180 million over five years as part of the Australian Government's \$2.25 billion Caring for our Country initiative.

The National Reserve System funding has also been a major catalyst in building a strong private land trust sector. The key players Bush Heritage Australia, Australian Wildlife Conservancy and Trust for Nature have been able to leverage the Australian Government's two-for-one funding formula to attract major donors. State governments too have supported state-based land trusts which pursue a considerable range of models, from private protected areas to revolving funds and covenanting models (Figgis 2004). The private land conservation sector is a key source of innovation, often working with government.

A further innovation under the National Reserve System has been the development of globally significant models of conservation management by Indigenous Traditional Owners, in particular the model of the Indigenous Protected Area (IPA) – an entirely voluntary contract model between Traditional Owners and the Australian Government to manage land for agreed conservation priorities (see chapter by Rose in this publication). This concept has been dramatically successful and there are now 51 declared Indigenous Protected Areas covering 36 million hectares or 4.7% of Australia, with many more communities expressing interest in developing an IPA (DSEWPC 2012a).

In December 2012, the Australian Government announced it was ending nearly two decades of dedicated financial support to expand the National Reserve System (Australian Government 2012).

A more recent stimulus for new models has arisen from the gradual acceptance that natural environments are critical considerations in both the adaptation and mitigation responses to climate change. The National Carbon Farming Initiative and the Biodiversity Fund both bring the reality of a biodiversity and carbon market closer. Under these measures over \$26.1 million will also go towards supporting Indigenous groups for long-term biodiversity conservation and carbon storage projects. A further \$21.7 million will go towards a variety of revegetation and rehabilitation projects that create additional Indigenous employment in remote communities (DSEWPC 2012b).

As we progress into the twenty-first century, Australia can therefore take considerable satisfaction that we have already achieved a good deal of diversification in our means of achieving conservation. Strategic documents, including the National Biodiversity Strategy (2010), have embraced both landscape approaches and greater socially inclusion as a key direction and in 2012 a *Draft National Wildlife Corridors Plan* was launched which is essentially a national adoption of the connectivity approach.

Despite these very substantial improvements in the way we achieve conservation, there is a dramatic 'race' underway as the scale of threats is also increasing. Severe weather events, population pressures and a massive expansion of resource extraction and related infrastructure have been added to the 'cocktail' of invasive species, inappropriate fires and land degradation. The global financial crisis has also distracted society and governments away from long-term issues into short-term 'bread and butter issues'. As in all great competitions, it will be the capacities to adapt and create appropriate strategies that will determine the outcome.

This was the focus of the symposium and is the focus of this publication. Our keynote speakers all stressed the need to think laterally and experiment while not abandoning 'what works'. A two day symposium can only capture a snapshot of the broad innovation spectrum; however there was a strong representation of some of the best current approaches to terrestrial conservation in Australia.

Chapters in this book highlight new ways in which protected areas and other conservation initiatives are established. A major emphasis is given to the galvanising power of a large-scale inspiring vision, with case studies of the connectivity initiatives of Territory Eco-link, Gondwana Link, Habitat 141° and the Great Eastern Ranges. A key value of these landscapes appears to be inclusiveness – the welcoming of all participants and contributions at all scales, from the individual property level to large-scale private, public or Indigenous lands.

State governments are also finding new models to establish conservation entities. Queensland provides examples of achieving conservation outcomes in changing native title, economic and social contexts. South Australia has applied an innovative approach to a complex issue where the geologically important pastoral lease of Arkaroola was threatened by mining.

Innovation in management is an important theme for numerous chapters in this book. While conservation estates have been growing in recent decades there has been a strong call for 'effective management' to ensure that an area established for conservation delivers conservation outcomes. Managers who are faced with 'wicked' threats which do not stop at any boundary, are exploring creative ways to use new partners, motivations and methods to be more effective. Examples provided include managing for new motivations such as carbon storage, or for traditional food for both cultural and livelihood aspirations of Indigenous Australians.

The topic of governance is high on the international agenda, often driven by concerns at the exclusion or marginalisation of traditional user groups. Important new models discussed range from government parks being run by non-government organisations, to whether private protected areas should be recognised as national parks, to the unique purchase of a large property for conservation and gifting to Indigenous people. The important role that the defence industry can play in ecosystem management is also highlighted in this publication.

The fundamental issue of adequate financing is addressed in many chapters. Many good ideas and policies have languished for want of adequate funding, and projects with community enthusiasm have withered from accumulated grant application fatigue. Hopefully the future will bring the proper incorporation of the economic values of biodiversity and ecosystems into our mainstream economies. The United Nations Environment Programme-auspiced initiative, The Economics of Ecosystems and Biodiversity, seeks this goal (TEEB 2010).

However, we are beginning to see interesting financing approaches such as the power of small but annual grants in Tasmania to bring landowners into a connectivity network. The potential of ecosystem services is highlighted in two examples, one the decision of superannuation fund investors to invest in purchasing land to enhance biodiversity and ecosystem health to increase value and then the strategy of an iconic Australian corporation, R.M. Williams, to commit to enhancing the ecosystem health, carbon and biodiversity of properties for emerging markets as a clear-headed business proposition. This area will see considerable growth in coming decades and remains one of the most vital.

A key theme which emerges from all chapters is the centrality of human relationships to improving management of land and landscapes. We have to mobilise the people who care and ensure their efforts are appreciated and rewarded so that the many sincere efforts are sustained over the long term. For partnerships to flourish we need to ensure that the narratives of all sectors are respected – that caring for the land and its health is an issue not owned by a few, but by many. We need to mobilise new communities of support who may join the effort from a variety of motives ranging from the spiritual to simple profit.

A broad community that appreciates that biodiversity and healthy ecosystems are key national assets is the critical ingredient to maintaining the momentum of inclusive, innovative conservation into the future.

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Biography

Penelope Figgis AO is the Director of the Australian Committee for the International Union for Conservation of Nature (ACIUCN) and Vice Chair for Oceania of the IUCN World Commission on Protected Areas. She has been a senior member of the environment movement for over 30 years, including over 17 years as Vice President of the Australian Conservation Foundation. She has been a writer, public speaker and university lecturer on protected area policy, World Heritage, innovative nature conservation and sustainable tourism, and has served on many boards of both non-government organisations and statutory authorities.