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# Biodiversity Conservation, Law + Livelihoods

Bridging the North–South Divide

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## 14 Ten Years of Threatened Species Legislation in NSW – What Are the Lessons?

Karen Bubna-Litic\*

### 1 INTRODUCTION

From the first days of settlement in Australia until the present time, there has been conflict between private landowners' rights to develop and community interest in sustainable land management and functioning ecosystems. Biodiversity<sup>1</sup> is impacted by a multitude of actions taken daily by individual land managers, industries, communities, and governments. The long-term and cumulative effects of these individual actions in terms of native species and natural systems is difficult to track and manage. Many species at risk do not live in the protected areas of New South Wales (NSW) but on private land, and there are often, and inevitably, conflicts about what should be the appropriate activities carried out on such lands and waters. Are legal mechanisms the best way to resolve this conflict?

NSW has recently introduced comprehensive reforms to try to deal with these conflicts. These reforms cover all aspects of threatened species, native vegetation, and biodiversity planning. This chapter concentrates on the protection and assessment of threatened species and the certification process, leaving out those matters concerning the listing process.

Section 2 describes the background to these issues covering the historical context, the current state of biodiversity in NSW and what has happened in NSW in the past ten years since the introduction of the Threatened Species Conservation Act 1995. Section 3 identifies the challenges that would need to be addressed by the reform process. Section 4 critically analyses the reforms and Section 5 addresses the question as to whether law is the best mechanism to address these challenges.

<sup>1</sup> The Natural Resources Commission (NSW) has defined biodiversity as: "Biodiversity is vital for healthy, functioning landscapes, has intrinsic value, and is part of the indigenous cultural landscape. It supports primary industries and is valued by the community for environmental, social and cultural reasons. Healthy, functioning native vegetation communities are valuable in themselves. They provide ecosystem services and habitat for native species, support Aboriginal cultural values, have extractive uses and have potential to provide other benefits in the future. Native fauna provide essential ecosystem services such as pollination and nutrient cycling; without them there would be widespread system collapse."

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It was the first time that imprisonment could be imposed as a penalty for killing wildlife in NSW.<sup>11</sup>

The second half of the twentieth century saw the need to establish national parks and other reserves for conservation. It was recognized that conservation of native flora and fauna was not always consistent with other land uses. In 1967, the National Parks and Wildlife Service was established.<sup>12</sup> However, to a large extent, the legislation still did not protect habitat. The question of whether the destruction of habitat threatened endangered species was considered in *Corkill v. Forestry Commission of New South Wales*,<sup>13</sup> which held that the Act could be used to prevent an indirect threat through habitat destruction. In the late twentieth century, states in Australia introduced legislation to conserve threatened biodiversity.

NSW biota is now covered by the Threatened Species Conservation Act 1995 (NSW) (TSC Act) and the Fisheries Management Act 1994 (NSW). At the national level, there is the Environmental Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act). The TSC Act lists, in addition to whole species, populations of species and whole ecological communities, and it conserves critical habitat and recognizes key threatening processes. It has recognised that protection from killing and the creation of conservation reserves alone would not necessarily be enough to preserve the ecological integrity of endangered species and that there needs to be a system of cooperative management with private landowners. There also has been a recognition that conservation is affected by many types of land use and so, to this end, many other laws need to be integrated with threatened species legislation, involving cooperation between government departments such as the Department of Infrastructure, Planning and Natural Resources and the Department of Primary Industry. There is cooperation between the Commonwealth and the states, all of which now accept the internationally used definitions of rare and endangered species, as supported by the IUCN. This allows monitoring, auditing, and comparisons with other countries.

So, finally, NSW has established a system that aims to protect biodiversity through cooperative community-based conservation in partnership with all levels of government.

## 2.2 Current State and Trends

Although there is limited data to describe biodiversity in Australia and NSW, available information suggests it is both declining and degrading in condition.<sup>14</sup> The condition and extent of native vegetation has declined significantly since European settlement, through pressures such as clearing, grazing, the introduction of exotic species, altered fire regimes, and urbanisation. Many introduced exotic species in Australia have become weeds and destructive pests, causing widespread ecological problems at an unprecedented rate and scale. A third of all recorded world extinctions of mammals this century have occurred in Australia.<sup>15</sup> There are more threatened species of amphibians and reptiles in Australia than in any other country.<sup>16</sup>

<sup>11</sup> Jarman & Brock, Note 3, at 8.

<sup>12</sup> National Parks and Wildlife Act 1974.

<sup>13</sup> (1991) 73 LGR 126.

<sup>14</sup> National Biodiversity Decline Working Group, Natural Resources Policy and Programs Committee (NRPPC) (Ministerial Council – Australia) Working Papers unpublished 2005.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

## 2 BACKGROUND

### 2.1 Historical Context

Protection of biodiversity began in NSW in the mid- to late nineteenth century, with the protection of a few native birds and mammals from overhunting.<sup>2</sup> Today, biodiversity protection in NSW extends not only to species but also to ecological communities and key threatening processes<sup>3</sup> and is integrated with planning and land-use laws and regional plans. What is the role of legislation in the protection of biodiversity? Is it to react to changes in circumstances, such as new scientific knowledge or community perceptions, or can it play a leadership role in changing these perceptions?

Initially, laws in NSW were of two types, "game laws," which protected a species so that there would be enough of them to hunt, and laws that encouraged the killing of "agricultural pests."<sup>4</sup> Under the gaming laws, which protected both native and nonnative species, the only perceived threat was direct human killing and the community value in relation to these animals was to be able to hunt them for sport, except for the kookaburra, which was the first native animal to be protected for its aesthetic (singing) value.<sup>5</sup> Later,<sup>6</sup> some birds were protected because they were of benefit to agriculture as they ate insects.

Around the late 1800s, bounties were put on many of Australia's native species after strong lobbying by the farmers, which confirmed that agricultural interests took precedence over wildlife on pastoral lands. These included bandicoots, wallabies, bilbies, and wombats. There also was a view that the land could be improved by introducing exotic plants and animals.<sup>7</sup>

Community attitudes began to change in the 1890s when farmers began to experience difficulties with drought and rabbit invasions. There was a recognition of the damage of the clearing of trees and native vegetation, soil erosion, and the saltation of streams and waterbodies.<sup>8</sup> In 1918, a new piece of legislation reversed the protection provisions in relation to hunting. The Birds and Protection Act 1918 (NSW) listed those that could be hunted with all unlisted species being protected.<sup>9</sup>

The first half of the twentieth century saw changes in attitude towards biodiversity evidenced through the need to stop the export of Australian biodiversity and through the setting up of island and school sanctuaries to preserve endangered species. Laws also were introduced to protect NSW wild flowers and native plants from being picked and harvested, although there was no protection of their habitat.<sup>10</sup> For the first time in Australia's history, the interests of sportsmen and farmers were not paramount, but the first real indication of government commitment to conservation was the enactment of the Fauna Protection Act 1948. Under this Act, there was limited protection of habitat.

<sup>2</sup> P. Jarman & M. Brock, "The Evolving Intent and Coverage of Legislation to Protect Biodiversity in New South Wales," in Hutchings, D. Lunney and C. Dickman, eds., *Threatened Species Legislation – Is It Just an Act?* (Royal Zoological Society NSW, 2004).

<sup>3</sup> Threatened Species Conservation Act 1995 (NSW).

<sup>4</sup> Jarman & Brock, Note 3, at 2.

<sup>5</sup> Ibid. at 3.

<sup>6</sup> Birds Protection Act 1881.

<sup>7</sup> This was supported by the establishment of Acclimatisation Societies. See Jarman & Brock, Note 3, at 4–5.

<sup>8</sup> Ibid. at 6.

<sup>9</sup> Although it only included birds and mammals, with rodents, reptiles, frogs, and invertebrates still excluded from protection. They were included in an amending Act in 1922.

<sup>10</sup> Wild Flowers and Native Plants Protection Act 1927.

The Australian Terrestrial Biodiversity Audit<sup>17</sup> showed that threatened ecosystems occur across much of Australia, with most bioregions (90 percent) having one or more threatened ecosystem. However, more than half of the total are in the central east coast, the Darling Riverine Plains, the Murray Darling Depression, and other parts of NSW. The survey found that the vegetation clearing and increased fragmentation of remaining vegetation are amongst the most common threatening processes for threatened species – both of which occur in NSW.<sup>18</sup>

Key findings included:

1. The condition of nationally important wetlands although good, in many cases, is declining;
2. The condition of riparian zones is degraded across much of southern and eastern Australia;
3. 2,891 threatened ecosystems identified across Australia, and nearly half of these are eucalypt forest and woodland;
4. The highest number of threatened species occurred within subregions from the southern highlands in Victoria and NSW along the coast from Sydney to the north of Brisbane;
5. Mammal extinction has been substantial in the last two hundred years – twenty-two Australian mammals are now extinct – a third of the world's recent extinctions, along with a massive contraction in distribution in arid and semiarid regions;
6. Bird populations are markedly reduced – twenty-nine species show significant decreases in cleared and scapes in the last twenty years, with grassland, woodland, and ground-nesting birds most affected;
7. Vegetation clearing is the most significant threat to species and ecosystems in eastern Australia; and
8. Overgrazing, exotic weeds, feral animals, and changed fire regimes are additional key threats to wetlands, riparian zones, threatened species, and threatened ecosystems across much of Australia. These threats are widespread and pervasive.<sup>19</sup>

In the face of such scales of loss and degradation attention has been focused on the costs of repairing damaged ecosystem services. The 2002 National Land and Water Audit included estimates of the value of lost agricultural production due to degradation (\$A1.2 billion) and the costs of repairing natural systems (some \$A2–6 billion would be needed annually for full repair).<sup>20</sup>

The NSW 2003 State of the Environment (SoE) Report gives a snapshot, even if somewhat incomplete, of the current state and trends in biodiversity in NSW. Of the sixteen biodiversity indicators, over a third received a red light traffic light<sup>21</sup> in the report. These were:

- extent and condition of vegetation;
- vegetation clearing rate;

<sup>17</sup> The Australian Terrestrial Biodiversity Assessment 2002, National Land & Water Audit, available at [http://audit.deh.gov.au/ANRA/vegetation/docs/biodiversity/bio\\_assess\\_contents.cfm](http://audit.deh.gov.au/ANRA/vegetation/docs/biodiversity/bio_assess_contents.cfm).

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> This is where the available data shows that the trend is mostly negative and therefore represents a poor or generally deteriorating environmental condition.

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- number of both terrestrial and aquatic extinct, endangered, and vulnerable species, communities, and populations;
- extent and condition of aquatic ecosystem; and
- estimated wild fish stocks.<sup>22</sup>

The report states that the net loss and degradation of native vegetation was continuing, with extensive clearing occurring in the Central Division of NSW in the tablelands and the western slopes that make up the wheat belt of NSW. Significant clearing also has occurred in the Eastern Division as a result of forestry, intensive agriculture, and urban development. Both of these areas have an average of 42 percent of native vegetation. This compares with the Western Division, which has over 97 percent cover remaining. Before the current 2004 reforms, it is estimated that each year between sixty thousand to one hundred thousand hectares of native vegetation had been cleared in NSW.<sup>23</sup> However, the rate of clearing was reducing each year between 1998 and 2002 to approximately fifty-eight thousand hectare/annum. This compares to twelve thousand to fifteen thousand hectare/annum in the late 1990s. Recent National Parks and Wildlife Service studies estimate that in some regions (again the southwestern slopes and New England Tablelands) this loss represents a 50 percent clearing rate.<sup>24</sup> In some subregions, it is known that 100 percent of original native vegetation has been cleared.<sup>25</sup> This loss of native vegetation has an impact on terrestrial habitats and is a major threat to biodiversity. With such high level of clearing, the SoE report points out that even small amounts of additional clearing can have high impacts on biodiversity. The native vegetation remaining is often very heavily modified by for example, grazing, feral animals, and changed fire regimes. It is of interest that the least disturbed ecosystems in NSW are on less productive soils in the eastern escarpment.

Two more species have been declared extinct in NSW since 2000 and, while numbers of recovery plans for threatened species has increases (now 44), many more species are now listed as threatened (a further 137 listings an increase of 18% on 2000).<sup>26</sup>

Despite this, the SoE report recognized that the scale of the threat to species in NSW is becoming clearer as the processes for recognising species and communities at risk has increased in its sophistication. The diversity of bird populations is a good surrogate indicator of wider potential biodiversity losses. Significant loss of bird habitat and higher than expected numbers of threatened species among ground-nesting and groundfeeding birds have been found with significant falls in population of these and woodland species.

A similar tale of degradation is recorded in the SoE report for wetlands. Wetlands are important habitats in NSW and cover an enormous 4.5 million hectares and 6 percent of the state. One estimate suggests that 50 percent of wetlands could have been lost since European settlement.<sup>27</sup> Whereas one-fifth of coastal wetlands are reserved (18 percent),

<sup>22</sup> NSW Environment Protection Authority, *State of the Environment Report* (2003).

<sup>23</sup> Benson 2001 and Australian Conservation Foundation 2001 in NSW, *State of the Environment Report* (2003).

<sup>24</sup> National Parks and Wildlife data as at November 2002, reported in NSW SoE Report 2003.

<sup>25</sup> Pressey et al., "Terrestrial reserves in NSW – Gaps, Biases and Priorities to Minimize Further Loss of Native Vegetation." 96:11 *Biological Conservation* (2000), 55–82.

<sup>26</sup> NSW Environment Protection Authority, *State of the Environment Report* (2003).

<sup>27</sup> C. M. Finlayson & N. Rea "Reasons for the Loss and Degradation of Australia's Wetlands." 7(1) *Wetland Ecology & Management* 1–11.

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resents a poor

inland and riverine ecosystems (16 percent of inland lakes) are underreserved and under pressure from population and settlement growth. One such impact is the diversion of river flows for irrigation, such as in the Murrumbidgee floodplain, where 75 percent of the wetlands have disappeared or have been degraded and, in conjunction, 80 percent of water bird populations have declined by more than 80 percent. This is consistent with worldwide wetland losses.<sup>28</sup>

However, the SoE report indicates that it is not all bad news, as there are now extensive reserves covering approximately 5.8 million hectares or 7.3 percent of the state and extensive reserves across all main ecosystem types on the ranges and the coast. This is a rise on the reported 6.6 percent in the 2000 SoE report. However, the biggest gaps in the state's reserve system are correspondingly in the central and western parts of the state. Nationally, each state in Australia is encouraged to establish a comprehensive, adequate, and representative system of protected areas (known as CAR). The aim is to formally protect 15 percent of land (representing 15 percent of the area of forested ecosystems that existed in 1788). In NSW, only four out of seventeen bioregions achieve the CAR aim of 15 percent protected area. So, although there has been an improvement from 2000 to 2003, more still needs to be done.

The Australian Terrestrial Biodiversity Assessment 2002 found that only 6.6 percent of the Australian continent was protected in the formal conservation reserve system (IUCN management categories I–IV), and 71 of the 384 subregions have no reserves.<sup>29</sup> At the continental scale, it was determined that over fifteen hundred ecosystems Australia-wide required reservation to achieve the accepted 15 percent benchmark. In some instances, where ecosystems are naturally restricted or rare, 100 percent reservation is desirable. Hence, there are significant gaps in both the conservation reserve systems comprehensiveness and representativeness. Furthermore, the assessment also recommended that there is a need to accelerate conservation reserve system establishment to both protect ecosystems under pressures before they disappear, as well as set aside areas that are still in relatively good condition. By way of illustration, currently for private land in NSW there are only 170 Voluntary Conservation Agreements (VCAs) in place (since 1987) and approximately 934 property agreements (covering 90,078 hectares), with only 25 percent of these in secure and long-term management arrangement.<sup>30</sup> This is not an outstanding result. Section 3 of the chapter will consider the effectiveness of the reforms in achieving biodiversity conservation in NSW.

### 2.3 What Has Happened in the Past 10 Years

The effect of the Threatened Species Conservation Act 1995 (NSW) (TSC Act) needs to be considered in conjunction with the Native Vegetation Conservation Act 1997 (NSW) (NVC Act). Under the TSC Act, listing was used as a trigger for criminalising behavior, which was likely to have an adverse effect on threatened species habitat.<sup>31</sup> This

<sup>28</sup> R. T. Kingsford & R. F. Thomas, *Changing Regimes & Wetland Habitat on the Murrumbidgee Floodplain of the Murrumbidgee River in Arid Australia* (Report to Environment Australia and NSW National Parks and Wildlife Service, 2001).

<sup>29</sup> Australian Terrestrial Biodiversity Assessment 2002, Note 18.

<sup>30</sup> Data from the Department of Infrastructure Planning and Natural Resources (DIPNR), 2004.

<sup>31</sup> D. Farrier & R. J. Whelan, "(Why) Do We Need Threatened Species Legislation?" in P. Hutchings, D. Lunney and C. R. Dickman, eds., *Threatened Species Legislation – Is It Just an Act?* (Royal Zoological Society of NSW, 2004).



command regulation involved directions from government, enforced by government agencies, with sanctions against those in breach. It has been questioned whether this has been the most effective way to achieve desired conservation outcomes.<sup>32</sup> Once an application has been made, the process under the NSW legislation is one of assessment and approval with licensing conditions. There was little scope for refusing applications to develop based on harm to species or harm to habitat. Under sections 118A and 118D *National Parks and Wildlife Act 1974* (NSW) (NPW Act), it is a defence to an offence to harming endangered or threatened species or endangered ecological communities or threatening habitat of such, if a licence was given under the TCA Act or it was essential under a development proposal under the *Environmental Planning and Assessment Act 1979* (NSW) or under a conservation agreement.<sup>33</sup> It has been argued that in the former National Parks and Wildlife Service (NPWS), now the Department of Environment and Conservation (DEC), the regulator of the TSC Act had mostly been left out of the process of approving developments where threatened species or their habitats may be an issue.<sup>34</sup> The Director-General would only become involved when a local council or other agency referred it to NPWS/DEC on the grounds that they are likely to significantly affect threatened species or populations or threatened ecological communities,<sup>35</sup> in which case there would need to be a species impact statement.<sup>36</sup> But even this role of NPWS/DEC was limited, with the Land and Environment Court and the Minister for Planning and Natural Resources having final decisions under the NVC Act. However, there were regional variances with NPWS staff in some regions being very active in preapplication processes. Often, decisions stayed with local government; the problem was that many had little expertise in this area. Having local government at the forefront of threatened species decisions has some difficulties attached to it. In addition to their lack of expertise, there are systemic biases in favour of development.<sup>37</sup> The presence of threatened species should be a consideration when land is being zoned. Under this scheme, once land had been zoned to enable some type of development, there was an assumption that this type of development would be allowed. The focus, therefore, on the application was on the details, not whether the development should be allowed to go ahead at all.<sup>38</sup> So, when issues of threatened species arose, the local council wanted to keep the development viable. It was really too late in the process to bring in threatened species issues and the local council would be reluctant to use this for the basis of refusing development consent.<sup>39</sup> This became one of the factors considered in assessing the environmental impact of the development.

The situation in NSW before 2003 was that although there was command regulation,<sup>40</sup> in practice the decision maker's brief was:

not to protect the interest of threatened species at all costs, but to balance the socio-economic interests of the proponent and the broader community against the community's interest in threatened species conservation.<sup>41</sup>

<sup>32</sup> Data from DIPNR, Note 32.

<sup>34</sup> Farrier & Whelan, Note 32.

<sup>35</sup> *Environmental Planning and Assessment Act 1979* (NSW) section 79B(3), (8).

<sup>36</sup> *Ibid.*, section 79B(5).

<sup>38</sup> *Ibid.*, at 36.

<sup>40</sup> *Environmental Planning and Assessment Act 1979* (NSW), sections 118A and 118D.

<sup>41</sup> Farrier & Whelan, Notes 33, 36.

<sup>33</sup> Sections 118A(3) and 118D(3).

<sup>37</sup> Farrier & Whelan, Note 32, at 35.

<sup>39</sup> *Ibid.*

Even DEC has been bound by this.<sup>42</sup> Take, for example, the proposed Mawland Hotel development at the North Head quarantine station. Because of the amount of interest that this proposal generated, a Commission of Inquiry was conducted and their report handed down in July 2002.<sup>43</sup> Two endangered populations, the Little Penguin and the Long-Nosed Bandicoot, were assessed in the species impact statement. North Head was declared a critical habitat for the penguin population in January 2003. The Commission of Inquiry applied the precautionary principle and imposed a dusk to dawn ferry curfew<sup>44</sup> so as to avoid impacts on the population coming ashore to feed their young. However, despite this recommendation, development approval was given allowing ferries to operate until 11 PM each night, which is too late to offer any real protection, as penguins generally come ashore approximately one hour after sunset.<sup>45</sup> With the endangered Long-Nosed Bandicoot, the Joint Determining Authorities report did recognise that road kill was one of the major threats to the bandicoots and this was one of the reasons for not allowing the blanket dusk to dawn curfew of ferries, as this would increase the vehicle traffic. However, trade-offs like this between endangered populations for the sake of approving a development seems to indicate the lack of effectiveness of the Threatened Species Conservation Act.<sup>46</sup>

Another identified problem arising in the past ten years has been that offences are triggered by the fact that a species is listed rather than focusing on development, which impacts on threatened species habitat. In fact, although there is provision to provide for identification of critical habitat,<sup>47</sup> it has only been declared in two instances. Usually the listing is just by species, and there is no requirement to list the habitat of the threatened species, as well. However, protection of habitat is crucial in biodiversity conservation as well. Additional problems exist with sections 118A and 118D of the NPW Act in that, under the latter, proof of knowledge is required, which assumes that some mechanism exists for informing landholders that their land contains protected habitat, and under section 118A, there is uncertainty on the question of knowledge, with some argument that it is a strict liability offence.<sup>48</sup> If threatened species offences were regarded as strict liability, defendants would have to show that they had actually considered whether there were listed species or plants on their property and that their belief was reasonable. In this situation, there would be the opportunity for regulators to educate landholders on what precautionary measures would be reasonable before clearing native vegetation.<sup>49</sup>

The past ten years also has seen the existence of many incentives for private landowners to avoid the identification of threatened species on their land. These include the delay in the approval process; the cost of a species impact statement from between \$5,000

<sup>42</sup> Environmental Planning and Assessment Act 1979 (NSW), section 79(5)(h).

<sup>43</sup> Report to the Hon. Andrew Refshauge, Deputy Premier, Minister for Planning, Minister for Aboriginal Affairs, Minister for Housing, "Proposed Conservation and Adaptive Re-Use of the North Head Quarantine Station," July 2002, <http://www.coi.nsw.gov.au/inquiry>.

<sup>44</sup> *Ibid.* at 138.

<sup>45</sup> Joint Determination Report by the Determining Authorities: NSW Minister for the Environment, NSW Heritage Council, NSW Waterways Authority on North Head Quarantine Station Conservation and Adaptive Re-Use Proposal.

<sup>46</sup> J. Lambert, "Threatened Species Legislation: Does It Work for Local Communities or Local Government," in P. Hutchings, D. Lunney, and C. R. Dickman, eds., *Threatened Species Legislation – Is It Just an Act?* (Royal Zoological Society of NSW, 2004).

<sup>47</sup> Section 47 TSC Act.

<sup>49</sup> Farrier & Whelan, Note 13, at 39.

<sup>48</sup> Farrier & Whelan, Note 13, at 41.

and \$50,000; and the restriction of profit, from say, timber, agriculture, and residential development.

The major lesson of the past decade is that a threatened species decision involves costly disputes – pitting a particular development against a particular threatened species. The present system operates at the micro-level and at the very end of the planning process, with too narrow a focus on individual threatened species or isolated populations and far too little focus on the protection of wider habitat or landscape.

### 3 THE CHALLENGES

Although progress has been made in the past ten years, the situation in NSW still remains critical.<sup>50</sup> As much of the land is managed by private landholders, one of the challenges is to ensure that landowners see the discovery of a listed species as a blessing rather than a curse.

Other administrative and process challenges include:

1. The ability to protect habitat. It is more cost-effective to target protection and management of existing habitat, rather than attempting to rehabilitate or restore habitats and communities that have been lost or degraded;
2. Integrating threatened species into planning, where trade-offs involve setting threatened species considerations against economic and social considerations, which often dominate;
3. Engaging the community effectively so that their involvement is incorporated into decisions, where community opinion is often polarized and influenced by vested property interests;
4. The difficulties of enforcing a command regulation such as the TSC Act – the reticence to use powers under the Act and transparency of government decisions;
5. Aligning the listing criteria with the IUCN assessment criteria and giving reasons why they haven't been used will improve transparency;
6. Accountability and boundary issues between government department portfolios;
7. The "compensatory habitat" approach. This approach is that where land has been identified as holding threatened species or endangered species or endangered ecological communities, that habitat has been allowed to be lost in exchange for other habitat. The concern is that the replacement habitat may be of lesser quality;
8. The use of unaccredited consultants who are pressurized to give favourable reports;<sup>51</sup>
9. Is local government the appropriate determining authority in relation to developments which encroach on threatened species habitats? Local governments often lack the capacity and expertise to assess likely impacts of development on threatened species and, at the local government level, social and economic reasons often override threatened species considerations.<sup>52</sup>
10. Catchment management authority capacity and capability in biodiversity planning and threatened species management;

<sup>50</sup> Department of Environment and Conservation White Paper, *Threatened Species Conservation: Towards A More Effective Approach*, October 2003, 4.

<sup>51</sup> M. Fowler, "A Review of the Success of the Threatened Species Conservation Act in Protecting Threatened Species Within NSW." Paper prepared for the North Coast Environmental Council, May 2004. Available at <http://www.ncec.org.au/thssp-report>.

<sup>52</sup> Ibid.

11. The current project by project approach;
12. In some cases, there is a preemptive clearing of threatened species habitat so as to come within the "routine agricultural management activities" exemption before the development application is lodged;
13. Prosecution difficulties where section 118D of the NPW Act says that a person who damages threatened species habitat must "know that the land concerned is habitat of that kind" for a successful prosecution in the Land And Environment Court; and
14. Ability to identify habitat and critical habitat.

These all operate in the context of two other compounding issues. The first is tracking and managing the key threatening processes.<sup>53</sup> Of these, climate change<sup>54</sup> and invasives<sup>55</sup> are emerging as the ones needing most research. The second is the scale and rate of degradation that would suggest that, despite all current efforts, there needs to be a higher magnitude of investment and effort at all levels of government and within the community.

#### 4 THE NSW REFORMS 2004

The Threatened Species Act Amendment Act 2004 (NSW) introduced in 2004 builds on the previous Threatened Species Conservation Act of 1995 and accompanying Fisheries Management Act 1994 (NSW). This important landmark legislative reform aims to slow and reverse the trend of extinctions and species decline by establishing better procedures to resolve conflicts in a way that will better protect threatened species.

The aim is to get more integrated, balanced, and transparent decision-making procedures. The previous regime relied on processes to protect isolated populations with far too little focus on the protection of wider habitats or landscapes. That regime operated at the micro-level and at the very end of the planning process. Threatened species were too often considered very late in the process – often only after an individual development application has been submitted or after all the other consents had been given.

The Threatened Species Reforms are also part of the government's recent significant reforms of the state's natural resource management system arising from the Wentworth Agreement.<sup>56</sup> In December 2003, the NSW government passed three new pieces of legislation intended to overhaul the natural resource management framework in NSW, the Catchment Management Authorities Act 2003, the Natural Resources Commission

<sup>53</sup> Seven key threatening processes have been identified in NSW. They are:

- Overgrazing in the inland plains
- Ongoing land clearing and fragmentation
- Urban expansion on the coast
- Overuse of water – river and floodplain
- Weeds and feral animals
- Altered disturbance regimes (e.g., fire)
- Climate change.

<sup>54</sup> There is a need to better understand and predict/model the impacts of climate change on biodiversity – understanding impacts on existing biodiversity conservation programs, incorporate biodiversity conservation in drought policies and programs, assessing likely changes in the extent and distribution of viable/marginal agricultural land and associated pressures on areas of high biodiversity value.

<sup>55</sup> Preventing introduction, establishment, and spread of invasives is a very cost-effective investment, compared with control actions once they have established (through consistent approaches to regulation of trade, and international and internal movement of travellers and goods, as well as research and development of control techniques, and priority setting).

<sup>56</sup> Wentworth Group of Concerned Scientists, *Report to Premier Carr: A New Model for Landscape Conservation in New South Wales* (3 February 2003).

Act 2003, and the Native Vegetation Act 2003. These reforms aimed to halt broad-scale land clearing in NSW and establish fifteen Catchment Management Authorities (CMAs) to make resource management decisions at the local level. It is the intention that an end to broad-scale land clearing also will result in improved protection of threatened species on private land. Part of this reform was the investment of \$A406 million over a four-year period into conservation projects. To be eligible, landowners must submit a property vegetation plan (PVP) for approval by the CMAs. CMAs will formulate catchment action plans (CAPs). The Natural Resources Commission is an independent body, which recommends standards and targets and they approve and audit the success of these CAPs. One of the potential problems with this reform is that it is unclear whether the CMAs are required by law to consider the CAPs when approving individual PVPs. The reforms mirror those for native vegetation with a streamlined processes for farmers in relation to routine activities such as fencing, farm roads, and control of noxious plants and animals, so that these can occur without the need for a threatened species assessment or license. This has been possible in part because of the introduction of the property vegetation plans (PVPs) under the native vegetation reforms. Through property vegetation plans, farmers can access funding to manage native vegetation, biodiversity and threatened species. Under a PVP, a farmer is free to undertake activities without the need for a separate threatened species license. The PVP is underpinned by world-class science and methodology that focuses on protecting landscapes, rather than individual plants and animals.<sup>57</sup>

At present, many farmers consider threatened species to be liabilities. The new system will make them central to their everyday work.<sup>58</sup>

As the CMAs will administer the PVPs, this will empower CMAs as the single interface with farmers in their area.

The threatened species reforms aim to integrate the state's natural resource management and land-use planning system with NSW's biodiversity conservation laws. This is achieved by focusing on strategic planning of NSW's areas experiencing intense development pressure (the Far North Coast, Greater Metropolitan Sydney, Lower Hunter, South Coast/Illawarra, and the Sydney-Canberra corridor). The Act allows the Minister for the Environment (or the Minister for Primary Industries in the case of the Fisheries Management Act) to "certify" an environmental planning instrument that promotes conservation of threatened species and biodiversity more generally. In this way, threatened species conservation consideration is incorporated at the beginning of the planning process when the local environmental plan, regional environmental plan or other planning instrument is being prepared. This biodiversity certification will replace the existing eight-part test as to "significance" and the need for a species impact statement. It is argued that the site specific surveys need to be retained "because of the cryptic nature of many threatened species" but its shortcomings should be supplemented by the landscape planning component.<sup>59</sup> The strengths of the site-specific assessments included the fact that it was based on an objective test of the impacts on threatened species and that it was subject to third-party appeal rights in the Land and Environment Court. Third-party appeal rights have been retained under the reforms.

<sup>57</sup> Minister for the Environment NSW, 2nd Reading Speech, Threatened Species Amendment Act 2004 (NSW).

<sup>58</sup> Ibid.

<sup>59</sup> Fowler, Note 49, at 8.

Biodiversity planning assistance will be provided to councils to ensure the best available science is used in the process. Appropriate safeguards are also being put in place to ensure that the Minister for the Environment may withdraw biodiversity certification in relation to specific catchments if, for example, the Catchment Management Authority fails to act consistently with the native vegetation reforms or otherwise fails to protect threatened species through its core activities.

The Act also includes a number of other reforms that will assist in resolving assessment and licensing problems.<sup>60</sup> There are also provisions for greater flexibility for the reservation of land, entering into conservation agreements, and restoring threatened species habitat.

The reforms more clearly separate two key stages in threatened species conservation: identifying the threats to biodiversity through the state's listing by the Scientific Committee and improved recovery planning. Under the current system, a recovery plan must be prepared for every threatened species. For current listings alone, this could amount to over nine hundred plans. To date, fewer than sixty recovery plans and two threat abatement plans have been approved.<sup>61</sup> Under the reforms, priorities for action are to be identified in a Priorities Action Statement. Finally, the reforms introduce new categories of "critically endangered" ecological communities and species – that is, those that are at an extremely high risk of extinction in the immediate future. It has been suggested that this should be extended to "critical habitat."<sup>62</sup>

The newly created Natural Resource Commission (NRC) and the Standards and Targets framework for natural resources are also an important part of the NSW reforms. "The adoption of statewide standards and targets presents an important opportunity to focus NRM investment on the most important natural assets, and the critical opportunities and threats they face."<sup>63</sup> Ultimately, the achievement of the NRC's statewide targets is expected to result in healthy, functional landscapes in NSW. The NRC has defined a draft set of fifteen aspirational goals or long-term statements, which describes natural resource assets (Biodiversity, Water, Land, and Community) in terms of the desirable functions that they serve.<sup>64</sup> The standards and targets are in development and not yet released by the government. The intent of the statewide resource condition targets and indicators for biodiversity targets is to ensure that biodiversity is retained and enhanced in the long term. The targets are intended to protect a variety of fundamental ecological processes. Promoting the biodiversity targets at the regional level will help CMAs to focus on these key agreed biodiversity outcomes, such as increasing the extent and connectivity of native vegetation, improving vegetation condition of both remnant vegetation and regrowth, identifying invasive species causing most impact and threat to those species and habitats, and a renewed focus on threatened species recovery activities.

## 5 IS LEGISLATION THE RIGHT MECHANISM?

The intention of the threatened species legislation in NSW is not to criminalise behavior. Instead, the intention is to try to bring the proposed activity that might trigger threatened

<sup>60</sup> These include assessments and surveys guidelines, and an accreditation scheme for consultants.

<sup>61</sup> Minister's speech, Note 59.

<sup>62</sup> Fowler, Note 49.

<sup>63</sup> NRC Statewide Standards and targets Draft Recommendations Report.

<sup>64</sup> Ibid.

species legislation into the application and approvals processes, through licensing of activities and granting of approvals. Generally, the more effective method of enforcement is through civil rather than criminal means, in which the objective is prevention and remediation. In NSW, there is also the philosophy of existing use that allows for an exemption from licensing requirements when "routine agricultural activities"<sup>65</sup> are being carried out. But how is "routine agricultural activities" defined? Another difficulty is that before taking criminal proceedings under section 118D of the National Parks and Wildlife Act 1974, the regulatory authority must be able to prove beyond a reasonable doubt that the landholder knew that the relevant land was the habitat of a threatened species, endangered population or endangered ecological community.<sup>66</sup> This results in an adversarial approach to habitat protection, with those wanting to avoid protecting habitat, simply destroying the habitat, and keeping quiet about it. It has been argued that it may be easier to prosecute under section 118A, where there may be strict liability imposed when protecting a threatened species, endangered population, or endangered ecological community.<sup>67</sup>

The National Biodiversity Decline Working Group (NBDWG) of the Natural Resources Management Ministerial Council (NRPPC) has recently undertaken an evaluation of the effectiveness of the current and past biodiversity programs of each of the jurisdictions.<sup>68</sup> Some critical findings have emerged. The review looked at both regulatory and incentive programs. It covered twenty-five programs across all states and territories and the Australian government. The programs ranged in size from around \$A0.03 to \$A56 million per annum, addressing biodiversity from a variety of perspectives, including programs targeted at particular threatened or high profile species (such as the Gould's Petrel, the Koala), pest species (foxes, starlings, *Phytophthora*) or particular geographic areas (NSW Macquarie Marshes and Northern Rivers, WA Wheat belt and Western Shield), and others addressing broader conservation issues. These programs used a range of approaches including direct action, acquisition, grant schemes, incentives, regulation or legislation, capacity-building, and data collection. They found that the lack of effective and affordable monitoring systems has limited the ability to learn from previous actions in some cases as a result of poorly defined conservation goals and objectives, intent not linked to auditable outcomes, or no achievement of outcomes in practice for other reasons.<sup>69</sup>

This report has thrown light on some critical learnings from past approaches to biodiversity conservation in Australia. The review of programs has shown that although much of the work undertaken to date has provided a useful platform for biodiversity conservation – such as putting in place research, planning, capacity-building, public support, and changes in land management – there have been limited on-ground improvements to biodiversity conservation. The assessment has shown that where there have been positive impacts on conservation, these outcomes were very localised. It has been noted that many of the programs aim to avoid or reduce future degradation, such as covenanting or attempts to prevent pest establishment, they may prove to have long-term biodiversity value even though no short-term improvements may be discernable. Many jurisdictions have dealt with or are dealing with broad-scale clearing and this

<sup>65</sup> Threatened Species Conservation Act 1995, section 113A.

<sup>66</sup> Farrier and Whelan, Note 13, at 38.

<sup>67</sup> *Ibid.*

<sup>68</sup> See Note 15.

<sup>69</sup> *Ibid.*

is making a very significant contribution to addressing biodiversity decline in those states. By contrast, it also found that national investment in other NRM programs has exacerbated the loss of biodiversity.

The review found that the major constraints to achieving effective delivery of outcomes were:

- lack of transparency in investment decisions between public and private good;
- lack of clarity of objectives and purpose;
- programs being too ambitious;
- lack of early emergent market mechanisms;
- long time frames to achieve outcomes, compared to short-term programs;
- lack of framework for defining success (no common "benchmark" for assessment or agreed quantifiable measures or metrics to monitor);
- inadequate capacity to monitor progress and apply adaptive management;
- lack of coordination/consistency with other policies and programs;
- lack of strategic targeting to priorities (especially reactive grants programs)
- limited engagement with business/industry;
- inadequate investment for the scale of the problem;
- lack of skills and advice directly applicable to biodiversity conservation;
- lack of strategic or adequate research capacity and inadequate information base; and
- external factors (bushfire, drought, pests, development pressures, tourism).

Taking into account that the factors that the Working Group has identified have limited success in biodiversity programs it would suggest that more targeted, informed and innovative approaches will be needed into the future. It could be argued that we have reached the limits of regulation to control environmental impact and loss of biodiversity and that dispersed activities across the landscape do not lend themselves to a command-and-control strategy. The Working Group found that incentive schemes are emerging as a new and effective tool but that they should not be seen as a substitute for environmental regulation. The advantage of legislation is that it provides a basic bottom-line standard for acceptable land use, whereas incentives encourage parties to make positive individual contributions.<sup>70</sup> Our community would be worse off without legislation as, at its minimum, it provides the opportunity for participation by the community.<sup>71</sup> It has been argued that people are starting to disengage with the process at both a federal and state level when they continue to see the lack of political will to effectively enforce this legislation to the benefit of development.<sup>72</sup> The challenge of moving to a more flexible legislative regime is to retain the intent of the underlying legislation, while designing the alternative compliance strategies that give greater flexibility and reduce red tape and conflict.

## 6 CONCLUSION

The Threatened Species Conservation Act 1995 (NSW) and the Native Vegetation Act 1997 (NSW) were regarded as innovative when they were introduced in the mid-1990s. Ten years later, we can conclude that NSW biodiversity continues to be degraded and

<sup>70</sup> National Biodiversity Decline Working Group Report, Note 16.

<sup>71</sup> Lambert, Note 28, at 162.

<sup>72</sup> Ibid. at 163.



to decline with vegetation clearing remaining one of the most serious threats to species and ecosystems. Better knowledge of the science is indicating that protection of habitat, and not just protection of species, is crucial in biodiversity conservation.

The main lesson of the past ten years has been that pitting a particular development against a particular threatened species has resulted in decisions being made to resolve costly disputes rather than decisions being made on the basis of the long term view of biodiversity protection. The system has operated at the micro-level and at the very end of the planning process, with too narrow a focus on individual threatened species or isolated populations and far too little focus on the protection of wider habitat or landscape. These lessons raise a number of challenges, which the latest legislative reforms have tried to tackle. The reforms are trying to move away from the conflict that exists between private landowners' rights to develop and the community interest in sustainable land management and functioning ecosystems to try to achieve a more integrated, balanced, and transparent decision-making process through the establishment of catchment management authorities overseen by the Natural Resources Commission.

This chapter has identified some concerns that come out of these reforms and that still need to be addressed. They include the need to declare areas of critical habitat; the capacity building of catchment management authorities; whether the farmers will actually use the PVPs; the problems of biodiversity certification cutting out site-specific assessments; how to bridge the information and knowledge gaps of both local councils and the catchment management authorities; and whether the catchment action plans are legally enforceable. The 2004 reforms are a move in the right direction, but these real concerns, as identified, will need to be addressed in the process of achieving effective biodiversity conservation.