

# IMPACT!

A NATIONAL JOURNAL OF ENVIRONMENTAL LAW



## Native Vegetation Management



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Issue 88, December 2009

# Editorial

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Native vegetation management in Australia has proved to be a highly charged legal, social, economic and political issue. For many Australians laws restricting land clearing came too late and did not go far enough to prevent ecological damage and long term implications for biodiversity that stem from unregulated land clearing. In contrast, many landholders strongly resent a perceived interference in their land management practices and have recently requested a royal commission into native vegetation management in NSW claiming native vegetation laws have unjustly eroded their property rights.

The traditional concerns surrounding the management of native vegetation remain, with a primary concern being the enforcement (or lack thereof) of the law. EDO NSW Director Jeff Smith has written an article dealing with compliance and enforcement of the NSW *Native Vegetation Act 2003*. Jeff's article shows us that the substantive aspects of the law need to be supported by strong enforcement powers and the political will to ensure compliance. This view is supported by Carmel Flint from the National Parks Association of NSW in her article on the spectacular River Red Gum forests of the Murray region. Carmel tells a tale of government-sanctioned, yet unauthorised destruction of significant stands of these River Red Gums in NSW, with little to no response from the Commonwealth or State departments responsible for enforcing laws to regulate this type of clearing. Contrast this with the situation in the Northern Territory where, despite being home to some of the most significant and untouched expanses of native vegetation in the world, there is no discrete native vegetation law in place at all. Inspired by this blank slate, Mark Cowan, Principal Solicitor of EDO NT has set out what he believes

to be the essential features of any prospective law regulating native vegetation in the Territory.

In the wake of these familiar challenges, we are witnessing the emergence of some new issues; principally the question of the role that native forests should play in Australia's commitments to combat climate change. Our student prize winner Teena Zhang has written an excellent article about the need to rethink current approaches to carbon sequestration in forests and highlights some of the perverse outcomes that could result from a failure to take account of all the relevant factors. On behalf of Maddocks law firm and ANEDO, I'd like to congratulate Teena on winning the student writing prize. Continuing with the topic of carbon sequestration in trees, Rod Holesgrove from Humane Society International outlines the importance of natural green carbon to the mitigation of climate change with a particular focus on the international mechanism known as REDD (reduced emissions from deforestation and forest degradation in developing countries).

Finally, in NSW, the Department of Environment, Climate Change and Water has developed the 'BioBanking Scheme'; heralded as an innovative way of protecting biodiversity and, by implication, native vegetation on private land. The Scheme is experiencing some difficulties getting off the ground and EDO NSW Solicitor Natasha Hammond-Deakin has written an article outlining some of the key obstacles preventing the uptake of the Scheme.

I hope you enjoy this edition of Impact. The next edition will be published in June 2010 and will deal with consumer protection. If you are interested in contributing an article, please contact the editor at [impact@edo.org.au](mailto:impact@edo.org.au)

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Freecall: 1800 626 239 Website: [www.edo.org.au](http://www.edo.org.au)

#### ISSN

1030-3847

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# Making law work: Compliance and enforcement of native vegetation laws in NSW

Jeff Smith, Director, Environmental Defender's Office NSW

## Introduction

Law is little more than aspirational or educative without proper compliance and enforcement – more akin to a guideline or code or other soft instruments frequently derided by lawyers. In other words, compliance and enforcement is that element that makes the law law.

This brief paper looks at the compliance and enforcement regime for the new native vegetation laws in NSW, with instructive lessons for other jurisdictions around Australia. It does so at three levels. First, it examines the regulatory framework for compliance and enforcement in place under the *Native Vegetation Act 2003*. Second, it reviews the strategy of the Department of Environment, Climate Change and Water (the Department) to ensure proper compliance and enforcement. Third, it assesses the way that compliance and enforcement has worked in practice in NSW since the advent of the new laws.

## Compliance and enforcement under the Native Vegetation Act 2003

The *Native Vegetation Act 2003* was introduced to stem systemic failures under the pre-existing regime (namely, the *Native Vegetation Conservation Act 1997*). The Auditor-General reported in 2005 that 40% of clearing was illegal and the laws were widely seen as unworkable.<sup>1</sup>

The *Native Vegetation Act 2003* was introduced with the overarching objective of stopping broad-scale land clearing. Ecological principles were embedded in the Act, exemptions tightened and conservation on private land institutionally recognised.

The compliance and enforcement provisions, however, run counter to these developments. Chock full of compromises, and assiduously avoiding best practice in place elsewhere in NSW and in other States,<sup>2</sup> the provisions are reminiscent of a 1970s enforcement model. The provisions have in mind a 'cocky farmer'; there are no adverse publicity orders or penalty-for-profit provisions allowing prosecutors to properly target agribusiness or large-scale corporate operators. There is no hierarchy of clearing offences, and Penalty Infringement Notices are available for all offences under the Act.

More tellingly, perhaps, the provisions do not support investigators. Officers cannot enter land – even on reasonable suspicion – without either the consent of the landowner or the Director-General of the Department. Both these processes can obviously delay and frustrate enforcement action. A 'reasonable excuse' defence has also been built into the offence of obstructing, threatening or hindering investigating officers, an inexplicable concession in light of a documented incident of harassment of enforcement officers in northern NSW.<sup>3</sup>

*“The Auditor-General reported in 2005 that 40% of clearing was illegal and the laws were widely seen as unworkable.”*

## Compliance and enforcement under the Native Vegetation Compliance and Enforcement Strategy

In 2009, the Department reviewed its approach to compliance and enforcement of native vegetation laws. The result is what is termed a risk-based problem-solving approach comprising three main types of compliance and enforcement activities: strategic investigations and enforcement actions, compliance campaigns and effective stakeholder engagement. Rightly, the strategy notes that non-compliance does not suit a 'one size fits all' response.

The Department's strategy has much to commend it, notwithstanding it is light on detail and often placatory in tone. Its main problem is its somewhat one-dimensional approach to prosecutorial action. The clear tenor of the strategy is to focus on the harm caused. While this is a central aspect of any enforcement strategy, overplaying this can arguably undermine and deter broader compliance. A more catholic approach, whereby a range of behaviours are investigated and enforced, is likely to result in more compliance and better overall outcomes. For example, systemic non-compliance with exemptions may cause a greater overall problem in terms of damage to the environment and the legitimacy of the new laws than

the odd instance of broad-scale clearing by cowboys and miscreants.

### Compliance and enforcement in action

The recent history of compliance and enforcement action in NSW can be seen as a tale of two possibly contradictory and conflicting trends. On the one hand, the Department (and other agencies before it) has been slow to engage in strategic enforcement. On the other hand, the Courts have been imposing increasingly stringent penalties when a matter does come before them, a trend evidenced around Australia.

The appropriate level of strategic prosecutorial action will obviously depend on the extent of the problem on the ground. In this respect, it is difficult to assess the rate of illegal clearing in NSW as the figures do not differentiate between, say, clearing under an exemption, clearing due to natural causes such as fires, and illegal clearing. For example, the Department's *Annual Report on Native Vegetation – 2008* contains data relating to the conservation and management of native vegetation over the period 2007-08. The report provides that in this period only 2060 hectares were approved to be legally cleared, while a total reduction in the area of woody vegetation of over 48,000 hectares occurred. This was apparently largely as a result of fire scars, cropping, forestry, and rural and major infrastructure.

Anecdotally at least, it is clear that there remains some to considerable discontent with the regulation of land clearing on the part of landholders in NSW. This is exemplified by the relatively recent 'civil disobedience' protests of 1 July 2007, which was declared 'National Chop a Tree Day' by a group of NSW farmers<sup>4</sup> and, more recently, by the protest of, and support for, Peter Spencer.<sup>5</sup> It is plausible then to suggest illegal activity continues and, indeed, one would suspect this would be the case under any regulatory regime.

As the *NSW Annual Report on Native Vegetation – 2008* shows, the Department has been using a range of tools as part of its approach to compliance and enforcement – it has issued the following: 8 penalty notices; 4 remedial directions; 53 other legal directions; and 103 formal warnings and advisory letters. The record over the past two years demonstrates not only that convictions under the old laws are nigh on impossible (with two matters permanently stayed) but also that the promised ramping up of enforcement of the new laws has not eventuated as yet.

In short, prosecutions have been few and far between. In 2008, there were only 10 prosecutions commenced, and 4 convictions secured, while in 2009 there were 7 and 5 respectively. Of these, there have only been four convictions before the Land and Environment Court under the new laws in the last four years (the *Native Vegetation Act 2003* commenced in December 2005).<sup>6</sup>

It is to three of these we now turn.<sup>7</sup>

In the case of *Director-General of the DECC v John Rae*,<sup>8</sup> Mr Rae was convicted and fined in the Land and Environment Court in August 2009 for illegally clearing native vegetation on his farm near Coonamble in August and September 2007. He extensively bulldozed 155 hectares, converting the vegetation structure from open woodland to open grassland and leading to a significant reduction in fauna species. Mr Rae deliberately decided to clear the vegetation to improve agricultural productivity and increase profits. The Court repeatedly underlined the seriousness of the case. The scale of the clearing was likened to broad-scale land clearing. It also said the clearing increased fragmentation, reduced vegetative connectivity and removed native vegetation important for maintenance of biodiversity and the habitat of threatened species (including 11 species of threatened fauna and 1 species of threatened flora). The Court fined Mr Rae \$160,000, ordered him to pay the Department's costs; undertake remediation work; and monitor, record and report to the Department.

In *Director-General, Dept of Environment and Climate Change v Calman Australia Pty Ltd; Iroch Pty Ltd; GD & JA Williams Pty Ltd t-as Jerilderie Earthmoving*,<sup>9</sup> the Land and Environment Court found each of the defendants guilty of the offence of illegally clearing River Red Gum open forest (*Eucalyptus camaldulensis*). The offences occurred between September 2006 and May 2007 on 21 hectares in Tocumwal. The landholders contracted with the director of GD & JA Williams Pty Ltd to clear native vegetation using chainsaws and bulldozers. The landholders removed the vegetation to 'enhance and protect the property from risks such as bushfires and to assist in the financial sustainability of the property' including using the land for grazing cattle. The Court found that the environmental harm was significant given the age of the trees cleared (many more than 15 years old) and the size of the cleared area, which provided potential habitat for the Superb Parrot and the Grey-crowned Babbler;<sup>10</sup> created potential for erosion; and contained smaller trees that were mulched or burnt. The Court convicted each of the defendants, fined them a total of \$66,000 and ordered them to pay Prosecutor's costs totalling \$73,000.

In *Director-General of the Department of Environment and Climate Change v Hudson*,<sup>11</sup> the Land and Environment Court found Mr John Hudson guilty of the offences of clearing native vegetation - *Eucalyptus coolabah*, *Casuarina cristate* and *Acacia stenophylla* - without approval under section 12 of the *Native Vegetation Act 2003* and also failing to comply with a notice requiring further relevant information issued under that Act. The offences occurred between November 2006 and March 2007 on 486 hectares of native vegetation of various sizes and ages on a property of over 2,000 hectares in the Moree plains which was historically used for sheep and cattle grazing. Mr Hudson engaged earthmoving contractors to use bulldozers and chains to fell or uproot trees located on the property which were vegetation types that existed in New South Wales prior to



European settlement. Mr Hudson provided no assistance to the Prosecutor in the investigation of the offences nor did he provide any expression of contrition or remorse, submitting that the clearing was done to remove noxious weeds. The Court held that the clearing was carried out as part of the agricultural activities on the land and hence was part of a commercial operation. The Court convicted the Defendant of both offences, fined him a total of \$408,000 and ordered him to pay the Prosecutor's costs.

These cases highlight a general trend for Courts to impose substantial penalties for native vegetation and environmental offences generally,<sup>12</sup> with obvious implications for deterring others. It is hoped that the Department is buoyed by these results and the relative ease of getting a prosecution under the new laws. A healthy dose of resolve and political will can go a long way to ensuring that illegal clearing is curbed, in line with the objectives of the new native vegetation laws in NSW.

reducing deforestation. See <http://www.abc.net.au/rural/nsw/content/2009/12/s2766534.htm>

<sup>6</sup> As noted in the 2008-2009 DECCW Annual Report Mr David McBurnie was fined \$1,000 before Gilgandra Local Court.

<sup>7</sup> In a fourth case, on 31 December 2009, Mr Jack Issa and Mr Bill Issa were found guilty of clearing native vegetation without consent. They have not been sentenced.

<sup>8</sup> [2009] NSWLEC 137.

<sup>9</sup> [2009] NSWLEC 182.

<sup>10</sup> Both the Superb Parrot and the Grey-crowned Babbler are listed as vulnerable under the *Threatened Species Conservation Act 1995* (NSW).

<sup>11</sup> [2009] NSWLEC 4,

<sup>12</sup> Other jurisdictions have also seen hefty fines dispensed.

In Queensland, two recent cases saw magistrates impose fines of \$70,000 and \$90,000: see reference to this in [http://www.derm.qld.gov.au/media-room/2009/07/17\\_barcardine\\_case.html](http://www.derm.qld.gov.au/media-room/2009/07/17_barcardine_case.html) and [http://www.derm.qld.gov.au/media-room/2009/11/vegetation\\_clearing\\_fine.html](http://www.derm.qld.gov.au/media-room/2009/11/vegetation_clearing_fine.html)

In related matters in South Australia, both the Supreme Court and the Federal Court imposed fines of \$119,000 and \$220,000 respectively for illegal clearing by a carrot grower.

See also enforcement action in NSW under the Environmental Planning and Assessment Act 1979 in *Campbelltown City Council v Josevski* [2009] NSWLEC 29 (a fine of \$10,000 plus replanting) and the National Parks and Wildlife Act 1974 in *Department of Environment and Climate Change v Somerville*; *Department of Environment & Climate Change v Ianna* [2009] NSWLEC 194 ((\$30,000 fine and prosecutor's costs)

<sup>1</sup> Auditor-General's Report, Performance Audit, 2006 *Regulating the Clearing of Native Vegetation*. Follow-up of 2002 Performance Audit [http://www.audit.nsw.gov.au/publications/reports/performance/2006/native\\_vegetation/native\\_vegetation.pdf](http://www.audit.nsw.gov.au/publications/reports/performance/2006/native_vegetation/native_vegetation.pdf). Prior to 2005, there is little data available to gain a picture of the illegal land clearing that was taking place.

<sup>2</sup> See, for example, the wide powers available under the *Native Vegetation Act 1991* (SA), s.31A(6).

<sup>3</sup> Queensland has a similar provision under the *Vegetation Management Act 1999* (QLD), s.60.

<sup>4</sup> See <http://agmates.blogspot.com/2007/06/national-cop-tree-day-july-1.html>

<sup>5</sup> Peter Spencer is a NSW farmer who embarked on a hunger strike to protest plans by the Commonwealth Government to restrict the rights of farmers to clear native vegetation in order to help Australia reach its Kyoto targets by

# River Red Gum: Barking Owls and broken laws on the Murray River

Carmel Flint, Western Consultant to the National Parks Association of NSW

## Introduction

For untold generations, the unique and somewhat bizarre, 'rrrff, rrrrff' call of the Barking Owl has been a feature of cool winter nights along the Murray River. The River Red Gum – those stately, ethereal giants that glint and shine by moonlight – provided their preferred home and habitat.

However, all is not well with the Barking Owl. They have experienced a major decline in the Riverina region of south-western NSW,<sup>1</sup> from the 1960s when they were considered relatively common along major rivers,<sup>2</sup> to a recent survey which found only a single pair despite substantial survey effort in most known habitat areas.<sup>3</sup> The call of the Barking Owl is in grave danger of being lost from south-western NSW.

This looming silent night is symptomatic of an ecosystem in crisis. It is a biological alarm bell that we ignore at our peril.

The causes of the decline in the Barking Owl populations along the Murray are complex. They are likely to include the over-allocated river system (leading to reduced flooding and extensive tree decline), the severe drought, vegetation fragmentation caused by past and present clearing, and the habitat degradation caused by logging and intensive grazing. All these threats are occurring in the context of a rapidly changing climate due to human-induced global warming.

However, our management of the Murray has not recognised or addressed this complexity. On the contrary, in the face of these extreme threats, and rather than delivering the best conservation management for this imperiled region, we have delivered the worst.

## Land and water

One of the most fundamental problems with our management of the Murray in recent times has been the artificial segregation into 'land' and 'water'. This fundamentally fails to protect the wetland floodplains – those which occupy the extensive nether-realms between both land and water. Indigenous Traditional Owners along the river have opened my eyes to the profound flaws in this approach – they recognise that 'land and water' form one

living system and they argue persuasively that it is only when we treat the system holistically that we will finally have a shot at saving it.<sup>4</sup>

The Living Murray program, for example, has focused most of its efforts on water recovery and largely ignored the wider conservation of the wetland ecosystems that rely on it – the focus has been on the Murray as a 'drainage channel' and not on the whole system.

We know that complementary management of the floodplain can yield important results for the health of the whole river system.<sup>5</sup> We know that protected areas and best practice conservation management of vegetation can help species survive climatic events, such as the present drought, and the fiercer changes in climate it portends.<sup>6</sup> Yet the Murray floodplain has, extraordinarily, been largely ignored in conservation efforts to date.

For example, the reservation of areas in National Parks is among the poorest in NSW, and indeed, the country – only 1.8% of the Riverina bioregion is protected in National Parks in NSW. In fact, there is only a single, tiny nature reserve along the entire length of the Murray River in NSW. Substantial clearing of native vegetation continues in the region through approved property vegetation plans, legal loopholes and failures to enforce the laws, and intensive logging, grazing and firewood collection is widespread across public and private lands.

Furthermore, baseline environmental data on terrestrial ecosystems are incredibly deficient and the biological database is undoubtedly among the very poorest of any bioregion in NSW. Information on the distribution of fauna and flora species is glaringly inadequate and most areas have never been surveyed. Across the entire bioregion, which covers an area greater than 7 million hectares in size, there have only been 40 sites where systematic surveys have assessed all vertebrate fauna groups.<sup>7</sup>

This narrow focus on 'the river' has resulted in perverse environmental outcomes – such that substantial money has been spent on flooding the River Red Gum forests of Barmah-Millewa only to have them logged and patch-clear felled for firewood that is sold for \$15/tonne. This represents a major subsidy from the taxpayer, channeled through the purchase of environmental water, to a low

value logging industry that has a significant environmental impact.

It is 'channel vision' - which has progressed to complete blindness when it comes to the application of environmental law in the region, particularly as it relates to the logging of River Red Gum forests and the activities of Forests NSW. Extraordinarily, the logging of the last two decades has occurred without lawful approvals under either State or Federal environment laws. It is an incredible tale of disregard for environmental law and indifference for international conventions played out across a 20 year period - a tale of overt political interference and the emasculation of regulatory authorities.

### NSW legal context

In 1994, Forests NSW conducted fauna surveys in River Red Gum forests as preparation for the development of a Fauna Impact Statement. However, after changes to the regulatory environment with the introduction of the *Threatened Species Conservation Act 1995* (NSW), they changed course and have been logging for the last 15 years without ever conducting an environmental impact assessment under the *Environmental Planning and Assessment Act 1979* (NSW).

After a legal case brought by the National Parks Association of NSW in 2007, Forests NSW admitted that River Red Gum logging and associated activities required approval

under the *Environmental Planning and Assessment Act 1979* (NSW). In fact, the activity is now caught under the notorious Part 3A of the Act, due to a prior declaration by the Minister for Infrastructure and Planning in 2005 that went largely unnoticed at the time, but which captures most activities for which the proponent is also the determining authority.

On 11 June 2008, Forests NSW lodged a Major Project application under Part 3A of the *Environmental Planning and Assessment Act 1979* (NSW) for harvesting and associated road work in south-western NSW to the Department of Planning, accompanied by a Preliminary Environmental Assessment. In late July 2008, the NSW Department of Planning issued Director-Generals Requirements to Forests NSW.

Forests NSW have still not completed or submitted an Environmental Assessment addressing the Director-General's Requirements. In relation to Part 3A of the Act, s. 75D states that: "A person is not to carry out development that is a project to which this Part applies unless the Minister has approved of the carrying out of the project ...".

However, more than a year after Forests NSW lodged a Major Project application under Part 3A, and more than 15 years after they first commenced preparations for an impact assessment, logging and associated commercial firewood collection continues unabated in the River Red Gum forests of south-western NSW.

### Federal legal context

There are numerous matters of national environmental significance in the Red Gum forests of the NSW Riverina region. River Red Gum forests contain known or likely habitat for 17 nationally threatened species and habitat for 13 migratory birds listed under the CAMBA<sup>8</sup> and JAMBA<sup>9</sup> conventions.<sup>10</sup> Nationally threatened species likely to be affected by logging include the Superb Parrot, Regent Parrot and Southern Bell Frog. Approximately 84,084 hectares of State Forests are listed on the Ramsar convention as part of the NSW Central Murray State Forest site.<sup>11</sup>

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) makes it illegal to undertake an activity that has, or is likely to have, a significant impact on matters of national environmental significance.

In 2008, the National Parks Association conducted a detailed assessment of the likely impacts of River Red Gum logging and associated activities on matters of national environmental significance, following the *Guidelines for Significant Impact* set down by the Department of Environment and Heritage. It led us to conclude that logging was indeed having a significant impact on matters of national environmental significance.<sup>12</sup> We reviewed each of the exemptions contained in the Act and concluded that none of them apply to River Red Gum logging and associated activities.<sup>13</sup> Notably, there are no agreements waiving the



requirement for approval and the forests are not located in a Regional Forest Agreement area and have not been subject to a Regional Forest Agreement. Furthermore, River Red Gum logging operations are not exempt under the prior authorisation provision<sup>14</sup> or the continuing use provisions.<sup>15</sup>

However, Forests NSW has never referred the activity under the EPBC Act and there has been no assessment under the Act. We provided the detailed report to the Department of Environment Water Heritage and Arts (DEWHA) in August 2008, having first written to the Federal Government raising concerns about the legality of logging in early 2007.

### International legal conventions

The NSW Central Murray State Forests Ramsar site was listed on the Ramsar Convention in 2003. The site is located adjacent to the Murray River and its anabranch the Edwards River, and includes the Millewa, Koondrook-Perricoota and Werai State Forests. It is managed by Forests NSW. There is no Ramsar Management Plan or Ecological Character Description in place for the site.

There is strong evidence to indicate that river regulation, over-allocation of water for irrigation, and industrial logging and associated activities, are causing a substantial and severely detrimental alteration in the ecological character of the NSW Central Murray State Forests Ramsar site.<sup>16</sup>

A recent audit has classified the ecological condition of the zone in which the site occurs as very poor.<sup>17</sup> The hydrological changes to the site have been substantial, with major changes in the frequency, size and duration of flood events, and much reduced breeding of colonially nesting bird species.<sup>18</sup> The health of River Red Gum forests has declined markedly over the last decade.<sup>19</sup> Despite these documented declines, and the fact a report on them has been submitted to the Australian Government and the Ramsar Convention Secretariat, there has been no notification that the site is experiencing changes in ecological character as a result of human interference in accordance with Article 3.2 of the Ramsar Convention.<sup>21</sup>

### Politics and the law – a River Red Gum case study

Recent developments regarding River Red Gums provide a very interesting case study on environmental law, and how it fares in the political process. The analysis by the National Parks Association of NSW, described above, of the impacts of River Red Gum logging on matters of national environmental significance triggered a nine month investigation of the logging operations by DEWHA which commenced in August 2008. On 1 May 2009, the DEWHA took action. In a letter to Forests NSW they stated that:

*...the Department's investigation of the impacts of forestry operations initially focused on two matters of national environmental significance: the Ramsar wetland site; and*

*the Superb Parrot. The investigation found that there was a likelihood of significant impact to these matters of national environmental significance as a result of forestry operations. It is important to reiterate that the EPBC Act prohibits such actions, unless they are referred to and approved by the Commonwealth Environment Minister<sup>22</sup>*

They further noted that:

*The Department considers that AGS constitutes an intensification of use and its environmental impacts, if any, require assessment and approval. The Department also considers that the application of this harvesting practice is likely to be having a significant impact upon the Central Murray State Forests Ramsar site and the connectivity of habitat for, but not limited to, the Superb Parrot (*Polytelis swainsonii*) in the wider region.*

In the same letter DEWHA asked Forests NSW to undertake the following actions:

*Refer the ongoing operations for consideration under the EPBC Act 1999 before or no later than the 31st August 2009. By 31st May 2009 cessation of the use of Australian Group Selection (AGS) across the SW NSW Murray Mildura Management Area.....By 31st May 2009 cessation of all harvesting operations in the Central Murray State Forests Ramsar site until further advice from this Department or referral of the wider operations.....Upon receipt of this letter, Forests NSW to commission comprehensive pre-logging flora and fauna surveys, to be undertaken by an independent expert party, in all coups proposed for sawlog and residue harvesting.....*

All was quiet for ten days after the letter was sent. Then, on 11 May, it was leaked to selected media outlets with one very clear agenda – to create a jobs scare to prevent DEWHA from applying the law. It was billed as a 'parrot vs jobs' debate, with the Daily Telegraph byline on 11 May reading "A parrot is about to cost 1000 workers their jobs because the Federal Government has ordered a NSW timber industry to shut to protect the bird".

Needless to say, it worked a treat. The sequence of letters between DEWHA and Forests NSW which followed in May 2009, obtained under Freedom of Information, provide a fascinating insight into the politicisation of environmental law and the introduction of extraneous and inflated socio-economic considerations into its application. These factors quickly led to the original decision by DEWHA being overturned. Coercion or persuasion, call it what you will, it proved very effective in securing 'business as usual' for the logging industry.

Basically, the capitulation was speedy and emphatic after the media splash – by 18 May DEWHA met with Forests NSW and rolled over. On 20 May, they wrote a letter to Forests NSW that "supersedes the Department's letter of 1 May". This new letter revoked the previous request for logging operations to cease and to be referred, and instead proposed that logging would continue under some



‘interim arrangements’ whilst a strategic assessment was undertaken. It stated that:

*...this letter provides more information on a possible strategic assessment under the EPBC Act 1999 (Cth) as well as, on a without prejudice basis, our thoughts on harvest prescriptions that would be needed to ensure no unacceptable impacts in the short-term on matters of national environmental significance.*

Notably, even this olive branch was boldly rejected by Forests NSW. In their reply on 21 May, the CEO wrote:<sup>23</sup>

*I've had the opportunity of sharing your letter with our Minister and while the proposal for the strategic assessment was viewed favourably, subject to further legal advice on the detail, it would be fair to say that he is extremely concerned about the prescriptions proposed and the effect on the viability of the industry...."*

In a subsequent letter, sent the following day, the screws were tightened yet again. Forests NSW wrote that:<sup>24</sup>

*If we are not able to resolve issues between our two agencies within the next few days, from the 31 May the industry will rapidly close down as a result of the actions proposed by the Department of Environment, Water, Heritage and the Arts, as already low log stocks run out....This will force in excess of 500 people directly employed out of work as well as approximately 360 additional people whose livelihoods depend on the industry. The closure will prejudice the completion of an order for 450,000 environmentally sustainable red gum sleepers to be supplied under contract to Vic-Rail.*

At the time of writing, Red Gum forests in NSW are still being logged without any additional constraints despite the activity having been deemed unlawful by DEWHA on 1 May 2009. Notably, recent data shows that the real number of jobs in the Red Gum timber industry on public land is approximately 157 and only a fraction of them would have been affected by the actions proposed by DEWHA. The scare campaign, in short, was based on a falsehood.

There is one final vignette which needs to be included to fully capture the true irony of the situation. In their letter to Forests NSW of 20 May, Gerard Early of DEWHA wrote that:

*I should note that this agreement is about the assessment process to be undertaken and the interim arrangements reflect the intentions and good will of our two governments. Nevertheless the EPBC Act does contain provision for third party actions and until the Strategic Assessment is completed the possibility remains that such actions could be pursued by others.*

In short, the environmental regulator had been reduced to referring to the ‘bogeyman’ of unknown third parties on some distant horizon as a means to coerce Forests NSW into negotiating in good faith – having abdicated all responsibility themselves. Extraordinary.

## Conclusion

It is difficult not to conclude, from recent experiences with River Red Gum forests in south-western NSW, that environmental law in Australia is something of a farce. Government agencies routinely break the law without any penalty. Other Government agencies routinely ignore that fact. Blatant political interference is commonplace. The example to private landholders speaks volumes – break the law, and ‘she’ll be right mate’.

An Environmental Impact Statement should have been prepared for River Red Gum logging under the *Environmental Planning and Assessment Act 1979* (NSW) in the early 1990s, as they were elsewhere in NSW. Approvals should have been obtained under the EPBC Act immediately after the Act commenced in 2000. There has, in fact, been almost two decades of unlawful activity in some of the most rapidly declining ecosystems on the continent. The great irony is that all this has taken place over the same period in which the Council of Australian Governments have declared repeatedly that they are intent on saving the Murray-Darling Basin.

In late July 2009, the NSW Government finally instigated a regional assessment of the River Red Gum State Forests of the Riverina region under the *Forestry and National Parks Estate Act 1998* (NSW), which is being conducted by the Natural Resources Commission. This assessment is intended to lead to new National Parks and a restructured timber industry, and ultimately to the production of an Integrated Forestry Operations Approval that will then render the operations exempt from the provisions of the *NSW Environmental Planning and Assessment Act 1979* (NSW).

This assessment has also been tasked with meeting the requirements of the EPBC Act – although there has been no clarification of how this will be achieved, it has been mooted that the assessment may produce a Conservation Agreement under the EPBC Act. The Natural Resources Commission is due to make final recommendations to the NSW Government on the future of River Red Gum wetlands on 30 November this year.<sup>25</sup>

Certainly, we are facing immense challenges if we want to keep the owls ‘barking’ along the Murray River for untold generations to come. It will require a new way of envisioning environmental solutions – a comprehensive plan for ‘land and water’ in the Murray–Darling, which includes targeted delivery of environmental water to key wetland areas, the creation of large new National Parks, a major expansion in the role of Traditional Owners in natural resource management across all land tenures including handback/leaseback of key reserve areas, and a cross-tenure conservation initiative from Kosciusko to the Coorong to enable species to adapt to a changing climate.

However, I would argue that equally important to the future of the Barking Owl and species like it, is the urgent

need to re-invigorate the rule of law and to re-instate some modicum of respect for environmental statutes at all levels – State, national and international – across the country. That will require substantial changes to both the laws themselves and to the regulatory culture of those administering them.

included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. Information on such changes shall be passed without delay” to the Ramsar Secretariat.

<sup>22</sup> Rose Webb, 1 May 2009

<sup>23</sup> Nick Roberts, 21 May 2009

<sup>24</sup> Nick Roberts, 22 May 2009

<sup>25</sup> Note, the Report was released in December 2009 and is available at <http://www.nrc.nsw.gov.au/Workwedo/Forestassessment.aspx#redfar>

<sup>1</sup> Parker, DG, Webster, R, Belcher, CA, & Leslie, D 2007, 'A survey of large forest owls in State Forests of south-western New South Wales, Australia', *Australian Zoologist*, vol. 34, pp. 78–84.

<sup>2</sup> Hobbs, JN 1961, 'The birds of south-west New South Wales', *Emu*, vol. 61, pp 21–55.

<sup>3</sup> McGregor, H, 'Large forest owls in the river red gum state forests of south-western New South Wales – an account of their 2008 status', *Australian Zoologist* (in press).

<sup>4</sup> Murray Darling Basin Commission 2003, Report to the Murray Darling Basin Commission: *Indigenous response to the Living Murray initiative*. Available at <http://www.mldr.org.au/publications/TLMIndigenousResponse.pdf>

<sup>5</sup> Murray Darling Basin Commission 2004, *Ecological assessment of environmental flow reference points for the River Murray system, report for the Murray Darling Basin Commission Living Murray initiative – Interim Report*. Available at <http://publications.mdbc.gov.au/download.php?download=234>

<sup>6</sup> Dunlop M & Brown P 2008 *Implications of climate change for Australia's national reserve system: a preliminary assessment*, Dept of the Environment, Water, Heritage and the Arts, Canberra, A.C.T

<sup>7</sup> Pennay, M & Gosper, C 2003 Riverina data audit. Fauna. *NSW Western Regional Assessments. Riverina*. Report prepared for RACD by NSW National Parks and Wildlife Service.

<sup>8</sup> China-Australia Migratory Bird Agreement

<sup>9</sup> Japan-Australia Migratory Bird Agreement.

<sup>10</sup> Flint, C & Woods, G 2008, *The impacts of River Red Gum logging and associated activities in NSW on matters of national environmental significance*, Unpublished report for the National Parks Association of NSW.

<sup>11</sup> Department Environment and Heritage 2003, *Final RIS (Ramsar Information Sheet) NSW Central Murray Forests*.

<sup>12</sup> Flint, C and Woods, G 2008 *The impacts of River Red Gum logging and associated activities in NSW on matters of national environmental significance*, Unpublished report for the National Parks Association of NSW.

<sup>13</sup> Ibid

<sup>14</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s. 43A.

<sup>15</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s. 43B.

<sup>16</sup> National Parks Association of NSW, Victorian National Parks Association and the Murray Lower Darling Rivers Indigenous Nations 2008. *Ramsar Site in Danger: NSW Central Murray State Forests: Notification to the Australian Government and the Ramsar Convention Secretariat*.

<sup>17</sup> Davies, P, Harris, J, Hillman, T. & Walker, K 2008, *Sustainable Rivers Audit: A report on the ecological health of rivers in the Murray-Darling Basin, 2004–2007*, Prepared by the Independent Sustainable Rivers Audit Group for the Murray–Darling Basin Ministerial Council.

<sup>18</sup> Murray Darling Basin Commission. 2007a. *The Living Murray Icon Site Condition Report October 2007*; Murray Darling Basin Commission 2007b *Draft Gunbowser Koondrook-Perricoota Forest Asset Environmental Management Plan 2007–2010*, Murray-Darling Basin Commission, Canberra ACT 2601; Murray Darling Basin Commission 2007c *Draft Barmah-Millewa Forest Icon Site Environmental Management Plan 2007–2010*, Murray-Darling Basin Commission, Canberra ACT 2601

<sup>19</sup> Brett Lane and Associates Pty Ltd for Murray Darling Basin Commission 2004 *Survey of River Red Gum and Black Box Health Along the River Murray in New South Wales, Victoria and South Australia*, Murray Darling Basin Commission, Canberra, A.C.T.

<sup>20</sup> National Parks Association of NSW, Victorian National Parks Association and the Murray Lower Darling Rivers Indigenous Nations 2008. *Ramsar Site in Danger: NSW Central Murray State Forests: Notification to the Australian Government and the Ramsar Convention Secretariat*.

<sup>21</sup> Article 3.2, commits each Party “to arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and

# Native vegetation management in the Northern Territory - Preserving one of the last remaining expanses of natural areas on Earth

Mark Cowan, Principal Solicitor, Environmental Defender's Office NT

## Introduction

Despite archaic environmental and planning laws, the predominantly savannah landscapes of the Northern Territory have survived to date with relatively intact expanses of native vegetation. When combined with regions of northern Western Australia (WA) and Queensland (QLD) it rivals other large terrestrial expanses of wilderness around the globe, such as the boreal conifer forests of Alaska and Canada and the Amazon rainforest.

The current situation can be attributed to a variety of factors, including low population and development pressures, poor climatic and environmental conditions for widespread major agriculture (although many projects have still been attempted and failed), lack of easy access to land and natural resources, and various impediments to access and development of Aboriginal Land (with some notable exceptions such as the Tiwi Islands).

However, the relatively healthy extent of native vegetation can paint a deceptive picture of overall ecosystem health. Even in remote landscapes, the impacts of weeds, pests, altered fire regimes and grazing are significantly degrading the quality of many ecosystems.

In addition, development pressures in the Territory are growing exponentially in many regions, driving both an increased pressure for land clearing and increased pressures of other threatening processes. There is a concerted drive by the Northern Territory Government for an urban and industrial boom around the pristine Darwin Harbour focussed on the Liquefied Natural Gas (LNG) industry, heavy investment by the Northern Territory and Commonwealth in infrastructure to open up land for access to mining and other industries (such as grazing and horticulture), and large-scale agricultural projects in the Douglas / Daly, Howard Springs and Kununurra regions driven by the myth of the 'Northern Food Bowl'.

The regulation of land-clearing is currently undertaken through a hodgepodge of different laws, depending on the relevant land-use and tenure. The *Pastoral Land Act* regulates clearing on pastoral leases, the *Mining Act* on

mining tenements and the *Planning Act* on most other areas. The regulation is an uncoordinated and re-active permit system for clearing activities, with little attempt to address the cumulative impacts of clearing through strategic planning or address other threatening processes in a holistic manner. More so it is littered with loopholes and exemptions, lax standards, and enforcement of known widespread breaches is non-existent. Two examples highlight the point:

### 1. Tiwi Islands logging and forestry project

The clearing of up to 30,000 hectares of pristine tall old eucalypt forest on the Tiwi Islands for forestry operations has occurred in stages since 2001, with most of the clearing occurring in the last 5 years since land clearing controls have been in place. Yet not one permit was obtained in relation to the clearing, with the Northern Territory Government turning a blind eye.

### 2. Darwin harbour mangroves

Around the Darwin Harbour region, conservation zones under the Planning Scheme were established to purportedly protect mangrove communities from incremental urban development pressures. However, the Planning legislation is premised solely on balancing socio-economic impacts of development, not preserving environmental integrity – and therefore provides multiple means of overriding any zoning prohibitions. These exemptions are being heavily utilised by private developers of residential canal estates and industrial land (particularly LNG facilities) with the support of the Northern Territory Government to slowly degrade the unique extent of mangrove communities enjoyed in the Darwin region.

The existing agricultural development of the Douglas Daly region was the catalyst for an announcement of Territory-wide reform on native vegetation regulation by the former Minister for the Environment Alison Anderson on 12 December 2008, as large expanses of native vegetation have been clear-felled in the region. Ms Anderson announced a moratorium on clearing in the Douglas Daly region and that

## *“The EDO Northern Territory has been working... to develop a model ‘best practice’ framework for native vegetation management in the Northern Territory”*

a “world’s best” Native Vegetation Management Act would be prepared over a period of 18 months for the Territory, and that it would include caps on total clearing and provide a basis for climate change impacts to be included in land clearing decisions.

Apart from this commitment, it is unclear what the Northern Territory Government is proposing for the new regulatory framework.

The EDO Northern Territory has been working with the Environment Centre for the Northern Territory (ECNT) to develop a model ‘best practice’ framework for native vegetation management in the Northern Territory to submit to the Northern Territory Government.

If managed effectively, the Northern Territory could remain one of the last bastions of largely intact terrestrial ecosystems, providing an insurance policy for protection of Australia’s biodiversity, a strong basis for resilience and adaptation of biodiversity and humans to climate change, and support a burgeoning long-term industry in environmental service provision (such as carbon sequestration, protection and sustainable utilisation of wildlife and bush products, tourism, water quality regulation, flood mitigation, and other sustainable industries).

To achieve this, there are a number of crucial elements to any new native vegetation legislation that must be adopted. These build upon lessons from eastern States, and take into account the unique Northern Territory context.

### **Strong aims, objectives and guiding principles**

The retention of current levels of native vegetation extent and quality is absolutely vital to ensuring that the values and benefits of native vegetation are preserved, including:

- The maintenance of viable and functional populations of all native species in the Territory landscape across relevant population scales (ie local, regional);
- The maintenance of ecosystem services provided by native vegetation, such as climate and hydrological regulation, carbon sequestration, pollution control, nutrient cycling and pollination, soil stability, and flood protection;
- The maintenance of the resilience and adaptation capacity of both biodiversity and humans to climate change; and
- The maintenance of the socio-economic values in tourism, cultural identity and practices, native bush products, and other sustainable industries.

It is also critical that objectives state clearly that the continual, even if gradual, decline of such environmental values and outcomes is simply not acceptable. It is a clear lesson from eastern States that the ‘minimise’ approach to native vegetation impacts simply leads to a death by a thousand cuts.

It will be essential that principles of ecological sustainability are adopted in law to provide the pervasive operating principles through the framework’s actions and decision-making. These include the precautionary principle, biological integrity, inter and intra generational equity and the polluter / user pays principles.

### **The preservation hierarchy**

The avoidance of land-clearing, as the most devastating threatening process, must be the primary focus of any native vegetation management framework. Only for essential purposes must land-clearing be allowed, in which case all attempts must be made to reduce and mitigate its extent and associated impacts and an offset must be provided to address the final unavoidable extent of clearing. This is known as the preservation hierarchy, which applies a preferential order of avoidance, mitigation and offsetting to land-clearing. The hierarchy should also apply where relevant in relation to other activities which impact on vegetation quality.

#### ***Avoidance & mitigation***

Caps on total clearing on all relevant landscape scales per vegetation type (Territory-wide, catchment and sub-catchment) are a key mechanism to achieving avoidance. However, care needs to be taken to avoid confusing caps with useable quotas (ie such as in water allocation). Even within cap limits, avoidance must remain the principle objective, and care must be taken to prevent any indication that caps implicitly support any further native vegetation clearing.

Additional rules and criteria must be established in regional plans to:

- Prevent vegetation clearing in high value vegetation types and ecosystems (such as riparian, wetland, mangrove and rainforest areas);
- Ensure that clearing does not create small and fragmented vegetation communities;
- Ensure clearing which does occur mitigates flow on effects to the greatest extent possible (such as the introduction of weeds or fire regimes); and

- Prevent vegetation clearing which does not relate to sustainable land-uses.

Each application to clear native vegetation must demonstrate that the clearing is essential.

### **Offsetting**

The aim of the preservation hierarchy is to achieve a ‘no net loss of native vegetation extent and quality’ outcome, either by prohibiting all clearing or allowing clearing with commensurate offsets. Even if further native vegetation clearing occurs – it must be offset by rehabilitation and restorative practices within a framework that ensures equal or greater environmental value is achieved by the offset to those lost by the clearing.

Whilst the use of offsets within the preservation hierarchy is generally robust in theory, its implementation is the key to ensuring that offsets are not used as a subtle means of pushing a proposal through which should not otherwise be accepted, and gradually transitioning the landscape from high quality remnant vegetation to low value non-remnant vegetation (ie regrowth / restored landscapes).

For example, a key argument for approval of the McArthur River Mine expansion was the promise by Xstrata to construct a fully functional river diversion and riparian offset to compensate for the open cut mining of the McArthur River bed. However, as far as we are aware there are no strict compliance performance-based criteria on the establishment and performance of this offset. Worse still the regulation of the offset is kept secret, with little details of conditions applying to it provided to the public. Even if the offset is somewhat successful, it will take at least a decade – resulting in a net loss of environmental values through the 10 year lag period. If the offset was to completely fail, this would be unlikely to result in any inhibitions to the continuation of the actual mining project, even though the basis of its approval was the claim that a successful offset could be created.

### **Coverage of vegetation clearing activities**

To achieve native vegetation management objectives, all types of clearing activities must be captured by the framework.

The clearing of vegetation can occur in multiple ways (broad-scale, thinning, poisoning, flooding and drainage), for multiple purposes (safety, fire management, urban development, agriculture, mining, access etc), on differing tenures (freehold, Aboriginal Land, Crown Land, Commonwealth Land (Defence) and Pastoral Leases).

For environmental integrity to be maintained all such clearing must be captured and regulated irrespective of method, purpose or location. For example, there should be no exemptions to the application of the framework to urban development, mining or infrastructure. Although this does

not prevent clearing for these purposes being subject to different standards or means of achieving the same ‘maintain or improve’ outcome for native vegetation (for example, offsets could be utilised more readily for mining projects which are less likely to be able to avoid clearing).

### **Coverage of threatening processes**

Whilst the extent of native vegetation in the Territory remains relatively healthy, the same cannot be said for aspects of its quality. In particular, some species for which native vegetation provides habitat are in serious decline. The disappearance of small native mammals from places untouched by direct contemporary European threats (such as Arnhem Land) is alarming, and generally considered the result of introduced weeds (eg Gamba Grass) and pests (eg Cane Toad and feral cats), and the prevalence of inappropriate fire regimes brought about by the removal or relocation of Aboriginal people away from traditional lifestyles. Elsewhere, the extensive pastoral properties of the Northern Territory have been shown to have major detrimental effects on many populations of native species through grazing pressures.

Accordingly, indirect impacts such as intensive grazing, poor fire management and weeds and pests are significant problems in the Territory with regard to native vegetation quality. Whilst strict controls on land-clearing are essential, it is crucial that strict controls are placed on these other threatening processes if native vegetation is to act as a surrogate for maintenance of biodiversity.

The many frameworks which already regulate these activities therefore need to re-align their objectives and design to support native vegetation preservation.

For example, in the Territory the fire management framework under the *Bushfires Act* (NT) is premised on an objective of preventing bushfires to preserve property and protect human’s safety. It contains no effective measures to facilitate the lighting of a bushfire for positive biodiversity benefits, such as overcoming issues with cross-tenure activities and facilitating Indigenous management of country.

Similarly the Weeds Management Framework lacks a clear focus on achieving biodiversity outcomes. Hence, introduced species such as Buffel grass which have a negative impact on biodiversity, remain undeclared under the *Weeds Management Act 2001* because they are economically valued as pasture species.

The *Pastoral Land Act* needs to be amended to ensure that conditions on Pastoral Leases (which are able to control grazing activities) are coordinated in relation to regional native vegetation plans to reduce grazing pressures.

Another example is the management of water, which is crucial to achieving objectives relating to native vegetation quality (ie by protecting water dependent ecosystems

such as wetlands, riparian areas and natural springs). Planning processes around the creation of water allocation and management plans must be integrated with native vegetation planning and other decisions.

### **Integrated, strategic, multifunctional and adaptive**

It is evident that the complex array of issues facing native vegetation calls for an integrated, strategic, multifunctional and adaptive approach to management.

Regional native vegetation plans could play the central role in this process, planning and directing control of these issues and how they interact with each other according to the characteristics of each catchment. For example, restricting and strategically planning the location of stock watering points under the *Water Act* and *Pastoral Land Act* through these plans could deliver strong outcomes for protection of off-reserve biodiversity. And the impacts of land-clearing can be mitigated if the plans were to provide the source of pastoral lease conditions to prevent grazing on and impose weed control requirements for newly cleared land.

Regional plans could also target the limited resources for positive restoration and rehabilitation activities to achieve best outcomes (ie interconnected functional landscapes), such as government investments in environmental service provision and resources, parks and reserves planning (under CAR principles<sup>1</sup>), voluntary and grant-generated activities, and industry offsets.

### **Transparency, enforcement and accountability**

Many of the existing processes in the Northern Territory surrounding the assessment of development impacts on environmental values (such as native vegetation) are secretive, are not open to public scrutiny and lack any objective controls and tests on decision-making. The Northern Territory also has an extremely poor history in enforcing clear and widespread breaches of its own environmental and natural resource management laws or providing any guide to understanding whether objectives are being achieved.

For example, under the *Mining Management Act*, which authorises mining activities, the principal details of a mining proposal's impact on the environment contained in a Mining Management Plan are not released to the public, nor is there any process for public consultation and involvement in the process. There are no tests or benchmarks regarding environmental outcomes which must be met before mines can be approved, and conditions on mining activities are vague and unenforceable.

This must change if any new native vegetation management framework is to maintain integrity and have any hope of achieving its objectives.

Clear benchmarks need to be outlined for decision-makers, particularly on land-clearing. Conditions on clearing activities must be quantifiable, performance-based and able to be monitored. The existing Northern Territory Government culture of acquiescence to breaches of environmental laws must also be tackled head on.

In relation to monitoring and enforcement in the Northern Territory any framework must be capable of being seriously enforced within the context of a sparse population, covering an extremely large area in often remote inaccessible environments.

Some means of achieving this goal are to provide much greater powers, control and resources to community groups, including:

- The publication of reasons for decisions or actions by government;
- Publication of information such as approval documents and monitoring and compliance reports through easily accessible means;
- Judicial review and merits appeal rights to the community in relation to native vegetation clearing applications and other key decisions (such as the creation of regional plans);
- Rights for the community to seek injunctions, restorative and stop-work orders from independent judicial bodies or tribunals for breaches of native vegetation laws when government is not willing or is unable to pursue the matter itself, and means by which community groups are resourced or compensated for acting as surrogate regulators; and
- Appropriate rights and immunities to community members to monitor and report on illegal activities (perhaps rights to enter leasehold or public land to obtain information about illegal clearing activities).

A crucial element will also be public reporting on the effectiveness of the framework and its various mechanisms in obtaining the objectives for native vegetation management. The Northern Territory suffers from perceptions that 'everything is alright' in the absence of basic State of Environment reporting. The changing extent and quality of native vegetation in each catchment must be monitored and publicly reported so that the mechanisms adopted can be evaluated for their effectiveness.

### **Science-based action with precaution**

It is critical that scientific expertise is used to determine key elements of the framework, such as clearing caps on relevant landscape scales as well as criteria applying to individual clearing applications and offsetting activities. Accordingly, an expert scientific body must play a central role in the operation of the framework without inappropriate direction or control by Government Ministers.

However, whilst science must drive decisions, it is important that the lack of science is not used as an excuse for proceeding with threatening processes.

The reality of the Northern Territory is that little is known about its natural environment apart from work undertaken by a few dedicated scientists<sup>2</sup> (from a non-Indigenous point of view), and there are few resources to find out more about it. Baseline studies are only recently being undertaken, and often occur in order to allow the environment which is being studied to be cleared for development.

It is highly likely that such knowledge will remain elusive to western science / ecology into the future, as fluid and complex impacts of climate change make observations of natural states extremely difficult.

### **Living Indigenous cultural values in the landscape**

Indigenous law and culture generally posits cultural values in landscapes which drive the management of Country in ways which benefit the maintenance of environmental values.

Song cycles, dreamings, rituals and traditional ceremonies and daily use of country together conceptualise the landscapes in which Indigenous people live. Respect, preservation and active facilitation and support of these cultural values in landscapes provides the dual benefits of empowering Indigenous Australians in maintaining their culture and identity, and achieving environmental outcomes.

The framework must more generally acknowledge and learn from the view of Indigenous people that country is not healthy in the absence of appropriate human presence and management. Such will be vital if threats of weeds, pests and wildfire are ever going to be seriously addressed.

### **Sustainable livelihoods & ecosystem services**

Arguments over intra-generational equity often sit at the heart of land-clearing restrictions. Much confusion can occur around the presumption that land-clearing is a pre-requisite to community wellbeing, and therefore the rights thereto must be distributed equitably.

Unless this misleading presumption is directly addressed, and transitional pathways are provided (through a combination of long-term funding, commitment and resources, infrastructure and facilitative legal regimes) to move from industries reliant upon degrading native vegetation, to those reliant on maintaining the quality of native vegetation, then it will be very difficult to achieve positive environmental outcomes for native vegetation.

Market-based instruments must therefore form a key tool to drive investment in positive environmental management actions. Their success will heavily depend upon the appropriate design of property rights and land / water access regimes to support sustainable industries in the

same way that mining and pastoral industries have been underpinned by facilitative legal regimes to date.

These mechanisms will also require ways of appropriately rewarding and respecting Indigenous intellectual knowledge of Country and maintaining an active presence and management of Country.

### **Public participation & ownership**

With a highly regional and remote population, communities must be heavily involved in the framework which affects their daily livelihoods and community.

This should include allowing communities to nominate special high value areas for protection outside parks and reserves, involvement in preparation and implementation of regional plans, involvement in assessment of individual or group clearing applications, as well as monitoring and enforcement.

As discussed above, the community forms a key tool in both holding government to account in following their own laws and holding developers to the commitments regarding impacts on native vegetation.

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<sup>1</sup> Comprehensiveness, Adequacy, Representativeness.

<sup>2</sup> Such as John Woinarski

# Encouraging effective carbon sink forests: Distinguishing the good from the bad and the ugly

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## Introduction

Promoting the planting and nurturing of vegetation to decrease levels of carbon dioxide in the atmosphere is a well known strategy to combat the effects of climate change. What is less understood is that not all forms of carbon sink forests fulfill the purpose of carbon sequestration. Some not only fail to become net stores of carbon, but damage regional biodiversity, strain water resources and compete with the agricultural sector for land. This essay aims to raise awareness about the large range of carbon sink forests and the differing environmental impacts from one end of the scale to another. Firstly, it will define the characteristics of a carbon sink forest. Secondly it will discuss the differences between plantation carbon sinks as opposed to existing native forest sinks. Thirdly, it will scrutinise the various legal tools used to deal with the promotion and regulation of carbon sink forests and propose reforms. Finally, it will submit that the correct mentality for addressing carbon sinks is to regard them as a long-term solution offering broader environmental benefits apart from emissions reductions. When this focus is in place, it can be seen that current legislation is inadequate in promoting effective and resilient forms of carbon sinks. More needs to be done to distinguish between what will truly make a positive impact on the environment and what is questionable at best.

## What is a carbon sink forest?

A carbon sink forest is commonly described in legislation as carbon sequestration by trees. This is defined in section 40.1015 of the *Income Tax Assessment Act 1997* (Cth) (ITAA) to mean 'the process by which trees absorb carbon dioxide from the atmosphere.' Another commonly utilised term is 'biosequestration', which expands the definition to include vegetation stocks as well as forest.<sup>1</sup> The latter is a better description because non-tree species such as bushes and shrubs have now been incorporated into carbon sinks under the Kyoto Protocol.<sup>2</sup>

A number of conditions also apply to the establishment of a forest. These are broadly similar across the various legislative instruments. The *Carbon Pollution Reduction Scheme Bill* (CPRS Bill) sets out its conditions in its definition of 'forest stand' in section 5, which are almost identical to the ITAA in its section 40-1010 on conditions

for including expenditure for carbon sinks in its tax break. New South Wales also mandates the same conditions in awarding abatement certificates under its State scheme for the establishment of a carbon sink.<sup>3</sup> The conditions relate to the minimum specifications in terms of scale, and these are that the trees must occupy a continuous land area in Australia of 0.2 hectares or more; at the time of establishment are more likely than not to attain a crown cover of 20% or more and reach a height of at least 2 metres, and finally that the area occupied was clear of trees that met such specifications on the 1 January 1990 (in the CPRS Bill this is 31 December 1989).<sup>4</sup> It can be seen from the above that no specifications are made on the ecological makeup of the forest or forest stand. Hence monoculture plantations and native forests are valued equally in the eyes of the law at present.

*"...it can be seen that current legislation is inadequate in promoting effective and resilient forms of carbon sinks."*

## Differing kinds of carbon sink forests

Putting aside legislation, there are significant differences between monoculture plantations and native forests from an environmental point of view. A concern regarding the proliferation of monoculture plantations includes their demand for large quantities of water, which puts pressure on water resources and redirects valuable water flow from neighbouring farms. The plantations also result in the loss of biodiversity, and may compete for and deprive the farming industry of prime agricultural land.<sup>5</sup> Furthermore, establishing plantations using seeds not native to the region often require more maintenance, resulting in fragile carbon sinks less adaptable to natural climatic changes.

On the other hand, native forests and variants such as woodlands and wetlands are biodiverse and suited to the ecological conditions in which they grow. These allow the forests to be self replacing and more resistant to natural disturbances such as drought and flood. They also adapt quicker to changes in temperature and rainfall and over a longer period of time re-establish natural drainage systems,



water flows and improve water quality by removing silt and sedimentation.<sup>6</sup> For these reasons, organisations such as Greening Australia submit that biodiverse native forest carbon sinks represent the lowest environmental and financial risk because they deliver both mitigation and adaptation outcomes.<sup>7</sup> The monitoring required for such sinks is also less onerous because they are existing and verifiable stores of carbon.<sup>8</sup> Finally, it must be noted that carbon sink forests are a long term solution and will not offer the short term abatement benefits sought by many companies. Hence the issues of sustainability and resilience become all the more important in this context and should be given greater priority.

## The legal framework for carbon sink forests

### *Taxation legislation*

Subdivision 40J in the ITAA allows full tax deductions<sup>9</sup> for capital expenditure incurred in establishing trees that meet the requirements for constituting a carbon sink forest under the Act.<sup>10</sup> Section 40.1010 outlines a number of requirements for which expenditure is covered under the section. These include that the primary and principal purpose for establishing the trees is carbon sequestration by the trees;<sup>11</sup> the purposes do not include felling the trees or using them for commercial horticulture,<sup>12</sup> and the abovementioned conditions relating to scale in hectare size, crown cover and height.<sup>13</sup>

The problem with this subdivision is that it encourages the establishment of new plantations that attract immediate tax deductions.<sup>14</sup> While the initial purpose must be one of carbon sequestration, a subsequent change is not dealt with by the legislation so if the recipient of the tax credits later chose to fell the trees, tax credits received do not need to be paid back.<sup>15</sup> Furthermore, there are no restrictions on how long the trees must remain in the ground and the 'more likely than not' test for forest coverage does not provide a strong incentive to ensure the trees grow.<sup>16</sup> In a worst case scenario, deductions can be claimed in situations where forests or swamps have been cleared to sow seed for plantations which then fail to grow. There are also no restrictions on water usage or incentives to encourage the development of native tree species.

The current state of the legislation promotes a scenario already seen with forestry managed investment schemes under the ITAA<sup>17</sup> where the framing of the legislation has resulted in the planting of a spate of monoculture plantations that may harm biodiversity, generate water problems and provide a less certain carbon store. More needs to be done to encourage verifiable and low risk carbon sinks by preserving and extending existing native forests and wetlands. A suggestion may be to implement a scale of tax deductions, where full deductions are given to activities that create the most sustainable and effective carbon sink and only partial deductions for lesser equivalents. At



present, tax deductions are not claimable for expenses for clearing land or draining swamps or low lying land,<sup>18</sup> but it is suggested that this should be extended. Tax deductions should not be claimable altogether for carbon sinks established on land where natural ecosystems have been cleared for that purpose.<sup>19</sup>

### *Carbon Pollution Reduction Scheme Bill*

The yet to be passed CPRS Bill will introduce a 'cap and trade' system of carbon credits into the Australian market. It will impose a limit on greenhouse gas emissions and issue permits equivalent to the amount of the cap which will be tradable in accordance with a market determined price.<sup>20</sup> The Bill also outlines methods the Federal Government intends to utilise to deal with forestry issues, which may be included on a voluntary or 'opt-in' basis from 2010.<sup>21</sup> This is because forests are likely to be net carbon stores, thus providing an incentive to participate in the scheme.<sup>22</sup>

Part 10 of the CPRS Bill deals with reforestation, and gives a simplified outline of its relevant provisions in section 190. Free permits, termed Australian Emissions Units (AEUs) under the Bill, may be issued in relation to certain eligible

reforestation projects. These are worked out by reference to the net number of tonnes of greenhouse gases taken to be removed by the forest.<sup>23</sup> Eligibility is covered under Division 5 and requires an application to be made to the Authority for the declaration that the project is an eligible reforestation project.<sup>24</sup> Limited guidelines are given in the division on what the physical features of the project must be<sup>25</sup> but the definitions in section 5 of the Bill prescribe that a 'reforestation project' means a project for the establishment, management and maintenance of one or more forest stands; or existing forest stands. Furthermore, 'forest stand' under the Bill is defined as a stand of forest where, amongst other things, the stand is taken to have been established by means of direct, human-induced methods.<sup>26</sup> What this may imply is that AEU's are not available for activities relating to the management and maintenance of existing native forests or swamps that were not taken to be established as a result of direct human intervention. If this is the case, this will bar the issuing of a credit for the most effective and sustainable form of carbon sink forest.

The issuing of free AEU's should be extended beyond reforestation activities to the maintenance of existing native forests and swamps. The Bill as it stands also does not outline any measures that encourage better practices with regard to soil salinity, erosion, water usage and biodiversity. On this issue, it has been suggested that the credits should be assessed not solely on net tonnes of greenhouse gases saved but be weighted in accordance with its potential to address the aforementioned problems.<sup>27</sup>

Giving greater focus to more ecologically resilient forms of carbon sinks will also add credibility to the carbon trading scheme. The non-permanence of forestry has been an issue heatedly debated, with the European Union arguing that including forestry in its Emissions Trading Scheme would undermine the integrity of the setup.<sup>28</sup> Since Australia has chosen not to take this route, it should adopt measures to bolster its definition of eligible reforestation projects to ensure that AEU's are awarded for real and credible emissions savings. Better regulation of forestry will also ensure that the market price of carbon is not distorted.

### **The Kyoto Protocol**

Australia deposited its 'instrument of ratification' into the Kyoto Protocol on 12 December 2007 and the treaty came into force on 11 March 2008.<sup>29</sup> The stated target for Australia is to limit its carbon emissions to 108% of 1990 levels during the first commitment period for participating countries between the years 2008 - 2012.<sup>30</sup> The Protocol deals specifically with the issue of forestry in Article 3.3 on forest sinks and Article 3.4 on additional forest sink activities.

Article 3.3 outlines that additional credits can be earned for afforestation and reforestation activities on land which did not contain forest since 1 January 1990 if these exceed the deforestation activities that occurred in the first commitment

period.<sup>31</sup> These three activities have specific definitions given by Decision 11/CP.7 of the Marrakesh Accord for the United Nations Framework Convention on Climate Change (UNFCCC) in 2002, which were subsequently adopted for Kyoto purposes.<sup>32</sup> In relation to the promotion of the best forms of carbon sinks, for example native forests and wetlands, there are problems with all three definitions.

The main difference between afforestation and reforestation is that the former applies to land not forested for at least 50 years and the latter since 31 December 1989. Otherwise, the two are similar in their definition to mean the direct human-induced conversion of land that has not been forested to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.<sup>33</sup> These descriptions are still vague so the applicability of activities such as the preservation of existing native forests is uncertain. However, the position of some governments such as New Zealand is that these do include the 'human induced promotion of natural regeneration'.<sup>34</sup> Nevertheless, it seems some preservation activities do not apply because Australia has chosen not to adopt the optional Article 3.4 of the Protocol, which allows nations to elect certain activities to be included in their emissions accounting practices. One of these is 'forest management', defined as "a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner."<sup>35</sup>

Deforestation covers the direct human-induced conversion of forested land for non forestry purposes.<sup>36</sup> This implies that the greenhouse gas emissions produced by land cleared to establish a carbon sink is not counted as it is undertaken for a forestry purpose. Hence there is insufficient discouragement to prevent the knocking down of trees for plantations in the current accounting system which we follow. This view was echoed by Senator Christine Milne who voiced her concerns over the introduction of subsection 40J of the ITAA:<sup>37</sup>

*The problem with this whole legislation is it is based on Kyoto accounting. By that I mean that what we get credit for is afforestation and reforestation...but we do not get penalised for the emissions that we put into the atmosphere from the logging of forests... [This is] because, as long as the land use does not change and as long as you put in a plantation on private land or you regenerate on public land, it is regarded as neutral[.]*

Understanding and acknowledging the shortfalls in the emissions accounting system we utilise is vital in finding solutions to minimise unwanted effects. It is submitted that the government should adopt the optional Article 3.4 to promote the establishment and preservation of more sustainable sources of carbon sinks. It should also adopt tighter regulations on deforestation to overcome Kyoto accounting imperfections and discourage the clearing of land to establish carbon sinks. This would be much more in line with the UNFCCC principle on Land Use and Land

Use Change and Forestry (LULUCF) which requires that the implementation of LULUCF activities under the Kyoto Protocol contribute to the conservation of biodiversity and sustainable use of natural resources.<sup>38</sup>

### **New South Wales Greenhouse Gas Abatement Scheme (“GGAS”)**

The GGAS was established as part of the NSW Greenhouse Gas Reduction Scheme on 1 January 2003, one of the first mandatory abatement schemes in the world aimed at reducing greenhouse gas emissions associated with electricity.<sup>39</sup> As part of the scheme, the GGAS assesses forestry projects and creates abatement certificates. The conditions for accreditation under the GGAS go beyond the definitions of a carbon sink forest given in the ITAA and CPRS Bill. Not only do forests need to meet the conditions for scale outlined above, there is also a requirement to demonstrate capacity to preserve the registered abatement for 100 years through the maintenance of carbon stocks in the sequestration pool.<sup>40</sup> The government explained its reasoning for this element in its guidebook, stating that “the approach to carbon sequestration must be consistent with the long term maintenance of carbon stocks.”<sup>41</sup> This policy is commendable in recognising that carbon sinks will not offer short term abatement effects and must be safeguarded in order to realise their long term benefits.

### **The correct mentality**

Carbon sink forests should be promoted with the object of creating a long term source of carbon sequestration. Given the time periods concerned, it would be preferential to reduce maintenance costs and resources such as water required to nurture the forest. Native sources of vegetation are best suited to achieve this. Existing native forests and its variants not only provide more reliable carbon stores but possess the added benefits of biodiversity conservation, reduction in soil salinity, adaptability to climatic change, and prevention of erosion. When considering that such great disparities exist between some fast growing monoculture plantations and existing native forests, distinctions should be put in place to promote the latter. The benefits of carbon sinks must not solely be measured on their ability to store carbon. A broader approach should be taken to discourage fast growing monoculture plantations with potential to do more harm to the environment than good.<sup>42</sup>

It must also be acknowledged that the legislative frameworks are flawed and do not credit the added benefits of biodiverse native forests. Meeting emissions targets is the primary driver in any climate change scheme, and legislation is framed in terms of incentives to reduce emissions. However, this does not mean that reforms and regulations to encourage other environmental objectives cannot be made to operate hand in hand with the ultimate goal to cut greenhouse gas emissions. Environmental

impacts are all inextricably linked and relevant legislation should be broadened to accommodate this.

### **Conclusion**

The current definition for carbon sink forests allows inclusion of a broad scale of candidates ranging from fast growing monoculture plantations on the one end to biodiverse native forests and wetlands on the other. The environmental impacts of various types of carbon sinks on this scale differ significantly as do their abilities to provide reliable stores of carbon. To proceed using the climate change tools we have been given is to operate on the false premise that all carbon sink forests benefit the environment and reduce greenhouse gas emissions in the same way. More needs to be done to encourage the nurturing of existing native stores of carbon over the planting of monoculture species. This will enhance the integrity of using forestry to combat climate change.

<sup>1</sup> A definition of biosequestration is ‘sequestering carbon through the planting and preservation of forest and vegetation stocks.’ Durrant, N 2008 ‘Legal Issues in Biosequestration: Carbon Sinks, Carbon Rights and Carbon Trading’ 13(3) *University of New South Wales Law Journal* 906, p. 906.

<sup>2</sup> See COP-6 (the Sixth Conference of the Parties of the UNFCCC 2001); Jones, D 2001 ‘Carbon Sinks and the Kyoto Protocol in Australia’, 3 *National Environment Law Review* 42, p. 43.

<sup>3</sup> Greenhouse Gas Abatement Scheme, *Carbon Sequestration – Forestry*, <http://www.greenhousegas.nsw.gov.au/acp/forestry.asp> viewed 25 October 2009.

<sup>4</sup> *Income Tax Assessment Act 1997* (Cth), s. 40.1010(2). Note that a difference in wording in the CPRS Bill is that the stand of trees will have ‘reached or have the potential to reach’ a crown cover of at least 20%, which is arguably a higher standard as opposed to the ITAA’s ‘more likely than not’ test.

<sup>5</sup> See more detailed discussion of this in Australian Network of Environmental Defender’s Offices 2008 *Submission into the Inquiry into the Implementation, Operation and Administration of the Legislation Underpinning Carbon Sink Forests*, p. 3, [http://www.edo.org.au/policy/080731carbon\\_sink\\_forests.pdf](http://www.edo.org.au/policy/080731carbon_sink_forests.pdf) viewed 23 October 2009.

<sup>6</sup> Greening Australia, *Submission to Standing Committee on Rural and Regional Affairs & Transport: Inquiry into Legislation Underpinning Carbon Forest Sinks*, [http://www.aph.gov.au/SEnate/committee/rrat\\_ctte/carbon\\_sink/submissions/sub35.pdf](http://www.aph.gov.au/SEnate/committee/rrat_ctte/carbon_sink/submissions/sub35.pdf) viewed 23 October 2009.

<sup>7</sup> *Ibid.*

<sup>8</sup> n 5 at page 3.

<sup>9</sup> The amount of the deduction is the amount of the expenditure. ITAA, s 40.10005(2)..

<sup>10</sup> ITAA, s 40.1000.

<sup>11</sup> ITAA, s 40.1010(1)(d); see also s. 40.1015.

<sup>12</sup> ITAA, s. 40.1010(1)(e).

<sup>13</sup> ITAA, s. 40.1010(2)(a)-(b).

<sup>14</sup> Milne, C 2008 Commonwealth Parliamentary Debates Senate, 24 June 2008, *Tax Laws Amendment (2008 Measures No.1) Bill Second Reading Speech*, p. 3226.

<sup>15</sup> MinterEllison Lawyers, *Taxation Opportunities and the Consequences of the National Emissions Trading Scheme*, p. 20, <http://www.minterellison.com/public/connect/Internet/Home/Legal+Insights/Reports+and+Guides/RG-Taxation+opportunities+&+National+Emissions+Trading+Scheme>

<sup>16</sup> n 5 at page 5.

<sup>17</sup> n 5 at page 2.

<sup>18</sup> ITAA, s. 40.1020.

<sup>19</sup> Greenpeace, *Greenpeace Submission to the Senate Rural and Regional Affairs and Transport Committee Inquiry into the Implementation, Operation and Administration of the Legislation Underpinning Carbon Sink Forests*, p. 6, [http://www.aph.gov.au/Senate/committee/rrat\\_ctte/carbon\\_sink/submissions/sub41.pdf](http://www.aph.gov.au/Senate/committee/rrat_ctte/carbon_sink/submissions/sub41.pdf) viewed 3 October 2009.

<sup>20</sup> Department of Climate Change, *How Does the CPRS Work?* <http://climatechange.gov.au/government/initiatives/cprs/how-cprs-works.aspx> viewed 25 October 2009.

<sup>21</sup> Department of Agriculture, Fisheries and Forestry, *Carbon Pollution Reduction Scheme*, [http://www.daff.gov.au/climatechange/carbon\\_pollution\\_reduction\\_scheme](http://www.daff.gov.au/climatechange/carbon_pollution_reduction_scheme) viewed 8 October 2009.

<sup>22</sup> Ibid.

<sup>23</sup> *Carbon Pollution Reduction Scheme Bill 2009* (Cth), s. 190.

<sup>24</sup> *Carbon Pollution Reduction Scheme Bill 2009* (Cth), s. 205.

<sup>25</sup> Other than the legal property characteristics of the land it will stand on, see eg. s. 209(5).

<sup>26</sup> *Carbon Pollution Reduction Scheme Bill 2009* (Cth), s. 5. Other specifications relate to land area, forest cover, and growth potential.

<sup>27</sup> n 2 at page 47.

<sup>28</sup> 'Including forestry could undermine the environmental integrity of the EU ETS as forestry projects cannot physically deliver permanent emissions reductions.' Commission of the European Communities, 2003, *Extended Impact Statement on the Directive of the European Parliament and of the Council Amending Directive Establishing a Scheme for Greenhouse Gas Emission Allowance in the Community, in Respect of the Kyoto Protocol's Project Based Mechanisms*, Brussels.

<sup>29</sup> Department of Climate Change, *Fact Sheet – Implementing the Kyoto Protocol in Australia 2008*, p. 1. <http://www.climatechange.gov.au/international/publications/pubs/fs-kyoto.pdf> viewed 8 October 2009.

<sup>30</sup> Ibid.

<sup>31</sup> *Kyoto Protocol*, Opened for signature 16 March 1998, 37 ILM 22, Article 3.3 (entered into force 16 February 2005).

<sup>32</sup> See Decision 19/CP.9 in *United Nations Framework Convention on Climate Change*, 'Report of the Conference of the Parties on its Ninth Session, Held at Milan from 1 December to 12 December 2003. Addendum. Part Two: Action Taken by the Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol at its Ninth Session', page 13-4.

<sup>33</sup> See the Annex for definitions subsequently adopted under Article 3 of the Kyoto Protocol in *United Nations Framework Convention on Climate Change*, 'Report of the Conference of the Parties on its Seventh Session, Held at Marrakesh from 29 October to 10 November 2001. Addendum. Part Two: Action Taken by the Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol at its Seventh Session', page 58.

<sup>34</sup> Ministry of Agriculture and Forestry (New Zealand) *Forestry Sinks and the Kyoto Protocol*. [http://www.maf.govt.nz/mafnet/rural-nz/sustainable-resource-use/climate/sinks/climate-04.htm#P114\\_17048](http://www.maf.govt.nz/mafnet/rural-nz/sustainable-resource-use/climate/sinks/climate-04.htm#P114_17048) viewed 20 October 2009.

<sup>35</sup> Australian Greenhouse Office in the Department of the Environment and Heritage, 2005 *Planning Forest Sink Projects. A Guide to Legal, Taxation and Contractual Issues*, p.130.

<sup>36</sup> n 34.

<sup>37</sup> n 14 at page 3226.

<sup>38</sup> n 19 at page 5, citing Decision 11/CP.7 of the UNFCCC. See also Paragraph 26 of the Annex to Decision 22/CP.7.

<sup>39</sup> GGAS, *Greenhouse Gas Reduction Scheme*, <http://www.greenhousegas.nsw.gov.au/default.asp> viewed 24 October 2009.

<sup>40</sup> GGAS, *Guide to Becoming an Accredited Abatement Certificate Provider – Carbon Sequestration*, p. 15, <http://www.greenhousegas.nsw.gov.au/documents/GtA-CS.pdf> viewed 24 October 2009.

<sup>41</sup> Ibid.

<sup>42</sup> For an overview of how legislation and other government intervention have promoted the global plantation trend, see Cossalter, C and Pye-Smith, C 2003 *Fast-Wood Forestry Myths and Realities*, Center for International Forestry Research, p. 5, also available online at [http://books.google.com/books?id=gcJDeLYKgcMC&dq=Christian+Cossalter+and+Charlie+Pye-Smith,+2003.+Fast-Wood+Forestry+Myths+and+Realities.+Center+for&printsec=frontcover&source=bn&hl=en&ei=ZzLkSrvqJ5fa6gOdnKDwAQ&sa=X&oi=book\\_result&ct=result&resnum=4&ved=0CBYQ6AEwAw#v=onepage&q=&f=false](http://books.google.com/books?id=gcJDeLYKgcMC&dq=Christian+Cossalter+and+Charlie+Pye-Smith,+2003.+Fast-Wood+Forestry+Myths+and+Realities.+Center+for&printsec=frontcover&source=bn&hl=en&ei=ZzLkSrvqJ5fa6gOdnKDwAQ&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBYQ6AEwAw#v=onepage&q=&f=false) viewed 25 October 2009.

# Natural green carbon: A critical element in the fight against dangerous climate change

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## Introduction

Natural green carbon is carbon stored in the biosphere, including in natural vegetation such as forests, woodlands, peat swamps and other habitat types. Natural green carbon is an important store of carbon. In the fight against dangerous climate change it is critical that natural green carbon is kept out of the atmosphere.

Unfortunately, Australia's national legislative proposals for emissions trading do not contain any provisions that encourage the protection of natural green carbon and existing multilateral legislative measures under the Kyoto Protocol are providing insufficient support for such measures.

The purpose of this article is to outline the significance of natural green carbon in preventing dangerous climate change and what needs to be done both in Australia and internationally to ensure these critical carbon stores are protected.

## The importance of natural green carbon

The Earth's vegetation and soils are a very large store of carbon. For example it has been estimated that "the amount of carbon stored in the world's forests is more than the amount of carbon in the atmosphere".<sup>1</sup>

The loss of terrestrial green carbon stored in forests and wetlands into the atmosphere, particularly through deforestation, has been estimated as having contributed about 30% of the historic greenhouse gas increase.<sup>2</sup>

At present, on a global basis, loss of vegetation contributes about 18–20% to emissions.<sup>3</sup> It has been suggested that this figure has dropped to 12% relative to industrial emissions.<sup>4</sup> However this is only because industrial emissions have risen sharply not because deforestation rates have declined.

In Australia, clearing of vegetation releases carbon constituting about 11% of Australia's annual emissions and is the fourth largest source of emissions.<sup>5</sup>

Two things need to be done to avoid dangerous climate change. First, we need to significantly reduce emissions from the use of fossil fuels and second, we must ensure

carbon stored in terrestrial vegetation is maintained and not released through deforestation or degradation.

A recent report from the United Nations Environment Program<sup>6</sup> states that "reducing deforestation rates by 50% by 2050 and then maintaining them at this level until 2100 would avoid the direct release of up to 50 Gigatonnes of carbon this century, equivalent to 12% of the emissions reductions needed to keep atmospheric concentrations of carbon dioxide below 450 parts per million".

*"In Australia, clearing of vegetation releases carbon constituting about 11% of Australia's annual emissions and is the fourth largest source of emissions."*

More particularly, without effective action to stop global deforestation and reduce forest degradation there will be no hope of achieving the Group of 20's goal of limiting the average global temperature rise to no more than 2 degrees celsius above pre-industrial levels.

The United Kingdom's Eliasch Review<sup>7</sup> states that "saving forests is critical for tackling climate change. Without action on deforestation, avoiding the worst impacts of climate change will be next to impossible, and could lead to additional climate change damages of \$1 trillion a year by 2100".

Stopping or curbing deforestation is a cost effective way to reduce greenhouse gas emissions and is an action that is effective immediately and hence 'buys time', whilst other mitigation strategies come on stream. Both the Stern Report<sup>8</sup> and the Eliasch Review<sup>9</sup> cover this issue with the latter concluding that an effective international agreement to protect forests would reduce the cost of dealing with climate change by up to 50% by 2030.

The natural green carbon issue is not just about stopping deforestation, it is also important from a carbon storage viewpoint to reduce forest degradation as far as possible. Forest degradation, caused for example through forest logging, can result in significant greenhouse gas emissions.

On average, commercially logged forests contain 40% less carbon than untouched forests.<sup>10</sup>

This article is concerned with *natural* green carbon stores. Natural green carbon stores are important both in terms of the amount of carbon stored and also for other reasons, both environmental and socio-economic.

Not only do intact natural forests store more carbon than degraded forests, but intact natural forests, by definition, are more biodiverse than degraded forest or monoculture tree plantations.<sup>11</sup> The greater biodiversity of intact forests means they are more resilient to disease and external shocks such as wildfires, and hence provide more secure carbon stores.<sup>12</sup>

The greater levels of biodiversity in intact systems is also important from a conservation viewpoint. These forests provide many essential services and preserving them has related benefits such as provision of clean water, erosion control, provision of resources for Indigenous communities and economic benefits such as nature-based tourism.

### **International efforts to protect green carbon**

International efforts to protect natural green carbon are focussed on the REDD (Reduced Emissions from Deforestation and Forest Degradation in Developing Countries) element of the current United Nations Framework Convention on Climate Change (UNFCCC) negotiations which will culminate in Copenhagen in December. These talks are aimed at agreeing on international climate change arrangements to follow the expiration of the first phase of the Kyoto Protocol in 2012.

REDD is a new idea for a market mechanism whereby polluters and/or governments in developed countries can help fund emissions reduction through avoided deforestation and forest degradation in developing countries. REDD-plus goes one step further and also takes into account the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

Action on REDD was agreed at the UNFCCC Bali Conference in December 2007 and forms part of the agenda in the climate change talks leading to Copenhagen

Humane Society International (HSI) is generally supportive of REDD, especially if it involves recognition of and support for forest dependent local communities and Indigenous peoples and focuses on areas containing biodiversity hotspots.

The negotiating text introduced by the European Union and others at the June 2009 negotiating meeting of the UNFCCC in Bonn, called for the promotion of sustainable forest management (SFM) to be an objective of REDD. This move to promote and elevate SFM and the subtle change in language is a worrying development. Whereas the terms sustainable management of forests and sustainable forest

management appear interchangeable, they in fact mean quite different things.

SFM is a poorly defined term that in practice has included highly destructive activities such as industrial-scale logging of intact natural (primary) forests. Industrial logging is a major source of carbon emissions, increases the likelihood that a forest will be converted to another land use, and has failed to bring meaningful development benefits to forest communities, or to provide lasting economic benefits to tropical forest-rich countries. REDD provides the opportunity to break the cycle of industrial-scale timber extraction and deforestation by placing economic value on the role of standing forests in order to mitigate climate change. For REDD to be successful it must support alternatives to industrial-scale logging that protect forest carbon and ecosystems and provide equitable, lasting and sustainable development benefits to forested developing countries.

A group of non-government organisations (NGOs) engaged in the international climate change negotiations has been formed with the express purpose of ensuring that the protection of intact natural forests and the restoration of degraded natural systems is the main focus of any new international agreement on climate change. The group – the Ecosystems Carbon Alliance (ECA) has formulated a set of key priorities for the protection of natural carbon:

- The protection of carbon stocks in primary forests and other primary ecosystems (including peat lands) from logging, conversion to plantations or agriculture and other forms of degradation.
- The recovery or restoration of degraded forests and other degraded natural ecosystems, including peat lands.
- The development of ecologically sustainable management systems in logged areas that are currently the subject of industrial logging practices.
- Afforestation and reforestation with a diverse range of local species in areas of degraded land incapable of recovery.

Note the last point encompasses forest plantings. While afforestation and reforestation are important components of a green carbon strategy because of carbon sequestration and storage, plantations take many decades to sequester an equivalent amount of carbon to that stored in intact natural forests.<sup>13</sup> It is for this reason that the priority must be on protecting intact natural forests.

ECA has formulated a set of priority actions for the protection of natural green carbon. This set of priorities forms the basis of part of ECA /HSI's action to ensure international agreement on a satisfactory definition of REDD in the current UNFCCC negotiations.

In particular, ECA is attempting to ensure UNFCCC agreement that a primary focus of REDD should be to

protect intact natural forests and the restoration of natural forests that have suffered some form of degradation.

The other important aspect of the UNFCCC natural green carbon negotiations relate to LULUCF (Land Use, Land Use Change and Forestry). This issue relates to the reporting and accounting rules set by the Kyoto Protocol for the LULUCF sector which encourages perverse behaviour by foresters by not regarding conversion of native forests to plantations as 'deforestation' and by making it optional for countries to report emissions from logging forests — thus making business as usual in the forest industry look mostly harmless from the climate change perspective — while nothing could be further from the truth.

*“A recent Australian report suggests one in five Australian species is in danger of extinction.”*

## Australia- domestic deforestation

### Background

The key element of Australia's climate change response strategy is the Federal Government's emissions trading policy which is contained in the *Carbon Pollution Reduction Scheme Bill 2009* (CPRS Bill) and various associated Bills. The Government's legislative package is based on its Carbon Pollution Reduction Scheme (CPRS) White Paper 2008.<sup>15</sup>

There are two ways that green carbon could be protected as part of an Australian climate change response strategy; either through allowing 'avoided deforestation and degradation' to be covered by the CPRS or through complementary measures.

The Government's policy position as contained in the White Paper and the CPRS Bill is to not include deforestation as a covered activity under the CPRS legislation. The White Paper gives a number of reasons for this, including:

- The significant decline in land clearing in recent years and the existence of various State and Territory regulations relating to land clearing;
- The potential to create a perverse incentive in that land holders would apply for land clearing permits when they would otherwise not have done so. The assumption being that they could then obtain free Australian Emissions Units (AEU) for not clearing.<sup>16</sup> Commonwealth Department of Climate Change (DCC) officials have advised that this would create a 'hot air' problem. This perceived problem is one in which emitters would purchase AEUs for forests that would never have been cleared and use them to offset emissions of greenhouse gases so that there would be zero or limited emission reductions achieved;

- The problem of 'thresholds'. Land clearing could involve many small entities making administration of deforestation provisions complex.

The Government, in rejecting coverage of deforestation under the CPRS, states in the White Paper that it would "continue to investigate incentive-based mechanisms, including offsets, to further reduce emissions from deforestation."<sup>17</sup> However, the White Paper goes on to say that the scope of "domestic offsets from uncovered sources is... likely to be very limited".<sup>18</sup>

While land clearing has certainly decreased significantly it still accounts for 11% of Australia's greenhouse gas emissions. As previously discussed, protection of natural green carbon is a low cost, immediate and secure way to prevent carbon entering the atmosphere with a number of side benefits for Australia, including conservation of biodiversity, water production, salinity control and local tourism. Despite this, DCC officials have advised that, as the CPRS Bill is only concerned with climate change, it is not possible to 'load on' other potential benefits such as biodiversity conservation.

HSI argues that avoiding deforestation and forest degradation and protecting biodiverse natural ecosystems is fundamental to climate mitigation and not simply an optional and incidental benefit. Further, Australia is facing an extinction crisis that will be exacerbated by climate change. A recent Australian report<sup>19</sup> suggests one in five Australian species is in danger of extinction. There are many other reports on the high rates of biodiversity loss in Australia. Another recent report for the Australian Government<sup>20</sup> suggests that with un-abated climate change Australia might well be facing a more serious biodiversity crisis than is already taking place. The report also states that we will need to invest much more in our natural environment if we are to maintain essential ecosystem services.

The reality is that successive Australian governments have contributed insufficient resources to the protection of Australia's biodiversity and natural systems. The current Caring for Our Country program<sup>21</sup> which is the central national funding source for biodiversity conservation, is providing only \$2.5 billion over five years, not only for terrestrial biodiversity conservation, but also for other activities such as the protection of the Great Barrier Reef, Land Care and sustainable agriculture.

Current Federal Government financial scenarios suggest that it is unlikely that there will be any additional funding for the protection of natural green carbon and associated biodiversity in forthcoming Federal budgets.

However this funding needs to be found and one potential source could be the revenue raised from any CPRS law that comes into operation. A proportion of revenue raised under the CPRS could be allocated to the protection of natural green carbon. This would be a valid use of CPRS revenue, but the Government claims it has already made a firm

commitment on how such revenue will be allocated and has given no sign that it is willing to revise these allocations for the purpose of protecting green carbon.

HSI therefore considers that the CPRS Bill should contain provisions for a voluntary opt in for those landholders with the legal rights and opportunity to clear land, who wish to forgo the opportunity to clear. The CPRS Bill already contains provisions<sup>22</sup> that allow for a voluntary opt in for landholders wishing to plant trees. There should be a similar opt in for deforestation.

Including deforestation in the CPRS Bill is likely to provide larger cash flows for the protection of natural green carbon, than has been available through public funding.

Furthermore, HSI rejects the reasons put forward in the White Paper for not including deforestation in the CPRS Bill.

First, while land clearing rates have decreased significantly they are still the 4th largest source of emissions in Australia. Second, HSI considers that the so called 'hot air' concern is not likely to eventuate to any significant extent. In any case the potential problem could be dealt with through some type of process that rations the number of AEU's that would be available relative to current or projected rates of clearing. An auctioning methodology could be one type of approach. Third, the problem of dealing with many small landholder entities does not appear to be a problem for the Government in the case of landholder entities wishing to reforest. In this case, the definition of a 'forest stand' in clause 5 of the CPRS Bill "incorporates various elements of Australia's definition of a forest for reforestation and afforestation purposes under the Kyoto Protocol".<sup>23</sup> Under this definition a 'forest stand' includes, inter alia, one that "occupies an area of land of 0.2 hectares or more". In other words, the CPRS Bill provides for potentially very small reforestation entities to opt in.

### **Legislative proposals**

Part 1, clause 5 of the CPRS Bill includes definitions for what is a forest. These currently adopt definitions from the Kyoto Protocol that do not discriminate between natural and plantation forests. This leads to the perverse outcome whereby the conversion of natural forests to plantations is treated as a carbon neutral activity. Including avoided deforestation into the CPRS would require a new definition for forests that specifically excludes plantations to avoid this perverse outcome (such a definitional change may be necessary in any case).

The CPRS Bill failed to pass through Parliament for the second time in December 2009. It is anticipated that the Government will try again to pass the legislation next year. HSI hopes that consideration will be given to including avoided deforestation in the CPRS Bill.

### **Australia – purchase of international REDD offsets under the CPRS legislation**

If passed, the CPRS will allow Australian liable entities to offset their carbon emissions using international credits derived from Reduced Emissions from Deforestation and Forest Degradation in Developing Countries.

Further, the Australian Government has said that up to 2% of the conditional 5% emission reductions it has committed to could be achieved through the Government purchasing international offsets, including under REDD, using CPRS revenue.<sup>24</sup>

HSI is concerned that the current UNFCCC negotiations may agree a REDD mechanism that includes opportunities for perverse outcomes. For instance, the REDD mechanism may allow carbon credits for logging in intact natural forests if the logging is not as intense as it might have been. However, while this might be a modest improvement on a business as usual approach it would entail opening up currently intact forests to new logging operations with the benefit of carbon subsidies – even though the logging will still be an emitting activity that reduces the carbon stock of the forest. The problem surrounding plantation conversion embedded in Kyoto rules for Land Use and Land Use Change and Forestry (LULUCF) may also be transferred across to the REDD mechanism. HSI will actively engage with the REDD negotiations at the UNFCCC conference in Copenhagen to avoid these outcomes but it remains very much up in the air.

The details of REDD may not be resolved at Copenhagen which many believe will only agree broad principles leaving the detail to ongoing negotiations. Irrespective of what is agreed at Copenhagen, HSI wants to ensure that both liable entities operating within the CPRS, and the Australian Government using CPRS revenue, can only purchase international offsets from genuine REDD projects that maintain or enhance the carbon stock of a forest (and in so doing maximise both carbon and biodiversity conservation).

Therefore, CPRS regulations will need to be developed to set out criteria for eligible international REDD credits and possibly to set criteria that is stricter than what is agreed under the UNFCCC. For instance, criteria that stipulates that REDD projects that include the conversion of natural forests to plantations will not be eligible. REDD projects should ideally exclude the opening up of intact natural forests to new logging operations.

It should be constitutionally possible to have provisions in the Australian legislation that are consistent with what is internationally agreed but that also provide for stricter domestic measures. A similar provision exists in the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) for Australia to take stricter domestic measures in its implementation of the Convention for International Trade in Endangered Species (CITES).



## Conclusions

The remaining months of 2009 represent a critical time for global and Australian efforts to protect natural green carbon.

A successful outcome is highly important.

Without strong global and national action to protect intact natural forests and other ecosystems it could well prove impossible to keep average global temperature increases to less than 2 degrees celsius.

International and national deals to protect natural green carbon will also provide the last best hope of preventing massive rates of species extinction that many scientists have forecast.

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<sup>1</sup> Stern, N 2006. *The economics of Climate Change: The Stern Review*. HM Treasury

<sup>2</sup> Locke, H & Mackey, B 2009. *The Nature of Climate Change. Reunite International Climate Change Mitigation Efforts with Biodiversity Conservation and Wilderness protection*.

<sup>3</sup> Locke, H & Mackey, B 2009. above n 2

<sup>4</sup> van der Werf et al 2009, 'CO<sub>2</sub> Emissions from Forest Loss' *Nature Geoscience* vol. 2, pp. 737–738

<sup>5</sup> Australian Government July 2008, *Carbon Pollution Reduction Scheme. Green Paper*. Available at <http://www.climatechange.gov.au/publications/cprs/green-paper/cprs-greenpaper.aspx>

<sup>6</sup> United Nations Environment Program June 2009. *The Natural Fix? The Role of Ecosystems in Climate Mitigation*. Available at [http://www.unep.org/pdf/BioseqRRA\\_scr.pdf](http://www.unep.org/pdf/BioseqRRA_scr.pdf)

<sup>7</sup> Department of Energy and Climate Change. Office of Climate Change. 2008, *The Eliasch Review*, Available at <http://www.occ.gov.uk/activities/eliasch.htm>

<sup>8</sup> Stern 2006. above n 1

<sup>9</sup> Department of Energy and Climate Change. Office of Climate Change. 2008. *The Eliasch Review* above n 7

<sup>10</sup> Mackey, B et al 2008, *Green Carbon: the role of natural forest in carbon storage*. ANU e press., Available at [http://epress.anu.edu.au/green\\_carbon/pdf\\_instructions.html](http://epress.anu.edu.au/green_carbon/pdf_instructions.html)

<sup>11</sup> Mackey, B et al 2008. above n 10.

<sup>12</sup> Locke, H and Brendan M 2009, above n 2.

<sup>13</sup> Stern, N 2006. above n 1

<sup>14</sup> Department of Climate Change, *Carbon Pollution Reduction Scheme Bill 2009*, Available at <http://www.climatechange.gov.au>

<sup>15</sup> Department of Climate Change 5 December 2008, *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future. White Paper*. Available at <http://www.climatechange.gov.au>

<sup>16</sup> AEU's are defined in the CPRS Bill.

<sup>17</sup> Department of Climate Change 5 December 2008, *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future. White Paper*. pp. 6-61. Available at <http://www.climatechange.gov.au>

<sup>18</sup> Department of Climate Change 5 December 2008. *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future. White Paper*. pp. 6-62. Available at <http://www.climatechange.gov.au>

<sup>19</sup> Chapman, AD September 2009, *Numbers of Living Species in Australia and the World: a Report for the Australian Biological Resources Study*. Australian Biological Resources Information Services.

<sup>20</sup> Steffen, W et al 2009, *Australia's Biodiversity and Climate Change: a Strategic Assessment of the Vulnerability of Australia's Biodiversity to Climate Change; a Report to the Natural Resource Management ministerial Council commissioned by the Australian Government*. CSIRO Publishing.

<sup>21</sup> Caring for Our Country 2008, Available at <http://www.nrm.gov.au>

<sup>22</sup> Part 10

<sup>23</sup> Department of Climate Change. *Carbon Pollution Reduction Scheme Bill 2009. Explanatory Memoranda*. Available at <http://www.climatechange.gov.au>

<sup>24</sup> Correspondence to HSI from the Minister for Climate Change and Water. Penny Wong MP 2009

# BioBanking in NSW – Stalemate between landowners and developers?

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## Introduction

In July 2008 the NSW *Biodiversity Banking and Offsets Scheme* (BioBanking scheme) was launched by the NSW Department of Environment, Climate Change and Water (DECCW). The scheme provides a market-based framework for offsetting biodiversity and aims to reduce cumulative biodiversity losses caused by population growth and development pressures across NSW. Landowners have an opportunity to biobank their land, manage it for conservation outcomes and earn a fee for their efforts. For developers, the scheme is pitched as a cheaper and more efficient alternative to the original 'test of significance' used to determine whether a proposed development is likely to significantly affect a threatened species, population or endangered ecological community. BioBanking enables developers to purchase credits generated on a biobank site to offset the impact on threatened species, populations and/

or endangered ecological communities that occur on the development site.<sup>1</sup>

The essential next step to get the BioBanking scheme up and running is for landowners to establish biobank sites and generate biodiversity credits. Credits are generated in respect of the management actions carried out on the biobank site that improve biodiversity values. Once created and registered, biodiversity credits may be purchased from the landowner by anyone.<sup>2</sup> The availability of biobank sites is crucial to ensuring that there are sufficient credits within the marketplace so that BioBanking credits are available for purchase by developers, and that prices are competitive. Credits may also be purchased by conservation groups, philanthropists and government departments interested in conserving biodiversity in perpetuity.

The BioBanking scheme has the potential to result in positive outcomes for the conservation and more effective management of native vegetation and threatened species in NSW. A well-designed, scientifically robust assessment methodology can improve the quality of the threatened species assessment processes. Also BioBanking is premised on an 'improve or maintain' test and the scheme's offset rules require that the impacts of development can only be offset by credits from a biobank site that has the same vegetation characteristics and/or the same threatened species.

Despite the potential benefits, as yet there are no registered biobanks and therefore no credits available for purchase. This article seeks to examine why this is the case a full eighteen months after the scheme commenced.

There are a number of constraints and unknown factors that make the scheme risky for both landowners and developers. Essentially, both the demand and supply side of BioBanking is uncertain.<sup>4</sup>

## Risks for developers

Developers appear to be sceptical about the scheme, and this is likely to be due to the fact that the credit market is not yet up-and-running and the exact price of biodiversity credits is unknown. Also because the scheme remains voluntary and developers can still choose to use the existing 'test of significance' regime, developers may be taking the 'tried and true' path rather than something new. This is also true of



government landowners as well. One would expect to see increased market activity once the first credit trades take place, and DECCW expects that this will be early this year.<sup>5</sup>

Another barrier to developer interest in the scheme last year may have been due to the global financial crisis, which restricted development investment in early 2009. DECCW consider this to have had a fundamental impact on the scheme's commencement as developers were not seeking approval for their projects and as a result any offsets.<sup>6</sup>

Also, while the DECCW has provided mechanisms to assist developers to calculate the potential administrative costs of participating in the scheme, those costs are uncertain and pose a potential risk to developers. Administration costs include the costs of retaining an accredited Assessor, who must assess the development site and calculate the number and class of credits required to be purchased to offset the impact of the development on biodiversity, and the application fee for a biobanking statement, which is a flat fee of \$10,200.00 regardless of the size of the development or property.<sup>7</sup> A biobanking statement specifies the on-site actions that must be carried out on a development site and the credits that must be purchased, among other things.

Until the market for biodiversity credits is established, the price of credits required to offset development impacts on particular sites is an unknown quantum, and this is the highest cost component of using the scheme for developers. DECCW is currently working on a number of economic case studies to determine price signals in the market place. This information will be made available once the studies have been completed. They will be based on both simulated and real cost data from actual trades.<sup>8</sup>

But the fundamental practical barrier to developer participation at this stage is that no biobank sites have yet been established.

## Risks for landowners

The stated purpose of the BioBanking scheme is to give landowners a financial incentive to protect biodiversity on their properties.<sup>9</sup> It is expected that landowners will sell credits to generate income and to fund the future management of the biobank site. However, in theory and practice, this financial benefit may not be achievable for the following reasons:

1. All land containing native vegetation or threatened species, populations, ecological communities or their habitats is available to be biobanked, subject to some exceptions relating to land that is already protected and subject to conservation measures.<sup>10</sup> However, in practice, the maximum financial benefits from the scheme are likely to be gained by establishing a biobank on land containing vegetation in moderate condition. The value of biodiversity credits is dictated by the improvement in the condition of land as a result of management actions undertaken. Land in moderate

condition will require more management actions than land that is already in good condition and will, therefore, generate more and higher value credits. Conversely, degraded land in low condition will require substantial management actions with an associated high cost that is unlikely to make biobanking viable on such land. An exception to this may be in certain rural areas where land value is lower and landowners may be able to retrieve their lost opportunity cost using BioBanking.

2. The costs of establishing a biobank site are relatively high. Landowners must engage a BioBanking Assessor to assess the potential site to determine how many and what type of biodiversity credits can be issued for the site. Also DECCW charges a number of fees for establishing and administering a biobank site, including \$612 for an application to establish a BioBanking Agreement, a \$1122 annual reporting fee and a fee of \$102 to transfer one batch of credits.<sup>11</sup>
3. The first time a credit is sold a portion of the sale proceeds must be paid into the DECCW BioBanking Trust Fund prior to registration of the transfer.<sup>12</sup> The remaining sum goes to the landowner. Annual payments are then made to the landowner from the BioBanking Trust to fund the continued performance of the management activities under the BioBanking Agreement. This endowment runs with the land in perpetuity, benefiting current and future owners.<sup>13</sup> Landowners will not receive any payments from the BioBanking Trust unless at least 80% of the Total Fund Deposit has been paid into the BioBanking Trust. The Total Fund Deposit is agreed upfront in the BioBanking Agreement and is based on an expectation of the value of the biodiversity credits. If a landowner sells only some credits or sells credits for an insufficient amount, the 80% threshold will not be achieved and the landholder will not receive any payments from the BioBanking Trust. In these circumstances, landowners will only be required to undertake passive management actions<sup>14</sup> that cost nothing until they reach the 80% threshold of net present value. In some cases the landholder will be required to make up any short fall in the Biodiversity Trust Fund by paying money from their own pocket into the Fund up to the 80% threshold, if they sell their credits for less than the management cost. Whether or not the landholder meets the 80% threshold and receives payments from the Trust Fund, they will remain liable to perform at least passive management activities required under the BioBanking Agreement, and will also have to meet the ongoing administrative costs of participating in the scheme. However, it is important to note that the requirement to provide 80% of the Total Fund Deposit will result in a higher income being generated due to the sale of more credits, which will support ongoing management of the land over time. So there is less risk

to the landholder and the likely result will be a more substantial conservation gain.

4. Landowners who establish a biobank site on their properties generate biodiversity credits by undertaking management activities. However, such management actions are potentially expensive to implement successfully if the full costs of ongoing monitoring and restoration for the long term are taken into account. The costs of such actions may also be difficult to estimate.<sup>15</sup> Management actions may include management of grazing, control of weeds, retention of regrowth and remnant native vegetation and/or replanting and supplementary planting, retention of dead timber and control of erosion. Management costs will vary according to the size of the biobank site, location, vegetation type, cover and condition, topography, fencing and possible boundary management issues.
5. Landowners will also wish to seek to recover, when setting the price of credits, the opportunity costs of biobanking the site, as opposed to other potential uses including development where land is degraded,<sup>16</sup> and profit or risk margins.<sup>17</sup> These lost opportunity costs will drive credit prices, especially in urban areas where land values are higher. The trading rules under BioBanking do enable flexibility as to where offsets can be located, and developers will seek offsets in landscapes of appropriate credit types with lower land values.
6. Before setting up a biobank site, given the costs and risks discussed above, landowners will want to be assured that there is a market for the credits. Landowners are seeking to guarantee purchase before entering into the scheme, and have been negotiating with potential credit buyers 'behind the scenes'. It is difficult to gauge the level of interest from developers in purchasing the resultant credits, at this stage.<sup>18</sup>

Some of the above risks may be offset to some extent by recent taxation rulings by the Australian Tax Office, which enable landowners to receive tax benefits in relation to fringe benefits tax, goods and services tax and income tax.<sup>19</sup>

### Where to from here?

It appears that for private landowners there is a general reluctance to take on the risks of entering the BioBanking scheme, despite the potential benefits for landowners and for biodiversity. The BioBanking scheme is, at this stage, caught in a stalemate between private landowners and developers. Since the scheme commenced, buyers and sellers of credits have been negotiating 'behind the scenes' to enter into the scheme at the same time, rather than buyers searching for and purchasing credits from the on-line registers. This is a fundamental change in how DECCW originally perceived the scheme operating. It is a reflection of the up front costs and the requirement to meet the 80% Total Fund Deposit threshold before management payments are triggered and

a way for landowners to reduce their risk. The expression of interest register is being actively used by developers to seek credits as well as identifying proposed biobank sites before entering into the scheme. It is likely that any excess credits available after these transactions will be placed onto the register for sale. Once the market matures, DECCW expects that entrants will be less cautious and will enter the scheme without a guaranteed buyer.<sup>20</sup>

In the circumstances it is likely that early players may be government landowners, including government departments, public authorities and local government, who may establish biobank sites on government-owned or managed land.<sup>21</sup> They could then make available for sale the biodiversity credits generated at these sites, thereby establishing the market for credits. The first signed BioBanking Agreement establishing biobank site(s) on local government land in Sydney's West is said to be imminent.<sup>22</sup> The private sector, including the mining industry and the renewable energy sector, will also likely be early entrants.

Commentators have noted that, because biobank sites located on public land do not have to factor land prices into the cost of credits, the ability of government agencies to biobank government land may reduce the incentive for private landowners to set up biobanks on private land, as they may not be as competitive.<sup>23</sup> Some government agencies may purchase land specifically for the purpose of participating in the BioBanking scheme and there would be different costs implications in such circumstances. Also, government land will often be subject to existing management obligations for conservation purposes, and the scheme provides certain 'additionality rules' which discount the credits to take this into account.<sup>24</sup> Despite the risk of creating a disincentive to private landholders, it is desirable that government land is biobanked in order to kick-start the BioBanking scheme in NSW.

A two year review of the BioBanking scheme is required to be carried out in July 2010.<sup>25</sup> Given that there are not yet any registered biobank sites nor a credit market established, any such review is considered premature. There are likely to be benefits to having a scientifically rigorous and robust tool such as that underpinning BioBanking, and it is vital that the tool is sufficiently tested. The review period should be extended to allow sufficient time for the BioBanking scheme to function, for a period of at least a further year or two. It is particularly important that there be a comprehensive review of BioBanking in NSW following a sufficient period of operation of the scheme because the Commonwealth Government has recently indicated that it may establish a similar BioBanking scheme at the Federal level. Dr Allan Hawke, in his report on the independent review of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), recommends that a national BioBanking scheme be established.<sup>26</sup> While it has been proposed that Dr Hawke's recommendation be adopted, it is likely that any legislative change would be some way off. Such a move is considered

to be premature in light of the lack of progress with the NSW BioBanking scheme at this stage. The NSW scheme must be thoroughly tested prior to uptake by the Federal Government.

<sup>23</sup> Scanlon J 'An Appraisal of the NSW Biobanking Scheme to Promote the Goal of Sustainable Development in NSW' (2007) *Macquarie Journal for International and Comparative Environmental Law* 4(1) 71 at 91.

<sup>24</sup> *Threatened Species Conservation (BioBanking Assessment Methodology) Order 2008* (NSW), clause 7.2.

<sup>25</sup> *Threatened Species Conservation Act 1995*(NSW), s. 127ZZN.

<sup>26</sup> See the recommendations in Hawke, Dr Allan 2009 *The Australian Environment Act: Report of the independent review of the Environment Protection and Biodiversity Conservation Act 1999* Department of the Environment, Water, Heritage and the Arts. <http://www.environment.gov.au/epbc/review/publications/final-report.html> (viewed 19 January 2010).

<sup>1</sup> For a detailed overview of the NSW BioBanking scheme see one or more of the following sources: the DECCW website at <http://www.environment.nsw.gov.au/biobanking/biobankframework.htm> (viewed 18 January 2010); Hammond-Deakin, N 2009 *BioBanking: Overview and Case Study* Paper presented at the NSW Sustainable Development Conference 2009, Sydney, 12 May 2009; Hammond-Deakin, N and Johnston, N 2008 'Protection of Biodiversity in Australia: the implications of BioBanking for local government' *Councillor*, September/October 44; Scanlon J for the NSW Law Society 'Biodiversity Banking - All You Need to Know' Continuing Legal Education Seminar Series 19 March 2008; Walker, J and Walmsley, R 2008 'Biobanking: Certainty for developers, new hope for threatened species' *Law Society Journal* volume 46, No. 8 at 53.

<sup>2</sup> *Threatened Species Conservation Act 1995* (NSW), s. 127Z.

<sup>3</sup> Urban Development Institute of Australia NSW 2008 *Draft Threatened Species Conservation (Biodiversity Banking) Regulation 2007: Submission to the Department of Environment and Climate Change*

<sup>4</sup> See Scanlon J 2007 'An Appraisal of the NSW Biobanking Scheme to Promote the Goal of Sustainable Development in NSW' *Macquarie Journal for International and Comparative Environmental Law* 4(1) 71 at 92.

<sup>5</sup> Personal communication with DECCW staff, 20 January 2010.

<sup>6</sup> *Ibid.*

<sup>7</sup> See the BioBanking statement application form at <http://www.environment.nsw.gov.au/resources/biobanking/08431BioBankingStatementForm.pdf> (viewed 18 January 2010). DECCW designed these fees for cost recovery and to reduce the impost to government, and may waive the fees on application in circumstances of financial hardship or other good cause: personal communication with DECCW staff, 20 January 2010.

<sup>8</sup> Personal communication with DECCW staff, 20 January 2010.

<sup>9</sup> Evidence has shown that the use of economic incentives is needed to encourage landholders to undertake particular land management practices to conserve and enhance biodiversity: see Curran D, 2000 'The Conservation of Biological Diversity on Private Property in NSW' 17 *EPLJ* 34 at 34.

<sup>10</sup> Certain classes of land are not eligible to become a biobank site under clause 11 of the *Threatened Species Conservation (Biodiversity Banking) Regulation 2008*, such as national parks and nature reserves.

<sup>11</sup> DECCW has designed these fees for cost recovery and to reduce the impost to government, and may waive the fees on application in circumstances of financial hardship or other good cause: personal communication with DECCW staff, 20 January 2010.

<sup>12</sup> *Threatened Species Conservation Act 1995*(NSW), s. 127ZA.

<sup>13</sup> *Threatened Species Conservation (Biodiversity Banking) Regulation 2008* (NSW), Parts 6 and 7.

<sup>14</sup> Passive management actions have little or no cost and include retention of dead timber, rocks and remnant native vegetation. Active management actions include weed and pest control, replanting and control of erosion.

<sup>15</sup> DECCW recommends that landowners obtain three quotes to assist them to adequately price their management actions. See further at DECCW 2009n *BioBanking: Guide to establishing a biobank site* at 4.4. <http://www.environment.nsw.gov.au/resources/biobanking/09336establishingbiobangsite.pdf>

<sup>16</sup> Because BioBanking is geared towards setting up biobank sites on degraded land that is in need of management actions for conservation purposes, development may also be possible on that land.

<sup>17</sup> n 15 at 22.

<sup>18</sup> It is worth noting that there are not yet any expressions of interest in credits on the "Credits Wanted Page" of the DECCW website: <http://www.environment.nsw.gov.au/biobanking/listwantedcredits.htm>, (viewed 18 January 2010), although DECCW are aware of a number of developers who are seeking credits, but may be reluctant to publicly seek credits for developments that have not received development approval: personal communication with DECCW staff, 18 January 2010.

<sup>19</sup> Class Ruling CR 2009/77, Income tax: NSW Department of Environment, Climate Change and Water - Biodiversity Banking and Offsets Scheme, available from the Australian Tax Office website: <http://www.ato.gov.au/> (viewed 21 January 2010).

<sup>20</sup> Personal communication with DECCW staff, 20 January 2010.

<sup>21</sup> DECCW *BioBanking: Guide to establishing a biobank site* September 2009 at 4.

<sup>22</sup> Personal communication with a West Sydney council staff member on a confidential basis, 18 January 2010.

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