



## ***SOUTH EAST FOREST RESCUE***



**Representations on the *Threatened Species Conservation Act 1995* (NSW)**





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South East Forest Rescue takes a firm stand on environmental protection of the native forest estate and expresses deep alarm at the welfare of forest-dependent threatened species and the cumulative impacts of industrial degradation of native forests that are exacerbating extinction rates and destroying soil, water, and carbon capacity, and we welcome the invitation to provide comment for the review.

This is the ‘Year of Biodiversity’ yet hundreds of hectares of habitat are being destroyed every week. When threatened species and their habitats are in danger through industrial logging practices and being negligently managed by belligerent bureaucracies there currently is no protection for them. The only protection and conservation is for Nippon Paper Group, trading in Australia as South East Fibre Exports, the sawmill owners Boral, Blue Ridge Timbers and through the filter on effect, a handful of logging magnates.<sup>1</sup> These businesses have been guaranteed product for twenty years and guaranteed exemption from legislation and regulation.

The *Threatened Species Legislation Amendment Act 2004* (NSW) has enabled government departments to turn a blind eye to the full extent of the species decline throughout the state. Conversely it has enabled Forests NSW to view the Integrated Forestry Operations Approvals (“IFOAs”) licence conditions as able to be broken with impunity at a significant cumulative detriment to the forest-dependent threatened species of the state, as long as it was ‘an accident’, which is reportedly seventy eight percent of the time.

The numbers of threatened species, threatened populations and ecological communities increased significantly since the Regional Forest Agreements (“RFAs”) were signed and many threatened and endangered flora and fauna species are at extreme risk from current logging operations. The Reserve system gazetted to date, along with the off-reserve protection measures of the IFOAs, are neither comprehensive, representative, or adequate to meet the needs of threatened species survival. The Scientific Committee’s figure for NSW species, populations or ecological communities threatened with extinction in 2009 was 1035.<sup>2</sup> This figure, when compared to the 1998 figure of 868 is the most indicative of the RFAs effect on our environment.<sup>3</sup>

Based on the state and territory listings the largest increases in numbers of threatened taxa nationally are occurring on the south coast of New South Wales. Change in status of listed taxa in New South Wales is concentrated in sub-regions along the east coast. All species have as reasons for listing or decline, habitat loss, fragmentation due to road construction, intensive logging and altered fire regimes.<sup>4</sup>

A recent report by Professor Richard Kingsford, Professor Brendan Mackey and a think tank of thirteen eminent scientists stated that:<sup>5</sup>

Loss and degradation of habitat is the largest single threat to land species, including 80 percent of threatened species.<sup>6</sup>

As evidenced the greatest threats to Australia’s biodiversity are caused by broad-scale land clearing and forestry operations including establishment of plantations and fire management practices, yet these industrial forestry practices continue to remain exempt from legislation.<sup>7</sup>

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<sup>1</sup> Cocks, Heffernans, Mathie & Sons.

<sup>2</sup> For 2008 figures see <<http://www.threatenedspecies.environment.nsw.gov.au/index.aspx>>.

<sup>3</sup> For 2000 and 2003 figures see <[http://www.environment.nsw.gov.au/soe/soe2003/chapter6/chp\\_6.3.htm#6.3.69](http://www.environment.nsw.gov.au/soe/soe2003/chapter6/chp_6.3.htm#6.3.69)>; and for 2006 figures <[http://www.environment.nsw.gov.au/soe/soe2006/chapter6/chp\\_6.3.htm#6.3.71](http://www.environment.nsw.gov.au/soe/soe2006/chapter6/chp_6.3.htm#6.3.71)>.

<sup>4</sup> Department of the Environment, Water, Heritage and the Arts 2009, Assessment of Australia’s Terrestrial Biodiversity 2008, Report prepared by the Biodiversity Assessment Working Group of the National Land and Water Resources Audit for the Australian Government, Canberra.

<sup>5</sup> See <<http://www.threatenedspecies.environment.nsw.gov.au/index.aspx>>; two examples illustrate this point: firstly, in relation to the endangered Hasting River Mouse, the conditions contained in the Integrated Forestry Operations Approval for this species have been weakened for certain core areas for the Hasting River Mouse at the behest of the Forests NSW to increase access for logging; secondly, in relation to the endangered Spotted-tailed Quoll, Forests NSW were found illegally logging a Spotted-tailed Quoll exclusion zone in Forestland State Forest in Upper and Lower North East NSW; they admitted the fact, but claimed it was a ‘mistake’.

<sup>6</sup> Kingsford R T, Watson J E M, Lundquist C J, Venter O, Hughes L, Johnston E L, Therton J A, Gawel M, Keith D A, Mackey B G, Morley C, Possingham H P, Raynor B, Recher H F, and Wilson K A, ‘Major Conservation Policy Issues for Biodiversity in Oceania’ (p 834-840), Published Online: (2009), <<http://www3.interscience.wiley.com/journal/118487636/home?CRETRY=1&SRETRY=0>>.

<sup>7</sup> See The National Strategy for the Conservation of Australia’s Biological Diversity (1996).

The NSW Government has completely abrogated its responsibilities with regard to threatened species conservation, watering-down the *Threatened Species Conservation Act 1995* (NSW) (“TSC Act”), enacting a raft of legislation under the *Forestry and National Park Estate Act 1998* (NSW), *Environmental Protection and Assessment Act 1979* (NSW) and the *Native Vegetation Act 2003* (NSW) that override the TSC Act.

The *Intergovernmental Agreement 1992* states that:

The parties agree that policy, legislative and administrative frameworks should provide for:

- (v) consideration of all significant impacts;
- (vii) consideration of any international or national implications.<sup>8</sup>

We would also state that there is a gap between public values that expect prosecution for environmental harm and the values reflected in the TSC Act that discourages prosecution for damage to habitat or species. This must be amended as a matter of course.

One of the most effective options for enhancing the regulatory framework for conserving threatened species, populations and ecological communities of animals and plants, and their habitats in New South Wales would be to impose rigorous financial penalties for breaches of the Act contained within the Act.

### **The *Threatened Species Conservation Act 1995* (NSW)<sup>9</sup>**

The TSC Act is, in the main, species oriented. The single species emphasis of the TSC Act is problematic. Threatened taxa are a part of biodiversity but the TSC Act makes other species and habitat appear less important. An ecosystem-wide approach is more effective at conserving biodiversity. The TSC Act makes some provision for this with respect to ‘critical habitat’ and endangered ecological communities (“EECs”), but this does not go far enough.

The real industrial scale destruction of ecosystems is being caused by Forests NSW and their authorised contractors with exemption granted under the *Forestry and National Park Estate Act 1998* (NSW). Forests NSW are not required to provide a SIS or an EA.

Forests NSW hold licences granted by the Director-General of National Parks and Wildlife, these are called Threatened Species Licences (“TSLs”). The licence holder must comply with conditions and requirements of the licence. The person carrying out the forestry operations is liable for an offence under the *National Park and Wildlife Act 1974* (NSW).<sup>10</sup> The licence holder is not authorised to harm endangered populations or communities, pick plants that are part of those communities, damage critical habitat or damage the habitat of endangered populations or communities.

As is standard with forestry operations there is a loophole:

it may be a defence to a prosecution for an offence if the accused proves that the offence was authorised to be done, and was done in accordance with a general licence or was the subject of a certificate issued under s95 (2) of the TSC Act.<sup>11</sup>

The damage caused by the forestry worker’s interpretation of the IFOA TSL prescriptions is systemic and across the board.<sup>12</sup> Despite numerous legitimate significant breaches referred to the DECCW by many ENGO and independent forest auditing groups, there has not been a prosecution for breaches of the TSLs since the signing of the RFAs.<sup>13</sup>

<sup>8</sup> *Intergovernmental Agreement 1992* sch 2 (3).

<sup>9</sup> Farrier D, ‘Fragmented Law in Fragmented Landscapes: the Slow Evolution of Integrated Natural Resource Management in NSW’ (2002) 19 *Environment and Planning Law Journal* 89; Farrier D, Kelly AHH, Comino M and Bond M, ‘Integrated Land and Water Management in New South Wales: Plans, Problems and Possibilities’ (1998) 5 *Australian Journal of Natural Resource Law and Policy* 153.

<sup>10</sup> Section 118A, *National Park and Wildlife Act 1974* (NSW).

<sup>11</sup> *National Park and Wildlife Act 1974* (NSW) s3 (a), s3(a1).

<sup>12</sup> For example the Southern Brown Bandicoots original prescription was an exclusion zone of 200 hectares around each record of the species but in the latest harvest plan from Nadgee State Forest there is no prescription (Forests NSW Harvest Plan for Compartments 80/81 2009), Forests NSW logged grey-headed flying fox habitat with immunity while the animals were within the compartment in breeding season and the spotted gum was flowering (Cpt 62 Sth Brooman, NSW).

<sup>13</sup> Statistics DECCW, Ian Cranwell 2009.

Garth Riddell sums up the TSC Act succinctly:

After 10 years in operation the TSC Act has not met its primary objectives. Although it has made a small contribution to the conservation of biological diversity and the promotion of ecologically sustainable development, it has not gone far enough. The Act's protections are procedural rather than substantive, its provisions are placatory rather than effective and its operation has been hampered by a lack of funding, lack of will and widespread misunderstanding of the concepts underlying it.<sup>14</sup>

### **Key Threatening Processes**

The Expert Panel stressed that the persistence and perpetuation of hollow bearing trees is imperative for the survival of forest fauna.<sup>15</sup> A discussion of the conservation measures in place to maintain these hollow bearing trees highlighted the following points:

1. Tree mortality is high; the ratio of one recruit tree to one hollow bearing tree is unlikely to maintain the targeted number of hollow bearing trees in Net Harvest Areas in the mid to long term. This is particularly the case in the regrowth zones. Modelling is required to define a more appropriate ratio of recruits to hollow bearing trees.
2. The rotation time between harvesting events within a compartment requires revision. Current rotation intervals are too short to allow recruitment trees to form hollows. Additionally, hollow bearing trees retained from the previous harvesting event are not permanently marked therefore could be removed in the next rotation.
3. Guidelines or criteria should be developed for the selection of recruitment and hollow bearing trees. Trees with the potential to develop a broad range of hollow types should be targeted for selection. Suppressed trees should not be selected as recruit trees.
4. Prescriptions for the retention and recruitment of hollow bearing trees in the NHA should be rewritten to emphasise, not only maintaining these features during a single cutting cycle, but managing them to persist in the landscape.
5. Specific prescriptions should be developed for hotspots, defined as areas of high species richness. A sliding scale, where incremental increases in species diversity are matched by increases in prescription strength, was suggested.

Observations, from on-ground monitoring ten years later, see little change to the prescriptions; the habitat to recruitment ratio is still one to one; the regrowth zone is weaker, because only the hollow-bearing trees present (up to a maximum of ten per two hectares) are retained - if ten are not present then consequently less recruitment trees are retained; there are no stipulations in any harvest plans to retain previously retained trees and rotation times have shortened. For example compartment 62 of South Brooman State Forest has had 'Timber Stand Improvement' twice and been logged nine times since 1954, which is virtually every six years.<sup>16</sup>

There is no available ecologically sustainable forest management ("ESFM") data on the marking up of retention trees, both habitat and recruitment trees, and consequently many trees that had been retained have now been logged. Indeed currently there is no available data on past history of retention trees and their location thus previously retained trees are constantly available for logging.<sup>17</sup>

Habitat and recruitment tree selection is getting more parlous by the year. Many suppressed recruitment and very small habitat trees (often with no visible hollows) are always found when auditing logged areas, though strangely the stumps are invariably of the largest size class. The sliding scale idea was put in place in Eden yet the solid data on exact amounts of each habitat class that has been logged since 1999 seems non-existent and the volume of "high" class habitat is not reported on.

Forests NSW have been informed on the extent of threatened species in their region yet could only find fifteen percent of these species in the Eden region and thirteen percent in the Lower North East in the pre-logging fauna surveys.<sup>18</sup>

To obtain data for surveys Forests NSW officers conduct 'nocturnal surveys'. SFOs have often been observed

<sup>14</sup> Riddell G, 'A Crumbling Wall: The Threatened Species Conservation Act 10 years On' (2005) 22 *Environment and Planning Law Journal* 446.

<sup>15</sup> From 'Review of Protective Measures and Protective Measures and Forest Practices - Biodiversity Workshop Southern Region' Ecologically Sustainable Forest Management Group, July 1999, Project No. NA45/ESFM p176-177.

<sup>16</sup> Southern Region – Compartment 62, South Brooman State Forest, Bateman's Bay Management Area, Harvest Plan approved 8/5/09.

<sup>17</sup> Gibbons P, Lindenmayer D B, Barry S C, Tanton M T, 'The Effects of Slash Burning on the Mortality and Collapse of Trees Retained on Logged Sites in South-Eastern Australia' (2000) 139 *Forest Ecology and Management* 51.

<sup>18</sup> NSW Government 2006 ESFM 'Criteria and Indicators monitoring Report- 2001/2002: Upper North East, Lower North East and Eden Regions' A Supplementary Report to the NSW Forest Agreements Implementation Report, Forestry and Rural industry Policy, NSW Dept of Natural Resources, Parramatta, p25.

shining their torch on the ground.

For example three years prior to logging Compartment 3046 Forests NSW conducted a nocturnal call playback and spotlight survey and South East Forest Rescue observed the following breaches and inadequacies during this survey.

#### 8.8.5 Nocturnal Call Playback

Nocturnal call playback must target the following species: Masked Owl, Sooty Owl, Barking Owl, Powerful Owl, Squirrel Glider and Yellow-bellied Glider. Nocturnal call playback surveys must be conducted as follows:

c) At each call playback site, an initial listening period of 10 minutes should be undertaken, then each target species call must be played for five minutes followed by at least a two minute listening period. After the last call at least 10 minutes must be spent listening. Calls must be played from a good quality portable tape cassette or CD player and amplified through a nine volt megaphone, or equivalent or better.<sup>1</sup>

We met the SFOs at 6.30pm on the Tilba-Punkalla Road and after introductions drove a few hundred metres to the call playback site. There were to be calls from the following species: Koala, Masked Owl, Sooty Owl, Barking Owl, Powerful Owl and Yellow-bellied Glider. The time required for this at seven minutes per species (five minute playback and two minute listen) is forty two minutes. On top of this is the initial ten minute listening period and a final ten minute listening period. This makes the total time for the playback survey to be sixty two minutes. The time was 6.45 when the equipment was set up and SEFR were given instructions on what to do. It was 7.30pm when the parties got back into the cars to drive to the spotlight survey area.

The total time for the call playback was forty five minutes, which is in breach of the above condition.

Also of concern is the position and timing of the call playback. The Tilba-Punkalla Road is a back road to Narooma and the access to many properties. A motorbike drove along the road about ten minutes before the start of the survey and a car came past during the second call. To do this survey at this time, at that position, with this level of disturbance seems that the survey was set up to fail from the start. This also needs investigation as it is not in the spirit of the IFOA.

The sound from the amplification gear was very distorted and several of the calls were not representative of the species in question, whether that was from the bad sound quality or bad taping of the call is unclear.

(SEFR Field Notes 22/7/2004)

These breaches undermine the, albeit limited, scope for protection of threatened species by the IFOA TSLs.<sup>19</sup> This survey stood as the data on threatened species for the Bodalla SF compartment 3046 logging operations three years later.

Further there have been instances where Forests NSW have used ten year old 'fauna surveys' for pre-logging surveys. In Mogo while we were standing with a SFO a Square-tailed Kite flew overhead they were not listed as existing in the compartment but were obviously nesting close by. We pointed the kite out to the SFO who looked the other way and said "Where".

This is not the first instance of wilful blindness. This same SFO did not see a Whistling Kite nest when marking up and the tree was subsequently logged.

In Bodalla cpt 3046 Yellow-bellied Gliders, and Sooty Owls were not mentioned in the harvest plan yet they lived within that compartment.

The lack of care for threatened and endangered species is nowhere more apparent than in the ESFM report which states:

Any change to the number of species recorded on the estate are likely to reflect research and survey effort rather than true species richness of forest areas.<sup>20</sup>

<sup>19</sup> Letter from SEFR to Doug Mills NPWS Southern Directorate, Threatened Species Unit, 23/8/04.

<sup>20</sup> NSW Government 2006, ESFM 'Criteria and Indicators monitoring Report- 2001/2002: Upper North East, Lower North East and Eden Regions' A Supplementary Report to the NSW Forest Agreements Implementation Report, Forestry and Rural industry Policy, NSW Department of Natural Resources, Parramatta, p37.



Further, scientific judgment on surveying runs thus:

Unless the probability of detecting a species when it is present is equal to 1, false negative observation errors will occur in species surveys. The probability of detecting the presence of the case study species in any single standard survey based on spot-lighting and call elicitation has been found to be very low (Pr[detection/presence] ~ 0.12–0.45); making the reliability of absence data a potentially serious form of uncertainty in our case study. Recent studies have demonstrated the negative impact that false-negative observation error may have on species habitat analyses, meta-population models and monitoring studies.<sup>21</sup>

Scientists advocate an approach based on maintaining ecosystem structure and function, and therefore ultimately protecting more species.<sup>22</sup> Protecting key functional species and diversity within functional groups is a key way to do this thereby enhancing ecosystem resilience, so that they are able to maintain their functions and processes. Therefore it is not sufficient to merely record species, the impact of the logging must be recorded, and prescriptions for protection must be strengthened.

The authors note with great concern that slow growing species such as *Macrozamia communis* (Burrawangs), *Dicksonia youngiae*, and *D. antarctica* (Soft Tree Ferns), *Cyathea australis* and *C. cunninghamii* (Rough Tree Fern) and *Xanthorrhoea spp* (Grass Trees) are particularly vulnerable in logging areas. Most of these plants have been alive long before white settlement, they grow up to one cm of trunk per year, and when young will take up to ten years to start forming a trunk. Research shows that only between two to thirteen percent of tree ferns regenerate after logging and never regrow on snig tracks or log dumps. Tree ferns, which play a vital role in maintaining the moisture of the forest floor and providing protection for the growth of other forest plants, are often casualties of logging.<sup>23</sup> There are no prescriptions for these flora even though they are protected under NSW legislation.

Forests NSW are currently trying, through the Forest Agreement/Integrated Forestry Operations Approvals (ten year late) review, to have surveying requirements relaxed. This is indicative of current corporate mentality to log as much as can be logged with disregard to the future of the planet.

### ***Climate Change***

There is no single silver bullet answer to this, but one of the partial solutions is the protection of old-growth forests, which store a lot of CO<sub>2</sub>, and the replanting of those that have been removed.<sup>24</sup>

Climate change represents a threat to biodiversity which was not adequately addressed in the initial CRA process in light of the latest science. The present reserve system is inadequate to protect flora and fauna from the impacts of global warming. The science that was used in the CRA process is now over 10 years old. There have been major improvements in research regarding climate change science and the impact of native forest operations on carbon emissions since the agreements were signed. This new science needs to be at the forefront of the review especially the results and implications of ANU Professor Brendan Mackay's report on carbon storage potentials of South Eastern Australia's native forests.

Climate change will have a detrimental effect on both the flora and fauna that make up a forest with negative implications for the inadequate CAR reserve system. The impacts need to be assessed and appropriate measures to mitigate and reverse the effect of these implemented.

Approximately 35 per cent of greenhouse gases in the atmosphere are due to past deforestation, and an

<sup>21</sup> Wintle B A, Elith J, and Potts J M, 'Fauna Habitat Modelling and Mapping: A Review and Case Study in the Lower Hunter Central Coast Region of NSW' (2005) 30 *Australian Ecology* 719.

<sup>22</sup> McIntyre S, Barrett G, Kitching R, and Recher H, 'Species Triage – Seeing Beyond Wounded Rhinos' (1992) 6 *Conservation Biology* 4 p604; see also Walker B, 'Conserving Biodiversity Through Ecosystem Resilience' (1995) 9 *Conservation Biology* 4, p747.

<sup>23</sup> Unwin G L, and Hunt M A, 'Conservation and Management of Soft Tree Fern *Dicksonia Antarctica* in Relation to Commercial Forestry and Horticulture, *Pteridology in Perspective*, Camus J M, Gibby M and Johns R J [eds], (1996) pp 125-137, Royal Botanic Gardens, Kew : London.

<sup>24</sup> Pitman A, Climate Change Research Centre, University of NSW, available at < <http://www.smh.com.au/environment/climatechange/declining-trees-spell-gloom-for-planet-20100824-13qfn.html> >, viewed 26 August; see also Zhao M and Running S W 'Drought-Induced Reduction in Global Terrestrial Net Primary Production from 2000 Through 2009' (2010) 329 *Science* 5994, p 940.

estimated 18 per cent of annual global emissions are the result of continuing deforestation.<sup>25</sup> Native forests have the ability to be major carbon sinks with the ability to sequester vast amounts of CO<sub>2</sub>. Unfortunately, contrary to industry spin, the native forest industry is a major greenhouse gas emitter, especially in the woodchip driven operations in the Eden and Southern Forest Agreement regions. Thus the massive carbon emissions of forestry operations that were not considered originally must now be taken into account.

The Green Carbon Report shows the great potential for carbon sequestration in our native forests. Logging of native forests is not only a net emitter, but forests under this type of management have 40 to 60% less carbon sequestered within them. If these forests were removed from timber production and allowed to realise their sequestration potential it would be the equivalent of 24% of our 2005 Australian net greenhouse gas emissions every year for the next 100 years.<sup>26</sup>

The impacts from climate change on water resources will be great. Coupled with the already known impacts from logging, climate change has the potential to severely affect future water supplies. The review must take into account the value of water lost from logging in the context of a dwindling resource due to climate change. The impact this will have on rural communities that rely on State Forest for their water needs to be assessed. The impact of logging and climate change on long term water supply reductions and the resulting social and financial cost to regional communities has to be reassessed.<sup>27</sup> The increase in extreme weather events will require soil erosion mitigation measures to be greatly strengthened.

### *Carbon Neutral?*

Logging and transporting large amounts of bulk logs across borders up and down the south east of Australia and then burning it increases carbon discharges. The accounting now used in Australia for assessing CO<sub>2</sub> emissions drawn from the *Kyoto Protocol* contains a flaw that severely weakens greenhouse gas reduction goals.

At issue is the methodology that CO<sub>2</sub> released during combustion of biomass equals that taken up during growth and the basing of all GHG calculations on this. Eucalypt forests recovery for removal of CO<sub>2</sub> from the atmosphere can take more than a 100 years.<sup>28</sup> On average the recovery rate is 53 years for 75% carrying capacity and 152 years for 90% carrying capacity.<sup>29</sup> Currently logging rotations are sometimes barely five years.<sup>30</sup> Forests NSW themselves state:

Harvesting cycles vary between native forest types with a typical cycle of 5-30 years for native forest.<sup>31</sup>

As ocular evidence suggests, currently on the ground, the native forests logged are not regrowing nor are they being replanted. If the forest regrew and was not logged with such frequency then this theory might hold, and perhaps holds in EU countries where this system was developed, and where the main source of wood is from plantations.<sup>32</sup> The data we have received was cursory to say the least, and even what little forest has been surveyed does not equal one hundred percent regenerated. From the period 2001 to 2006 the number of surveys for the Southern region was twenty one, covering a total of 2,176 hectares.<sup>33</sup> There is no information provided

<sup>25</sup> Stern N, 'The Stern Review on the Economics of Climate Change: Emissions from the Land-use Change and Forestry Sector,' Cambridge University Press, 2006; Houghton J T, 'Tropical Deforestation as a Source of Greenhouse Gas Emissions', (2005) in *Tropical Deforestation and Climate Change*, Moutinho and Schwartzman [eds]; see also Intergovernmental Panel on Climate Change, *Climate change 2001: The Scientific Basis*, Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change Houghton J T, Ding Y, Griggs D J, et al [eds], Cambridge University Press, [2001]; see also Food and Agriculture Organization of the United Nations (2005) *State of the World's Forests*, Washington, DC: United Nations.

<sup>26</sup> Mackey B, Keith H, Lindenmayer D, and Berry S, 'Green Carbon: The Role of Natural Forests in Carbon Storage, Part 1, A Green Carbon Account of Australia's South-Eastern Eucalypt Forest, and Policy Implications' ANU E Press, (2008) available at <[http://epress.anu.edu.au/green\\_carbon\\_citation.html](http://epress.anu.edu.au/green_carbon_citation.html)>.

<sup>27</sup> Atech Group, 'Southern Forests Catchment Values and Threats' (1999) <<http://www.atechgroup.com.au>>.

<sup>28</sup> Roxburgh SH, Wood S W, Mackey B G, Woldendorp G, and Gibbons P, 'Assessing the Carbon Sequestration Potential of Managed Forests: a Case Study from Temperate Australia,' 43 *Journal of Applied Ecology* [2006] 1149.

<sup>29</sup> Dean C, Roxburgh S, Mackey B, 'Growth Modelling of Eucalyptus regnans for Carbon Accounting at Landscape Scale' in Amaro A, Reed D, and Soares P, [eds] *Modelling Forest Systems*, CAB International 2003.

<sup>30</sup> For example Compartment 62 (Sth Brooman) logged in 1972, 1973, 1978, 1982, 1990, 2002, 2009.

<sup>31</sup> Forests NSW Consolidated Annual Financial Report, Year ended 30 June 2007, pp18-19.

<sup>32</sup> In Germany and throughout most of Europe Foresters are employed to count and measure at dbh every tree in the plot.

<sup>33</sup> Southern IFOA Clause 52 Assessment of Regeneration Report 20/6/07, Forests NSW Batemans Bay; this 'report' is a thin five line by five column table.

by Forests NSW or the RFA regime on the effectiveness of regeneration.

The vascular floristics about a decade after harvesting operations differed significantly from the floristics of similarly aged forest regenerating after wildfire. In clear-felled areas, weed and sedge species occurred more frequently than on wildfire sites and *Acacia dealbata* was much more abundant, whereas resprouting shrubs, tree ferns and most ground-fern species were more abundant in wildfire regeneration sites. The low survival rate of resprouting species reported in an increasing number of studies suggests that soil disturbance is likely to be a major contributor to differences.<sup>34</sup>

Therefore the assumption that there are near-equilibrium conditions (synchrony) in native forest logged by Forests NSW on the south coast is erroneous.<sup>35</sup> Forests NSW do not replant after logging native forest, have only 23,000 hectares available for sequestration and rarely do regeneration surveys.<sup>36</sup>

For Forest Land, synchrony is unlikely if significant woody biomass is killed (i.e., losses represent several years of growth and C accumulation), and the net emissions should be reported. Examples include: clearing of native forest.<sup>37</sup>

Also at issue is Forests NSW claim that emissions from actual logging operations is separate and the responsibility of the contractors and therefore Forests NSW have no liability to count them. South East Fibre Exports claim that the emissions from logging are indirect and they have no liability to count them. The definition of impact and direct and indirect effects of greenhouse gas emissions has been well defined in several jurisdictions of Australian Courts. In the *Nathan Dam* case Black CJ, Ryan and Finn JJ held that 'impact' is not confined to direct effects but includes effects that are or would be a consequence of the action.<sup>38</sup> In both the *Hazlewood* case and the *Anvil Hill* case it was held that the impacts of Scope 1, 2 and 3 emissions must be considered.<sup>39</sup> In *Gray v The Minister* it was held that environmental assessments must also consider the emissions from the use of the product.<sup>40</sup> Of course these findings were made in their particular statutory contexts but:

Carbon accounts for industrialized forests must include the carbon emissions associated with land use and associated management, transportation and processing activities.<sup>41</sup>

Forests NSW also claim there is a lack of full scientific data on land use change and this makes it difficult to calculate GHG emissions. Although it seems widely acknowledged that Land Use Change and Forestry accounting is difficult and uncertain, given the great deal of data, including LandSat images and records kept in ArcView, GIS, ESRI and Forests NSW own office records on past compartments logged, it would seem this argument is *alio intuitu*.<sup>42</sup> Article 3 of the *Kyoto Protocol* states at (3) that 'The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable

<sup>34</sup> Ough K, 'Regeneration of Wet Forest flora a Decade After Clear-Felling or Wildfire - Is There a Difference?' 49 *Australian Journal of Botany* (5) 645, Full text doi:10.1071/BT99053, < <http://www.publish.csiro.au/paper/BT99053.htm>

<sup>35</sup> Performance Audit 'Sustaining Native Forest Operations,' Auditor-General's Report, 2009: 'To meet wood supply commitments, the native forest managed by Forests NSW is being cut faster than it is growing back': this statement was made concerning the North Coast RFA areas, Forests NSW had not provided data on the Southern and Eden areas,"reviews of yield estimates for the southern region, due in 2004 for Eden and 2006 for Tumut and the south coast, have not been completed."

<sup>36</sup> SEFR requested these surveys from Forests NSW and received a five line five column table that stated there had been four surveys conducted but there was no documentation, pers com to author from Daniah Tuan, Forests NSW Batemans Bay; see the aptly titled Sustain Greenhouse Gas Consultation Paper Submission, Forests NSW, Nick Cameron, 1/5/2008.

<sup>37</sup> 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Vol 4: Agriculture, Forestry and Other Land Use, Chapter 2: Generic Methodologies Applicable to Multiple Land-Use Categories, 2.4; the figures used for boreal forests in the IPCC document are from research published in 1998 which has now been superseded by more current data < [www.ipcc-nggip.iges.or.jp](http://www.ipcc-nggip.iges.or.jp).

<sup>38</sup> *Minister for the Environment and Heritage v Queensland Conservation Council Inc* (2004) 134 LGERA 272 at 288; see also *Re Australian Conservation Foundation* [2004] VCAT 2029.

<sup>39</sup> *Australian Conservation Foundation v Minister for Planning* above n38; *Gray v the Minister for Planning* [2006] NSWLEC 720.

<sup>40</sup> Rose A., 'Gray v Minister for Planning: The Rising Tide of Climate Change Litigation in Australia' 29 *Sydney Law Review* [2007] 725; if calculations were made on the cardboard that is made, used, then thrown away, from the woodchips of native forests, then the totals of GHG calculations would a great deal higher.

<sup>41</sup> Mackey et al, above n26.

<sup>42</sup> For example Forests NSW has logged 182 528 hectares of native forests in the south east alone since 1990; it is possible to compare Google Earth images with past LandSat images.



manner...'<sup>43</sup>

The total CO<sub>2</sub> emissions caused by native forest logging on the South Coast for 2006/07 have been computed to be over 26 million tonnes.<sup>44</sup> The governmental practice of decrying Indonesia's illegal logging while sanctioning illegal logging in Australia has not gone unnoticed by the rest of the world.<sup>45</sup> Thus it appears to the international community that the governmental sanctioning of native forest logging *endorses* the huge amounts of GHG emissions released.<sup>46</sup>

Further combustion of biomass results in atmospheric emissions of greenhouse gases and chemically active species in quantities that almost equal those produced by fossil fuel combustion.<sup>47</sup>

However the clearing of long established native forests for woodchips, to burn or to grow energy crops is counted as a 100% reduction in energy emissions, despite causing large releases of carbon and despite international protocols against logging of native forests.<sup>48</sup>



Gnupa 2008 - 2yrs after logging



Gnupa 2010 - 4yrs after

<sup>43</sup> The introduction of the amendments to the *Lacey Act* in America has already had a significant impact on the import of woodchips in that country, importers are now required to declare species, country of origin, value and volume of the plant or plant products see *Amendments to the Lacey Act from H.R.2419 2008* (US), Sec. 8204, *The Lacey Act*, Chapter 53 of Title 16, United States Code, ss3371 - 3378.

<sup>44</sup> 30 860 523tCO<sub>2</sub>e; Data is from Forests NSW Implementation Report 2004/05 and 2006/07, 2006/07 Forests NSW Harvest Plans; ESRI data; Digwood FOI info 2009; if one was to believe the Forests NSW data it seems one vehicle uses 110L of fuel per year.

<sup>45</sup> In 2009 young people from four hundred and fifty nations gathered in Bonn for the UN Talks on Climate Change, their declaration called for an immediate end to deforestation, an end to industrial scale logging in primary forests, the conversion of forests to monoculture tree crops, plantations; and protection of the world's biodiverse forests including primary forests in developed countries (e.g. Australia, Canada and Russia) and tropical forests in developing countries; Australia won the Fossil Award in 2009; see also *Forestry Commission v Daines* 1/12/2009 Dennilquin Local Court where the Magistrate made a clear finding on the evidence that a Part 3A approval under the *Environmental Planning and Assessment Act 1979* (NSW) is required for the Barmah/Millewa logging operation and had not been obtained; he concluded, therefore, that the logging was unlawful, yet Marty Linehan, Forests NSW Eden office manager, stated that "it didn't matter, it was only local court" 9/12/09.

<sup>46</sup> '...the laws of nature that account for the global carbon cycle operate irrespective of political boundaries. Therefore, a unit of carbon emitted due to deforestation and forest degradation in Australia, the United States, Canada or Russia has exactly the same impact on atmospheric greenhouse gas levels as a unit of carbon emitted from deforestation and degradation of forests in Indonesia, Papua New Guinea, the Congo Basin or Brazil,' Mackey et al, above n26.

<sup>47</sup> Andreae, M O, 'Biomass Burning: It's History, Use, and Distribution and It's Impact on Environmental Quality and Global Change,' in Levine, J.S. Ed., *Global Biomass Burning*, (1991), MIT Press, Cambridge, MA, pp. 3-21.

<sup>48</sup> Mackey et al, above n26: 'For every hectare of natural forest that is logged or degraded, there is a net loss of carbon from the terrestrial carbon reservoir and a net increase of carbon in the atmospheric carbon reservoir, the resulting increase in atmospheric carbon dioxide exacerbates climate change.'

## Prescriptions for Species

In the Southern and Eden regions there are 25 compartments active in State forest and 46 Property Vegetation Plans which mainly feed the pulp market. All of these contain threatened and/or endangered species.<sup>49</sup> Once a species has been listed by the Scientific Committee it triggers numerous obligations for habitat conservation.<sup>50</sup> Thousands of dollars have been spent both State and Federally on each species recovery plan and threat abatement plan, yet despite this, and there being a plethora of legislation and regulations to conserve biodiversity, native forestry operations are exempt.

The object of IFOAs are stated at s25 of the FNPE Act as being ‘for the protection of the environment and for threatened species conservation’.<sup>51</sup>

The Scientific Committee’s main recommendations to protect hollow dependant species were to establish appropriate recruitment tree ratios as part of the Private Native Forestry Code under the *Native Vegetation Act 2003* (NSW), and adopt appropriate policies for recruitment tree ratios with a stipulated minimum retention density in areas of State forestry operations.<sup>52</sup>

Both of these strategies for different land tenures are given High priority, both of these strategies have not been implemented. Given that generally eucalypts form hollows after about 80-120 years of age a sustainable rotation age would be one that allows forest values to regenerate.<sup>53</sup> Reducing forests to a flat rate of 5 or less hollow bearing trees per hectare from an optimum of 27-37 hollow bearing trees per hectare puts at risk expectations that future generations will see fauna such as the Greater Glider in the wild.

Prescriptions for threatened species and habitat conservation in IFOAs and the PNF code are grossly inadequate. Furthermore, neither a FOP or Harvest Plan can be classed as a species impact statement.<sup>54</sup> It is perfunctory to merely record species. Impacts of logging and post-logging burning on species and their habitat must also be recorded and monitored to ensure due process in achieving conservation objectives.

A comparison with a species recovery plan and threat abatement plan for species and prescriptions contained within the PNF Code and the IFOA TSLs highlights the inadequacy of these prescriptions. The results of this practice is reflected in numbers of threatened and endangered species rising in line with the increase in forests logged.<sup>55</sup>

The regulators misconception of implementation of TSLs prescriptions has ensured that many breaches of licence conditions which have destroyed habitat have gone unpunished. Furthermore Forests NSW have recommended to DECCW that many prescriptions be nullified.<sup>56</sup>

Further the PNF Unit in DECCW have shown themselves to be completely incapable of managing and

<sup>49</sup> There are 91 forest dependant species of fauna in the region, National Parks and Wildlife, Atlas of NSW Wildlife, < <http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlasSpecies.jsp> >, viewed 19 July 2010.

<sup>50</sup> See the *Environment Planning and Assessment Act 1979* (NSW); the *Protection of Environment Operations Act 1997* (NSW); the *Threatened Species and Conservation Act 1995* (NSW); the *Environment Protection Biodiversity and Conservation Act 1999* (Cth); *National Parks and Wildlife Act 1974* (NSW).

<sup>51</sup> *Forestry and National Park Estate Act 1998* (NSW) s25.

<sup>52</sup> *Threatened Species Conservation Act 1995* (NSW) Sch 3 s8, *Loss of Hollow Bearing Trees Key Threatening Process*; < <http://www.environment.nsw.gov.au/determinations/LossOfHollowTreesKtp.htm> >; clicking on ‘Threat Abatement Strategies’ will take you to ‘Review and Amend or Adopt Existing Legislation or Policies’, clicking on this will take you to ‘All Priority Actions for this KTP’, clicking on that will take you back to ‘All Priority Actions for this KTP’.

<sup>53</sup> Crane M J, Montague-Drake R M, Cunningham R B, and Lindenmayer D B, ‘The Characteristics of Den Trees Used by the Squirrel Glider (*Petaurus norfolcensis*) in Temperate Australian Woodlands’ (2008) 35 *Wildlife Research* 663.

<sup>54</sup> ‘I am obliged to note that, in my opinion, the Eden FIS is an appallingly inadequate document, even by Commission standards. It suggests they do not take the Act (and the conservation of endangered fauna) very seriously’ *South East Forests Conservation Council Inc v Director-General National Parks and Wildlife and State Forests of NSW* [1993] NSWLEC 194, Deputy Director (Policy and Wildlife) Mr David Papps.

<sup>55</sup> For 2008 figures see < <http://www.threatenedspecies.environment.nsw.gov.au/index.aspx> >; for 2000 and 2003 figures see < [http://www.environment.nsw.gov.au/soe/soe2003/chapter6/chp\\_6.3.htm#6.3.69](http://www.environment.nsw.gov.au/soe/soe2003/chapter6/chp_6.3.htm#6.3.69) > and for 2006 figures see < [http://www.environment.nsw.gov.au/soe/soe2006/chapter6/chp\\_6.3.htm#6.3.71](http://www.environment.nsw.gov.au/soe/soe2006/chapter6/chp_6.3.htm#6.3.71) >.

<sup>56</sup> Original Eden TSL cl 6.6 Southern Brown Bandicoot *Isodon obesulus* a) An exclusion zone of at least 200 hectares must be implemented around each record of the species; amended Eden TSL now has very small buffer zone as evidenced by Nadgee SF Cpt 62 harvest plan; the SBB is an EPBCA endangered species.

implementing the PNF Code and operations, approving more than 70% of old-growth high conservation value native forest for logging, according to information obtained through Parliament that is 7,898 hectares over a 3 year period.

### **Fragmentation**

Fragmentation has increased. Scientifically, habitat corridors need to be one hundred to two hundred and fifty metres wide to be beneficial, the current forty to eighty metres is simply not adequate.

Fauna experts consulted during the Response to Disturbance Project have recommended that corridors and riparian buffers be expanded to 200 m for yellow-bellied gliders, 1 km along major rivers for owls, 240 m for fishing bats and golden tipped bats, and 1km (with low-intensity logging) between catchments for stuttering frogs.<sup>57</sup>

Roads bring more people into an area which results in fragmentation of the landscape, but they also have much broader and wide ranging effects. At the landscape scale, roads disrupt ecosystem processes and, at both a fine and coarse scale, cause a loss of biodiversity.<sup>58</sup> Fragmentation of the landscape and the consequent habitat loss is the major threat to biodiversity.<sup>59</sup>

It has been suggested that fragmentation within a forest will force the inhabitants of the logged forest patch into the surrounding forest, thereby causing dysfunctional behaviour due to higher than normal densities.<sup>60</sup> This phenomenon is reduced when the remaining forest is large and intact.

### **Listing forest-dwelling species:**

Forests NSW state that the reporting of forest dependent species depends on the reporting of SFOs prior to logging. This does not instill confidence. Forests NSW give no data on this from the Southern Region at all to the Independent Assessor. The data appeared to be CRA data which is blatantly untrue. There are Greater Glider and Squirrel Glider habitats within State forests in the Southern region. To base decisions on this type of erroneous data would be unjustifiable.

### **Status of threatened forest-dwelling species:**

There is a recognised increase in threatened species, endangered populations, endangered ecological communities, and key threatening processes, which is material evidence on the failure of the TSLs. KTPs such as the removal of dead trees and the loss of hollow-bearing trees occur on a daily basis on the State forest estate, creating an ecological desert with impunity.

In 1999 there were 15 mammal, two bird and one fish species listed as threatened or endangered in the south east. In 2004 there were seventy one animal species recorded in Bega Valley Shire that were listed as endangered or vulnerable. They included 25 mammals, 40 birds, four amphibians, one fish and one invertebrate. Eleven species were listed during 2004/2005, one as Vulnerable both nationally and in NSW, one nationally Endangered, another two nationally Vulnerable, one Endangered in NSW and another six Vulnerable in NSW. Three species had their status upgraded in 2004/2005. The Brushtailed Rock-wallaby (*Petrogale penicillata*) and Stuttering Barrred Frog (*Mixophyes balbus*) each went from Vulnerable to Endangered in NSW, while the Spotted-tailed Quoll (*Dasyurus maculatus*) went from nationally Vulnerable to nationally Endangered.

### **Species extent and abundance:**

Current legislative mechanisms are not functioning positively. There has been no action on KTP abatement. For example the Southern Brown Bandicoot ("SBBs"), for which the Eden IFOA initially stipulated a two

<sup>57</sup> From CRA Report 'Draft Assessment of Forest Management Practices for the Eden RFA' CSIRO Forestry and Forestry Products and Andrew Smith, Sestscan and Pat O'Shaughnessy and Associates, (1997), ne27esfm, ISBN 0-642-28398-2 p48.

<sup>58</sup> Forman R T T, and Alexander L E, 'Roads and Their Major Ecological Effects' (1998) 29 *Annual Review of Ecology and Systematics* 207.

<sup>59</sup> Benson J, 'Past, Present and Future: the Role of Scientific Knowledge in Nature Conservation' (1993) *National Parks Journal* February, p17; see also Wilcove D S, Rothstein D, Dubow J, Phillips A, and Losos E, 'Quantifying Threats to Imperiled Species in the United States' (1998) 48 *BioScience* 607.

<sup>60</sup> Hagan J M, Vander Haegen M, and Mckinley P S, 'The Early Development of Forest Fragmentation Effects on Birds' (1996) 10 *Conservation Biology* p188.



hundred hectare exclusion zone, in Nadgee SF compartment 62 have been given no exclusion zone (see Operational Plan approved 30/06/09). There has been an amendment at Forests NSW request to log more area of the SBBs prescriptions on the strength of alleged SBB monitoring surveys. The authors can find no documentation to substantiate the claim that the monitoring plans mentioned by Forests NSW exist. There is a 2007 species management plan but no further monitoring reports.

The IFOA is a flawed document and the conditions it holds are therefore flawed, it is worded so that carte blanche non-compliance can be explained away as an accident, and is seriously undermining threatened species extent and abundance.

NSW Species Status 2000-2006			
Status	2000	2003	2006
Extinct	77	79	75
Endangered	379	396	441
Vulnerable	367	386	392
Populations	17	28	36

To merely list a threatened species - to 'take note' of a species and its location - is not considering the impacts of logging on that species or its habitat, nor is that in any way affording protection to these species. These species have been legislated into extinction and Forests NSW, the regulatory agency DECCW, the State governments and the Commonwealth are all liable under domestic and international obligations.

Climate change will dramatically increase other threats to species in the region, through increased spread of invasive species, increased fire frequency and severity, increased spread of forest dieback, and reduced stream flows. The cumulative impact of all these threats compounded by industrial logging operations operating under the exemptions have resulted in a major impact on threatened species.

### ***Residue versus Habitat Protection***

#### ***A case study of the conditions of the Threatened Species Licence in the Southern Region.***

Late in 2001 the pressure was on agency players to finalise prescriptions of the TSL within the context of the heated issue of a Charcoal Factory proposal. The factory was being promised 200,000 tonnes per annum of residue timber feedstock by Forests NSW. When the RFA process began, this proposal was not in the mix. Luckily, the factory never received approval, but the ramifications of the threat continue to this day.

It became an over-riding concern for the National Parks and Wildlife Service ("NPWS") that during the negotiations for the TSL the removal of up to 200,000 tonnes a year of residual timber was not considered to be part of Forests NSW operations in the South Coast sub-region.<sup>61</sup>

A further concern was that the residual timber supply proposal forecasted the use of mechanical harvesting and grapple snagging. These techniques had not previously been used on the South Coast and therefore the impacts, negative or beneficial, of these types of operations in the forests of the region were not fully understood. Consequently, it was difficult for the NPWS to fully anticipate the implications of the residual timber supply proposal for the threatened species of the region. To ameliorate these concerns, NPWS proposed to include a review in the TSL to enable comprehensive assessment of the on-ground implications of the operations and for consideration of these implications in the TSL conditions.

*2.1 k) SForests NSW must assist the NPWS in a review of the on-ground implications of the removal of residual timber and mechanical harvesting / grapple snagging techniques as they relate to the management of threatened species. This review must commence within 18 months of the start of supply to residual timbers to the charcoal plant.*

<sup>61</sup> National Parks and Wildlife Service letter to Forests NSW, 14/10/2001.



Forests NSW considered this reasonable and agreed to the wording of this proposal. However, the condition never made it into the final TSL document. Indeed the current prescriptions include such conditions like:

*5.4 g 4) Nothing in this condition (being condition 5.4) prevents the use of a harvesting arm of a mechanical harvester to rehabilitate or reinstate ground or soil in Rainforest or an exclusion zone around Warm Temperate Rainforest or Cool Temperate Rainforest in accordance with another term or condition of this approval.*





## Legislative Frameworks in Context

Loggers have eagerly endorsed part of Principle 1 of the UN *Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests* which states:

- (a) States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies...

However the Principle goes on to state:

And have responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.<sup>62</sup>

The strict statutory obligations of the *Environment Planning and Assessment Act 1979* (NSW) ("EPA Act"), the *Protection of Environment Operations Act 1997* (NSW) ("POEO Act"), the *Threatened Species and Conservation Act 1995* (NSW), *National Parks and Wildlife Act 1974* (NSW) ("NPW Act 1974") and the *Environment Protection Biodiversity and Conservation Act 1999* (Cth) ("EPBC Act") are such that, arguably, anyone contemplating illegal activities against native flora, fauna or the environment does so at their peril.<sup>63</sup> Not so the Forestry Commission, trading as Forests NSW, for areas covered under the IFOAs and RFAs.

Forestry operations are bound by the *Protection of the Environment Operations Act 1997* and are licensed under Section 55. Under the IFOA these licences provide that State Forests must comply with Section 120 of the POEO Act:

*Except* as may be expressly provided in any condition of this licence.<sup>64</sup>

Under clause 29(3A) and (3B) Forests NSW can turn the EPLs on and off depending on whether they want to log unmapped drainage lines with immunity.

There are several international agreements and domestic policy documents that are legally and morally binding on the Commonwealth.

The Rio Declaration, *Convention on Biological Diversity* 1992 at Article 8(c) states:

Each Contracting Party shall, as far as possible and as appropriate:

Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensuring their conservation and sustainable use;

and

(d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings.<sup>65</sup>

Commonwealth, State and Local governments are governed by the obligations of the *Intergovernmental Agreement on the Environment* 1992 which states:<sup>66</sup>

The parties consider that the adoption of sound environmental practices and procedures, as a basis for ecologically sustainable development, will benefit both the Australian people and environment, and the international community and environment. This requires the effective integration of economic and environmental considerations in decision-making processes, in order to improve community well-being and to benefit future generations.<sup>67</sup>

<sup>62</sup> *Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests* (Rio de Janeiro, 3-14 June 1992) A/CONF.151/26 (Vol. III) emphasis added.

<sup>63</sup> Macintosh A, 'Why the Environment Protection and Biodiversity Conservation Act's Referral, Assessment and Approval Process is Failing to Achieve its Environmental Objectives' (2004) 21 *Environment and Planning Law Journal* 288.

<sup>64</sup> Southern Region IFOA at Appendix A 5 (emphasis added).

<sup>65</sup> The Rio Declaration, *Convention on Biological Diversity*, Rio de Janeiro, 5 June 1992, Entry into force for Australia: 29 December 1993, Australian Treaty Series 1993 No 32.

<sup>66</sup> *National Environment Protection Council (New South Wales) Act 1995* (NSW), Schedule 1, *InterGovernmental Agreement on the Environment* 1992.

<sup>67</sup> For an in-depth analysis on inter-generational equity see Dr Laura Horn, 'Climate Change Litigation Actions for Future Generations' (2008) 25 *Environment and Planning Law Journal* 115.



The Montreal Process at Criteria 7 states:<sup>68</sup>

Legal, institutional and policy framework for forest conservation and sustainable management

*7.1 Extent to which the legal framework (laws, regulations, guidelines) supports the conservation and sustainable management of forests, including the extent to which it:*

- Clarifies property rights, provides for appropriate land tenure arrangements, recognizes customary and traditional rights of indigenous people, and provides means of resolving property disputes by due process;
- Provides opportunities for public participation in public policy and decision-making related to forests and public access to information;
- Provides for the management of forests to conserve special environmental, cultural, social and/or scientific values.<sup>69</sup>

Criteria 7.2 states:

*7.2 Extent to which the institutional framework supports the conservation and sustainable management of forests, including the capacity to:*

Provide for public involvement activities and public education, awareness and extension programs, and make available forest-related information;

7.5.d Enhancement of ability to predict impacts of human intervention on forests;

7.5.e Ability to predict impacts on forests of possible climate change.<sup>70</sup>

And at 7.2e is the requirement to: Enforce laws, regulations and guidelines.<sup>71</sup>

Despite numerous legitimate breaches referred to DECCW there has been no prosecutions for breaches of the EPLs on the South Coast since the signing of the RFAs, and in fact there has only been one prosecution in the whole of NSW.<sup>72</sup> The output to date of regulatory enforcement actions in no way reflects the rate of non-compliance. On ground assessment evidence suggests that non-compliance rates are now running at four per hectare of forest logged, that is, over ten percent of all areas logged are in breach. The Draft Implementation Report states breaches can run up to ninety one per audit.<sup>73</sup>



A Spotted-tailed Quoll takes refuge



Smoky Mouse Habitat logged in Nullica SF



White-footed Dunnart no match for bulldozer



Grey-headed Flying Foxes -habitat logged

<sup>68</sup> Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests 'The Montréal Process' Third Edition, December 2007, <[www.rinya.maff.go.jp/mpci/](http://www.rinya.maff.go.jp/mpci/)>.

<sup>69</sup> The Montréal Process, above n68 at a) c) d) e).

<sup>70</sup> The authors have had many conversation with Forests NSW officers who truly believe there is no such thing as climate change.

<sup>71</sup> The Montréal Process also states at 7.4 Capacity to measure and monitor changes in the conservation and sustainable management of forests, including: 7.4.a Availability and extent of up-to-date data, statistics and other information important to measuring or describing indicators associated with criteria 1-7; 7.4.b Scope, frequency and statistical reliability of forest inventories, assessments, monitoring and other relevant information; 7.5.b Development of methodologies to measure and integrate environmental and social costs and benefits into markets and public policies, and to reflect forest-related resource depletion or replenishment in national accounting systems; of which have not been adhered to by Forests NSW.

<sup>72</sup> See title page of this report.

<sup>73</sup> See A Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements (2009), Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Sydney, p175.

## Review Questions For Consideration

### ***Are the objects of the TSC Act still relevant?***

The objects of the TSC Act are more relevant now than ever.

### ***Does the inclusion of ecologically sustainable development in the objects of the TSC Act assist in achieving the integration of economic and environmental considerations in decision-making processes under the Act?***

The time is over for the business as usual approach. Economic considerations must take second place to environmental considerations. In the long run the cost of environmental damage and loss of biodiversity will far outweigh any short term economic gain.

The Act refers to ESD in two different senses. In s3(a) it is a process while in s4 it is a result to be achieved. This sends an inconsistent message.

1. We would recommend that the word 'Development' be removed from the Act.
2. We would recommend the amendment of s3 to read:

The objects of this Act are as follows:

To provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and to provide a program for the conservation of such endangered species and threatened species.

(a) to conserve and prevent the loss of biological diversity by:

3. We would recommend the further additions to the objects:

- (i) conserving remnant endangered regional ecosystems;
- (ii) conserving remnant regional ecosystems of concern;
- (iii) maintaining ecological processes;
- (iv) reducing greenhouse gas emissions.

4. We would recommend the inclusion of a seventh clause:

(g) The principles of Ecological Sustainability must be adhered to.

5. We would recommend the addition of a clause 3B:

The terms 'conserve', 'conserving', and 'conservation' mean to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.

6. We recommend the definition in s4 to be amended to read:

Ecological sustainability can be achieved through the implementation of the following:

(a) the precautionary principle: namely that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation and harm.

In the application of the precautionary principle, public and private decisions must employ:

- (i) careful evaluation to avoid serious or irreversible damage to the environment;
- (ii) an assessment of the consequences and impacts of the action;
- (iii) inter-generational equity: namely that the present generation must ensure that the health and diversity of the environment are maintained or enhanced for the benefit of future generations;
- (iv) conservation of biological diversity and ecological integrity: namely that conservation of biological diversity and ecological integrity must be a fundamental consideration;
- (v) improved incentive mechanisms for compliance.

7. We recommend the definitions in s4 to include:

Harm means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by the cumulative impact of such acts or significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

8. We recommend the word 'economic' be completely removed from the Act and all clauses *inter alia* amended.

9. We recommend s40(2) be amended to read:

(2) In so doing, the Director-General must consider the likely social consequences of the making of the recommendation in the manner proposed.

10. We recommend s44 to be amended to read:

(1) On receiving a recommendation from the Director-General, the Minister must consider the recommendation with regard to the following:

(a) the likely social consequences of a declaration of critical habitat in the manner indicated in the recommendation;

(b) the advice of the Scientific Committee concerning the matter;

(c) any submissions made about the recommendation and, in particular, any submissions received from the public;

***At what steps in the listing process should public comment be sought?***

The public comment process should be rigorous however we recommend that there be a declaration form whereby people or agencies who have some financial interest in having a species not listed declare their financial interest.

***Are there opportunities to improve coordination and/or reduce duplication between the Commonwealth and NSW listing regimes?***

Collaboration to share expertise, information and insights on criteria, and debate on taxonomic biases, nomenclature and other matters of interest was recommended as a priority by a 2002 meeting of representatives of Australian Threatened Species Scientific Committees.

The 2002 meeting of representatives of Threatened Species Committees proposed the following principles:

1. That the Commonwealth list all species and ecological communities endemic to a State or Territory and listed by that State or Territory as threatened.

2. That all species and ecological communities listed by the Commonwealth as threatened be listed by the States and Territories in which they occur or have occurred (acknowledging that some variation in listing categories may be appropriate in particular cases).

3. That all Australian lists of species, ecological communities and key threatening processes be kept up to date and, where appropriate, aligned with each other.

4. That each threatened species, ecological community or key threatening process listing recommended by a committee is supported by a record of the data used in the listing, the interpretation placed on that data and the reasoning for listing.

5. That when a State, Territory or Commonwealth committee assemble data on a species, ecological community or key threatening process it be in a form that can be immediately used by other relevant State(s) or Territory(ies) and the Commonwealth.

6. That a network be established to share expertise, information on the insights on criteria, taxonomic biases, nomenclature and any other matters of interest.'



***Is the framework for addressing key threatening processes effective? What improvements could be made?***

As stated we routinely see hollow bearing trees logged every week. The reluctance to list processes such as logging, subdivision and mining as key threatening processes only increases the risks of loss of biodiversity. There needs to be criminal and civil offence provisions attached to these KTPs. There needs to be strong pecuniary fines imposed for offences against KTPs.

***Is the current way of identifying critical habitat or other important habitat efficient and effective?***

The relevance of the critical habitat provisions is limited because of the extreme reluctance of the Director-General to use them and because they are linked to species, populations and EECs that are already threatened. This is procedural rather than substantive protection.

A preliminary determination by the Scientific Committee is often seen by land owners as a signal to lodge a development application or to destroy a species, population or EEC before a final determination is made. Theoretically the *Native Vegetation Act 2003* should now prevent this however there are proposed amendments in train to allow logging of EECs.

Important habitat must be protected.

***Are the powers under the Act effective for improving recovery on a landscape basis?***

Cumulative effects of an action must be taken into account. The lack of expertise of those who apply the seven part test is of concern. The lack of regulation in the industry can result in those applying the test are often under qualified. Town planners, surveyors, landscape architects and horticulturalists have been engaged to perform the test.

The burden of proof must be placed on developers so that they must affirmatively show that their proposed actions will have no significant effect on threatened or endangered species or ecosystems either directly or cumulatively.

We also recommend that the TSC Act mandate decisions that are consistent with its objectives.

Further the TSC Act should be supported by strong sanctions to prohibit or restrict harmful activities and there be an introduction of appropriate pecuniary penalties.

While imposing fines on offenders who harm the environment may have a deterrent effect, this does not repair damaged ecosystems. To ensure remedial works there should be an introduction of positive remedial penalties. The two strongest forces ensuring environmental compliance are criminal prosecutions and potential clean-up liability.

***How should the TSC Act interact with state laws on land-use planning, development control and natural resource management?***

The New South Wales planning system is referred to as an approvals system. This highlights that what is being planned for is development as opposed to sustainability and environmental protection.

No longer should ecosystems be referred to as resources. The world is not our quarry. Our planet must survive otherwise we will not.

The TSC Act should be given teeth and prevail over other delegated legislation, working in conjunction with the *Protection of the Environment Operations Act 1997* and the *National Parks and Wildlife Act 1974*.

Further we recommend that a clause be inserted that reads;

**Interagency cooperation**

(a) Agency actions and consultation.

(i) Each government agency shall, in consultation with and with the assistance of the Expert Panel, insure that any action authorized, funded, or carried out by such agency will not jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Expert Panel, after consultation as appropriate with affected States.

***Does the TSC Act provide adequate incentive for strategic planning?***

There should be a clause requiring mandatory implementation of Threat Abatement Plans (“TAPs”). There should be an increase to funding to implement TAPs and regulatory response. The 2004 TAP amendments should be repealed and TAPs again made mandatory. There should be offence provisions enacted.

The TSCA creates, or is subject to, many perverse incentives that work against its objectives. One of the major problems is that because it gives councils a discretion when making certain decisions that affect threatened species, councils will often exercise their discretion in a way that favours their own interests. That is, since councils rely on rates for their funding and since allowing more development results in a greater rates base, “the economic incentives are skewed against councils conserving biodiversity”. This is especially so when one takes into account the traditionally pro-development culture of some councils. In a similar vein, the TSCA provides landowners and land-users with “strong incentives to protect their commercial interests by destroying any biodiversity of value on their land before it is discovered”...The often prohibitive cost of an SIS likewise provides a perverse motivation. This is especially so while the TSCA is not properly monitored or enforced.<sup>74</sup>

***Do you have comments on the operation of the BioBanking Scheme including how it engages with both landholders and developers?***

We recommend that all Biobanking provisions be removed from the Act. Not only is this scheme ineffective at any form of protection it is seen by developers as a way to destroy important habitat with impunity.

There are no provisions to equate the area to be conserved in equality or habitat provision with the area to be destroyed, that it was ever likely that area would be used by the species which the destruction is displacing, or that there was ever any threat to the area conserved. We would state again that fragmentation within a forest will force the inhabitants of the logged forest patch into the surrounding forest, thereby causing dysfunctional behaviour due to higher than normal densities.

If there was true compensation for landholders to ensure the vegetation remained intact this might be an effective tool for behavioural change.

***What are the most important things for future biodiversity strategies to focus on?***

Climate change and logging of native forests are the most important thing for future strategies.

A greenhouse trigger should be introduced under the Act. If there is to be any biodiversity left there must be an end to native forest logging.

If the ‘minimum bar’ is raised by including our amendments, coupled with ending native forest logging this may go some way to helping conserve biodiversity.

***Given the existence of various other advisory bodies, are the roles of the Biological Diversity Advisory Council and Social and Economic Advisory Council still relevant?***

We recommend the disbanding of the Social and Economic Advisory Council. This was a thinly disguised industry lobby group that did not have the environment or biodiversity protection as a core principle.

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<sup>74</sup> Riddell G, ‘A Crumbling Wall: The Threatened Species Conservation Act 10 years On’ (2005) 22 *Environment and Planning Law Journal* 446.

We support an expert panel that seeks public submissions and makes recommendations in reports to the Minister, which then are made publicly available.

The Minister will be required to consider the expert panel's report when making a decision, and will publish reasons for decisions.

We favour the use of an expert panel over government review due to the ecological complexity of individual landscape-scale assessment processes and because an expert panel is likely to be more independent.

We would recommend that s141B be amended to read:

141B Expert Panel

- (1) There is to be an expert panel.
- (2) The membership is to be members of the NSW Climate Change Council, the National Parks and Wildlife Advisory Council, the Threatened Species Committee and other qualified members of the public.
- (3) The members of the panel are to have expertise in one or more of the following areas:
  - (a) biological diversity;
  - (b) biological science;
  - (c) environmental science;
  - (d) climate change.
- (4) The Panel will advise the Minister and the Director-General on:
  - (a) likely impacts on biological diversity and ecosystems of actions to be taken under the Act;
  - (b) such other related matters as may be referred to the Panel by the Minister and the Director-General.



**Rocky Outcrops logged in Mumbulla State Forest and Glenbog State Forest**



## Conclusion

A biodiversity conservation Act where the emphasis is on sustaining ecological functioning at the sub-regional and local landscape level is preferable to a species conservation Act.

The goal of threatened species legislation should be to keep species off the threatened species list. If the objectives of the Act are to protect, restore and enhance the quality of the environment, to mitigate the cumulative impact on environment of existing human activities and to cease future harm then this would be best achieved through maintaining and improving the ecosystems of all species.<sup>75</sup>

We would state that if native forest logging is to continue then the exemptions to the TSC Act and other exemptions must be removed, otherwise no matter what measures are enacted biodiversity loss will continue at the current alarming rate.

With what is now scientific knowledge on the effects of climate change the time is over for the business as usual approach.



Non-compliance 2204 463 Eden Cpt 557 13975 07/12/2009 Harvesting within mapped old growth TSL 5.3(c)  
Reason: GPS was inoperable. Boundary marked by compass and hip chain.  
Response: Verbal warning. SFO to pack additional batteries and request assistance when required.  
Nil environmental damage.<sup>76</sup>

<sup>75</sup> *Protection of the Environment Operations Act 1997*(NSW) s10.

<sup>76</sup> Southern Region 2009 IFOA TSL Non -Compliance Register Condition 4.1(f).