



## **SUBMISSION**

**Senate Standing Committee on Environment and Communications**

**Inquiry into the status, health and sustainability of Australia's koala population**

**February 2011**

### **Introduction**

The National Association of Forest Industries (NAFI) welcomes the opportunity to comment on the Senate Inquiry into the status, health and sustainability of Australia's koala population.

NAFI is the peak representative body for Australia's forestry and forest based industry and represents the industry's interests to the public, governments and authorities on matters relating to the national development and sustainable use of Australia's forests and wood products.

### **A coordinated national approach**

Most Australians recognise the iconic status of the koala and its importance to the ecological and social fabric of the country. In recognition of this importance and the general decline in koala habitat particularly in the eastern and southern parts of Australia, the National Koala Conservation Strategy was developed in 1998 and subsequently reviewed and updated in 2009.

Importantly, the Strategy outlines the key threats and management issues as:

- habitat loss, fragmentation and degradation;
- over-browsing;
- natural disasters;
- disease;
- vehicle collisions;
- predation by dogs; and
- climate change.

NAFI notes that habitat loss and fragmentation through land clearing (i.e. removal of forest for agriculture or urban development etc.) is one of the major threats to koala populations and is often confused with sustainable forest harvesting practices (i.e. renewable harvest and regeneration of forest for timber and other multiple values).

Policies and actions that address the impact of permanent forest clearing represent a major focus of the Strategy and NAFI would concur with the major findings of the 2009 review that:

‘the Strategy remains a good framework for the conservation and management of koalas. However, recognition, promotion, funding and leadership are required to ensure that its aim and objectives are met.’<sup>1</sup>

Accordingly, NAFI supports the development and implementation of a national strategy for koala conservation, particularly with respect to landscape level planning and the coordination of various state and local government jurisdictions.

Australia has 147.4 million hectares of native forest, with 23 million hectares in conservation reserve and 9.4 million hectares in public forest where timber harvesting may be permitted subject to environmental regulation. Australia has a further 2 million hectares of plantation forests.

However, the forest industry has a number of significant concerns regarding inadequacies in the management of formal conservation reserves for koala conservation within the broader landscape, given such issues as weed and pest control (e.g. feral dogs) and fire management.

Furthermore, adequate recognition should be given to the current regulatory framework that underpins the sustainable management of native and planted forests for wood production and other important values, including biodiversity, watershed protection, recreation and carbon sequestration.

In addition, the relative scale of activity and landscape connectivity of ‘managed’ and formal conservation reserves (e.g. national parks) should be taken into account at a landscape level. The sustainable harvesting of forests represents less than one per cent annually of the forest estate potentially available for wood production in any one year (in all states and territories) and may enhance the habitat for a range of species through the provision of a diversity of mixed age classes, forest structure and food resources across the landscape.

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<sup>1</sup> Predavac, M (2008). Review of progress in implementing the 1998 National Koala Conservation Strategy. Report prepared by Parsons Brinckerhoff for the Commonwealth Department of the Environment, Water, Heritage and the Arts, Canberra.

## **Regulatory framework for commercial forestry activities**

Legislative and regulatory protection for flora and fauna in forest regions in Australia is well documented<sup>2</sup>, reflecting previous conservation assessments through such processes as the Regional Forest Agreements and the establishment of a comprehensive, adequate and representative (CAR) forest reserve system.

With regard to forestry operations, modern forestry science and management takes into account traditional sustainable yield principles (i.e. supply of wood products in perpetuity without diminishing the productive capacity of the resource) as well as ecologically sustainable principles for the protection of ecosystem function and services, such as impacts on soil, water and biodiversity such as koalas. The forest industry takes its responsibilities seriously with respect to koala populations and manages healthy habitats for koalas in native forests and plantations where feral animals and other threats such as wildfires are controlled.

### *The RFA context*

The current regulatory framework for commercial forestry operations in native forests has been largely shaped by the Regional Forest Agreement (RFA) process. These agreements were put in place to: (a) resolve long standing native forest land use conflicts between state and federal governments through agreed 20 year commitments; (b) improve the national reserve system and conservation outcomes through the addition of significant forest areas to the comprehensive, adequate and representative (CAR) forest reserve system; (c) evaluate and accredit state based ecologically sustainable management systems in multiple-use areas available for wood production; and (d) provide for long term investment and certainty in the forest industry.

Such ambitious and worthwhile goals were achieved at substantial cost, including the significant investment in scientific studies and ecosystem mapping that shaped the agreements and provided for environmental protection and biodiversity conservation measures, including the listing of priority threatened species and ecological communities within each RFA region and measures to protect them. The extensive nature of the assessments is reflected in the very definition of an RFA under the Act:

"RFA" or *Regional Forest Agreement* means an agreement that is in force between the Commonwealth and a State in respect of a region or regions, being an agreement that satisfies all the following conditions:

- (a) the agreement was entered into having regard to assessments of the following matters that are relevant to the region or regions:
  - (i) environmental values, including old growth, wilderness, endangered species, national estate values and world heritage values;
  - (ii) indigenous heritage values;
  - (iii) economic values of forested areas and forest industries;
  - (iv) social values (including community needs);
  - (v) principles of ecologically sustainable management;
- (b) the agreement provides for a comprehensive, adequate and representative reserve system;
- (c) the agreement provides for the ecologically sustainable management and use of

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<sup>2</sup> Montreal Process Implementation Group for Australia (2008). *State of the Forests Report 2008*. Indicator 7.1a: Extent to which the legal framework supports the conservation and sustainable management of forests.

- forested areas in the region or regions;
- (d) the agreement is expressed to be for the purpose of providing long-term stability of forests and forest industries;
- (e) the agreement is expressed to be a Regional Forest Agreement.

Given such a comprehensive landscape approach to achieving biodiversity and socio-economic outcomes in RFA regions, forestry operations are recognised as having met the requirements of the *Environment Protection and Biodiversity Act 1999* (EPBC Act). The lessons and successes from the RFA process could be applied to other strategic assessments such as the national strategy for koala conservation.

Furthermore, NAFI would argue that the present narrow focus of the EPBC Act on listed threatened species and ecological communities is an out-dated and static approach to biodiversity conservation, particularly at a broader ecosystem and landscape scale. As the CSIRO have recently stated:

The changing nature of biodiversity dictates we must reformulate the core objectives of biodiversity conservation. The current (implicit) objective of preventing any change to biodiversity (in selected places) will become untenable. We will need to shift to something like “managing the change to minimize the loss”.<sup>3</sup>

Given the uncertainty of climate change and other dynamic processes, they conclude that managing for a diversity of habitat types and disturbance regimes is likely to become increasingly important for maintaining ecosystem resilience and biodiversity.

The ecologically sustainable management of multiple-use areas for timber harvesting within RFA regions - through accredited environmental management systems, forest zoning (e.g. special protection zones) and legislated codes of practice (e.g. pre-harvest flora and fauna surveys, prescribed riparian buffers, provision of habitat trees and variable retention harvesting) - complements the CAR forest reserve system and provides such an adaptive approach to koala and other fauna protection.

The adaptive management of commercially managed forests includes:

- state level sustainable forest management (SFM) systems and processes adopted and accredited under the RFAs; and
- voluntary third party SFM certification, such as through the Australian Forestry Standard or Forest Stewardship Council schemes.

In 2009, over 10 million hectares of plantation and multiple-use native forest in Australia was certified under internationally recognised SFM schemes.<sup>4</sup>

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<sup>3</sup> CSIRO Submission 08/329. Review of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), December 2008, page 3.

<sup>4</sup> Department of Agriculture, Fisheries and Forestry (2010). *Australia's forests at a glance*. Bureau of Rural Sciences.

## **Fire management**

A significant and related issue for koala conservation and habitat protection includes the risk of large scale high intensity fire through inadequacies in public land management and the accumulation of forest fuel loads over time<sup>5</sup>. Such high intensity fires can have widespread negative impacts on flora and fauna as well as on property and public safety.

A key deficiency has been a policy shift to fire suppression at the expense of longer term fire prevention and active land management for fuel reduction that can reduce the risk of high intensity fires. This aspect of fire management has failed to be adopted as part of any real reform of current practice for large tracts of conserved forest, despite its general acceptance by the scientific community:

Australian bushfire scientists and anthropologists generally agree that, before European settlement, Indigenous people carried out frequent, regular and wide-scale burning, especially in the drier forest types. The net result was a mosaic of burnt and unburnt patches that limited the extent and intensity of fire under severe weather conditions.<sup>6</sup>

The outcome of these management settings has been an increasing incidence of large scale high intensity fires in south-eastern Australia, which can have devastating impacts on endemic flora and fauna populations including koalas.

Since 1990, over 13 million hectares of public forest have been added to formal conservation reserves. Over time, this has resulted in a decline in fire fighting capacity and personnel formerly provided by industry for the protection of commercial wood resources and other forest values such as habitat protection. A management imperative of production forestry is to protect the forest resource from damage through fire prevention (i.e. reduce likelihood of fire), detection and response.

In contrast, the increase in conservation reserves has been associated with a more passive approach to fuel reduction, with numerous government inquiries and reviews highlighting the inadequacy of prescribed burning activities and other planning impediments (Parliament of New South Wales Legislative Assembly 2002; House of Representatives Select Committee on the Recent Australian Bushfires 2003; Environment and Natural Resources Committee 2008). More recently, the 2009 Victorian Bushfires Royal Commission and 2010 Senate Inquiry into the incidence and severity of bushfires across Australia have similarly identified inadequacies in fuel reduction management and coordination.

Preventative land management through fuel reduction, vegetation thinning and related activities such as maintenance of access trails and fire breaks is a routine component of commercial forestry operations, which has a beneficial impact in reducing the likelihood and severity of natural fires. It has been shown, for example, that hazard reduction by prescribed burning will reduce the rate of spread, flame height and intensity of a fire and reduce the potential for spotting<sup>7</sup>.

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<sup>5</sup> Stephens M (2010). Bushfires, Forests and Land Management Policy under a Changing Climate, *Farm Policy Journal*, 7 (1): 11-19.

<sup>6</sup> Montreal Process Implementation Group for Australia (2008). *Australia's State of the Forest Report 2008*. Bureau of Rural Sciences, Canberra.

<sup>7</sup> Gould, JS McCaw, WL Cheney, NP Ellis, PF Knight, IK & Sullivan, AL, 2007, Project Vesta - Fire in Dry Eucalypt Forest: Fuel structure, fuel dynamics and fire behaviour. Ensis-CSIRO, Canberra ACT, and Department of Environment and Conservation, Perth WA, November.

The long term consequences of inadequate fuel management and associated impacts on koalas and other biodiversity were well identified in the 2010 Senate Inquiry. For example, the Western Australian Department of Environment and Conservation noted:

Very large and intense wildfires cause high levels of mortality and damage to native plants and animals, and irreversible loss of topsoil. Post-fire recovery may take many decades, or even centuries where old-growth forests have been killed. On the other hand, low intensity, patchy fires have little long-term impact on the biota, which recovers quickly from such events.

There is no evidence that current prescribed burning for fuel management and other purposes has resulted in any species losses or environmental degradation. In fact there is growing evidence that, implemented correctly (appropriate interval, intensity, season and scale), prescribed burning can benefit biodiversity at the landscape scale by providing diverse habitats (seral stages) and by reducing the size and intensity (severity) of damaging wildfires.<sup>8</sup>

### **Commercial forest plantings**

In addition to the extensive area of native forests, Australia has 2 million hectares of plantation forests.

These forests are used to produce a range of pulpwood and solid wood products from short (e.g. 10-12 years) and long (e.g. 30-35 years) rotation plantations in various regions across Australia. Approximately half of Australia's commercial wood plantations are short rotation pulpwood plantations using eucalyptus species.

In addition, there has been increasing commercial investment in carbon-sink forests (i.e. plantings for long term carbon sequestration) through voluntary off-set markets and broader policies for a national carbon price and land based activities for climate change mitigation. The bulk of carbon-sink plantings are eucalypt species and many are based on mixed natural species of local origin that are planted on degraded or marginal farm sites.

Given the presence of eucalypt species in many commercial plantings on private land, koalas can and do access food and shelter in some of these areas, through landscape connectivity and mobility across adjacent public or private forest habitat.

The occurrence of koalas in some planted forests reflects the broader multi-functionality of forests in the landscape. Planted forests are relatively complex biological systems and provide a number of public good characteristics that make them unique from many other land uses and production activities (e.g. cleared land for annual agricultural crops). These characteristics include their relative longevity as a land use and multi-functionality beyond commercial wood benefits, including ecosystem services and functions such as carbon sequestration, provision of recreation opportunities, rehabilitation of degraded landscapes, soil and water conservation and enhanced biodiversity. Many of these benefits cannot be captured in a market system by the private investor.

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<sup>8</sup> Department of Environment and Conservation (2010). Senate Select Committee Inquiry: The Incidence and severity of bushfires across Australia, Submission 50, pp. 1-5.

For example, the use of riparian zones or biodiversity protection in plantations (relative to other land uses) can increase the cost of investment without any return to the investor from the value of these activities to the wider community.

Nevertheless, the plantation forest industry takes its land stewardship goals very seriously and undertakes voluntary actions to improve the welfare of koalas and enhance habitat opportunities in addition to regulatory planning requirements and codes of practice (see, for example, Box 1).

*Box 1: HVP Plantations case study*

The koala is not currently listed as a threatened species under Commonwealth or state legislation. However, it is an iconic species and HVP Plantations recognises its unique responsibility in protecting its habitat.

HVP manages about 65,000 hectares of land within the Strezlecki Ranges. About 40,000 hectares of land is managed as eucalypt and pine plantation. About 25,000 hectares (40%) is managed as custodial land, mostly native forest, which is managed for conservation.

HVP has a Koala Management Plan which sets out a number of initiatives or policies to help maintain the koala population in Victoria. In consultation with local koala expert, Peter Monkhorst, HVP has prepared a suite of strategies to minimise the operational impacts of plantations on koalas and to provide a level of protection and enhancement of the koala habitat. The initiatives include, but are not limited to:

- identification of koala habitat within the HVP estate and the creation or improvement of links between priority habitat areas;
- restoration of priority native forests, including removal of impenetrable weeds such as blackberry;
- temporarily leaving some plantation trees standing after harvest in priority areas to act as minimal refuge and food sources;
- preservation of eucalypt plantation trees within close proximity to permanent and temporary streams. These riparian ‘corridors’ of plantation trees create refuges for koalas and provide a link to native forest habitats;
- replacement of non-viable pockets of plantation with indigenous species including primarily koala food sources where appropriate;
- participation in cooperative pest animal control programs with other land managers that are aimed at protecting the koala;
- the training of field staff to look for signs of koalas during planning and operational activities; and
- arrangements with a wildlife shelter that specialises in koala welfare should our field staff find an injured animal.

However, it is important to note that such voluntary measures for koala protection in commercial plantations are not usually compensated in the market and hence provide a public benefit at no cost to the community or taxpayer.

The industry should be recognised for such land stewardship goals and supported by the community and government, as recommended by the national strategy under the following actions:

- develop and implement incentive-based mechanisms for koala conservation on private lands (1.03); and
- provide extension and advisory services to encourage retention and restoration of koala habitat and to encourage management practices on private land which are not harmful to koalas or koala habitat (4.01).

### **Concluding comments**

In conclusion, NAFI is committed to working constructively with the Australian Government, the Committee and other relevant stakeholders with regard to improving the health and status of Australia's koala population.

The forest industry recognises that the koala is an iconic species which is under threat from a number of factors such as feral animals, road accidents, habitat clearing for urban development and disease. The industry would agree with the National Koala Conservation and Management Strategy 2009-2014 that the main threats and management issues to the long term conservation of the koala are actually non-forestry related (refer to main threats above).

Furthermore, the forestry industry can play a complementary role in the national strategy to enhance koala conservation, through the existing regulatory framework for sustainable forest management and an increasing trend toward voluntary efforts on privately owned land and commercial operations.

In this respect, NAFI has recently commissioned Central Queensland University to investigate the key threatening processes on koala populations and the relative impact of sustainable forest management practices, to assist the industry and policy makers to better understand the key implications.

However, the industry is seriously concerned with inadequacies in public land management in the formal conservation estate (e.g. fire, pest and weed management) which has spill-over effects not only for koala habitat but a range of other species and communities at a landscape scale.

Should you require any further information or wish to consult further about this submission, please contact the NAFI office on (02) 6285 3833.