



SUBMISSION

Senate Inquiry into Climate Change and the Australian Agricultural Sector

February 2008

Introduction

The National Association of Forest Industries (NAFI) and Tree Plantations Australia (TPA) appreciate the opportunity to make a submission to the Senate Standing Committee on Rural and Regional Affairs and Transport on this important Inquiry into Climate Change and the Agricultural Sector.

NAFI and TPA are Australia's peak forest industry bodies representing the interests of the industry to the public, governments and authorities on matters relating to the national development and use of Australia's forests and wood products.

Australia's forestry sector has an important role to play in assisting agriculture deal with the impacts of climate change as both a complimentary land use and an alternative form of agricultural production.

The following submission outlines the forest industry's role in assisting the agricultural sector to deal with the impacts of climate change. It also highlights the importance of ensuring policy development recognises the benefits of a comprehensive land use framework whereby both agriculture and forestry can coexist for mutual benefit.

Forestry's role in mitigating the risks of climate change on agriculture

The impacts of climate change are still relatively uncertain and could have fairly dramatic impacts on Australia's forestry and agricultural sectors. Changes in the patterns of rainfall, temperature and frosts could lead to a range of impacts which have the potential to reduce levels of production across both sectors. Managing these impacts will be a critical factor in dealing with the effects of climate change.

Australia's forestry sector has an important role to play in addressing the impacts of climate change as part of the broader agricultural land use framework. Agriculture is Australia's second largest emitting sector and as Australia's only carbon positive sector, forestry has an important role to play in offsetting these emissions. Therefore, consideration of both tree plantations and native forestry as valuable components of the agricultural landscape will be a critical factor in addressing the risks of climate change.

At the landscape level, forestry can provide a valuable complementary land use to other forms of agriculture, which may be at greater risk from the effects of climate change. As a long term crop, trees are generally not as susceptible to seasonal and long term climatic variations as certain types of agriculture.

Recent drought conditions throughout Australia have resulted in dramatic reductions in agricultural production, yet the level of impact on production forestry has been far less severe. However, increased bushfires are a major threat which the forestry sector must deal with through its adaptive management regimes (outlined in Box 1 below).

Box 1 - Forestry's ability to adapt to climate change

Adaptive management has long been a valuable tool in the management of Australia's production forests (i.e. plantations and native forests). Forest managers utilise a wide array of silvicultural management techniques and practices in order to achieve desired outcomes across a range of different forest types and stand structures.

As forests are dynamic systems, it is important that forest managers have a variety of management techniques 'at their disposal' in order to adapt to changing conditions, such as climate. These techniques may include thinning of dense stands, prescribed burning for ecological and timber protection purposes, variations in the timing and pattern of planting, application of fertilisers and pesticides, rotation lengths, harvesting and tree species selection.

The wide range of management options available to Australia's forest managers provides them with significant flexibility in dealing with anticipated climatic variations and the effects this may have on forest resources.

The ongoing expansion of Australia's plantation resource in the agricultural landscape is providing a range of environmental, social and economic benefits. Plantations can be effective in addressing issues such as land degradation (i.e. salinity and erosion) and enhancing biodiversity, water quality and carbon sequestration (see Box 2 for more details).

Plantations are an effective means of diversifying the agricultural landscape to mitigate the effects of climate change. Successfully integrating plantations with other forms of agricultural production provides a comprehensive land use framework which is less exposed to climatic variations. Coupled with the wide array of management options available to plantation managers (see Box 1) to cope with these variations, plantation forestry is an extremely valuable land use for addressing climate change.

Adaptive management in commercial native forests is also an important means of achieving carbon positive outcomes, particularly when compared to the alternative 'passive' approach to managing conservation reserves which is creating a significant risk to Australia's carbon accounts through severe bushfires. Passive management of reserves may lead to a significant build up of fuel loads and an increase in the risk of high intensity wildfires.

Australia's forestry sector is already providing a range of climate change mitigation activities and has significant potential to expand these efforts. Mitigation options available to the forestry sector broadly include forests as carbon sinks, renewable carbon storing wood products and wood waste as a source of renewable energy (see Box 2 below).

Box 2 - Benefits of forestry in the agricultural landscape

Carbon sinks - Australia's production forests, comprising commercial native forests and plantations, currently remove a net 44 million tonnes of CO₂e from the atmosphere (consisting of a net offset of 22.5 million tonnes of CO₂e by commercial native forests and 21.9 million tonnes of CO₂e by plantations).¹

Expanding plantations in line with the *Plantations for Australia: 2020 Vision* target - 3 million hectares of plantations by 2020 - could deliver around 50 million tonnes of CO₂e offsets per annum by 2020.

Biodiversity - Agricultural landscapes with a variety of land uses and vegetation cover, such as those with patches of plantations and native forests, have greater biodiversity opportunities, than simpler landscapes devoid of a forest component. All forests, be they commercial plantations or native forests, provide a range of habitats for conserving and enhancing biodiversity².

Water quality - The strategic placement of plantations on farms can lower saline water tables to limit salt loading into watercourses, as well as to filter and absorb excess nutrients from other agricultural activities (i.e. dairying and cropping) prior to entering waterways. The deep rooted characteristics of plantations established in appropriate locations on the farming landscape, is a key tool in managing stream water quality.

Carbon storing wood products - Timber is far less emissions intensive in its production when compared to alternative building materials such as concrete, steel and aluminium. Recent research indicates that by choosing wood products wherever possible in house construction, greenhouse gas emissions, equivalent to more than 25 tonnes of CO₂e, could be saved per house.³

Wood waste for renewable energy - There is enough wood waste available from existing forest industry activities in Australia to produce 3 million megawatt hours of electricity per annum. The net benefit of using this wood waste would be a permanent reduction in Australia's greenhouse gas emissions of 3 million tonnes of CO₂e per year. Renewable energy from wood waste reduces CO₂e emissions by 95-99% for each MWh of electricity generated when compared to coal-fired electricity generation.⁴

A national strategy for adapting to climate change

NAFI and TPA support the concept of a national strategy to assist Australian agricultural industries to adapt to climate change. This strategy, and any policy development arising from it, should include due recognition of the benefits that forestry can provide in addressing the impacts of climate change in the agricultural landscape.

¹ AGO (2006). Forestry Sector Greenhouse Gas Emissions Projections 2006.

² ENSIS (2006). 'Commercial Environmental Forestry: Integrating trees into landscapes for multiple benefits'. <http://www.ensisjv.com/portals/0/CEFTechReportScreenFINAL.pdf>.

³ www.greenhouse.crc.org.au/counting_carbon/wood.cfm

⁴ NAFI (2006). The environmental benefits of using wood waste for renewable energy, www.nafi.com.au/bioenergy_factsheets/WWFS03.pdf.

For Australia's forest industry to deliver on its potential to assist the agricultural sector in addressing the impacts of climate change, a complementary policy environment will be a critical requirement. The expansion and sustainable utilisation of Australia's forest resources in the agricultural landscape will require stable policy settings for both commercial native forests and plantations.

For plantations, it is important to ensure the development of government policy in areas of climate change and other areas (such as taxation policy, water entitlements and land use regulations) reflects the true benefits (including carbon benefits) of plantations and wood products.

There is currently a concern held by Australia's forest industry that water policy development in response to the National Water Initiative may unfairly restrict plantation establishment and development while failing to recognise other benefits such as the significant role of plantations as carbon sinks. Similarly, the development of unjustified land use regulations pose a threat to the future viability and development of plantation forestry.

New Zealand's forest industry serves as a pertinent example of the significant impact potential of shifting policy on the development and viability of plantation forestry. A number of recent policy decisions by the New Zealand Government in areas of climate change and land use regulations have led to considerable uncertainty for future investment in the country's plantation sector.

The implications have been a significant reduction in the level of investment in plantation forestry in New Zealand. As such, large scale land use change has occurred whereby harvested plantations have not been replanted and have been replaced by other forms of agricultural production such as dairy farming – resulting in the highly undesirable outcome of overall net deforestation.

Given the strong land use link between the tree plantation sector and the agricultural sector, it seems logical for plantations to play a major role in offsetting emissions from agriculture. New Zealand's policy settings have failed somewhat in allowing for this to occur, and Australia should take caution in not compromising the carbon offsetting potential of its existing and future plantation resource.

Clearly, a national strategy for agriculture adapting to climate change should ensure that any policy development does not impact on the forest industry's significant capacity to deliver carbon offsets through its production forests and wood products.

Drought assistance and dealing with exceptional circumstances

NAFI and TPA acknowledge the importance of drought assistance and exceptional circumstances programs to the agricultural sector in dealing with the long term impacts of climate change. The forestry sector has an important role to play as a complementary land use to other forms of agriculture, as such reducing the need for this assistance to some degree.

Commercial scale forestry, while it is generally ineligible to access funding from assistance programs, does not require the level of assistance which often applies to agriculture. In contrast, forestry can offer a valuable complimentary land use which is less

exposed than other forms of agriculture to the effects of seasonal and long term climatic variations.

For instance, both native and plantation forestry, can provide a valuable source of income at both the regional and farm level during periods when extreme climatic conditions are causing an economic downturn for other parts of the agricultural sector. This may be critical in supporting regional communities and individual landholders during these periods.

At a regional level, large scale production forestry is a valuable means of effectively 'drought proofing' regional communities which depend on the sector and its employment opportunities (i.e. harvesting, haulage, processing, wholesaling, etc). At the farm level, landholders may rely on timber production from their forest resource to supplement their income during times of prolonged drought which is causing a reduction in their levels of agricultural production.

It is important that any potential evaluation of, or changes to, drought assistance and exceptional circumstances programs, recognise the value of forestry to regional communities and landholders as a less 'climate sensitive' land use in the agricultural landscape.

Conclusion and Recommendations

As outlined in this submission, the forestry sector has an important role to play in diversifying the agricultural landscape to mitigate the effects of climate change. The integration of production forests (both plantations and native forests) with other forms of agriculture provides a more flexible and robust land use framework to deal with seasonal and long term climatic variations.

Therefore, NAFI and TPA recommend that any considerations on the development of a national strategy to assist agriculture deal with climate change, or the adequacy of assistance programs, provide:

- Due recognition of the forestry sector's significant capacity to offset emissions from agriculture through its production forests and wood products.
- Equitable treatment of forestry as a legitimate land use in the agricultural landscape capable of delivering a number of other environmental, social and economic benefits to regional Australia.
- Recognition of the value of forestry to regional communities and landholders as a less 'climate sensitive' land use which is not reliant on external assistance resulting from climatic variations.

If the Committee seeks more information on the forest industry's position in relation to emissions trading, a copy of NAFI and TPA's submission to the Garnaut Review can be found on NAFI's website at www.nafi.com.au.

NAFI and TPA appreciate the opportunity to comment on this important inquiry and would be willing to provide any additional information or participate in any hearings that may occur as part of this inquiry.