



**Australian
Forest
Growers**

ABN 39 000 694 904

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Standing Committee on Natural Resource Management (Climate Change)
Parliament House
Macquarie St
Sydney NSW 2000

Dear Committee

Thank you for the opportunity to provide input into the Legislative Assembly Standing Committee inquiry into Natural Resource Management (Climate Change).

Please find enclosed Australian Forest Growers' submission, which includes a summary response to the Legislative Assembly Standing Committee terms of reference.

Climate change presents a threat but also will create opportunities for private forest growers in NSW. Proactive policy development and legislative action is essential to ensure NSW forest growers are best utilized as part of the response to climate change.

Please do not hesitate to contact me should you require further information.

Yours sincerely

Warwick Ragg
Chief Executive



Australian Forest Growers is the national association representing and promoting private forestry in Australia

Submission to NSW Legislative Assembly
Standing Committee on NRM (Climate Change)

Private Forest Growers in Australia and Climate Change

December 2007

Introduction

This document provides Australian Forest Growers guidance to the Legislative Assembly Standing Committee on NRM (Climate Change).

Australian Forest Growers (AFG) is the national association representing the private forest growing industry. Its members include private native forest owners, farm foresters and corporate plantation companies. Since 1969, AFG has advocated responsible establishment and management of plantations on agricultural land for improving landscape health outcomes, as well as complementing existing productive agricultural land use. The broader uptake of private management of native forests is also a key process in addressing many NRM degradation issues. These include reinvigorating regrowth native stands, improving fire management activities, cleaner water in catchments and enhancing forest carbon sink capabilities.

AFG has around 1200 small grower members from 24 regional Branches, being the key forest growing regions nationally. Additionally, we represent the interests of some 70,000 growers investing in afforestation managed investment schemes (MIS) via the activities of our national special interest branch, Treefarm Investment Managers Australia (TIMA).

Climate Change

Australian Forest Growers recognises the potential negative impacts of climate change on Australia's future forest and agricultural productivity (AFG 2006). As our plantation and native forests are likely to be impacted by climate change, forests can also be used to combat this threat. Wood products, especially structural lumber and furniture timber effectively stores carbon for the life of the products. Even paper has a positive carbon storage life. Steel and concrete on the other hand have no capacity to store carbon, in fact large volumes of greenhouse gases are emitted in their production. Wood production through forest harvesting is not only renewable, but replanting/regenerating is a sensible and readily attainable approach in our fight against climate change.

Climate change needs to be considered when delivering policies that influence forest practices. At present, vast expanses of native forest are being locked-up in public reserves. Recent science is revealing that old mature and stagnating forests are probably mostly carbon neutral. Contrary to this, sustainably harvested and regenerated forests are actively growing, thus constantly absorbing CO₂ from the atmosphere. Wood products must be removed from forests to enable them to continually absorb CO₂ (see figure 1 below). Perversely though, increasing expanses of native forests are reaching a stagnant stage and not actively absorbing more CO₂ than they are releasing. This reduced capacity of forests to contribute to abating climate change must be recognised when Governments create legislation that directly impacts the use of vast areas of forest, particularly native forests.

Preferred outcomes

- Develop a whole of government approach to capacity building in the Australian forestry sector, to specifically combat the threat of climate change, through contributing to CO₂ capture and storage.
- Ensure that an actively growing forests ability to abate climate change is considered when developing policy that impacts the use of forests, especially existing native forests.

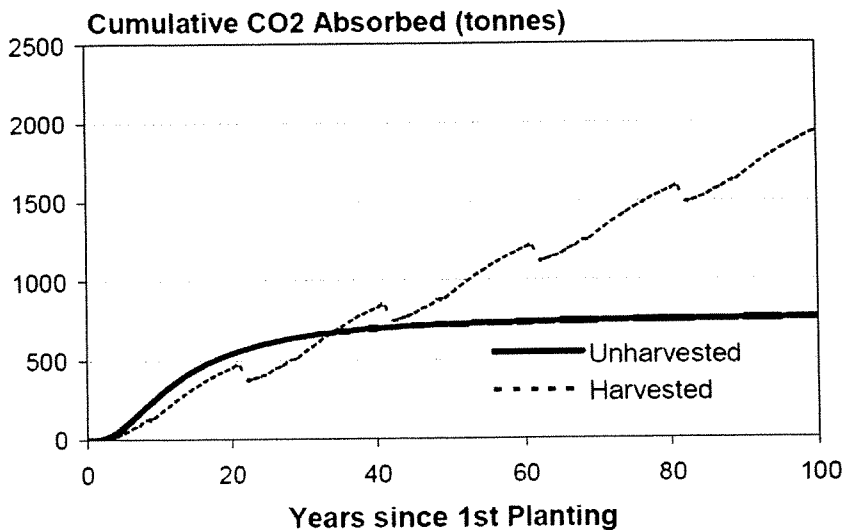


Figure 1 Comparison of Unharvested and Harvested Plantation Sequestration

Figure 1 above illustrates that over a 100-year project lifetime harvested plantations absorb more CO₂ than unharvested plantations (Richardson 2006 using Boscolo et al 1998).

References

1. Australian Forest Growers (2006) 'Policy Statement: Climate Change'. www.afg.asn.au
2. Richardson, T. unpublished 'Using Harvested Plantations to Sequester Carbon From Transport Emissions - the TreeSmart Option'.

3. Boscolo, M., Vincent, J.R. and Panayotou, T (1998). Discounting Costs and Benefits in Carbon Sequestration Projects. Development Discussion Paper 638, Harvard Institute for International Development, Harvard University, Boston.

Summary of Issues for Planted Forests

The below summary was prepared by A3P (the Australian Plantation, Products and Paper Industry Council), is endorsed by AFG.

There are four issues specific to the plantation products and paper industry which we would like to highlight to those developing Government policy responses to climate change:

1. *Sequestration in plantations and products.* The primary production component of the industry – plantation growing – is a major contributor to carbon sequestration and has the potential to make a greater contribution under the right policy settings. Plantation products retain carbon while in use and, based on recent research, for many decades after use. Long term plantation products therefore also represent a significant carbon sink.
2. *Greenhouse friendly building material.* International studies, including those by the National Council for Air and Stream Improvement (NCASI) in USA, have demonstrated that timber has lower levels of embodied energy and a lower greenhouse footprint than other building materials.
3. *Renewable Energy Use.* The processing sectors of the industry – sawmilling, pulp and paper – already have high levels of renewable energy use, including the production, and export to the grid, of electricity generated from wood residues and the by-products of chemical pulping (black liquor). There is also significant potential for increased renewable energy production from plantation wood.
4. *Carbon-intensive, trade-exposed.* The pulp & paper sector particularly is a large user of energy and despite high levels of renewable energy use is relatively carbon-intensive. The sector also faces intense competition from suppliers in countries with lower environmental standards and little likelihood of introducing a carbon cost, such as China, Brazil, Indonesia and Korea. The impact of an Australian carbon cost on the competitiveness of the pulp & paper sector is a major concern.

Reference

4. A3P (2007) Submission on Issues Paper: Prime Ministerial Task Group on Emissions Trading. Pub A3P. www.a3p.asn.au

Emissions Trading

Any trading framework must mimic a fair, efficient market with low barriers to entry. This will be best achieved through a variety of vehicles and services. It will require government-sanctioned rules for verification, registration and market operation. If these are not carefully crafted, the risk for small-scale operators will be the costs of participating in the market outweighing the benefits. For example, adding the cost of accounting for credits in order to participate in the market could make the cost of establishing the forest sink unattractive. Facilitating the pooling of credits may be one way of resolving this issue.

Forests are one of the best carbon sinks, but the creation of carbon credits will be a small part of the web of activities needed to achieve emission reduction targets. This is because the total area that can be planted is limited and the cost of establishing forests is significant. Studies show that establishing forests for carbon sequestration alone is unlikely to be economically viable and other commercial forest uses are needed to realise a profitable value. To be effective, emission reduction must be incorporated as one of many valuable factors within integrated primary production land use.

While the environmental benefits of trees within the Australian landscape are gaining wider recognition, trees have yet to secure popular standing as an alternative to other crops. This is partly because trees do not earn money for many years. If ways are not found of passing economic benefits to tree growers, it is unlikely that the environmental and social benefits of trees in an integrated landscape will be secured in the long-term. Trading carbon credits looks like providing the first means of valuing an environmental service provided by forestry. Getting this right will give impetus to other natural resource management driven trading frameworks. These environmental service markets are essential if we want to create a landscape supporting a diversity of values and operations.

The scientific issues are complex and often unresolved. For example, scientists are still looking for a practical way of measuring carbon in forest soils, forest litter and the trees themselves, although there is progress in this area. An efficient market will need a way of credibly showing that the amount of stored carbon represented by the market-based instrument is actually held. There is the added difficulty of accounting for carbon over time. For example, either as standing trees or sequestered in manufactured wood products, a range of factors influence how much carbon stored in a plantation is released into the atmosphere at harvest.

Australian Forest Growers strongly believes that any benefits from carbon accumulation by trees are passed on to the forest grower. Any emissions trading system should ensure:

- that the grower is able to trade in any carbon sequestered in trees since 1990 or in any sequestered carbon that the Australian Government includes in its calculations of Australia's emissions and carbon balance since 1990 for the purposes of meeting formal or informal international obligations;
- that carbon sequestered in all harvested wood products is recognised and accounted for;
- emissions trading measures maintain the competitiveness of all wood products including pulp and paper; and
- that government programs relating to climate change are consistent, recognise AFG policy objectives and provide transparency and certainty to the forest industry."

Preferred Outcomes

- Development of consistent national market-based instruments capable of capturing and securing the property right to the benefits of carbon sequestration.
- A carbon right that is capable of channelling value back to the grower.

- Operation of competitive efficient carbon trading markets preferably through a variety of vehicles that encourage participation by a variety of producers.
- Studies into systems capable of rewarding growers for carbon held beyond harvest and of ensuring that the benefits gained from sequestration by trees are not completely forfeited at harvest.

Recognition of Carbon Stored in Harvested Wood Products

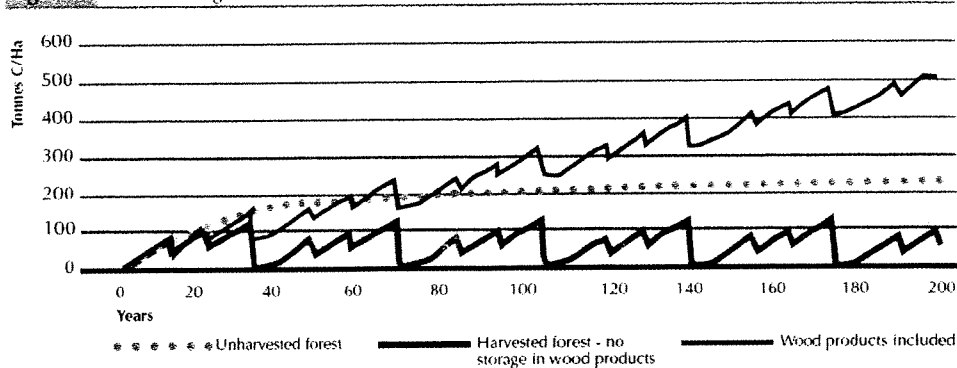
The assumption that a plantation sink becomes a carbon emitter at harvest (made by the NSW Greenhouse Gas Abatement Scheme) is erroneous. Wood products actually store carbon for the life of the product. Meanwhile, new forests replace the harvested and net atmospheric carbon accumulations decline.

Wood products, including paper, maintain a longer than previously thought carbon sequestration life, even when discarded into landfill. An FWPRDC report (Ximenes, 2006) reveals that only 3.5% of carbon from wood products returns to the atmosphere, when discarded as landfill up to 46 years previously. Estimates of national greenhouse gas emissions are therefore lower, and that carbon is stored for many decades in wood products in landfills.

Figure 2 (FWPRDC 2006) below illustrates the merits of production forestry in not only removing greenhouse gas from the atmosphere, but also by storing carbon in forest products.

"The FWPRDC report, titled 'Forests, Wood and Australia's Carbon Balance' states that forestry and wood products continue to absorb almost 10% of Australia's annual emissions of 565 million tonnes of CO2 equivalents every year. Understanding how this works demonstrates that productive and sustainable forest management in Australia can continue to play an important role in reducing greenhouse gas emissions."

Figure 10 Carbon storage in harvested and unharvested forests



References

5. AFG (2006) Policy Statement: Climate Change. Pub. Australian Forest Growers, www.afg.asn.au
6. AFG October 2007 (unpublished) Policy Statement: Emissions Trading.
7. Cross, R. 2007 'What happens to the carbon balance when a tree falls?' *Australian Forest Grower*. Vol 30 No 1 pp46-47. Pub. Australian Forest Growers, Canberra.

8. Forest and Wood Products Research and Development Corporation (2006). *Forests, Wood and Australia's Carbon Balance*. Pub. Forests and Wood Products Research and Development Corporation, Canberra.
9. Ximenes, F. (2006) *Carbon storage in wood products in Australia – a review of the current state of knowledge*. Pub. Forests and Wood Products Research and Development Corporation, Canberra.

Summary Response to Legislative Assembly Standing Committee terms of reference

a) The likely consequences of human-induced climate change on land (including salinity), water and other natural resources;

- It is difficult to predict the effects of climate change that forest industries will experience, and whether these will be positive or negative. Consequences of climate change will be regionally specific, and without information on the likely regional changes to variables such as temperature and rainfall that are key to forestry, we are unable to speculate on this. We suspect that some forest growers will benefit and others will suffer as a direct result of climate change – but exactly to what degree is impossible to say.
- There is an urgent need for sound, repeatable science surrounding the likely impacts of climate change on forests – both planted and natural, in all forested regions of Australia.

(b) Options for ensuring ecologically sustainable natural resource use, taking into particular account the impacts of climate change;

- Forest industries, including plantation and native forestry, are critical for addressing climate change - the tree is a living 'carbon storage machine' and forestry is a central part of any response.
- Increased consumption of timber and other harvested wood products should be promoted as replacement for emissions-intensive alternatives such as steel and concrete. Timber production involves significantly less greenhouse emissions and carbon in harvested wood products is stored throughout its lifetime. The integration of this principle into current energy rating systems and broader responses to climate change is of critical importance if the Australian community is to move towards a sustainable future.
- Biomass utilisation and the growth of renewable energy markets should be a central facet of the NSW response to climate change. Establishing markets to be supplied by wood residues (biomass) for energy production, would be a tremendous economic opportunity for farm foresters, as well as offsetting the need for fossil fuel power generation. New crop options for biofuel production would also stimulate a more profound tree planting culture throughout rural Australia.

(c) Approaches to land and water use management practices on farms and other natural resource management practices, having regard in particular to the role of such practices in contributing to climate change or as a tool in helping to tackle climate change;

- Trading carbon credits looks like providing the first means of valuing an environmental service provided by forestry. Getting this right will give impetus

to other natural resource management driven trading frameworks. These environmental service markets are essential if we want to create a landscape supporting a diversity of values and operations.

- Valuing the carbon stored in small growers' plantings and in private native forests may provide a crucial financial incentive to make small scale growers financially viable

(d) The effectiveness of management systems for ensuring that sustainability measures for the management of natural resources in New South Wales are achieved, having particular regard to climate change; and

- Active management of forests (native and plantation) to ensure maximum absorption of CO₂ from the atmosphere is essential as younger forests absorb more carbon dioxide than old forests. Management systems that ensure forests of multiple age classes should be promoted in efforts to address climate change.

(e) The likely consequences of national and international policies on climate change on natural resource management in New South Wales.

- If government-sanctioned rules for verification, registration and market operation are not carefully crafted, the risk for small-scale operators will be the costs of participating in the market outweighing the benefits (e.g. adding the cost of accounting for credits in order to participate in the market could make the cost of establishing the forest sink unattractive).
- If harvested wood products are not incorporated into the emissions trading system forest growers in Australia will have missed a major opportunity.
- An international system of accounting for carbon stored in harvested wood products should be a priority for Australia (for discussion of different systems see Perez-Garcia et al 2007). Forest growers must be consulted as to which system is best.

Reference

10. Perez-Garcia, J. and Barr, J.K. (2007) Trade Implications of Alternative Carbon Accounting Approaches. Presentation to Forest Products Society 61st International Convention. http://www.corrim.org/ppt/2007/fps/07_perez_garcia_carbon_trade/index.htm

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