**House of Representatives Standing Committee on Agriculture, Resources, Fisheries and Forestry**

**Inquiry into the Australian forestry industry**

**April 2011**

## Summary

The National Association of Forest Industries (NAFI) welcomes the opportunity to provide input into this Inquiry into the Australian forestry industry. This Inquiry is critically important as it comes at a time when the Australian forestry and forest products industries are at a significant cross-road in terms of their long term future and contribution to the economic, social and environmental well-being of the nation.

With a growing population and increasing demand for renewable building and paper products, the forest industry should be in the envious position to assist the transition of the Australian economy to a sustainable, low emissions future while providing significant economic development and regional jobs. At current trends, Australia's growing population will require 7.1 million new dwellings and at least 64 million cubic metres of construction timber by 2050.

The forest based industries provide significant economic and social benefits to the national economy as well as in rural and regional Australia through the growing, processing and marketing of wood products, supporting around 120,000 direct jobs nationally (Forestworks 2006) with a gross value of turnover of around $22 billion (ABARES 2011).

However, given reductions in the area of native forest previously available for wood production over the past two decades and no significant new investment in long rotation sawlog plantations since the 1990s, industry expansion is constrained by a lack of domestic wood supply.

Furthermore, the long lead times for investment in forestry and production of wood products means we need to plan now for a sustainable and growing forest industry. Otherwise we simply will not have enough locally grown wood to meet our future domestic needs and will see higher imports and a worsening trade deficit in wood and paper products. By taking a strategic landscape approach, expanded plantation development can also play an important role in improving environmental outcomes and agricultural productivity through better integration with farming activities.

Recognising the critical importance of these issues and the need for industry leadership in partnership with Government to address these constraints on production, NAFI has previously developed strategic plans (NAFI 2010, 2008) as a basis for future policy development. These strategies provide a policy basis to facilitate future industry growth and investment. This submission builds on this work by identifying key priorities where Government can play a meaningful role in the support of a sustainable forest industry and future prospects, which also address the broad terms of the Inquiry.

The key issues requiring action to allow for the expansion and development of a sustainable and internationally competitive forest industry include:

- developing a comprehensive forest industry growth plan that can contribute to a sustainable future for Australia. This would involve the forest industry, communities and government to develop and implement an industry wide plan;

- renewing Regional Forest Agreements (RFAs) and development of an evergreen 20 year resource security process involving five yearly rolling renewals – backed by Commonwealth and state legislation;

- establishing an effective mechanism for developing long rotation sawlog plantations for future wood supply and related benefits;

- promoting the multiple benefits of sustainable forest industries, through better public communication and awareness programs;

- recognising the full range of climate change mitigation benefits of the forest industry, including appropriate incentives for carbon sequestration and renewable green bioenergy and the inclusion of forestry carbon 'credits' in any future carbon price mechanism;

- improving research and development and skills training in line with these priorities;

- promoting the complementary role plantation and reforestation can play with respect to wood production and related landscape benefits, such as restoration of degraded areas, enhanced agricultural productivity and provision of environmental services;

- improving market access for domestic and export markets; and

- developing essential infrastructure for key forestry regions.

NAFI is committed to working constructively with the Australian Government and other Parliamentary members and stakeholders in promoting the full range of benefits and opportunities from a growing forest industry and would be available to meet with the Committee to discuss these issues further.

## Social and economic benefits from forestry production

The forestry and forest products industries make a significant contribution to the national economy and flow on benefits to many regional economies and communities across Australia.

The gross value of turnover in the forest products industry is estimated at around $22 billion in 2009 (ABARES 2011), with total wages and salaries paid of over $3 billion in recent years. In terms of value adding - as a direct measure of the industry to gross domestic product - the forest industries contribute $7 billion each, representing around 6.7 per cent of the manufacturing sector (ABARES 2011).

Total employment in 2010 is conservatively estimated as 75,800 people, based on the Australian Bureau of Statistics employment categories of: forestry and logging (~10,000); wood product manufacturing (~45,000) and paper and paper products (~21,000). The total number of people employed in the forestry and wood products industries, based on a wider survey of businesses dependent on growing and using wood, is estimated to be about 120,000 people (Table 1).

**Table 1**: Estimated employment in the forest-growing and wood product sector, 2006

| **Sector** | **No. of employees** |
|---|---|
| Forest growing and management | 7,348 |
| Timber harvesting and haulage | 8,973 |
| Sawmilling and timber processing | 19,081 |
| Timber product manufacturing | 37,800 |
| Wood panel and board production | 5,635 |
| Pulp and paper manufacturing | 11,024 |
| Timber merchandising | 22,134 |
| Support service internal to industry | 5,445 |
| Support service external to industry | 2,745 |
| **Total** | **120,184** |

*Source:* ForestWorks (2006).

In terms of production, the main outputs of the industry comprise: sawnwood (4.73 million $m^3$); wood based panels (1.78 million $m^3$) and paper and paperboard (3.31 kt), with a total log harvest of around 25 million $m^3$ in 2008-09 (ABARE 2010).

In 2007-08, the industry value added from the paper sector was $2.9 billion and from the sawnwood and other wood product manufacturing sectors was $4.3 billion (ABARE 2010).

While the paper and wood based panel sectors tend to be based on large corporate mills, the sawmilling sector comprises a combination of large and small mills with relatively higher levels of family ownership. There are an estimated 610 sawmills in Australia, with just over 500 in the native forest hardwood sector and 100 in the softwood sector (Table 2).

**Table 2**: Number of sawmills in Australia, by log intake and state, 2006-07 (from ABARE 2009).

| | New South Wales [a] | Victoria | Queensland | South Australia | Western Australia | Tasmania | Australia |
|---|---|---|---|---|---|---|---|
| Broadleaved | | | | | | | |
| Log intake ($m^3$/yr) | | | | | | | |
| Less than 3 000 | 123 | 33 | 124 | 0 | 11 | 46 | 337 |
| 3 000 to less than 15 000 | 39 | 16 | 27 | 0 | 6 | 13 | 101 |
| 15 000 to less than 45 000 | 19 | 16 | 7 | 0 | 1 | 12 | 55 |
| 45 000 to less than 75 000 | 2 | 1 | 0 | 0 | 3 | 1 | 7 |
| 75 000 to less than 100 000 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| More than 100 000 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Total | 184 | 67 | 158 | 0 | 21 | 72 | 502 |
| Coniferous [b] | | | | | | | |
| Log intake ($m^3$/yr) | | | | | | | |
| Less than 3 000 | 4 | 1 | 5 | 1 | 0 | 2 | 13 |
| 3 000 to less than 15 000 | 6 | 4 | 26 | 4 | 0 | 1 | 41 |
| 15 000 to less than 45 000 | 7 | 0 | 10 | 2 | 1 | 1 | 21 |
| 45 000 to less than 75 000 | 4 | 1 | 0 | 1 | 1 | 1 | 8 |
| 75 000 to less than 100 000 | 1 | 0 | 0 | 2 | 0 | 0 | 3 |
| More than 100 000 | 4 | 8 | 4 | 3 | 1 | 2 | 22 |
| Total | 26 | 14 | 45 | 13 | 3 | 7 | 108 |

[a] Includes ACT. [b] Includes cypress pine.
Source: ABARE datasets.

The other major feature of the industry is its geographic spread and significance to the economic and social well-being of many rural and regional communities, through local growing, harvesting, processing and marketing of forest products and flow-on effects to other suppliers. The major plantation and native forestry regions generally correspond with the National Plantation Inventory regions, which comprise the significant wood growing and processing regions in Australia (refer Map 1). These regions encompass the following broad areas:

- Tasmania;
- south-west Western Australia;
- south-east South Australia and south-west Victoria (i.e. the 'Green Triangle);
- southern and central Victoria;
- north-east Victoria
- coastal and northern New South Wales;
- south-western slopes of New South Wales; and
- south-east and coastal Queensland.

In many regions the forest and wood products industries comprise a large proportion of the regional economy. In the Lower Limestone Coast sub-region of the south-east region of South Australia, for example, which has a plantation area of just over 150,000 hectares, the forest industries contribute:

- $520 million in direct gross regional product (or 19% of the regional total);
- 3,600 direct jobs (or 11% of regional employment);
- direct household income of $240m (or 19% of the regional total); and

- indirect flow-on in regional product of $240 million and 3,900 jobs (comprising 25% of total regional output and 22% of employment). (Econsearch 2008).

Similarly, the Murray Valley region of New South Wales and Victoria has a total plantation area of just over 195,000 hectares that supports a number of processing facilities in towns such as Tumut, Tumbarumba, Albury, Holbrook, Wagga Wagga and Myrtleford. The local forest industries directly employed around 3,000 people in 2003-04, with flow-on employment of an additional 4,000 people (or 1.3 jobs for every direct job) and $1.83 of output generated for every dollar invested in the plantation sector (Forest and Wood Products Research and Development Corporation and Bureau of Rural Sciences 2005).

**Map 1**. National Plantation Inventory regions (wood supply zones)


*Source*: ABARES 2011. Accessed at: http://adl.brs.gov.au/mapserv/plant/region.phtml

It is clearly evident that the forest industries contribute significant national and regional level economic and social benefits. While many of these benefits can be quantified in tangible measures (e.g. employment, output), there exists a suite of other social benefits less amenable to quantification, such as the maintenance of social capital and flow-on effects to community institutions and activities from having viable rural industries.

## Key priority themes

Achieving the full potential of the forest industry will require strong leadership and a partnership approach between industry, communities and governments. NAFI has identified priorities actions around eight key themes:

1. planning for the future;
2. building resource security, for both native forests and plantations to underpin investment;
3. promoting the multiple benefits of sustainable forest industries;
4. innovation and investment, including the role of forestry in a carbon economy;
5. integration of forestry with other land uses at a landscape level;
6. skills for an innovative future;
7. improving market access; and
8. essential infrastructure.

### *1.0 Planning for the future*

World and domestic demand for forest products will continue to rise in line with population growth and the search for environmentally sustainable and renewable products such as wood across a broad range of uses.

The domestic demand for forest products continues to outstrip domestic supply, with an ongoing trade deficit in recent years of around $2 billion in wood and paper products. At current trends, Australia's growing population will require 7.1 million new dwellings and at least 64 million cubic metres of construction timber by 2050.

However, given the long lead times for investment and production of wood and other environmental services from native forests and plantations, Australia must plan now to provide enough locally grown wood to satisfy our growing needs. Furthermore, the provision of stable policy settings and markets for emerging environmental services such as carbon sequestration from planted forests will be equally important to deliver long term climate mitigation benefits.

Australia's forest policy framework is also nearing its shelf life since the National Forest Policy Statement (NFPS) was developed and agreed by all State and Territory governments in 1992. For example, the Regional Forest Agreements – the foundation of forest resource security in Australia and an initiative of the NFPS – are nearing their end dates. Furthermore, the *Plantations for Australia 2020 Vision* policy is over 10 years old, and given changes in native forest hardwood and plantation resources requires revision.

When faced with similar events in the past, the forest industry in partnership with unions, timber communities and Government, developed a forest industry strategy – to guide future policy direction for the industry. Recently Australia's pulp and paper industry adopted this approach in establishing the Pulp and Paper Industry Strategy Group. The Group was responsible for developing a plan for the future of the pulp and paper sector (Commonwealth of Australia 2010).

It is recommended that this model be adopted for developing a plan for the broader forest industry, including both traditional and emerging new industries for environmental services such as tree carbon sequestration and green energy from renewable biomass. The plan could provide an appropriate policy framework to progress key policy issues facing the industry.

Industry recommendations:

- That Government support the development of a comprehensive forest industry growth plan that would contribute to a sustainable future for Australia. This would involve the forest industry, communities and government to develop and implement an industry wide plan.
- Priorities should be to:
    - build long term resource security for native forests and plantations through the Regional Forest Agreement (RFA) renewal process;
    - secure short and long rotation plantation investment; and
    - support internationally competitive domestic value adding.
- An economic assessment of long term domestic consumption trends for forest products over the next 10 to 50 years be undertaken to support the strategic development of the industry.
- Government should fund the collection and reporting of key socio-economic and market data about the forest and wood products industry.

## *2.0 Building resource security*

Forestry and forest product processing is a long term business, with commitments for investment and business planning required for decades. Secure long term access to available wood supplies from Australia's sustainable managed native forests and plantations is key to the development of the industry.

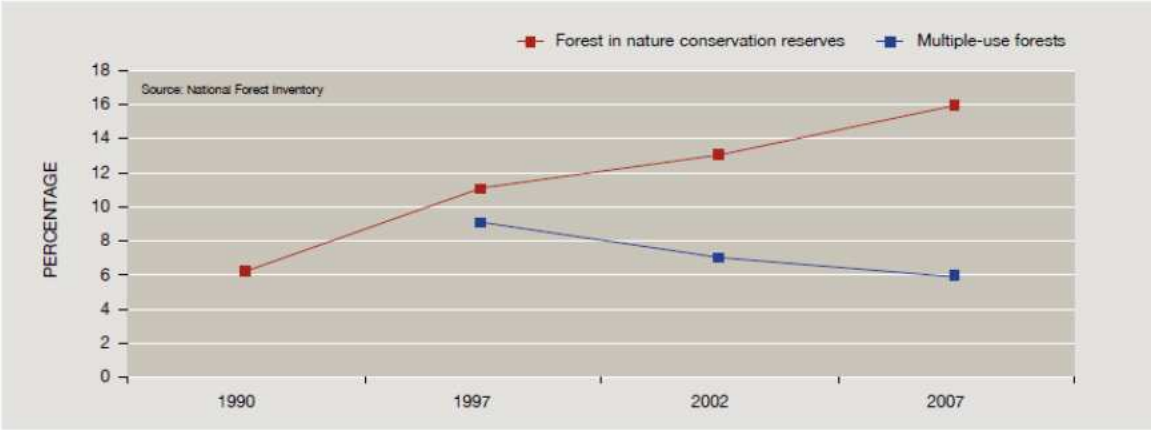
### *2.1 Securing our native forest assets*

The Regional Forest Agreements (RFAs) have provided a national policy foundation for native forests in Australia, recognising the dual role of state level policies and management plans accredited under the RFAs. Because the 20 year agreements exceed the requirements of the *Environment Protection and Biodiversity*

*Conservation Act* 1999, they have provided a level of security for industry with regard to 'logging operations' under federal endangered species and biodiversity obligations.

However, one of the most significant impacts of the RFAs has been a reduction in multiple-use forest available for wood production and the adverse flow-on effects to the native forest industry and timber communities. As a direct result of the RFAs and public land use decisions since the early 1990s, over 13.6 million hectares have been added to Australia's forest reserve system. The area of native forests in conservation reserves has more than doubled since 1990, from 6% to 16% of all native forests (figure 1).

**Figure 1:** Relative percentage of forests in conservation reserves and multiple-use public forests available for wood production, 1990-2007




*Source*: Commonwealth of Australia 2008.

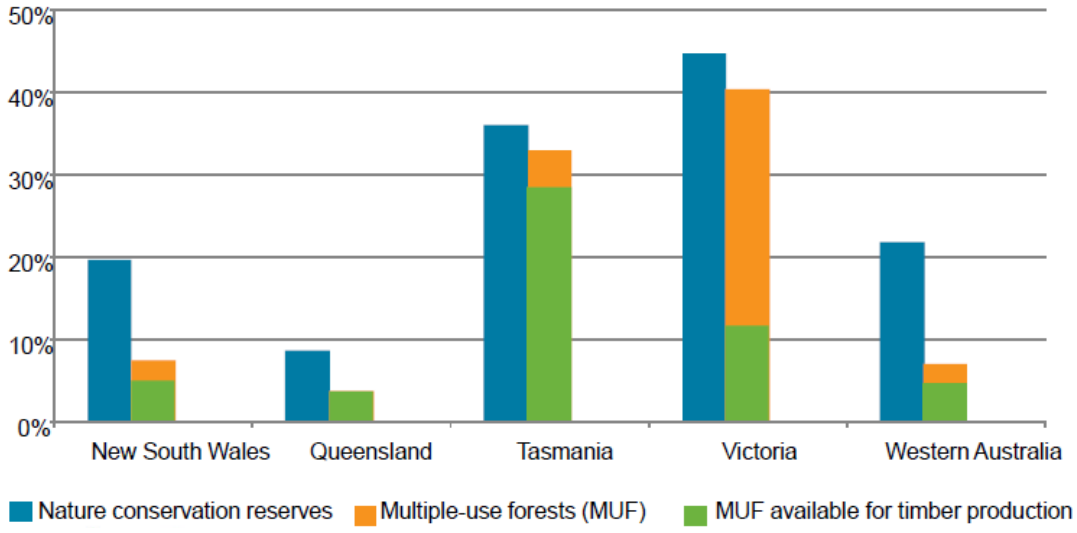
The area of public native forest available for wood production has declined from 13.4 million hectares in 1998 to 9.4 million hectares in 2008 (Commonwealth of Australia 2008). Furthermore, the area potentially available for commercial timber harvesting is less than the total area of 'multiple-use' forest due to such factors as inaccessible terrain, slope constraints and informal reserves to protect a range of values such as unique landscapes, flora and fauna (figure 2). The net effect of these land use changes has been to substantially reduce the availability of native forest hardwood logs, which traditionally have provided a broad range of structural and high value appearance grade uses (e.g. furniture). Since the early 1990s, this has resulted in reduced sawlog production from the native hardwood sector of around 1 million cubic metres per annum.

The majority of newly declared national parks are located in RFA regions and are adjacent to production forests, bush communities and farmers. 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.

As a consequence, 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 (Stephens 2010). 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.

**Figure 2**. Publicly managed native forest for conservation and timber production




Source: Howell, C (2011). Australia's forest at a glance, ABARES. Presentation at the ABARES Outlook 2011 conference. Accessed at: http://www.daff.gov.au/abare-brs/outlook/program

It is time to ensure that a whole of landscape approach is adopted to reduce these risks, including the management of national parks to achieve the values and outcomes they were set up to protect and ensure they do not become a hazard for large scale catastrophic fires. In the United States, for example, there has been an increasing trend toward the re-introduction of harvesting activities in forest areas previously set aside for conservation in order to reduce fuel loads and utilise the available wood for timber and other wood waste for renewable bioenergy. The management of forested landscapes in south-eastern Australia requires a major rethink, particularly with respect to an integrated land management approach that could produce multiple public safety, economic and environmental benefits.

Furthermore, the forest industry has been concerned about the slow progress with the implementation of the 5 yearly RFA reviews (with the exception of Tasmania), which has undermined public perceptions and confidence in the agreements. Where they have been completed, these reviews have found:

- a lack of monitoring and reporting of environmental performance in the reserve system; and

- the creation of additional reserves outside the original obligations of the RFAs, which has undermined previous commitments by both state and federal governments to support an internationally competitive native forest industry.

It must be explicitly recognised in future forest policy that multiple-use forests produce more than just wood – they are managed for a range of values and benefits

(e.g. flora and fauna, recreation, carbon sequestration and water quality) and can enhance these values at a landscape scale at a relatively low cost to society. By managing these forests for wood production and other values, the commercial operations of the timber industry provide significant financial resources for managing public native forests as well as proving significant resources and capacity for broader land management objectives, such as forestry expertise and fire management personnel and equipment. In many cases the benchmarking of the performance of state agencies responsible for commercial timber operations in public forests is too narrowly confined, by not taking into account these broader public benefits and the opportunity cost of alternative uses such as conservation reserves, which have a history of inadequate resources and management.

Finally, because many of the RFAs are less than 10 years from their termination, every day that goes by is one less day of resource security for the industry. This means that many companies are now unwilling to make essential investment in maintenance and upgrades.

Industry recommendations:

- That Government immediately start a process of renewing Regional Forest Agreements (RFAs) and provide evergreen 20 year resource security through five yearly rolling renewals – backed by Commonwealth and state legislation.
- Government fund the necessary assessments to underpin the renewal of RFAs, including assessments of future wood quantity and quality from native forests and plantations and implications for communities reliant on the forest industry.
- A National Bushfire Summit be convened to implement a whole of landscape approach to the management of fuel loads to reduce fire risk and protect forest assets.
- Undertake a strategic assessment of the important role of multiple-use native forests as part of an integrated land management strategy.

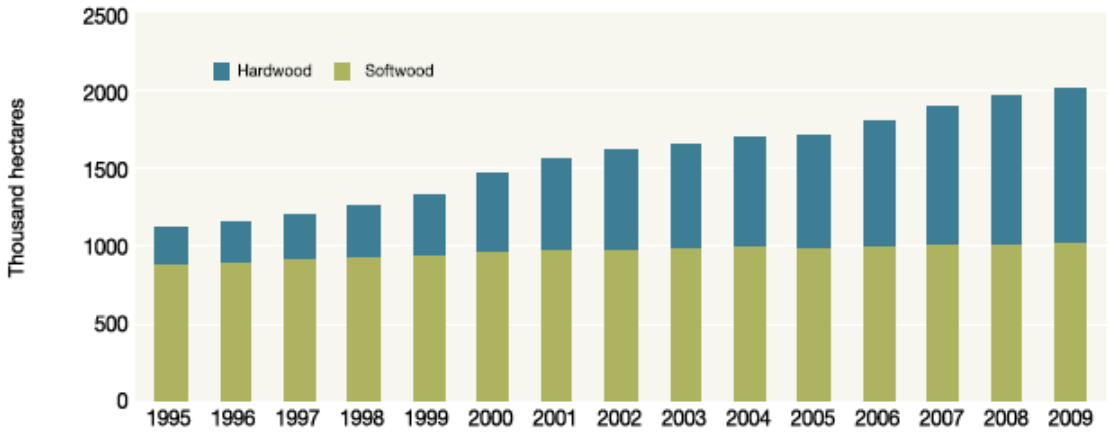
### *2.2 Building our plantation resource*

Australia's plantation industry plays a critical role in the provision of timber and fibre to our economy and overseas economies. Because of the long term nature of plantation investment the establishment of the resource has required government assistance and regulatory arrangements that recognise the long lead times and scale issues associated with plantations. The *Plantations for Australia 2020 Vision* Statement has largely guided plantation policy in Australia for the last 10 years. However, in many respects the shelf life of the Vision has been reached as it no longer reflects contemporary issues facing the plantation industry.

The bulk of long rotation sawlog plantation investment in Australia has been softwood – based on the historical development of the *Pinus radiata* resource. However, despite strong demand for sawntimber and a favourable outlook for the main markets in new housing and building, Australia has not established any significant area of new long rotation sawlog plantations since the early 1990s (refer

figure 3). The reason is primarily the low rate of return on investment for longer rotations of typically 25 to 40 years. Poor profitability is attributed to the high initial costs of acquiring land and establishing the plantation which has an opportunity cost of capital for a period of time until the investment matures.

**Figure 3.** Total plantation area by type, Australia, 1995-2009




Source: BRS (2010). Australia's Plantations 2010 Inventory Update.

While investment in new long rotation plantations has effectively stalled since the early 1990s, there is a strong commercial market for established plantations. Ownership of plantation forest assets in Australia by long term institutional investors, primarily through Timber Industry Management Organisations (TIMOs), has increased significantly in recent years following the recent collapse of some MIS companies and sale of previously Government owned plantations (e.g. Victoria, Queensland). However the lack of any new large scale investment in greenfield long rotation plantations has created long term economies of scale and global competitiveness issues particularly with respect to softwood sawlog and related processing.

The future development of plantation resources will need to address:

- the critical shortage of long rotation plantations;
- a growing range of regulatory impediments to plantation development; and
- the important link between plantation resources and opportunities for domestic processing.

NAFI has recently been involved in a review of policies and investment models that may support long term plantation investment in Australia, recognising the current hurdles to long rotation investment but also the opportunities for mechanisms to better capture the broader public benefits from plantations. Direct mechanisms that address the high up-front costs and cash flow issues of long rotation investments may well be justified in terms of their broader landscape and environmental benefits, such as carbon sequestration and regional employment (Forest and Wood Products Australia 2011). Further work in this area is essential to foster long term strategic investment in plantations in Australia.

The industry also recognises that the Australian Government is working toward tighter financial due diligence and corporate accountability for companies that use forestry Managed Investment Schemes (MIS). Greater corporate accountability and disclosure arrangements should improve the longer term future and stability of the MIS sector, particularly for ongoing investment in short rotation pulpwood resources, where the bulk of MIS investment has taken place for the cash flow reasons discussed above. Industry agrees that investors need to be protected if the industry is to regain the confidence of the investment sector.

### *2.3 Water management*

From a broader landscape and water planning perspective, NAFI acknowledges the need for water resources to be used more efficiently and managed in an equitable and sustainable manner, consistent with the broad intent of the National Water Initiative (NWI).

With regard to the treatment of interception activities – that is, activities like farm dams and tree plantations that 'intercept' rainfall and surface water – the NWI is quite specific about future management principles (refer clauses 55-57). These principles include the use of sound science when assessing issues of scale and significance of impacts from activities; consideration of the broader costs and benefits of activities and implicit recognition of prior use rights (i.e. land use changes should only be considered when catchments are approaching full allocation).

However, the forest industry is concerned that the implementation of the NWI in many jurisdictions has been flawed and simplistic in its treatment of plantation forests.

For example, NAFI is concerned that the Murray Darling Basin Authority (MDBA) approach to interception is inconsistent with NWI and unfairly targets forestry activities compared to other land uses which can lead to perverse economic and environmental consequences. The main flaws include an illogical approach to the calculation of baselines (by failing to take into account previous vegetation cover and land use when calculating impacts on water flows and environmental needs), inadequate recognition of the broader socio-economic and environmental benefits from plantations and a failure to incorporate other dryland crops in the interception planning framework.

Plantations forests occupy less than 0.03% of the Basin, yet other dry land crops such as deep-rooted perennials occupy nearly 70%, and are not presently considered in the interception planning framework. In comparing plantation water use with other dry land crops in Victoria, research has shown that a threshold of up to 15-20% of catchments under plantations may not represent a significant risk to water flows, as the measurable impacts on surface flows fall outside normal statistical confidence limits (Ensis 2007).

In terms of appropriate baselines and impacts, similar concerns have been raised in a recent submission by the CSIRO on the MDBA Guide to the Plan, where they state:

> The Water Act requires that intercepting activities be covered as a use of water. However, the way intercepting uses have been used to calculate new diversion limits in the guide is logically inconsistent and produces artificially high reductions to watercourse diversions in regions that have high interception.
>
> Current interception does not produce a conflict between current diversions and the environment because it is implicitly included in the water availability calculations of the current plans and is using water in the landscape that was used under natural conditions anyway. It is only future interception in a fully allocated region that is of concern. The National Water Initiative is precise about this and the Guide to the Basin Plan is inconsistent with the NWI.
>
> It is more sensible to fully accept interception as a fixed use, much as basic rights uses are accepted, and to consider diversions not interception when balancing uses with environmental need. [1]

In other words, the baseline used to calculate flows from interception activities in the Guide is generally flawed, with similar failings in proposed water policy approaches to the regulation of forest activities in South Australia.

The forest industry is deeply concerned that such policy failings, if not appropriately addressed as part of the water reform process, will lead to adverse economic and social impacts. These perverse impacts include the potential for deforestation of some existing plantations and ongoing risk and uncertainty over future plantation investment and downstream processing.

The forest industry is not asking for special treatment with regard to water policy but rather for equitable treatment based on the use of appropriate science and broader consideration of socio-economic factors and environmental costs and benefits of activities. To encourage efficient future investment and support the NWI water reform process, water management plans and policies must be based on:

- evidence and sound science;
- equitable treatment of all land uses - forest plantations are an as-of-right activity and must be treated on an equitable footing with other dryland agricultural land uses;
- appropriate baselines when assessing impacts - the baseline must not be retrospective and recognise the historical mix of land uses in a region when calculating impacts on the total water budget;
- meaningful interpretations of land use change (i.e. subsequent plantation rotations do not constitute a change in land use for long term crops such as forestry); and
- consideration of the impacts of land use change (e.g. any expansion of plantations) in conjunction with other benefits to the community and the environment.

[1] CSIRO Water for a Health Country Flagship (2010). Submission to the Murray Darling Basin Authority – Guide to the Proposed Basin Plan, December, pp. 13-14.

Industry recommendations:

- That Government work with industry to develop an effective policy to address the market failure in investment in long rotation plantations. This includes ensuring that climate mitigation policy recognises the carbon sequestration potential of commercial plantations and the development of appropriate investment mechanisms to help address the future shortfall in availability of sawntimber to meet domestic housing requirements.

- MIS arrangements are maintained with enhanced safeguards to protect investors and to rebuild investor confidence.

- That Government recognise plantations as a dry land long rotation crop that should be treated in an equitable and scientific manner with respect to water policy, more consistent with the original intent of the NWI.

## *3.0 Promoting the multiple benefits of sustainable forest industries*

At a most fundamental level, sustainably managed forests and forest products industries can play a significant role in a sustainable future for the Australian economy and society, due to their inherent renewability and multiple benefits.

As a biological system that relies on solar energy to produce a durable natural resource that can be sustainably regrown in perpetuity, the environmental benefits of forestry are significant, in addition to the direct socio-economic benefits of the industry. These benefits include, but are not limited to:

- the renewability of a natural resource compared to other finite resources in a world of growing population and materials demand;

- low fossil fuel energy inputs in growing and manufacture (i.e. low embodied energy compared to other materials such as steel and concrete);

- net carbon sequestration in forests and long term carbon storage in harvested wood products;

- versatility as a building and design material (e.g. relatively light weight and use in environmentally challenging sites);

- high propensity for recycling and re-use for both wood and paper products; and

- broader land management benefits, through provision of non-wood benefits (e.g. fauna habitat, landscape restoration, water quality) in agricultural landscapes and in native forests.

Furthermore, the significant extent of legislative and regulatory requirements for the maintenance of environmental values in multiple-use forests is well acknowledged (Montreal Process Implementation Group for Australia 2008). These requirements

include state based environmental management systems, forest zoning (e.g. special protection zones) and codes of practice (e.g. prescribed riparian buffers, habitat trees and variable retention harvesting). In particular, 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 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 (Department of Agriculture, Fisheries and Forestry 2010).

Yet despite a stringent regulatory environment and inherent environmental strengths of the industry as part of a broader sustainable future, there is only limited public awareness and knowledge of these aspects of the industry. This is a case of market failure, through limited media coverage of often complex policy issues and only limited incentives for the private sector to promote these wider public benefits. It is also important to note the high level of public native forest ownership in Australia, where a significant amount of the hardwood resource harvested from native forests is managed by the respective state forest agencies. In this context, there is a clear role for Government in promoting the regulatory environment and multiple benefits of the industry to the broader community and consumers to promote greater market transparency.

Industry recommendation:

- That Government acknowledge its critical role in supporting better communication and awareness of the regulatory/planning framework underpinning commercial forest management and the triple bottom line benefits of a renewable and regionally based industry such as forestry.

## *4.0 Innovation and investment*

The inherent strengths of the forest industry as a renewable resource and ability to assist the transition of the Australian economy to a sustainable future is linked to innovation and technology, including the expansion of traditional and leading edge markets for forest products as well as emerging new markets for carbon and related environmental services. The full realisation of value adding and climate change opportunities will be determined by the industry's ability to embrace these new and developing technologies and services, such as world class processing technologies and use of woody biomass as a renewable and green energy source.

### *4.1 Policy environment*

In order to promote the full potential of the forest industry, a stable and transparent investment environment is needed, particularly given the relatively long time frame for forestry investments. This includes the effective operation of macroeconomic and industry regulatory arrangements and predictability in policy settings that reduce sovereign risk. Importantly, a whole of government approach is needed that provides consistency in policy across Government portfolios and departments. Two important outcomes from a stable regulatory framework include enhanced opportunities for domestic value adding and significant carbon emissions abatement.

### *4.2 Domestic value adding*

The structure of Australia's forest industry has changed considerably over the past 20 years. This change has largely been related to a gradual change in the industry's available resource base – specifically a reduction in native forest resource access and an increase in wood production from plantations.

While the production of total hardwood sawn timber has declined, the sector has increased its investment in the production of higher value products. Similarly, there has been significant capital investment in softwood plantation processing facilities by both domestic and international investors.

The ongoing competitiveness of Australia's forest industry will depend on sustained levels of investment as the industry continues to experience changes in its available resource base. Recently, Australia has experienced an increase in the planting of hardwood plantation pulpwood resources which will progressively come on stream for harvesting over the next few years.

Furthermore, Australia's $2 billion trade deficit in wood products is largely attributed to imports of paper and paperboard products. With a large forecast increase in pulpwood resources, there is a significant opportunity to domestically add value to this resource and deliver economic and social benefits to regional communities, as well as the broader Australian economy.

Realising this opportunity has already led to investment in processing facilities for these resources, such as the development of woodchip processing and export facilities in southwest WA and the Green Triangle region. Further investments to significantly add value to these resources, including the proposed establishment of pulp mills in Tasmania and the Green Triangle region, will provide significant economic and social benefits for the nation. The facilitation of further domestic processing and internationally competitive scale projects will be critical in ensuring future value adding in Australia, reducing the current $2 billion annual trade deficit in forest products and boosting regional economies and employment.

Industry recommendation:

- Government support private sector investment into domestic downstream processing of Australia's hardwood pulpwood resources and for existing and

new high value sawlog processing facilities, including through an effective regulatory and planning approvals framework.

### *4.3 Carbon emissions abatement*

Forestry can play an important part in climate change mitigation and adaptation through the positive carbon storage and substitution benefits from renewable forest products. Importantly, the forest industry can assist in the transition to a low emissions future through:

- the carbon sequestered in growing forests;
- the carbon stored in durable wood products and substitution for more emissions intensive building materials such as steel and concrete; and
- the green energy produced from wood wastes to offset emissions from fossil fuel based energy.

Consequently, the forest industry can make a significant contribution to emission reductions at a relatively low cost, while providing a range of economic, social and environmental benefits. With the right research and policy framework, Australia's renewable forest industry could contribute up to 20% or more of Australia's emission reduction target by 2020.

However, a major concern in the development of climate policy to date has been a reluctance to fully embrace these opportunities, particularly with respect to the sustainable management and harvesting of commercial forests for joint carbon and wood production outcomes. There is also a disturbing emphasis in proposed policies on 'forest protection' measures that may provide a short term, once off gain in carbon stocks – but deliver limited long term mitigation. This is despite clear evidence from the international scientific community that sustainable harvesting strategies can deliver the greatest mitigation benefit by taking advantage of the carbon sequestered in forests and stored in wood products long into the future.

The 4th assessment report of the International Panel on Climate Change (IPCC), clearly acknowledges these benefits, when they state:

> A sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the largest sustained mitigation benefit.[2]

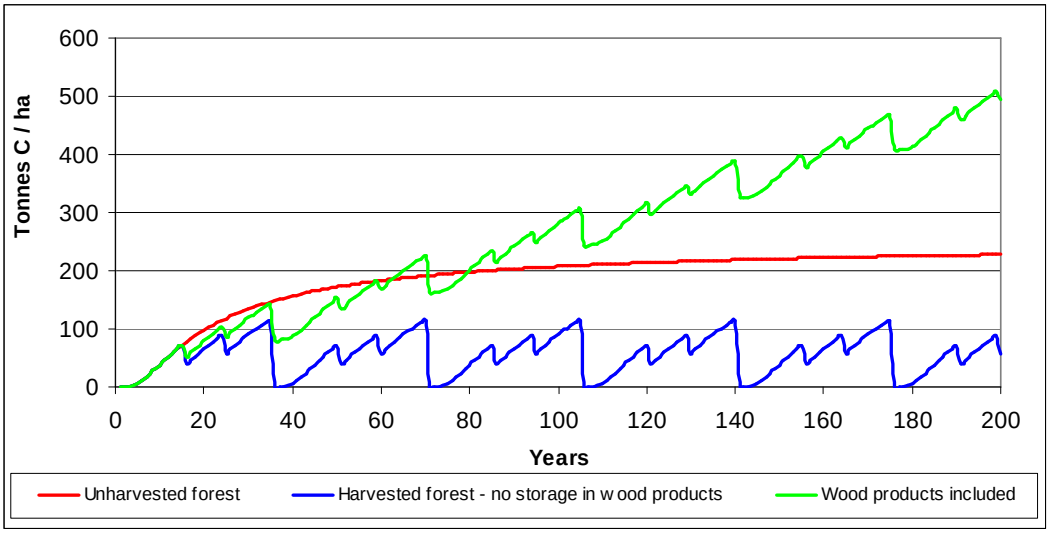
It is therefore essential that a balanced approach is taken to promoting 'for-harvest' activities in both plantations and native forests, given its generally higher sequestration potential compared to reserved (i.e. unharvested) forests taking into

[2] International Panel on Climate Change (IPCC) (2007). Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds), Cambridge University Press.

account wood products and other socio-economic and environmental benefits (e.g. employment, enhanced fire fighting capacity).

As the following diagram shows for a typical pine plantation in Australia (figure 4), forests that are re-planted after harvest and produce long lived products continue to store and accumulate carbon long into the future compared to unharvested forests. The net carbon sequestration from recurring tree growth also far outweigh the emissions from producing these products (Forest and Wood Products Australia 2009).

**Figure 4: Carbon storage in harvested and unharvested forests**

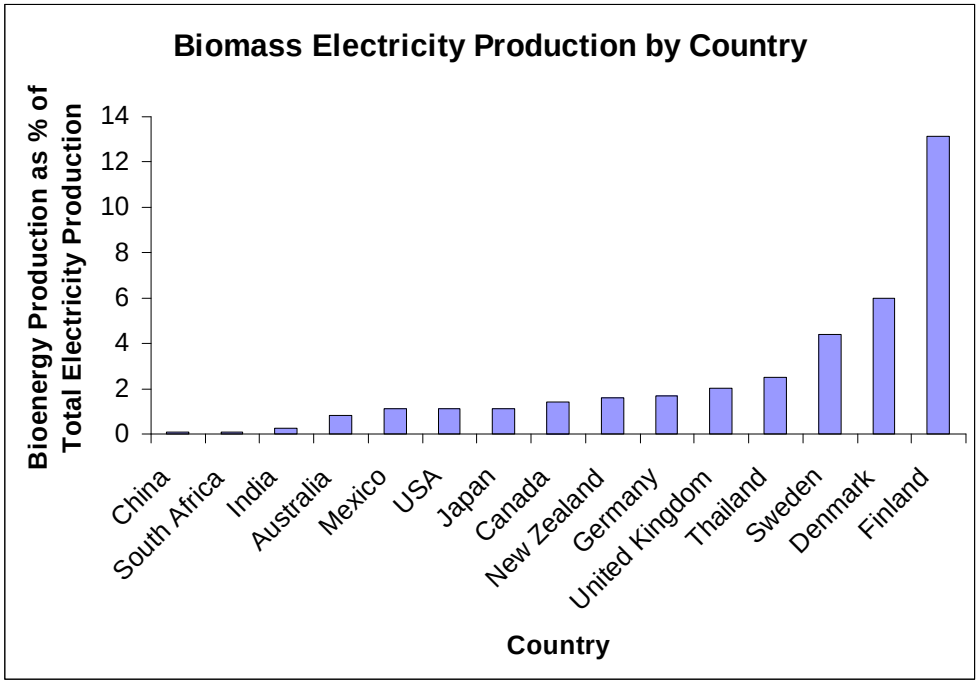



*Source*: Forest and Wood Products Research and Development Corporation (2006). Forests, Wood and Australia's Carbon Balance.

From a renewable energy perspective, there is also enough wood waste available from existing forest industry activities in Australia (without harvesting a single extra tree) to produce around 3 million megawatt hours of electricity per year. This form of power generation can assist in providing security of supply to meet base load power needs of the Australian economy and avoid net emissions of around 3 million tonnes per year through its displacement of fossil fuel based energy with renewable green energy.

However, there still remain regulatory impediments to the use of wood wastes for bioenergy at both Commonwealth and state levels, particularly for the use of wood wastes from harvesting operations in native forests. Most notably, the National Renewable Energy Target (NRET) scheme imposes an unnecessary 'high value' test on the extent of utilisation of wood wastes from lower quality wood production forests and imposes an illogical ban on the use of biomass from plantations on land that was cleared of native vegetation after 31 December 1989. These restrictions are unnecessary and duplicative given the raft of environmental and natural resource management regulations governing native forest harvesting activities and run contrary to the objectives of promoting renewable energy in Australia. Globally, Australia rates very low in the use of biomass for renewable energy (refer figure 5).

**Figure 5.** Biomass electricity production by country (2008)




*Source*: International Energy Agency, 2008, www.iea.org

Furthermore, the lack of a clear climate policy framework for sequestration projects has created considerable business uncertainty. Most notably, the postponement of the proposed Carbon Pollution Reduction Scheme (CPRS) – which failed to create a market for reforestation activities – has effectively stalled investment in carbon sinks.

More recently, the current design of the proposed Carbon Farming Initiative (CFI) provides little scope for the wider participation of the wood based industry in land based solutions – particularly for commercial timber plantations.

Consequently, a number of significant changes are needed if the scheme is to promote wider uptake and investment in commercial forestry projects for joint carbon and wood production outcomes. Key issues in the current Bill include:

- complex 'additionality' requirements, which may preclude a broad range of commercial forestry projects for joint carbon and wood production outcomes;
- lack of recognition of wood products as a significant carbon pool; and
- ambiguity regarding the scope and eligibility of native forest management incorporating periodic timber harvesting.

It will also be essential that CFI credits be fully recognised and tradeable under a future carbon price mechanism to promote efficiency and demand for low cost abatement options. These concerns are outlined in more detail in the submission by NAFI to the House of Representatives Inquiry into the CFI Bills (refer attached).

The recent downturn in the managed investment scheme (MIS) investor market will also have implications on new tree plantings in the foreseeable future and will result

in a lower contribution from these plantings to any long term emission reduction target set by the Government.

Industry recommendations:

- That Government address key impediments in the CFI to promote the wider uptake of carbon bio-sequestration forest projects in voluntary domestic and international carbon offset markets, particularly for timber plantations that produce joint carbon and wood production outcomes.

- Ensure the full recognition of CFI credits from forestry activities in any future economy wide carbon pricing mechanism or emissions trading system, to promote efficient abatement and market tradability.

- Amend unnecessary restrictions on the use of wood wastes under the National Renewable Energy Target Scheme, specifically the 'high value' test that impedes the full use of forestry wood waste for green energy.

### *4.4 Research and development*

The provision of research and development (R&D) is critical to innovation, technology development and the long term international competitiveness of the forest industry. In 2007-08, around $100 million was committed by governments and industry to forest industry R&D, including research into wood processing and wood products, tree genetics and forest management. However, the level of funding for R&D has declined in real terms by just under 1 per cent since 1981-82. Furthermore, NAFI is concerned about the downsizing and restructuring of R&D within many state and federal research agencies, including the CSIRO, which has effectively diluted forestry research capability and expertise. The lack of a critical mass of researchers needs to be addressed in the context of current and future expected research priorities. Given current and expected changes in resource availability from both native forests and plantations, research into improving the quantity and quality of wood resources will continue to be a high priority, in conjunction with value added processing.

While considerable effort has been directed into climate change research in forestry, there has also been the lack of a comprehensive approach that takes into account the net carbon footprint across the supply chain for key industries and forest regions. Such a framework would assist climate policy by taking into account carbon removals and emissions at each stage of the production and consumption process, including forest growth and harvesting, wood processing, product use (including substitution with emissions intensive materials and recycling) and post-consumer use (e.g. wood waste for bioenergy, storage in landfills).

Industry recommendations:

- That Government review, in partnership with industry, the level of R&D funding for the forest industry, to improve overall capability and incentives for innovation and delivery of R&D.

- As a priority, fund research into the establishment of hardwood plantations for the production of high quality sawlogs and the commercial processing of those logs.

- Fund key research gaps in forest sector climate change mitigation, given its significant role in providing a low cost solution to emissions abatement. This would include an assessment of net emission reductions from key forest sectors and regions.

- Support the development of renewable biomass technologies, including woody biomass, with biomaterial and bio-energy technology providers and suppliers.

## *5.0 Integration of forestry with other land uses at a landscape level*

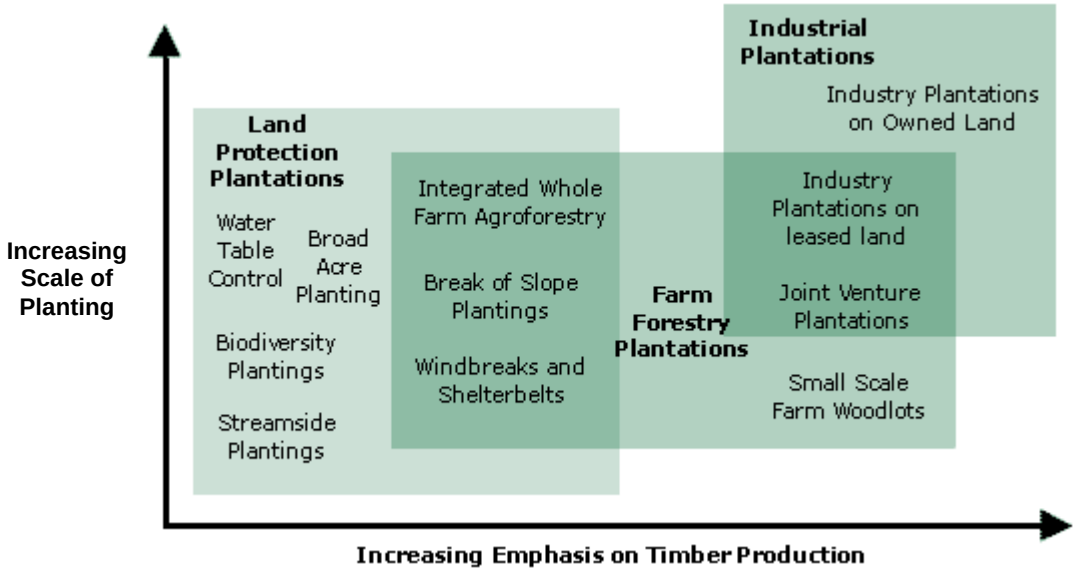
By their very nature, forests are complex biological systems and provide a range of services beyond commercial wood benefits, including ecosystem services and functions such as carbon sequestration, provision of recreation opportunities, rehabilitation of degraded landscapes, soil and water conservation and enhanced biodiversity. Importantly, farm-forestry activities can also enhance agricultural productivity through beneficial impacts on pasture, crop and animal production, primarily through provision of shade and shelter, nutrient cycling and soil conservation (Bird *et al*, 1992).

Furthermore, agriculture and forestry are not necessarily mutually exclusive and there exists a continuum of tree planting and forestry activities across the landscape at a range of scales and tree densities (refer figure 6). These activities are undertaken for a range of production and environmental purposes, such as salinity and riparian plantings through to farm woodlots and plantations used primarily for wood production. Where forestry and agricultural outputs are jointly produced from the same unit of land, agroforestry can take many forms such as tree belts, alleys and widespread tree plantings. Livestock grazing, for example, is commonly practised within plantations following seedling establishment and initial tree maturity.

It is for these reasons that well targeted forestry activities can be complementary to a broad range of farm level and landscape management objectives. This is particularly relevant given previous tree clearing and land use practices that have resulted in land degradation at a range of national and regional scales, including dry land salinity, invasive weeds, soil erosion and water quality reduction.

NAFI therefore supports the complementary role that forestry and planted forests can play with respect to other agricultural and environmental activities at a whole farm or landscape level. From a climate change perspective, planting trees and forestry activities can provide direct mitigation opportunities for farmers and landowners (e.g. carbon offsets) as well as enhanced adaptation through the use of more diverse and resilient farming systems (e.g. reduced heat stress from greater use of trees).

**Figure 6:** Continuum of forestry and farm-forestry activities




With respect to the current debate over land use competition between the forestry and agriculture sectors and issues such as food security, NAFI also notes the importance of security of supply of essential fibre and building materials such as wood for housing and shelter. In many respects, the debate over competition for land is taken out of context and fails to take into account some of the technical and economic factors influencing the scale and significance of any future plantation expansion. These factors include:

- investment in permanent carbon sink plantings have to date been confined to the semi-arid regions, marginal and/or less productive sites;
- an acknowledgement of the over-estimation of land areas likely to be converted to trees for carbon sequestration due to simple modelling assumptions and a maximum national 'potential' (Commonwealth of Australia 2011);
- a broad range of technical and practical barriers to future carbon plantings such as access to seed and nursery stock and relevant expertise;
- the significant downturn in the MIS forestry investment sector and downgrading of future projected plantings;
- the low proportion of land presently under plantations relative to the available agricultural land base (plantations represent less than 0.05 per cent of the total land area of 473 million hectares under primary production), and difficulties in competing with high value agriculture due to the high up-front costs of land for long term investments such as forestry; and
- greater potential for integrated land management between forestry and agriculture for multiple-benefits.

Industry recommendations:

- Government recognise plantations as a legitimate land use that provides significant economic, social and environmental benefits in rural and regional Australia.
- Government recognise the significant role commercial forestry activities can play with respect to integrated land management for agricultural, environmental and wood production purposes.
- Promote further R&D, extension and incentive based structures for better integration of forestry with traditional agriculture.

## *6.0 Skills for an innovative future*

In addition to being a high technology industry, the rapid development of the forest industry in certain regions is likely to mean the industry faces a shortage of suitably skilled workers. Paralleling initiatives for industry innovation is a need for career and skills initiatives that attract new skilled workers to the industry, retain existing workers in the industry and ensure existing workers are increasing their skills commensurate with the evolving technology.

Industry recommendations:

- That Government continue supporting Forestworks as an Industry Skills Council to develop and implement career and skills initiatives that focus on the increasing need for highly skilled workers in all aspects of the industry, from machine operators to professional foresters.
- Promote career opportunities in the forest based industries, particularly in rural and regional areas where there are labour shortages for skilled workers.

## *7.0 Improving market access*

### *7.1 Certification schemes*

In addition to the robust statutory and regulatory framework for sustainable forest management in Australia, the uptake by industry of internationally recognised certification schemes has further contributed to the environmental credentials of forest management and the commitment by industry to continuous environmental improvement. Certification of wood products is becoming increasingly important in domestic and export markets as well as public and private sector procurement policies.

The area of certified forest has increased over recent years to around 10.4 million hectares, largely based on the Australian Forestry Standard (AFS) and Forest

Stewardship Council (FSC) schemes. The AFS is presently undergoing a technical review of its existing standard, while the FSC is in the process of developing a national based standard within the FSC international framework.

In addition, there has been a proliferation of other environmental rating schemes both internationally and domestically, offering environmental credibility. Because many of these schemes are voluntary they are not subject to due diligence in relation to whether they deliver environmental credibility and market transparency to consumers. Many wood markets both internationally and domestically have been distorted by these environmental rating schemes impacting on domestic industry and jobs.

A general concern with many building standards or green building schemes is a lack of recognition of the total life cycle impacts of materials which would take into account the energy used and emissions from the manufacture of products (i.e. embodied energy). More work is needed to ensure green building and other rating schemes not only take into account energy efficiency aspects but also the life cycle impacts of materials and products such as timber which have low embodied energy.

Industry recommendations:

- That Government ensure building codes and energy rating schemes do not unfairly restrict the use of wood products, and recognise the life-cycle benefits and low carbon footprint of wood products.

- Government should review the proliferation of voluntary environmental rating schemes in terms of market transparency and triple bottom line impacts in domestic and international markets.

- Fund the further development of credible third party certification schemes for the sustainable forest management of forest products in Australia, including the review of the Australian Forestry Standard (AFS) and the development of a national standard for the Forest Stewardship Council (FSC).

### *7.2 Domestic and export marketing*

With an expanding population and high forecast demand for new housing and building construction over the next few decades, the forest industry can provide a versatile range of building products for both structural and high quality appearance (i.e. aesthetic) uses. Numerous domestic and overseas studies have identified the low energy inputs and carbon mitigation benefits of wood products compared to other building materials such as steel and concrete, as well as the significant amounts of carbon stored in these products for relatively long periods of time.

To assist in the dissemination of information on the versatility and high environmental credentials of Australia's wood products, it is proposed to establish a domestic and export facilitation network with the objective of assisting consumers and suppliers gain information on the relative merits of forest products and also provide information to buyers from international markets on the quality of Australia's forest products. This

initiative will assist in addressing Australia's $2 billion trade deficit in forest products by increasing exports.

The forest industry is also concerned with the level of illegally logged timber imports into Australia and supports initiatives to promote good governance and sustainable forestry practices in 'suspect' country sources. It is important that such illegal logging policies do not impose additional regulatory burdens and high compliance costs on an Australian forest industry that is already subject to high environmental standards and internationally recognised third party certification.

Australia must also maintain a level playing field with respect to global forest products trade. Findings by the Australian Customs Service of recent predatory pricing and the dumping of toilet tissue into Australia have raised industry concerns about the lack of an adequate government response.

Industry recommendations:

- That Government establish a domestic and export facilitation network with industry – to expand and develop new markets for Australia's high quality wood products and promote the economic and environmental benefits from sustainably managed forests.

- Implement an effective policy on illegal timber imports that is cost-neutral and protects domestic suppliers and builds further capacity for sustainable forest practices in the Asia-Pacific region.

- Address anti-dumping issues to ensure the domestic industry, local jobs and communities are protected from the effects of dumping of forest product imports.

### *8.0 Essential infrastructure*

A key aspect to forestry project development is ensuring that associated infrastructure such as roads, rail and port facilities are developed with the growing needs of the industry, as well as future possible links with energy markets and infrastructure from biomass resources such as forestry wood wastes. The growing plantation regions of the Green Triangle in South Australia and Victoria, Great Southern region of Western Australia, Northern Tasmania and the Murray Valley (Tumut/Tumbarumba) are areas where the industry is facing infrastructure constraints. These constraints, if not addressed, will result in the positive economic benefits the industry can provide not being realised.

Industry recommendations:

- That Government undertake a strategic study to identify transport (i.e. road, rail and ports) and energy infrastructure to underpin the development of the forest industry in key parts of Australia.

- Establish a funding program to ensure adequate implementation of forestry related infrastructure.

## References


ABARES (2011). *Australia's forests at a glance 2011*.

ABARE (2010). *Australian forest and wood product statistics*, September and December quarters 2009, Canberra, May.

ABARE (2009). *ABARE 2007 sawmill survey report*. ABARE report to the Australian Government Department of Agriculture, Fisheries and Forestry and Forest and Wood Products Australia. Report prepared by K. Burns, P. Sledge and S. Wicks, April.

Bird PR, Bicknell D, Bulman PA, Burke SJA, Leys JF, Parker JN, Van Der Sommen FJ and Voller P (1992). The role of shelter in Australia for protecting soils, plants and livestock. *Agroforestry Systems*, 20: 59-86.

Commonwealth of Australia (2011). Garnaut Climate Change Review - Update 2011. Update Paper four: Transforming rural land use, pp9-10.

Commonwealth of Australia (2010). *Pulp and Paper Industry Strategy Group Final Report*, March.

Commonwealth of Australia (2008). *The Changing Face of Australia's Forests: A summary of major changes in Australia's forests since 1992*. Department of Agriculture, Fisheries and Forestry, Bureau of Rural Sciences.

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

Econsearch (2008). *The Timber Industry and Lower Limestone Coast Water Allocation Planning: Socio-Economic Aspects*, December.

Ensis (2007). *Tree water use in forestry compared to other dry-land agricultural crops in the Victorian context*, Ensis Technical Report No. 159, January.

Forest and Wood Products Australia (2011). *Review of Policies and Investment Models to support continued Plantation Investment in Australia*. Report prepared by R. de Fegely R, M. Stephens and A. Hansard, Project PRA189-1011, March.

Forest and Wood Products Australia (2009). *Life Cycle Inventory of Australian Forestry and Wood Products.* Report prepared by S.N. Tucker, A. Tharumarajah, B. May, J. England, K. Paul, M. Hall, P. Mitchell, R. Rouwette, S. Seo and M. Syme, Project PNA008-0208.

Forest and Wood Products Research and Development Corporation and Bureau of Rural Sciences (2005). *Socioeconomic Impacts of Plantation Forestry in the South West Slopes Region (NSW)*, November.

ForestWorks (2006). Forest and Wood Products Industry Workforce and Industry Data Collection Survey Report 2006, National Skills Company for the Forestry and Forest Products, Furnishing and Pulp & Paper Industries Ltd and Forest and Wood Products Australia, Melbourne.

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.

National Association of Forest Industries (2010). *Forest Industries Growth Plan*, August.

National Association of Forest Industries (2008). *Playing a Greater Role in Australia's Future: A strategy for the development of Australia's sustainable forest industries*.

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

**Attachment**

NAFI (2011). Submission to the House of Representatives Inquiry into the Carbon Credits (Carbon Farming Initiative) Bills 2011, April.

**SUBMISSION**

**House Standing Committee on Climate Change, Environment and the Arts**

**Carbon Credits (Carbon Farming Initiative) Bill 2011; Carbon Credits (Consequential Amendments) Bill 2011 and Australian National Registry of Emissions Unit**

**April 2011**

## Introduction

The National Association of Forest Industries (NAFI) welcomes the opportunity to comment on the Carbon Credits (Carbon Farming Initiative) Bill 2011 and related consequential bills.

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. NAFI members comprise commercial timber and non-wood (e.g. environmental/carbon sink) forest growers, log harvesters and haulers, wood processors and state based forest industry associations.

At the outset, it is important to acknowledge that the forestry and forest products industry can make a significant contribution to land based opportunities and flow-on effects (e.g. use of climate friendly products) for climate change mitigation. These opportunities include:

- the carbon stored in growing forests (i.e. carbon sinks);
- the carbon stored in durable wood products;
- the substitution of wood products for high emissions intensive materials such as steel and concrete; and
- the green energy produced from renewable wood waste.

However, the lack of a clear climate policy framework for carbon sequestration activities and a future carbon price has created considerable business uncertainty. Most notably, the postponement of the proposed Carbon Pollution Reduction Scheme

(CPRS) – which failed to create a market for reforestation activities – has effectively stalled investment in tree carbon sinks.

The forest industry therefore considers the CFI an important interim measure to provide investment certainty and access to voluntary domestic and international carbon markets, pending the development of a future carbon price mechanism (i.e. domestic compliance market) In this context, it will also be essential that eligible CFI offsets be fully recognised and tradeable under a future carbon pricing mechanism, to promote wider efficiency and demand for low cost abatement options.

However, a number of significant changes are needed if the CFI Bill is to deliver the wider participation of forestry and tree based land sector abatement as part of the CFI scheme and broader carbon price mechanism.

NAFI has previously commented on the Carbon Farming Initiative (CFI) consultation papers prepared by the Department of Climate Change and Energy Efficiency in January 2011 – which outlined a number of key concerns with respect to the treatment of forest activities (refer attached). These issues remain pertinent given a lack of specific detail in the Bills and/or provision for future regulations regarding these aspects.

This submission updates a number of key issues in the context of the current Bill and Explanatory Memorandum, which revolve around:

- complex 'additionality' requirements, which may preclude a broad range of commercial forestry projects for joint carbon and wood production outcomes;
- lack of recognition of wood products as a significant carbon pool;
- ambiguity regarding the scope and eligibility of native forest management incorporating periodic timber harvesting; and
- potential distortions to land based options, based on the proposed exclusion of some project types on the 'negative list'.

## Additionality

NAFI is concerned about the complexity and considerable uncertainty of the additionality provisions in the CFI Bill [Part 3, Division 6, clause 41(3)(a)] – which may severely limit wider participation of the wood based industry in climate change solutions, particularly for commercial timber plantations.

In particular, the Explanatory Memorandum states that:

> [5.43] The purpose of the additionality test is to ensure that credits are only issued for abatement that would not have normally occurred and, therefore, provides a genuine environmental benefit.
>
> [5.44] The Government's intention is that this test will enable crediting of activities that improve agricultural productivity or have environmental co-benefits, but which have not been widely adopted.

> [5.48] The Minister must consider whether carrying out the project is beyond common practice in the relevant industry or part of an industry, or in the environment in which the project is to be carried out.
>
> [5.51] Common practice is not defined in the legislation. This is to allow for the application of expert judgement as to what constitutes common practice in different environments and industry circumstances. The Government will consult with stakeholders on approaches to identifying common practice and provide further guidance.

NAFI is concerned that additionality remains a complex and restrictive policy issue in the CFI Bill, particularly given previous feedback on the impracticality of the test and significant potential for co-benefits from commercial forestry projects (e.g. joint carbon and wood production, employment, salinity mitigation). It is noted that under the proposed CPRS, reforestation credits under the scheme were recognised without an additionality test - as they were Kyoto compliant and produced genuine abatement.

NAFI's recommendation is to have Kyoto compliant forestry activities formally recognised under the scheme, consistent with the outcome obtained under the CPRS. A simple solution would be to add such activities to the so-called 'positive list' of activities [Part 3, Division 6, clause 41 (1) (b)], given their contribution to abatement and the National Carbon Accounts.

The new 'common practice test' (refer 5.48 above) is also likely to be costly and time consuming for many types of forestry projects and would involve considerable uncertainty, given the assessment of projects would be undertaken by the scheme administrator on a case by case basis.

Determining whether a project is beyond 'common practice' will depend on a broad range of factors, including site productivity, degree of risk, access to capital, returns from alternative investments and extent of joint production and multi-products (i.e. income sources) for each particular project.

In many ways, these concerns mirror similar comments made by Professor Garnaut with respect to the earlier proposed 'financial additionality' test contained in the CFI consultation paper (i.e. projects had to demonstrate they were not financially viable without the CFI credits). In responding to this subjective and restrictive requirement, he stated:

> Assessing financial additionality is highly subjective. This introduces uncertainty, and opportunities for distortion. It will often be the case that there are multiple motives for changes that sequester carbon. What matters is that the sequestration is new and is real.
>
> There is genuine abatement if emissions are reduced, whatever the motivation of the decisions that caused them. It is recommended that the financial additionality requirements be removed. This would avoid distortions, reduce ambiguities and costs of scheme implementation, and encourage genuine abatement.[1]

[1] Commonwealth of Australia (2011). Garnaut Climate Change Review - Update 2011. Update Paper four: Transforming rural land use, page 15.

Genuine industry engagement is therefore needed on approaches to identifying common practice [refer 5.51 above] as well as the development of the 'positive list' of activities and projects deemed to have met the additionality test.

NAFI would suggest the following classes of projects or activities that should logically be considered for the positive list:

- not-for-harvest carbon sinks (e.g. environmental plantings);
- Kyoto compliant forestry activities;
- long rotation commercial sawlog plantations, where the high up-front costs of land and establishment and long waiting period for harvest revenues have discouraged investment since the early 1990s[2]; and
- other commercial plantings (e.g. pulpwood plantations, agroforestry) on a range of less productive or marginal sites where commercial forestry activities would not normally occur.

**Lack of recognition of wood products as a carbon pool**

Another significant limitation of the CFI Bill is the lack of recognition of the role of wood products as a long term carbon store (i.e. carbon stock) as part of a renewable timber harvesting and replanting cycle. While the CFI is intended to be broad based in terms of land based abatement options and approaches, it fails to adequately recognise the significant contribution of renewable wood products which are explicitly linked to for-harvest native forests and plantations.

The role of harvested wood products as a long term store of carbon is generally well recognised in the international scientific literature, most notably the International Panel on Climate Change (IPCC), as well as the emerging development of more comprehensive carbon accounting frameworks as part of the United Nations Framework Convention on Climate Change (UNFCCC).

The 4th assessment report of the International Panel on Climate Change (IPCC), clearly acknowledges the significant benefits from sustainable forest harvesting and the role of wood products in climate mitigation:

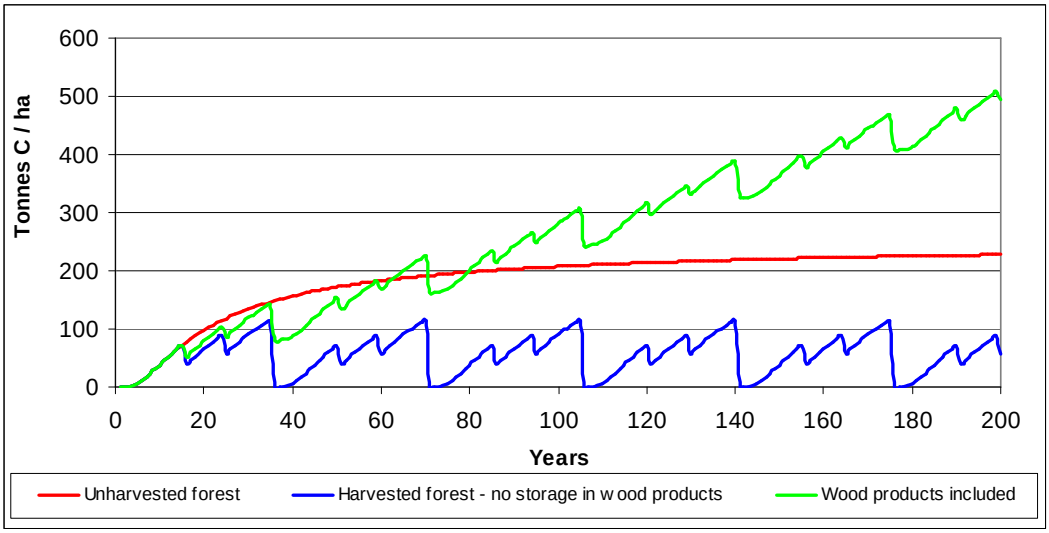
> A sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the largest sustained mitigation benefit.[3]

[2] Forest and Wood Products Australia (2011). Review of Policies and Investment Models to support continued Plantation Investment in Australia. Report prepared by R. de Fegely, M. Stephens and A. Hansard, Project PRA189-1011, March.

[3] International Panel on Climate Change (IPCC) (2007). Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds), Cambridge University Press.

As the following diagram shows for a typical pine plantation in Australia (figure 1), forests that are re-planted after harvest and produce long lived products (e.g. timber framing for houses), continue to store and accumulate carbon long into the future compared to unharvested forests. The net carbon sequestration from recurring tree growth also far outweigh the emissions from producing these products.[4] The life cycle of carbon storage in harvested wood products should therefore be permitted as a direct component of forestry activities, given the relatively long periods of carbon storage in product use and disposal and contribution to overall carbon stocks. This should also extend to the use of biomass from wood harvesting or processing activities for bioenergy as a direct component of forestry activities. The industry has identified that the use of biomass from existing activities (without harvesting an extra tree) could potentially offset the equivalent of 3 million tonnes of $CO_2$-e per year.

**Figure 1: Carbon storage in harvested and unharvested forests**




*Source*: Forest and Wood Products Research and Development Corporation (2006). Forests, Wood and Australia's Carbon Balance.

In discussing the international climate change framework and development of carbon accounting approaches, Professor Garnaut made the following comments:

> New approaches, including allowing countries to recognise carbon stored in different wood products consumed domestically and exported, were discussed in Cancun (UNFCCC 2010). Australia, appropriately, supports the new approaches.
>
> Australia could advance its interests by itself adopting more comprehensive accounting at an early date.[5]

It is therefore disappointing to see little progress on this issue in the CFI Bill following extensive feedback by industry on the CFI consultation papers and the

[4] Forest and Wood Products Australia (2009). Life Cycle Inventory of Australian Forestry and Wood Products. Report prepared by S.N. Tucker, A. Tharumarajah, B. May, J. England, K. Paul, M.Hall, P. Mitchell, R. Rouwette, S. Seo and M. Syme, Project PNA008-0208.

[5] Commonwealth of Australia (2011). Garnaut Climate Change Review - Update 2011. Update Paper four: Transforming rural land use, pp9-10.

international recognition of the role of wood products as part of a climate change solution.

**Ambiguity regarding the eligibility of 'managed' native forests**

The other main criticism of the CFI Bill is the degree of ambiguity on the extent to which sustainable forest management (SFM) practices in native forests – that is, the renewable management of these forests for timber and other values on a periodic harvesting and replanting cycle – would be broadly permitted and recognised under the scheme.

This ambiguity largely comes about through provisions in the Bill for 'Native forest protection projects' and lack of specific reference or delineation of SFM project types that could fall under other such categories as:

- reforestation
- improved management of forests
- enhanced or managed regrowth

The Explanatory Memorandum describes forest protection projects in the following terms:

> [1.15] The scheme will cover projects to protect native forests from clearing or clear felling.

Under the 'Eligibility criteria' for eligible offset projects, it is further stated that:

> [3.26] The project must not involve the clearing of a native forest or the using of material obtained as a result of harvesting or clearing a native forest ***[Part 3, Division 2, clause 27(4)(j)]***. It is not intended that this provision preclude projects that involve harvesting bush foods or other uses of the forests that are consistent with keeping forests healthy and intact. The regulations may therefore specify permitted uses of materials obtained as a result of the clearing or harvesting of native forests.

From a forest industry and SFM perspective, the references to 'clear felling' in this context are understandably concerning as modified 'clear felling' and selective logging practices are routinely conducted in native forests to promote adequate regeneration and regrowth for a range of forest types subject to periodic timber harvesting.

It is therefore essential that the CFI Bill:

(1) clarify that these restrictions only apply in the context of 'protected forest' projects, which are largely designed to avoid deforestation (i.e. permanent removal or clearing of forest); and

(2) provide explicit recognition of the scope for SFM practices from native forests to be recognised under the scheme for a range of other project types, given its

significant potential to improve forest management and carbon outcomes, particularly for privately owned native forests.

The significant role that SFM (in both plantation and natural forests) can play with respect to carbon sequestration and climate change mitigation is broadly acknowledged by the international scientific and climate policy community (refer above), and is entirely consistent with the broad intent of the Bill where the Explanatory Memorandum states:

> [1.3] The scheme covers land sector abatement meaning any land management practices or activities that enhance biosequestration (sequestration) or reduce agricultural emissions could be eligible for ACCUs. The scheme also covers reductions in some waste emissions.

Any unwarranted bias in the scheme toward 'forest protection' projects compared to SFM type projects could lead to large perverse outcomes in the longer term, given its generally higher sequestration potential compared to reserved (i.e. unharvested) forests taking into account wood products and other socio-economic and environmental benefits (e.g. employment, enhanced fire fighting capacity).

**Potential distortions via the 'negative list'**

NAFI is also concerned that the CFI Bill adopts a pre-emptive approach to the exclusion of some project types that is inconsistent with the broader intent of the scheme and potentially distortionary to land abatement options.

The relevant sections of the Explanatory Memo state that:

> [1.25] The Minister may recommend that regulations are made to exclude certain types of sequestration or emissions avoidance projects that would otherwise be eligible for ACCUs under the scheme [Part 3, Division 12, clause 56]. This is known as the 'negative list'.
>
> [1.29] The Government intends to include on the negative list projects that involve the complete cessation of harvesting in plantations established for harvest; that is, converting harvest plantations into permanent carbon sinks.
>
> [1.31] This would not prevent the replacement of unprofitable harvest plantations with permanent environmental plantings.

NAFI would regard the pre-emptive and blanket exclusion of for-harvest plantations converted to carbon sink plantings as unreasonable and contrary to the integrity standards process for individual projects to be based on their merits. While only speculative at this stage, the conversion of some for-harvest plantations to permanent carbon sinks may well be justified in terms of net sequestration and socio-economic outcomes. The main point here is not to preclude any project types outright, but allow for expert advice on the approval of individual projects and methodologies under the scheme.

Furthermore, there is a plethora of legislative land management and planning requirements and policies, which provide a sound basis for dealing with broader land

management objectives. A 'negative list' under the CFI scheme is likely to introduce significant sovereign risk and regulatory duplication.

## Concluding comments

The CFI represents a mechanism to allow for new investment in tree planting and forest activities for carbon sequestration, as well as deliver a range of other economic, social and environmental benefits.

If implemented in a practical and cost-effective manner, it can provide much needed certainty and access to domestic voluntary and international markets for the carbon offset sector – and provide a sound basis for the migration of eligible carbon offsets in a future carbon price mechanism.

However, a number of important changes are needed if the Bill and CFI scheme is to promote wider uptake and investment in forest based abatement, particularly for commercial timber plantations with joint carbon and wood production outcomes.

These changes would include:

- ensuring forestry projects under the CFI are recognised as eligible offsets in any future carbon price mechanism;
- streamlining additionality requirements for forest based projects, most notably through industry guidance on the 'common practice' test and the inclusion of classes of forest projects on the 'positive list';
- recognising wood products as part of eligible net sequestration and carbon stock changes for forestry projects;
- clarifying the scope for SFM projects in native forests that involve periodic timber harvesting; and
- removing the 'negative list' provisions in the Bill, consistent with the broader intent of the scheme to assess each project on its merits and reduce regulatory duplication.

Finally, scheme compliance and transaction costs are expected to be high under the CFI scheme, particularly for small private forest growers. In this regard, we would support the submission by the Australian Forest Growers (AFG) to this Inquiry on the prohibitive and compliance cost aspects of the scheme.

NAFI is committed to working with the House Standing Committee to promote the significant contribution that Australia's renewable and sustainable forest industry can play with respect to climate change policy and would be available to discuss these issues further in the context of the CFI Bill.

## Attachment

NAFI (2011), Submission to the DCCEE Consultation Papers on the Carbon Farming Initiative, January.