



National Association of  
Forest Industries

# FORESTS AND WOOD PRODUCTS:

Playing a key role in  
Australia's Sustainable  
Future

*A publication celebrating World  
Forestry Day 21 March 2008*





# Contents

Sustainable forestry is the <i>here and now</i> for providing solutions to climate change	1
Australia's Forest Industry is naturally Carbon Positive	2
Australia is growing its forest resources	3
Wood products capture and store greenhouse gases	4
Sustainability means Australia's forest values and resources are maintained for future generations	5
Get 'Green' with Australian timber	6
Forestry and farming are complementary land uses	7
It makes good economic sense to have a variety of industries in Australia's rural areas	7
Australia's Forest Industry and timber communities are adding value to forest resources	8
Public awareness of the forest industry and supportive government policies are important for a sustainable future	8



## Sustainable forestry is the *here and now* for providing solutions to Climate Change

The threat of climate change due to excess levels of greenhouse gases in the atmosphere will exacerbate traditional environmental issues such as water scarcity and quality, and will have major effects on ecosystems.

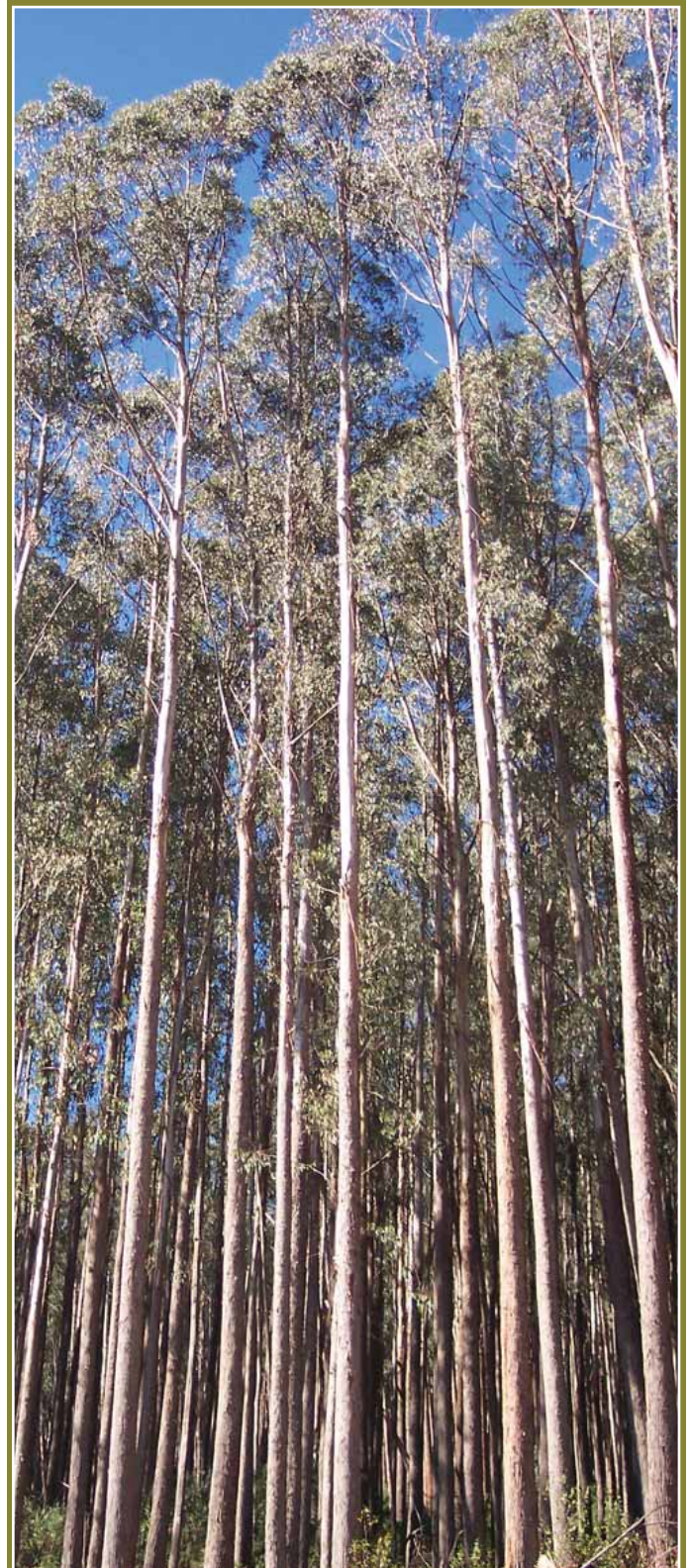
Australia's sustainable forest industry is providing valuable solutions in addressing climate change through its forests and wood products, which provide the only truly renewable natural resource available today.

While minimising Australia's carbon footprint, the forest industry can satisfy our needs for building materials, paper and packaging, and can even help reduce our reliance on electricity generated by fossil fuels.

By sustainably managing and utilising our native forests and tree plantations, Australia can substantially reduce its emissions of greenhouse gases. As trees require carbon dioxide to grow, the forest industry can help remove a significant amount of carbon which already exists in the atmosphere.

With greater public awareness and supportive policy and regulatory frameworks set by the governments across Australia, the forest industry has enormous potential as our leading eco-friendly industry.

Read on to discover how Australia's forest industry can lead the way to a 'climate friendly' future.





## Australia's Forest Industry is naturally Carbon Positive

Australia has a total forest estate of around 150 million hectares - covering 21% of the continent.

Australia's commercial forests are managed in line with the world's highest environmental standards.

Less than 0.1% of Australia's forests are sustainably harvested each year. These forests are all regrown and additional forests are also being planted.

## Quick facts:

- The total amount of carbon stored in Australia's forests is 10.5 billion tonnes. This provides a carbon sink for over 70 times Australia's current annual greenhouse gas emissions.
- Australia's production forests, comprising commercial native forests and plantations, currently remove a net 44 million tonnes of CO<sub>2</sub> from the atmosphere each year (22.5 million tonnes of CO<sub>2</sub> is removed by commercial native forests and 21.9 million tonnes of CO<sub>2</sub> is removed by plantations). This figure will grow as Australia expands its commercial forest resources.





## Australia is growing its forest resources

Australia has a permanent commercial forest estate which will never reduce in area. This means that all areas of production forest, both native forests and plantations, are regenerated and regrown following harvest.

The forest industry is growing its future and supporting the environment by maintaining and subsequently expanding its forest resources.

Since 1990 the forest industry has increased the area of tree plantations in Australia by over 800,000 hectares.

- These areas are recognised as carbon offsets under the Kyoto Protocol and provide over 20 million tonnes of CO<sub>2</sub> abatement each year.
- Australia is projected to have around 2 million hectares of 'Kyoto' plantations by 2020 and could deliver around 50 million tonnes of CO<sub>2</sub> offsets per annum.

This expansion of commercial tree plantations has been made more secure by supportive Government policies established in the 1990s (and recently reviewed in 2007), surrounding the investment environment for plantation forestry.

These policies have helped ensure that the forest industry is on track to meet the Australian Government *Plantations for Australia: The 2020 Vision* target of having **3 million hectares of plantations** by the year 2020.





## Wood products capture and store greenhouse gases

Trees require carbon dioxide to grow, and they actively capture and store greenhouse gases from the atmosphere - a process known as sequestration.

This carbon is stored in the wood products which are sourced from trees and remains stored for many hundreds of years. Products used everyday such as house frames, furniture, flooring, books and magazines are all stores of carbon, and can be recycled.

By reducing the amount of greenhouse gases in the earth's atmosphere and capturing it in the form of wood, forests and wood products can help address issues associated with climate change.

The accumulated storage of carbon in Australia's forest plantations and wood products is about 323 million tonnes of carbon, of which wood products count for 230 million tonnes.

Using sustainably produced Australian wood products also means consumers are not using substitute products such as steel, concrete and plastics. These alternatives require much larger amounts of energy in their production, which results in extra greenhouse gases being emitted – making wood the 'climate friendly' option.

### *Sustainably fuelling the future*

The use of wood waste for bioenergy purposes also has the potential to reduce Australia's reliance on fossil fuels for energy generation and deliver significant reductions in greenhouse gas emissions.

The term wood waste refers to low-grade timber material with no other identifiable market or environmental value. This includes material that is left in the forest after the higher-value timber resources have been harvested, and the sawdust, shavings, off-cuts and other wastes associated with timber processing.

There is enough wood waste available from existing forest industry activities (i.e. without harvesting a single extra tree) to produce 3 million MWh electricity per annum - the net benefit would be a permanent reduction in Australia's greenhouse gas emissions of 3 million tonnes of CO<sub>2</sub> per year.





## Sustainability means Australia's forest values and resources are maintained for future generations

Key forest values including biodiversity, cultural heritage and recreation are all included in the fundamental management objectives of Australia's sustainable forest industry.

The industry's future depends on maintaining its world class standards of sustainable forest management and stewardship.

When forested areas are harvested, they must be regenerated and regrown, in line with the strict regulatory framework. Combined with the expansion of Australia's plantation resources, this means the forest estate in Australia is actually *growing* in size.

- The forest industry sustainably harvests and regrows less than 0.1 percent of Australia's total forest area each year.
- Over 11 million hectares of Australia's public native forests previously available for timber production have been placed into conservation reserves since 1994.

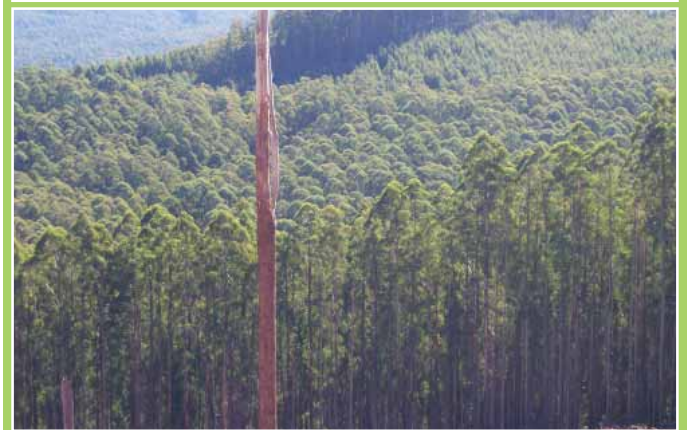
Australia's forest industry is able to adapt its forest management to suit changing conditions such as climate. This is made possible through active and adaptive management regimes for commercial native forests and plantations.

The alternative approach of passive management (as commonly practiced in conservation reserves), has the potential to expose forests to the risks of climate change, such as severe wildfires, which may result in long term damage to forest ecosystems.

### Sustainable Forest Management vs Deforestation - What's the Difference?

Deforestation describes the process where trees are removed and not regenerated. This process has been occurring on a large scale internationally and includes illegal logging. Also known as land clearing, deforestation is a result of agricultural expansion or infrastructure development, and bears no relationship to sustainable forestry.

It is important to note that the Australian forest industry only practices sustainable forest management (i.e. all harvested areas are regenerated and regrown), which is certified by accredited independent bodies to voluntary, internationally recognised environmental management standards. Read on to learn more about certification.





## Get 'Green' with Australian timber

The area of Australian production forests (native forests and plantations) independently third-party certified as 'legally and sustainably managed' has grown rapidly over the past few years.

This includes nearly all public production forests managed by state forestry agencies, and a large area of privately managed forests in Australia.

The total area currently certified is almost 10 million hectares, which means that most timber produced in Australia is certified as environmentally sustainable to internationally recognised standards.

### Why are forests certified?

Forest certification has developed in response to international and domestic consumer demand that timber products be sourced from legal and sustainably managed forests. It also illustrates the significant efforts undertaken by the forest industry to demonstrate its sustainability credentials.

Initially, the driver was wood fibre for paper and packaging. The focus now is on building products, ranging from house and commercial construction (framing, flooring and cladding) to furniture.

The Australian Forest Certification Scheme (AFCS) incorporates the Australian Forestry Standard (AFS – AS 4708) and a 'Chain of Custody' standard (AS 4707), allowing forest products to be branded in order to demonstrate their sustainability and environmental credentials.

The AFS is Australia's only national forest certification standard. It has utilised the formal Standards Australia process and is designed specifically to suit Australian forests, regulatory systems and community expectations. It is also recognised internationally and endorsed by the Programme for the Endorsement of Forest Certification (PEFC) schemes.

Within its mutual recognition framework of national schemes, the PEFC is the world's largest forest certification network, with over 200 million hectares of certified forests, in 23 countries, including nearly 9 million hectares of forests in Australia under the AFS.

The Forest Stewardship Council (FSC) is also a recognised certification scheme in Australia and certifies some 500,000 hectares of plantation forests.



Promoting Sustainable Forest Management





## Forestry and farming are complementary land uses

Australia's forest industry is generally located in regional areas and among other industries, particularly agriculture. Forestry and farming are significant complementary land uses.

The growing of trees is actively offsetting the emission of greenhouse gases from agriculture and other industries. For example, some of the greenhouse gases emitted through the use of fertilizers from cropping and the methane emissions from grazing are being offset by the carbon sequestered in trees and forests.

The area of plantations in agricultural areas is relatively small - tree plantations actually occur on less than 0.5% of Australia's total agricultural land area.

There are also benefits that trees in the landscape can bring for water and soil quality. Salinity, or soil being affected by 'salty' water, is caused where the water table rises because there aren't enough trees to absorb shallow groundwater.

### Denmark River in WA – a great example of trees as the environmental solution

Salinity monitoring of the Denmark Catchment commenced in 1954 and at its peak in 1978, 34% of the catchment was cleared.

By 1987, salinity levels were six times greater than those observed in 1955. Plantations were established in 1991 and by 2002 the cleared land area within the catchment was reduced by 50%.

Prior to plantation establishment, salinity levels were reaching 17mg/L/yr and since have decreased by 8mg/L/yr.

Tree plantations can help bring back the balance and mitigate salinity by using some of this surface water to lower the salt. Having more trees in the landscape also benefits biodiversity, by providing improved habitat for flora and fauna.

There is scope for more plantations to be developed in our regional areas to complement agricultural activities and provide greenhouse gas offsets, water quality and biodiversity benefits.

## It makes good economic sense to have a variety of industries in Australia's rural areas

- Trees are relatively drought resistant, which is good news for regional economies. Trees will also help address climate change, which is believed to be causing more frequent droughts.
- There are strong markets for wood products both in Australia and overseas. This is also good for regional employment as terms of trade (international price fluctuations etc) are relatively steady in wood markets.

*Diversifying landscapes to incorporate both traditional agriculture and forestry is a great boost for regional communities and the environment.*





## Australia's Forest Industry and timber communities are adding value to forest resources

The forest industry employs over 130,000 people in Australia. These people work in a wide diversity of jobs ranging from 'on ground' forest management to timber marketing. Many live in rural and regional communities where forestry is a major employer.

Australia's forest industry provides an economic turnover of over \$18 billion per annum.

To add value to its forest resources, Australia's forest industry is continually investing in new downstream processing technology and facilities. Maximising the value of wood and paper products will be achieved through the industry's ongoing upgrade of existing technologies and construction of new facilities.

This will ensure that value adding takes place in Australia, for the benefit of regional communities and the broader economy.

## Public awareness of Australia's Forest Industry and supportive government policies are key to a sustainable future

In order for Australia's forest industry to reach its potential and deliver on its social, economic and environmental benefits, it needs the public's support.

This document has outlined how forestry can help improve Australia's natural environment and lead Australia to achieve a more prosperous and environmentally sustainable future.

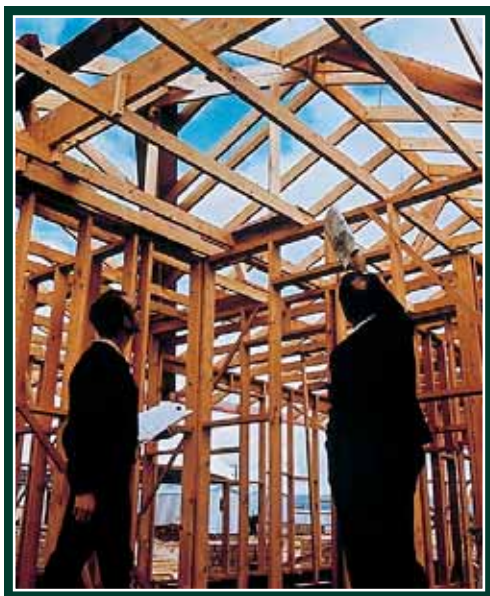
The next step is to ensure that public policy reflects the science and investment behind Australia's forest industry. This will require:

- Adequate recognition of carbon stored in Australia's production forests and wood products in the development of climate change policy and emissions trading.





- Green rating tools for buildings which acknowledge the full life cycle and environmental benefits of using Australia's sustainable, renewable and carbon storing wood products.
- Recognition and acceptance of internationally recognised forest certification schemes for Australia's production forests.



- Recognition of the benefits of active and adaptive management of production forests, to meet sustainability objectives in the face of threats from climate change - a passive approach to forest management brings significant risk to forest values.
- Supportive policy and regulatory framework for the expansion of plantation forestry - particularly in areas such as taxation, water, climate change, and land-use regulations.



For more information:  
National Association of Forest Industries (NAFI)  
Phone: +61 2 6285 3833  
Facsimile: +61 2 6285 3855  
PO Box 239  
Deakin West  
ACT 2600  
[www.nafi.com.au](http://www.nafi.com.au)