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

Inquiry into the current and future prospects of the Australian forestry industry

The NSW Forest Products Association is pleased to provide this submission as input into this Inquiry into the Australian forestry industry. Our submission particularly emphasises matters in a general and specific context of the NSW hardwood sector of the industry. We have endeavoured to specifically address the Terms of Reference as laid down for the inquiry and incorporated other commentary as relevant.

We grow trees to produce timber and other forest products, we manage forests to look after all the environment, habitat, biodiversity, water catchments, landscapes; we have done this since early settlement and we can now get the benefits of carbon sequestration and reduced energy consumption. And we have international accreditation for sustainable forest management.

Right now, and for the future

We need to grow more trees
We need to manage more forests
We need to improve forest health
We need to manage conservation outcomes
We need to store more carbon

"According to the United Nations, around 1.6 billion people worldwide depend on forests for their livelihood. Forest-related economic activities directly and indirectly influence significant numbers of Australians, particularly in regional areas." [Senator the Hon. Joe Ludwig, Minister for Agriculture, Fisheries and Forestry, 23 March 2011]

The Australian Forest Industry is the only carbon-positive industry in the country; timber is the only carbon positive building product in the world. Simply from an environmental point of view, healthy growing forests are a carbon positive energy source while coal and steel production emits carbon.

The NSW Forest Products Association

The NSW Forest Products Association (FPA), formerly named the Associated Country Sawmillers of NSW Ltd, was established in 1906 as the representative organisation of the forest and forest products industry in NSW.

While the FPA principally exists to represent the NSW hardwood timber industry at parliament and senior government levels, it is also concerned with broader community and industry issues. It provides advice and assistance to branches on resource and market development as well as supplying factual forest management information as required. FPA membership includes small and medium sized timber businesses in NSW, predominantly hardwood producers and associated business interests. Most are family enterprises in country towns.

The FPA works in close cooperation with other timber industry bodies such as the Timber Development Association NSW, National Association of Forest Industries, Australian Plantation and Paper Industry Council, Australian Forest Growers and Timber Communities Australia.

The FPA is making this submission with respect to the issues affecting the hardwood timber producers, and associated businesses, in NSW. For the purpose of this submission we include the Australian White Cypress industry within the issues addressed affecting the hardwood sector, excepting that plantation development in western regions (cypress) is not feasible in any respect. The submission provides a background to place the hardwood sector of NSW into a context for the inquiry. Attachments are included to incorporate substantial detail as relevant in support of the general themes of the submission. Much of the information provided here is drawn from recent submissions to the NSW government.

The terms of reference that we recognize as primary issues for our representation are addressed in detail. Due to the broad scope of the inquiry, time and cost constraints, a number of the terms are better addressed by other industry organisations.

Due to the breadth of the issues, the sources of information and time to submit this document referencing is not formal and complete. Source information, including secondary sources, is generally drawn from annual reports, ABARE, ABS and government documents.

BACKGROUND

THE AUSTRALIAN FORESTRY SECTOR

Nationally there are over 147 million hectares of native forests, about 19% of the continent. Of this area, 9.4 million hectares (that is 6.4% of the total forest area) are managed for multiple uses including timber production. 99 million ha is classified as woodland forest. 23.0 million ha (16%) exists nature conservation reserve, 38 million ha (26%) is privately owned.

The 1990s heralded a major hardwood timber industry restructure throughout Australia as governments sought a balance between social, economic and environmental values in the management of Australia's native forests.

The Commonwealth Government's 1992 National Forest Policy Statement (NFPS) came well after significant reduction in managed native forest areas and well before any increase in plantation production. The NFPS led into a very protracted process of NSW Forest Agreements and Regional Forest Agreements which further reduced native forest production during the assessments, after implementation in 1998 and continuing on with further assessment and reservation until 2010. Large areas of forest were reserved, levels of sustainable yield were determined, long term supply agreements became the basis of utilization and value added processing became the objective of timber production. Increased focus on hardwood plantation establishment was recognized as necessary for additional future timber supply.

There were 2.0 million ha of plantations in Australia in 2009, 49% as hardwood, 51% as softwood.

In 2008-09 the value of logs harvested from native forests across Australia totaled approximately $582 million. The total value of logs harvested from the plantation estate, which covers just over 2 million hectares, is around $1.2 billion per annum.

These combined activities generate 11,000 jobs in forestry and logging, which supports a further 65,000 people in processing that wood throughout Australia - many in regional communities (Senator Joe Ludwig, 21 March 2011). On 23 March 2011, Senator Ludwig said "Australia has one of the best managed forestry sectors in the world. Australia's forestry and wood manufacturing sector employs nearly 76,000 people and generates around $7 billion in wood and paper products annually. These are real jobs in and around regional Australian communities."

ABARE (Australia's forests at a glance 2010) identifies 76,800 people in forestry, logging and wood manufacturing and includes data from Forestworks as 16,321 employees in forestry and logging, 73,540 in processing and 30,324 in merchandising and services. That is a total direct employment of 120,184 people.

ABARE identifies 28.5 million m^3 of logs harvested in 2008, a value of turnover of $23 billion and a contribution to GDP as 0.7%.

In a statement dated 29 March 2011, Senator the Hon Joe Ludwig, Minister for Agriculture, Fisheries and Forestry, identified that 75% of Australia's log supplies come from plantation forests. The reference is to total log supply including softwood. In the context of hardwood sawlogs (as relevant to current issues about native forest resources) the data within ABARES 2011 *Australia's forests at a glance 2011* shows:

- Native forest sawlog supply has fallen by 35% from 2000 to 2010, softwood sawlog supply has increased 31%, total supply only 6%.
- Hardwood plantation sawlog supply has increased from 3.4% of total hardwood sawlogs to 5.5% in 2010. That is a very minor contribution to the increase in softwood sawlogs which are entirely plantation based.

- Hardwood sawlogs have fallen from 38% of total (including softwood) sawlog supply to 24%
- Hardwood pulpwood from native forests has fallen to 51% of the 2000 level
- Hardwood pulpwood from plantations has increased by 621%

Senator Ludwig's statement diminishes the significance of native forest resources to the Australian hardwood timber market. Importantly a fuller analysis of the data indicates that:

- hardwood timbers are a significant but declining part of the timber industry
- the contribution of plantation supplies to the hardwood timber industry is very small
- there is a serious decline in native forest hardwood timber resources which is not being replaced with plantation timbers to any substantial extent
- this change has occurred subsequent to the impacts of Forest Agreements.
- halving of hardwood pulpwood volumes from native forests has been replaced with hardwood pulpwood from plantations. That is, hardwood plantations are only replacing pulpwood yields from native forests, not sawlog yields.

THE NSW FORESTRY SECTOR

Forests cover 26.5 million hectares or 33 per cent of NSW. The forest industry generates $2 billion a year and employs 21,000 people. Forests NSW harvests timber from 1.3 million hectares of native forest, a similar volume of timber is harvested from more than 8.5 million hectares of privately owned native forests. Royalties paid to Forests NSW were $138.29 million in 2009-2010.

The hardwood forest industry in NSW generates over $800 million per year and employs about 3,500 people in country regions.

The native forest industry in Australia is critical to the economy of many regional areas. Over 70% of the industry's value is returned to rural communities. The industry's economic multiplier is about two and the community dependence factor is up to twelve.

A comprehensive overview of the NSW forest industry is provided as attachment 1.

Market deficit

The timber market underpins production for the building industry and infrastructure among other uses. Australia needs to import $2 billion of timber and forest products each year. By 2020 we will be 8.1 million m^3 of timber behind housing demand, that is a shortfall of 22,000 ha of plantations for sawn timber (David Thompson, 2010).

Australia imported $405 million of sawn timber in 2009, NSW imported $177 million of sawn timber in 2009-2010 (ABARE 2010).

The Australian timber market and full detail describing the shortfall of supply is included as attachment 7.

Sustainabilty

Reserved forests cover 23 million ha of Australia. In NSW they cost $59.30 per hectare to operate, over $1.3 billion Australia wide. They represent a huge bushfire liability to private property, communities and the environment: that is a cost that is external and additional to the cost of managing reserves. They provide no economic return to regional economies; their contribution to conservation outcomes remains unknown and unproven despite decades of environmental assessment!

Healthy and sustainable forests may only come from active management and an economically viable forest industry based on sustainable utilisation of forest products; that is an economic basis for resource management, with foresters and farmers being encouraged to grow more and better trees. The future direction for development of forest industries is the only path to create and maintain all forest values, sustainable landscapes, sustainable communities, jobs, regional economies, and the environment. Only with viable forest industries may environmental outcomes be recognised as economically valuable.

The overwhelming majority of forests throughout Australia are well managed under international accreditation standards for sustainable forest management, guaranteeing both a valuable resource and valuable environmental outcomes. The Australian Forestry Standard and international accreditation schemes for sustainable forest management are well detailed by associated industry organisations.

Forest management

Forest industry operations falls into four categories: state forests under Forest Agreements set out in Federal and State legislation, state owned plantations, private native forestry and private plantations.

In NSW Forest Agreements cover The Upper and Lower North East, the South East and Southern Regions. State legislation provides an equivalent basis for the Brigalow, Nandewar Region, the Riverina Red Gums and Woodland Forests and the Southwest Cypress Regions. NSW legislation provides for Wood Supply Agreements (contracted sawlog allocations to processing companies), Integrated Forestry Operations Approvals (IFOA) for timber harvesting and licensing for Threatened Species, Fisheries, Protection of the Environment and compliance with Ecologically Sustainable Forest Management Plans.

Hardwood plantations in State Forests and generally on private land are regulated under the Plantations and Reforestation Act.

Silvicultural practices by Forests NSW are well based on a very long record of research and experience. Harvesting of native hardwood forests in NSW utilises Australian Group Selection or Single Tree Selection systems and prescribed thinning regimes. No clear-falling of native forests in NSW is permitted within IFOAs. Regeneration is achieved in gaps of limited size, supplemented with planting if necessary. Native Cypress forests are managed under a thinning and release silvicultural system.

Private native forest in NSW covers 8.5 million ha. It is regulated under the Native Vegetation Act and is managed under regional codes of practice. Clearing of native vegetation from farmlands, including for the establishment of timber plantations is not permitted in NSW except through a vegetation management plan that requires extra-ordinary offsets which provide no acknowledgement for the growing of trees in the landscape. Opportunities for plantation establishment were consequently restricted to competing with agricultural use of farmland, usually lesser valued and degraded farmland.

OVERVEW

Forest resources available to industry are publicly owned native forests, plantations and privately owned native forests.

Australia's hardwood sawn timber production is inadequate to meet demand and increasing will have to rely on imported timber.

Hardwood sawn timber production relies on publicly owned native forest for 95% of its supply. In NSW the hardwood timber industry dependence on native forest is 83%.

Plantations are

- Inadequate to meet current demand or make up the gap
- Do not produce the full range of hardwood timber products
- Not being established to meet the demand after 2050
- Not attractive for private investment
- Initially reliant on established industry for development of extended process and market development
- In NSW, are currently utilised to the extent possible to meet supply commitments of forest agreements
- Restrained by legislation, government policies and development approval processes that restrict market access and inhibit investment

Private native forests have not generally been managed or silviculturally treated for sustainable timber production, many exist as unmanaged regrowth from earlier agriculture, many are in a generally degraded state from a long history of selective harvesting. These forests potentially represent a very large resource. As native forests, producing complimentary environmental outcomes, an economic foundation to motivate landowners into managing for sustainability is needed: that may only come from sustainable timber production requiring, in some cases, intensive silvicultural treatment.

As resources are changing investment is required to establish new resource and to establish new processing facilities at an internationally competitive scale. Development is currently constrained by a broad range of government policy and persistent interruption of long term strategies. A strong and stable policy framework and legislative backing of long term contractual arrangements is necessary to provide investor confidence and industry certainty.

While existing timber markets are changing, and are replaceable with alternative resources, traditional hardwood markets (including public infrastructure timbers) still require traditional resources, that is native forests. Market opportunities and potential product and by-product development paths are clear, but constrained by investment confidence in circumstances of failing government commitment and interference in pursuit of green policies at political and government administrative levels.

Sustainable management of native forests is essential to timber supply and for active management of environmental values. Australia boasts the best forest management standards of the world and one of the best conservation reserve systems. There is a need to protect forest values on a landscape scale rather than targeted species and site specific criteria: only then will we be able to establish sustainable landscapes and sustainable communities on an economic basis. Stewardship schemes are essential to provide incentives for private forest owners to actively manage their forests sustainably.

There are a number of perverse policies, strategies and regulations under which the forest industry is compelled to operate. A number of them create unnecessary tension and competition for agricultural land.

1. Opportunities for and constraints upon production;

a. Resources

Securing our native forest assets

The Commonwealth Government's 1992 National Forest Policy Statement (NFPS) (attachment 2) created the basis on which regionally based Comprehensive Resource Assessments were conducted and laid down definitions and criteria for those assessments. The Assessments ultimately formed the Regional Forest Agreements and, in NSW, state based Forest Agreements in legislation as the Forestry and National Parks Estate Act No 163, 1998

The Regional Forest Agreements (RFAs) are the foundation for resource security for native forests in Australia. To date they have provided legislative security for the industry, for investment and ongoing development. In NSW, the Forest Industry Reform Agenda of 1996, the NSW Government's 1998 Forestry Decision (attachment 3), delivery of Forest Agreements and 20 year Wood Supply contracts in 1998 and a well funded adjustment program provided resource security which resulted in massive investment in industry development and value added processing. Detail of some of the funded development projects is included as attachment 8. Until 2005 companies continued to invest adding at least the same amount in further development projects.

Most timber processing companies in NSW access core resource through contracted supply agreements with state governments. Those agreements are signed by:

The Company
Forests NSW
The State of NSW (the responsible Minister)

Supply Agreements arise from NSW Forest Agreements signed by each Minister administering:

The Environmental Planning and assessment Act 1979
The Forestry Act 1916
The National Parks and Wildlife Act 1974
The Protection of the Environment Administration Act 1991
The Fisheries Management Act 1994

The NSW Forest Agreements arise from Forestry and The National Parks Estate Act 1998 having passed the NSW parliament, proclaimed by the Governor of NSW.

Integrated Forestry Operations Approvals under the Forestry and The National Parks Estate Act 1998 for the carrying out of forestry operations granted and signed by the same Ministers as above and including licences under the

Protection of the Environment Administration Act 1997 – Environment Protection Licence
Threatened Species Conservation Act 1995, - section 120 of the NPW Act
Fisheries Management Act 1994, - section 220ZW

Regional Forest Agreements between The State of New South Wales and the Commonwealth of Australia (dated 31 March 2000 for North East NSW) confirmed commitment to the National Forest Policy Statement, duly signed by

The Prime Minister of Australia, and
The Premier of NSW

The Regional Forest Agreements Act 2002, [to resolve conflict over the use of native forests had established a climate of uncertainty for investors and contributed to community uncertainty that environmental values were being adequately protected] passed the Australian Parliament and was duly proclaimed by the Governor General.

It is incomprehensible that such a comprehensive foundation of policy, assessments, commitments, approvals, licences and legislation, duly signed by such eminent people of Australia, specifically addressing the utilisation of native forests, may now be brought into question, reopen conflicts and create uncertainty for those investors who have relied upon this framework now and for any credibility for future investment.

Forest industries have delivered their part of the Agreements. Governments, both State and Federal, have failed to deliver the resource.

Since 2003, in NSW and later in other parts of Australia, industry and investors have lost confidence in the security of Forest Agreements and Wood Supply Agreements as governments (State and Federal) have equivocated their commitment to Forest Agreements, aligned with Green policies and threatened forest reservation at every election. Over this period the reliability of forest assessments, that sustainable volumes may be delivered from the available forests in accord with the contracted volumes, has become increasingly uncertain. Current threats of premature resource reductions from re-assessments (without fair and reasonable compensation) seriously threaten continued investment in industry development.

Reviews of Forest Agreements is a futile exercise: attachment 4 includes issues relevant to the review of NSW coastal Agreements, all conveniently ignored by government. That this review may have identified shortcomings of the administration of the Forest Agreements, delivery of sawlog commitments that have been neglected, shortcomings that may have been redressed, made more efficient and that the policy objectives to establish the balance between environment, economic and social values may be re-affirmed seem well beyond the understanding of government.

A process of renewing Regional Forest Agreements (RFAs) well beyond 2020, needs to be started immediately to maintain the foundation of investment for the future. That is, to provide **EVERGREEN** resource security – backed by Commonwealth and State legislation. The integrity of this inquiry mandates resource security beyond 2020 as the primary objective for the forest industry, its current business assets, its current and future investors, its people and the communities in which it operates. Necessary assessments of resource, socio-economic impacts and conservation outcomes to underpin the renewal of RFAs, need to be funded for effective industry participation, rather than just funding ineffectual activities of government and exclusive pursuit of environmental policies.

Forestry and forest product processing is a long term business simply because of the time necessary to grow resource and manage that resource into timber markets. Commitments for investment and business planning is required for decades. Key to the development of the timber industry is to have secure long term reliable access to available wood supplies from Australia's sustainably managed native forests and plantations.

Resource security, for both native forests and plantations is essential to secure and underpin sustainable production from native forests, both short and long rotation plantation investment, to establish modern industrial processing facilities and support internationally competitive value adding. That is what the Forest Agreement framework should be delivering in NSW until 2020.

Rather than dishonouring those agreements now this inquiry needs to address an industry framework for the future beyond 2020.

Significant reductions in the area of native forest previously available for wood production over the past two decades, without significant new investment in long rotation sawlog plantations since the 1990s, has constrained industry activities by a lack of confidence in domestic wood supply and lack of confidence that government, and all the eminent signatories to the legislated framework described above, might deliver its commitments.

Despite National Forest Policy, Regional Forest Agreements, legislated state based Forest Agreements, regulatory approvals for the conduct of forestry operations, international standards of forest management and contracted timber supply Agreements, resource access is continuing to be restricted. Government (State and Federal) agencies and Ministers continue to develop and implement strategies to increase exclusions within forests set for timber production. Agendas used to restrict forest access include:

- Development of restrictive interpretations of definitions of rainforest, old-growth forest and high conservation value forest

> **OLD GROWTH DEFINITIONS**:
> *Forest that is ecologically mature and has been subjected to negligible unnatural disturbance such as logging, roading and clearing.*
> 60 per cent of the existing old-growth forest to be protected
> All rare or depleted old-growth forest should be protected
>
> *Old-growth forest is ecologically mature forest where the effects of disturbances are now negligible*
> Ecological maturity - the older growth stages
> on the structural, floristic, and functional qualities used in the assessment of the significance of disturbance effects, evident by trees with age related features and a species composition characteristic of the ecologically mature forest ecosystem.
>
> *Old growth forest identified by aerial photo interpretation of a mature growth stage(< 10% regrowth canopy and >10% senescent canopy) and insignificant recognition of disturbance effects, without field validation.*
>
> **NOW ALL OLD GROWTH FOREST IN NSW IS RESERVED**!
>
> **Conservation Criteria – JANIS**
> **THEN**: These Criteria are to be used to guide the establishment of the CAR reserve system within the RFA process. Where it is demonstrated that it is not possible or practicable to meet the criteria in the Dedicated Reserve system, other approaches will be required. The criteria are to be considered as guidelines rather than mandatory targets. The extent of potential social and economic impacts may limit the ability to meet reserve criteria.
>
> **NOW:** The criteria are absolute, targets have been increased, social and economic impacts are ignored.

- Increased exclusion of productive forest by the addition of new threatened species and endangered communities and threatening processes

> Newly created **Endangered Ecological Communities** (EEC) are substantiated by complex theoretical descriptions and a presumption of threatening processes of forest management.
>
> These forests are not readily identifiable on the ground yet they are now totally reserved.
>
> An abandoned dairy farm (private property), totally cleared of trees in 1956 at Coombell, (northern NSW) has been regrown as a productive forest. It has now been declared an EEC and may not continue any forest operations.

- Increased imposition of species specific and site specific exclusions on licensing of forest operations

- Continual legislation to create further reserves in forests under prognosis that timber resource commitments are unaffected.

> NSW north coast Forest Agreements required a resource review in 2006.
> That was brought forward to align with NSW state election in 2003 and reservation of all old growth forest icons.
> Supply Agreement volumes were reduced by 25%, but compensated by transition into plantations and young regrowth producing small sawlogs.
> Now there are further supply shortfalls.

- Imposition of new resource reviews well prior to the expiration of commitments

- Failure to comprehensively and adequately review the performance of Agreements in five yearly reviews, to threaten withdrawal of Agreements (Minister Garret) despite the limitations on renegotiation and a failure to rectify shortfalls of supply identified in reviews.

- Failure to implement recovery plans and threat abatement plans and to vary species protection prescriptions where found to exceed necessary thresholds.

The Forest Agreement Review information reveals a significant decline in grade of log production from the Forest Agreement regions. Since the commencement of the Forest Agreements production of high quality logs from Forests NSW has declined by 37%, (up to 57% in the Upper North East), an increase of only 7% in high quality small logs in the Upper and Lower North East despite the review of allocations in 2003, an increase of about 15% in low quality sawlogs on the north coast and a 50% increase in the production of pulpwood (except at Eden with a 35% reduction apparently due to a change in pulplog specification

- Gross failure to recognize Regional Forest Agreement clauses in respect of Industry and Regional Development (most of the clauses 73 to 91)

- Consistent failure to deny, diminish, misconstrue or totally ignore social and economic impacts of timber industry closure;

- Consistent failure to deliver fair and reasonable compensation to people, communities, businesses and investors impacted negatively by the imposition of government environmental policies.

- Open market acquisition of private resource, substituting commitments from native forests, but reducing total industry supply

- Ongoing failure to implement plantation establishment programs
  Note: areas of plantations from Annual Reports of Forests NSW are not consistent or reliable.

Forests NSW have established hardwood plantations as follows:

1995	770 ha	2000		2005	
1996	488 ha	2001	3427 ha	2006	286 ha
1997	3972 ha	2002	3198 ha	2007	121 ha
1998		2003	4253 ha	2008	83 ha
1999		2004	-2927 ha	2009	0 ha

- Ongoing failure to implement sound silvicultural management prescriptions, particularly for private forests

- Increasing costs of licensing, planning, approval, supervison and compliance processes

- On the north coast of NSW increased cost and incompetent management of contracted harvesting and haulage operations

Forest agreements in NSW and Integrated Forestry Operations Approvals limit the silvicultural management of native forests to less than optimal sawlog growth. Attachment 5 describes optimal silvicultural treatment for sawlog growth in plantations. Australian Group Selection systems limit the gap size so that optimal growth may only be achieved at the centre of the gap, Single Tree Selection Systems do not necessarily enhance growth at all and threaten to diminish forest health and in some circumstances change forest type (to more shade tolerant species) over time.

A reversion by Green groups (who were a part of the consensus underpinning Forest Agreements) to the forest conflicts of the 1980s, and acceptance and condoning of those activities by the NSW government, is rapidly destroying any confidence that forest industries might have in the remaining life of wood supply agreements until 2023.

Green activists are currently calling for an end to native forest management for timber production throughout Australia. That is in direct conflict with the Forest Agreements; it would mean the end

of current Wood Supply Contracts at least ten years before their maturity and would end hardwood timber production. Governments, Commonwealth and State, are aligned to the Green political mantra and are loathe to defend the Agreements that they have legislated and that businesses have invested in. Instead they look to processes of re-assessment, adjustment and compromise: fair and reasonable compensation is rarely recognised by government in such circumstances. Ultimately their short term election view and political power will over-rule social and economic impacts and any liability for lost investments.

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State and Commonwealth resources need to be invested in the renewal of Regional and related State Forest Agreements, including associated regulation and processes, to continue to deliver certainty of timber supply (native forest and plantations) needed for future demand, regional economies, employment and ongoing investment for industry development. The delicate balance of sustainable forest management and conservation of all forest values must be maintained for the whole community.

The greatest constraint upon timber production from native forests in Australia is the lack of confidence that governments may deal fairly, with integrity and honesty, with the supply commitments that they have placed into legislation, contracted to industry, and with the faith on which industry has invested.

Building the plantation resource

The NSW State Government Forestry Policy in 1995 included a program to establish 35,000 ha of native and introduced species plantations over 3 years. Including joint venture programs, only 14,120 ha was established by the end of 1997, half of that was softwood. (State Forests of NSW Annual Report 1996/97). Despite inconsistent data and substantial variation of the reporting base, in 2006 the total area of Forests NSW hardwood plantation estate was 26,475 ha (Forests NSW Annual Report 2006/7).

The *Plantations for Australia 2020 Vision Statement* has largely guided plantation policy in Australia for the last 10 years. The policy is over 10 years old, and given changes in native forest hardwood and plantation resources requires revision; it no longer reflects contemporary issues facing the plantation industry.

Regional Forest Agreements included commitments to establish eucalypt plantations for long term sawlog production, to significantly increase the area of plantation in NSW. State based Forests Agreements for each NSW Region included the same commitment. Neither have been delivered.

In NSW, since the Comprehensive Regional Assessments in NSW of 1996 - 1998 the following legislation has included significant areas of plantations (both hardwood and softwood) which have been reserved to contribute to the CAR Reserve System.

Forestry and National Park Estate Act 1998
National Park Estate (Southern Region Reservations) Act 2000
National Park Estate (Reservations) Act 2002
National Park Estate (Reservations) Act 2003
National Park Estate (Reservations) Act 2005
National Park Estate (Lower Hunter Region Reservations) Act 2006

Wood takes a long time to grow, sawlogs take a very long time. We cannot rapidly switch wood production on and off in response to market forces; investing in trees is something of a leap of faith. Investors in either plantations or timber processing operations are not prepared to take that leap on the government's current record.

The attachment 6, "Plantations in Australia" describes the critical shortfall of sawlog plantations and discusses the necessary incentives as MIS schemes to make up, or at least manage, that problem.

Despite strong demand for sawn timber 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. The reason is primarily the low rate of return on investment for longer rotations of typically 30 to 40 years. The long time frames expose investors to greater liabilities of resource failures, such as bushfires and political interference.

Without direct incentives for long term investment to establish plantations it simply will not occur. Poor profitability is attributed to the high initial costs of acquiring land, establishing the plantation and the need for early silvicultural treatment. That creates a huge opportunity cost of capital for a period of time until the investment hopefully matures after several decades.

Alternatively, and for obvious investor preference, short rotation plantations have been established with schemes of financial support and without the expense of early silvicultural treatment or the liabilities of long term projections for return. The outcome is that significant plantation resources have been established to sustain existing overseas processing plants (paper, panel boards, electricity). Approval processes for the establishment of such plants in Australia are prohibitively obstructive, invariably on environmental issues. Australia has been unable to support investment into processing of these plantation resources; it has been more politically acceptable to import the products and leave the environmental issues to the morality that other countries do not have to deal with.

The current situation is simply that investment in softwood plantations has stalled and investment in hardwood plantations has collapsed. Government commitments have fallen short on delivery and remain subject to Green antagonism and political interference. Production of sawlogs in the future is limited to the current estate, which does not generally include private hardwood plantations; they are either too young, are captive to a short rotation pulpwood regime, or may be liquidated for pulpwood whenever investor confidence is threatened. Established pulpwood plantations are not readily, silviculturally or efficiently convertible to sawlog production: sawlog plantations may be pulped at any time.

The future development of plantation resources will need to address:

- the critical shortage of long rotation plantations;
- the need for security of government commitments to establish plantations
- a growing range of regulatory impediments to plantation development;
- the important link between plantation resources and opportunities for domestic processing.
- A viable and secure investment incentive.

The likelihood of establishing significant processing plants (for hardwood plantation and forest regrowth products) in Australia, under increasing Green antagonism, environmental ideologies and political influence, has become extremely remote. 500,000 ha of established hardwood plantation is currently on the market as investors move away from this industry. An attractive carbon sequestration benefit for growing trees and storage in timber is increasingly remote.

Managing the private forests

Private forests in NSW cover approximately 8.5 million ha. and are important as a source of timber, as well as for the conservation values they provide to the general community. As timber resource they supply approximately half of the sawlog supply on the north coast of NSW and between 10 and 20% in other regions of the state. Private forests of the Riverina used to supply approximately 40% of Red Gum sawlogs and about 70% of firewood; now they are the dominant resource.

As a disaggregated and sporadic resource within a completely open and opportunistic market, mainly to very small and isolated mills, reporting of supply and production is virtually absent. However at the levels being utilised the resource, as a whole, contributes significantly to timber production and markets. It also contributes significantly to the scale of medium sized timber processors and supplements significant investment into timber processing.

The historic utilisation of private forests has rarely been based on sustainable management and would be better described as back paddock banking by farmers. A large number of these forests are the result of regrowth following abandonment of agriculture on cleared land. Repetitive selective harvesting at opportunistic intervals has generally degraded the forest quality, the timber resource and the environmental attributes of these forests. A clear demonstration of the value of active management of these forests is the creation of many of the best Cypress forests in the Brigalow Region from abandoned wheat farms. The forests were grown and managed to produce prime resource for most of the cypress industry. In 2005 the NSW government determined them to be of conservation significance and reserved 305,000 ha from forest management forever. In 2006 most of them were destroyed, along with ALL their conservation values in a major bushfire covering 104,000 ha. There has not been any effort to now regenerate those forests, or recover environmental values, other than by benign neglect.

In 2003 the NSW government created a new approach to natural resource management to end broadscale clearing, and to encourage (fund) land managers to actively manage and restore vegetation. All sorts of government processes, authorities, groups, commissions and councils were established. Property vegetation planning became the effective tool within legislation. Nothing much was done for the landowners as encouragement.

In 2007 management for Private Native Forestry was included under regional codes of practice in recognition (Craig Knowles, Minister for Land and Water Consertion, NSW) that farmers and foresters were the only people able to implement practices to manage native forests on private land.

Landholders should be encouraged to manage these forests in a way that preserves their productive capacity and their conservation values for the long term. At present, however, neither the current regulatory regime, including the Private Native Forest legislation and codes of practice, nor the current market regime encourages sustainable management of the State's private native forest resources.

Codes of practice include a number perverse outcomes with silvicultural prescriptions by inhibitng the restoration of a balanced stand structure. The administrative agency (DECCW) has imposed further regulatory prescriptions by identifying new endangered ecological communies that prohibit operations and has recently refused to consider any applications which are alleged by Greens to include sensitive areas (subject of inaccurate mapping of old growth forests). Landowners now regard much of their private forests which they have owned and managed as part of their farm enterprises for generations to be placed in reserve, for the public interest, without compensation.

Objectives of restoring forest health, actively managing for environmental outcomes and creating a sustainable forest resource have been stifled by the administration of the NSW government.

Good environmental outcomes for most forests depend on active management and, especially in the case of private native forests, on incentives for continuing management. Good stewardship may be viewed as a 'duty of care' responsibility that should be enforced by legislation, or as an environmental service that should be recognised and rewarded. The reality is that incentives are more effective than punitive regulations. Income from the sale of timber is the only viable incentive for private forest owners and with sustainable management is the only incentive available.

The Southern Cross Group has proposed an approach to private forest management in NSW based on stewardship support. Incentives wiould be used to encourage landholders to manage their forests in a way that maintains their environmental and other values for the community, without compromising their value as a resource to the farming community. The system wiould foster good outcomes through innovation rather than through cumbersome and onerous prescriptions. The challenge is to devise an equitable scheme that sends the right signals for forest management, is cost-effective to administer, and represents a worthwhile investment in terms of the public good generated.

Under the proposal, landholders would receive an annual cash payment as a reward for progress towards specific outcomes. Rather than complicated targets, a simple two-tiered system should give enough incentive to landholders to provide the environmental services desired by the community.

The first tier rewards and encourages landholders to regenerate more forest, to retain big trees, and to stimulate tree growth on private land. The second tier rewards and encourages stewardship of endangered species and ecological communities. These incentives will be simple to apply and audit, and will encourage landholders to learn about and encourage biodiversity on their land, and to consider it part of their income portfolio. This system will contribute to farmers seeing forests as core business, both as part of their income stream and as part of their environmental stewardship responsibilities.

When all farmers view forests in this way, Australia will reap the benefit of forests that are more diverse and productive, and a forest estate that no longer continues to shrink.

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.

Balancing public native forests, plantations and private native forests

Public native forests need to be managed for "multiple use" objectives in balance with the reserve system for conservation and with sustainable practices that protect environmental values complementary to the sustainable production of timber.

Plantations need to be established for the production of timber to meet shortfalls in the domestic market, but that initiative must recognise

- not all hardwood timber products can be produced from plantations
- current plantations are not managed, adequate or appropriate for the production of sawlogs
- plantation management (intensive silviculture) produces significant volumes of other (than sawlog) products for which there is not generally a domestic processing market
- current timber processing operations are not appropriate for sawlog characteristics of plantation resources
- plantation investment for sawlog production is not attractive, secure in Australian politics, or economically viable for investors

- plantations, while contributing to landscape and some site specific environmental values, and to carbon sequestration, do not provide the complete conservation outcomes of managed native forest.
- On final harvest the environmental values of plantations must be re-established.

Opportunities to establish plantations within native forests (both public and private) should be utilised when the outcomes for production and the environment are maintained or improved. Current legislation in NSW effectively prevents this opportunity.

Private native forests need to be managed by individual landowners to re-establish appropriate stand health for production and environmental values. They have the potential to produce significantly more timber than the public native forests. They have the potential to contribute greater managed environmental outcomes as complementary activities. A reliable scheme to create incentives for private forest owners is essential to bring these forests back to healthy production. Government administration has prevented these objectives to date. Conversion of degraded forest into plantation needs to be an opportunity that benefits all outcomes.

All three of these resources need to be maximised for future timber resource in Australia. There are no options available at this time to pretend that any one path may be a substitute for another.

b. Industry

Hardwood Sawn Timber

The hardwood industry of NSW comprises approximately 200 sawmills including many of very small capacity, of very low capitalization, not involved in value adding and not delivering to major timber markets. Many of the mills processing less than 3000 m^3 of sawlogs per year have closed, many are dependant on private native forest resource and/or low quality logs from Forests NSW.

Mills processing more than 15,000 m3 per year utilize a relatively high proportion of high quality logs for associated value added processing and service the main timber markets. Those mills already utilize a significant proportion of hardwood plantation sawlogs, of all grades and are the mills with a capability to further develop into plantation resources in the future; most already have to some extent.

Boral Timber is the State's largest hardwood sawmilling company with substantial mills near Grafton, Wauchope and Nowra (smaller mills at Narooma and Batemans Bay). Boral Timber utilizes predominantly high quality sawlogs with a strong species preference to supply high valued markets. Most of their resource comes from native forests of Forests NSW. Boral also operates large value adding plants at Herons Creek, Kyogle and Murwillumbah.

Grants Holdings at Narranderra and Condobolin, and Gunnedah Timbers are Cypress mills and value adding plants. Gulpa Sawmill, and most other Red Gum mills have closed following the NSW governments Red Gum reservations of 2010.

Big River Group is a plywood manufacturing plant and Koppers is a pole processing operation rather than being identified as sawmills.

Timber products from hardwood forests as shown in the table below are limited to the markets accessed for high quality sawlogs from Forests NSW.

Timber product mix from hardwood forests (native and plantation, public and private)	
Product	09-10
Dry structural	5
Floorboards	35
Joinery/furniture	3
Decking & panelling	5
House framing	25
Pallets	12
High strength structural	5
Fencing/landscape	10

The Forest Agreement Review information reveals a significant decline in grade of log production from the Forest Agreement regions. Since the commencement of the Forest Agreements production of high quality logs from Forests NSW has declined by 37%, (up to 57% in the Upper North East), an increase of only 7% in high quality small logs in the Upper and Lower North East despite the review of allocations in 2003, an increase of about 15% in low quality sawlogs on the north coast and a 50% increase in the production of pulpwood (except at Eden with a 35% reduction apparently due to a change in pulplog specification). This data clearly highlights the deterioration of forest quality and/or an inability to deliver the volumes determined in Forest Agreements. Further reductions have occurred since 2003 and also since 2008 as supplies from Forests NSW diminished and new regulation of Private Native Forestry came into place.

Reductions reported in sawn hardwood production for the timber market, as 548,000 m^3 to 433,600 m^3 between 2003 and 2008. However this data is not reconcilable with declining log utilization during the period.

Data from the ABS in this respect has been previously found to be grossly unreliable in that it fails to identify many of the small producers that characterize this industry. In particular it does not provide reliable data for private forest production and has had to revise most of its estimates for the period 1990 to 2005. In 1996 to 2000 private property resource accounted for 35% of total timber production in NSW. Estimates in 2006/7 were then about 40%, but now is only 30%. That is, total hardwood timber supply has fallen almost 40% over the period and at least 25% since 2007.

Significant changes in the timber market occurred in the late 1990s as mills invested in value added processing, reducing timber yield from sawlogs (as required by government policy in the Forest Reform Agenda). Log size and quality changes described above have further reduced timber yield. More importantly these changes have significantly changed the product market potential of hardwood production, limiting the ability to produce flooring, dry structural, high strength structural and joinery/furniture, and increasing the production of low grade, lower valued products. Also during the period increased use of private and low quality sawlogs in the mainstream markets has significantly reduced the values attainable in the improved (value added) markets.

The significant change in the timber market may be attributable to major hardwood processors, heavily dependent on high quality sawlogs from Forests NSW and leveraged to high valued markets (flooring), being unable to achieve adequate grade and species production from the declining resource characteristics.

As resource changes so processing requirements will change and potential products will change. Industry is currently faced with declining sawlog quality, size and species composition. How those

changes may be translated into markets is a question that has not been answered either by the industry or by any research or development effort.

Some work has been completed with respect to the processing technologies that may deal with resource changes, but without a connection to product and market changes. But equipment changes require substantial scale to justify investment; that scale is not readily available within economic range of processing sites and cannot be identified while ever a mixed resource persists. As highlighted elsewhere the mixed resource and the existing technologies will persist until substantial sawlog plantations become productive. In the meantime new investment is most unlikely.

Hardwood woodchips

The only operation in NSW processing hardwood woodchips is Weathertex at Raymond Terrace, producing fibreboard. Their resource is primarily based on low quality logs that result from native forest harvesting for sawlogs. Species mix is critical. Ever expanding environmental policies of the NSW government are a continual threat to this business; they cannot risk further investment without some surety that the necessary species mix will remain available.

There are no significant paper manufacturing operations in NSW that may use hardwood woodchips, and there is very little likelihood of there ever being one as industry has watched with amazement the issues, cost and time that has confronted Gunns in Tasmania. So hardwood woodchips from native forest and plantation thinnings are exported. Most sawmill residues are also exported as woodchips.

In NSW the Protection of the Environment Operations (General) Amendment (Burning of Bio-Material) Regulation 2003 makes it offence for native forest bio-material to be burned in any electricity generating work. So the market for forest thinnings will inevitably remain as export woodchips and without sufficient scale to do anything else. Until plantation resources achieve a substantial scale investments in bioenergy are unlikely. The very existence of that regulation diminishes the carbon benefits that may be achieved from sustainable forest management.

Cogeneration of mill wastes in some plants provides a disposal opportunity for those businesses but without adequate REC values the opportunities have not been widely adopted.

c. Markets

Important issues with respect to maintaining access and developing timber markets government support is sought to:

- 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.
- 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 reliant communities are protected from the effects of dumping of forest product imports.

Industry and government have invested heavily in developing sustainable forest management accreditation to develop standards, operate within those standards and have sustainability recognised under international schemes of accreditation. Two main streams of accreditation are available: the Forest Stewardship Council and the Program for Endorsement of Forest Certification. The schemes are well detailed in other industry submissions. They are not necessarily competitive but are differentially appropriate in different sectors of forest management.

Private native forest operations do not generally carry either of the accreditations although, in NSW they comply with the sustainability provisions of the Native Vegetation Act under regulated codes of practice for Private Native Forestry. For small holdings the cost of securing accreditation is prohibitive.

The cost of extending and promoting sustainability accreditation in the supply chain beyond timber production is prohibitively expensive except for a few producer exclusive outlets. If such accreditation emerges as a market imperative in Australia (which it currently is not) then a process for "chain of custody" must be developed and then managed.

Accreditation is necessary in some international markets but is not universally required. International sawn hardwood markets are not significant for Australian timber producers. The cost of accreditation, and extending that through a chain of custody, is not recoverable in market pricing, it simply becomes another cost burden on producers.

By far the greater issue is the import of timber from countries with less sustainable forest management, some as illegal harvesting, in competition with Australian production carrying the additional cost burden imposed by Australian government forest policies. Bans recently imposed on imports of illegal timber are grossly inadequate and delayed; until equitable requirements for sustainable forest management are implemented Australian producers will be at the disadvantage of inequitable international environmental policies, or lack of them.

Domestic

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. 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.

Attachment 7 describes the Australian Timber Market and links demand to the future sawlog supply opportunities for that market, particularly in respect of the plantation production of sawlogs that will be required to supply that market. The plantations have not been established so other sources will be required until such a plantation resource can become productive.

In the current Australian economy the timber market cannot be supplied from Australia's forests. Economic recovery that stimulates building activity will not be able to be supplied from forests and plantations within Australia, either now or in the future. Imports will have to be increased, Australia will have to rely on diminishing overseas forest resources with less sustainable forest management practices. Misguided, unsubstantiated and dubious environmental policies preventing timber production within Australia will encroach environmental standards in other nations. Posturing to prevent imports of illegally harvested timber is framed as impossible to implement over a very long time and, in any respect, is only a relatively small part of the unsustainable timber imports into Australia.

International trade

As the international trade balance for all forest products, Australia incurred a deficit of $2.4 billion in 2008/9 and $1.94 billion in 2009/10.

Australia's $2 billion trade deficit in wood products is largely attributed to imports of paper and paperboard products.

In 2008/9 Australia consumed 2613 kt of paper products (newsprint, printing and writing, household and sanitary). Of that 1363 kt was produced domestically with 1402 kt of imports and only 152 kt of exports. Those products alone created a trade deficit of $1.6 billion.

Imports predominantly came from Europe and Scandanavia 30%, New Zealand 23%, United States 7.5%, China 7%, Indonesia 5% and Japan 4%.

Data of packaging and industrial papers highlights those products as 60% of production but only 40% of consumption. 1989 kt of recycled paper is used in production of 1949 kt of these products. 617 kt is exported (and 254 kt is imported) and that reduced the trade deficit of the total paper products to $1.1 billion. The relatively small volume of these imports came from New Zealand, Europe and Scandanavia, and China.

Australian consumption of wood pulp in 2008/9 was at 1491 kt, including 265 kt. imported from mainly New Zealand, Brazil and Canada.

In 2009/10 Australia exported 4818 kt of woodchips, 82% of Eucalypt species largely to Japan for paper manufacture.

With a large forecast increase in pulpwood resources, and a consequent increase from expanded plantation management, there is a significant opportunity to domestically add value to this resource and deliver large economic and social benefits to regional communities.

There is clearly an abundant supply of pulpwood in Australia but a severe shortage of processing capacity to meet domestic consumption, particularly for the higher grades of paper products. Recent increases in plantation establishment specifically for pulpwood production (largely through MIS companies) will add significantly to the volumes available for export. Since the Global Financial Crisis Japanese and Chinese markets for woodchips are rapidly increasing. Russian, USA and South African supplies are reducing. European and USA markets are turning to bioenergy.

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. The proposed establishment of pulp mills in Tasmania and the Green Triangle region, could provide significant economic and social benefits for Australia. Developments of this sort continue to be obstructed at every opportunity by Green protests and lobbying, such protests are increasingly gaining political influence and destabilising long term government policy.

Investors are justifiably disinterested in entering into such developments within Australia.

Other woodchip markets

Export and use of forest industry residues as woodchips for paper production, predominantly as exports, is currently the largest market for these byproducts. Other markets exist:

- Firewood
- Compressed residue for heat (briquettes)

Electricity production
Pelletised fibre for electricity production (including a strong export demand)
Biochar
Ethanol and biodiesel
Charcoal including for silicon production
Reconstituted wood composites including panel boards

For the vast quantity of forest industry byproducts, pulpwood as woodchips for domestic and international paper production remains the only feasible market. Reconstituted wood products as timber sections, fibre panels and strand boards have not been able to return a commercial viability that might attract new investment. International scale and competitiveness of these processing plants is well beyond the capacity of Australian resources.

d. Research and Development

Australia's forest and wood products research and development program, funded through producer levies, is in desperate need of redirection. The organisation (Forest and Wood Products Australia) seems heavily focussed on market promotion on a very limited budget and has been guided more to forest management directions since diversifying membership.

Research and development levies can only be described as paltry (equivalent to less than $1.00 per m^3). Until a significant share of the market value is directed to development processing technology, product development and market advancement will be stifled.

The attachment 9 details gaps within the current research and development program.

e. 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.

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. Security of these investments requires stable policy over the long term, consistent with the life of plantation projects. That really requires such policy frameworks to be set into legislation.

The likelihood of establishing significant processing plants (for hardwood plantation products) in Australia, under increasing Green antagonism and political influence, has become extremely remote. 500,000 ha of established hardwood plantation is currently on the market as investors move away from this industry. An attractive carbon sequestration benefit is also remote.

Interaction of policies for the whole of forest production

Policies to stimulate economic recovery through building programs, or simply to make up underlying housing demand, will require long rotation plantations for supply. Forest management for sawlog production, either as regrowth native forests or as plantations, consequently includes production of greater volumes of pre-sawlog products (woodchips/pulpwood) will be produced.

Already many short rotation plantations are not anticipated to be regrown under current conditions. Policies to stimulate growing of long rotation plantations may well result in the conversion of a very significant proportion of short rotation plantations, both at maturity and earlier depending on the delicate economic balance: that is conversion by clearing of existing plantation and perhaps re-establishment under a different silviculture. That will further increase the supply of pulpwood. It is not silviculturally or economically feasible to simply grow pulpwood plantations for longer; that does not grow sawlogs, the whole plantation cycle has to be re-started: that is, many existing plantations will be pulped.

Without a policy setting and an effective strategy for a plantation sector, including markets for pulpwood, and commercial confidence for investment in domestic processing plants, then sawlog production will be limited by the international market for silvicultural products (pulpwood) and domestic timber production will be strangled. Timber imports will rise adding to the trade deficit, plantations will be rapidly converted to short rotation as the international market for pulpwood expands.

Any strategy towards the supply of adequate volumes of timber products must necessarily address the consequent production of pulpwood from plantations.

For sawlogs, the paradigm of diminishing native forest resource, suboptimal conditions for forest growth and health, insufficient plantation resources and general market shortfalls means that utilisation will always diminish log size and quality. Resource growth potential will be progressively reduced and the shortfalls will be exacerbated. Investor confidence will rapidly disappear if it hasn't already.

Any policy direction to reduce sawlog production from native forests, or that effectively increases restrictions on access necessarily exacerbates the shortfall of resource for the market. The existing plantation estate is already short of the market demand (in NSW hardwood plantations supply only 18% of the sawn timber market, in Australia only 5%) and there are no policy initiatives to improve that, to give confidence to investors or to establish a broader base for industry to process the range of plantation products.

In 1998 the NSW government legislated to prevent the burning of biomaterial (from native forests) for the generation of electricity. The legislation effectively inhibits the economic thinning of regrowth native forests. While the legislation does not affect plantation biomaterial, it limits the total resource to an extent that prevents investment of the necessary economic scale.

Other regulation in Australia prevents the provision of Renewable Energy Certificates that would make utilisation of forest thinnings economically viable. The consequent impact is that growth and forest health is diminished.

2. Opportunities for

a. diversification,
b. value adding and
c. product innovation;

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.

The technologies all exist. The government policy and legislative frameworks have failed to provide any investor confidence. The political influence of Greens obstructs any industry development. The government's, federal and state, failure to deliver on commitments has destroyed investor interest.

Until a reliable, profitable future for forest growers, processors, timber producers, and plantation investors can be demonstrated then investment will be stifled and development will be stagnant. Domestic production will continue to decline while market demand increases. The scenario is global; Australia's trade deficit will expand except that global supply of forest products will be much scarcer (and probably much less sustainable).

3.Environmental impacts of forestry, including:

There should be no argument that Australia needs a comprehensive system of conservation of its forest heritage and environmental values. There is a very long history of strategies, inquiries and Agreements to provide such a system but "green" groups do not accept the outcomes of those forums, continually demanding more reservation under a mantra that forest management is permanently destructive and reservation is the only means of protection of forest environments.

The National Forest Policy Statement,1992 set the basis for Assessments, criteria for conservation and the basis for forest industry operations. The Statement has been developed concurrently with the development of the Ecologically Sustainable Development National Strategy

The Janis Reserve Criteria was adopted as the Nationally Agreed Criteria for the establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia.

One of the key achievements of the regional forest agreements was the establishment of comprehensive, adequate and representative reserve systems, based on nationally agreed criteria, also known as the 'JANIS criteria'. They are set out in the report: **Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia**. These criteria set out targets for the conservation of ecosystems:

- 15 per cent of the pre-1750 distribution of each forest type
- 60 per cent of the existing distribution of each forest type if vulnerable
- 60 per cent of the existing old-growth forest
- 90 per cent, or more, of high quality wilderness forests, and
- all remaining occurrences of rare and endangered forest ecosystems including rare old-growth.

This level of protection in RFA regions is very high by world standards.

The application of the reserve criteria takes into account a range of regional priorities, including social and economic considerations. The criteria are guidelines rather than mandatory targets, designed to deliver good conservation as well as acceptable social and economic outcomes.

In developing the NFPS, governments were mindful of the important conservation values of Australia's forests, and of the contribution that forest-based activities make to the national economy and rural and regional communities. Flexibility in the application of reserve criteria was needed to ensure optimal nature conservation outcomes as well as acceptable social and economic outcomes. Therefore the criteria described were to be considered as guidelines rather than mandatory targets. It was to have been recognised that the extent of potential social and economic impacts may limit the ability to meet reserve criteria. The economic and social costs and benefits of alternative reserve options were to have included:

- the benefits accruing from non-timber uses of reserves;
- the direct costs associated with the choice, implementation and management of a reserve system;
- the opportunity costs of existing forest uses;
- the costs associated with broader employment impacts and industry adjustment; and
- the cost of sustainable forest management options.

These criteria rapidly disappeared from assessments at the hands of both State and Federal government environmental agencies.

a. Balance for native forests

Native forest management on Public land in NSW is constrained by over 1700 conditions prescribed in the Integrated Forestry Operations Approvals (IFOA) for each region reflecting specific conditions prescribed by licences and regulations of the Threatened Species Conservation Act 1995 and the Protection of the Environment (Operations) Act 1997 and the Fisheries Management Act 1994. Licences are enveloped into the IFOAs under legislated Forestry Agreements for each region. The IFOA streamlines regulation, integrates the various regulatory regimes environmental planning and assessment and guards against vexatious third party actions in the Land and Environment Court. Forests NSW is required to demonstrate absolute compliance with the IFOA.

Over the years, and particularly in recent election campaigning in NSW, there have been countless claims of environmental harm being caused by Forests NSW activities. Many have been proven mischievous, erroneous, many the result of poor mapping skills by inexperienced eco-warriors claiming obscure natural resource qualification. The scale of government expenditure on trivial, vexatious and incompetent environmental claims is exorbitant.

Large areas of NSW classified as old-growth forests and rainforests are, in fact, regrowth and plantations due to incompetent mapping processes. The Resource Assessment Commission report of 1992 described old-growth forests as both negligibly disturbed and ecologically mature and with high conservation and intangible values. Definitions have been manipulated by greens and environmental agencies to deny disturbance values and the effects of a century of forest management. Subsequent old growth mapping on private land, of acknowledged inaccuracy under contracts with Green stakeholders, without any reference to disturbance effects is now claimed for reservation.

Water run-off and soil erosion requirements for operations on both state forests and on private land are grossly excessive and complex. Research has proven 5m of undisturbed vegetation adequately dissipates flow and traps sediments. Hazard calculation based on soil regoliths, slope classes, rainfall erosivity and harvesting techniques merely adds unnecessary complexity to planning documentation rather than improving environmental outcomes.

Silvicultural limitations are in direct conflict with forest science which has changed species and forest types over the past century simply by changing the intensity and extent of gap creation. The most important economic forest types on the north coast of NSW have been the result of catastrophic events (bushfires, land clearing, cyclones). Current silvicultural restrictions are converting those forests to less valuable mixed species, mixed age, lower quality forests.

Private native forests are managed by landowners with approvals under the Native Vegetation Act, administered by the Department of Environment rather than by the Forests agency. Limitations are simplified and precautionary. In a number of cases compliance is impossible, such that private land becomes reservation by default and forest (and all environmental value) health deteriorates.

Pre-harvest survey for threatened and other species cost more than $1 million per year but rarely generate new records of significance and do not change prescriptions within the IFOA:

- Frog and bat surveys have not incurred additional reservation requirements
- Squirrel glider surveys have very few records and now rely on site observations
- Koala surveys are ineffective

A new approach is desperately needed to be based on:

- Research level survey
- Broad scale, long term monitoring of the effectiveness of harvesting constraints and persistence of populations

- Pre-harvest surveys for vulnerable plant populations

A whole of landscape approach is needed to reduce risks and include the active 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.

A policy framework for forest mangement needs to recognize:

SUSTAINABLE LANDSCAPES, SUSTAINABLE COMMUNITIES

ACTIVE ECOSYSTEM MANAGEMENT

A BROADER RANGE OF MANAGEMENT OPTIONS

AN INTEGRATED PUBLIC LAND CATEGORY AND MANAGEMENT REGIME THAT INTERPRETS THE PAST, MANAGES THE PRESENT AND ADDRESSES THE FUTURE

A LANDSCAPE MANAGEMENT APPROACH

Rational conservation starts with a regional landscape approach to management of dynamic ecosystems and wise use of resources on a sustainable basis. Zealous application of precautionary principles deny effective conservation management and wise use that provides social and economic values. Without an economic basis conservation management becomes a welfare burden on the public purse, reservation becomes a direct cost to communities and the environment.

Biodiversity and a number of other general ecological terms are very broadly used in a general sense to identify very specific criteria for reservation. These terms have become static measures of very dynamic forest ecosystems. Use of these measures to assess conservation by reservation of very finely scaled site specific and species specific values has failed to produce a reserve system that may conserve forests as resilient dynamic ecosystems in balance with other values.

In fact the reserve system that was created from Regional Forest Agreements has

- created substantial liabilities (such as bushfires) for the whole of the environmental values that were reserved and for property and communities associated with those reserves. Since 1995 in NSW, of the 1.6 million ha of forests that has been reserved, 600,000 ha has been severely damaged by major bushfires each exceeding 100,000 ha in extent;
- assumed that environmental values existing now, following the substantial history of development and utilization, are now threatened by that development and are better protected by new reservations;
- isolated the values reserved (whether justifiably or not) into oblivion so that their continuing conservation is unknown, simply presumed to remain as it was when reserved even disregarding incineration by major bushfires;
- Ignored major environmental issues such as
    - the effects of climate change on
        - forest ecology,
        - water availability including interception,
        - streamflow,
        - floodplain management,
        - groundwater,
        - salinity
        - the incidence and severity of bushfires
    - carbon sequestration opportunities
    - fossil fuel energy consumption
    - life cycle analyses of building materials
    - international transfer of impacts on less sustainable forest management

Most forest ecosystems throughout Australia are the consequence of over a century of various forms of use and management. The existing values of those ecosystems are within the context of that history of management or utilization. Maintenance of those values need not necessarily change that use, changes in management are more likely to

impact on the values. Management attempting to restore some theoretical pre-European set of environmental values does so without a basic knowledge or adequate understanding of the pre European ecosystems or management. For a number of decades forest ecosystem management objectives of conservation have focused on site specific and species specific prescriptions on a presumption that reservation is the only principle and that all disturbance is negative. This approach has ignored the dynamic nature of forest ecosystems, the landscape patterns that exist and the interactions with broader natural variability. This approach has been applied at a very finely focused scale and overlooks landscape implications and contemporary community values.

Through the NSW Natural Resources Commission, NSW Government has adopted a long-term, aspirational goal to achieve:

resilient, ecologically sustainable landscapes functioning effectively at all scales and supporting the environmental, economic, social and cultural values of communities (NRC, 2005).

The Natural Resources Commission of NSW (NRC) provides advice on managing the state's natural resources in an integrated manner to maintain landscapes that are resilient, function effectively, and support environmental, economic, social and cultural values.

In River Red Gums and Woodland Forests Final Report (2009) the NRC considers that a general goal for the future management of red gum floodplain ecosystems should be:

> *to implement activities that maximise the potential to maintain resilient, diverse, sustainable ecosystems, which continue to deliver ecosystem services, under anticipated changes to water availability and climate.*

This goal is consistent with other strategies for biodiversity conservation under climate change (Biodiversity and Climate Change Expert Advisory Group 2009; Commonwealth of Australia, 2009). It should be applied to ensure that ecosystems function to support the communities' values for the environment, economy, society and culture.

A general principle of landscape management is to manage ecosystem processes within the range of historical variability (Wallin et al., 1996). However, in landscapes that have been changed substantially since European settlement and which are subject to ongoing change, novel management approaches are often required to enhance resilience and maintain conservation values (Walker et. al., 2009; Walker and Salt, 2006). For example, in some conservation reserves in south-eastern Australia, active management interventions such as livestock grazing and ecological thinning have been proposed to achieve conservation goals (Lunt et al., 2007; VEAC, 2008; Parks Victoria, 2009). Similarly, in water-dependent systems, such as river red gum forests and wetlands, flooding regimes are commonly manipulated to achieve specific conservation goals.

ACTIVE ECOSYSTEM MANAGEMENT

In altered and changing forests, active management interventions are not necessarily more ecologically harmful or less appropriate than allowing natural processes to occur. Instead, active and targeted interventions can provide greater certainty and a greater degree of control in achieving the desired outcomes, than management approaches relying on natural processes or benign neglect. There is a strong imperative to develop robust, prudent adaptive management frameworks

Ecological Thinning

It is well known that thinning of dense stands can enhance tree growth (Forestry Commission of NSW, 1984; Dexter, 1970; Horner et al., in press). Field experience also suggests that thinning

may also benefit tree health in particular circumstances, although this is not well documented in the scientific literature.

Ecological thinning can potentially provide positive outcomes for biodiversity by:

- enhancing survival of valuable large trees
- increasing tree growth rates and the rate of creation of habitat trees
- creating coarse woody debris (Killey et al in press)
- enhancing carbon storage
- enhancing habitat quality
- reducing fire hazard from standing live or dead trees.

Adaptive management trials and reporting of results are required to develop a greater degree of certainty about the outcomes that can be achieved. This requires robust, prudent management frameworks– in both production and reserved areas.

Fire Management

In grassy woodland and grassland ecosystems across south-eastern Australia, fire regimes are generally believed to have been characterised by frequent, low intensity fires ignited by indigenous people and lightning. The relationships to forest ecosystem dynamics is complex.

Fire regimes influence forests in many ways. Some are more susceptible to fire, seedlings can be killed by low intensity fires and mature trees by higher intensity fires (Forestry Commission of NSW, 1984). However, fires can also assist regeneration by promoting seed fall, improving seedbed condition and removing competition for seedlings (Dexter, 1970; Forestry Commission of NSW, 1984). Fires can also promote germination and establishment of other species such as Acacia.

Managed fire is widely used in Australia to reduce forest fuels to protect people and the environment from wildfire. Prescribed fire can be a valuable tool to control fuel levels and achieve specified ecological outcomes in some forest areas. In areas managed for conservation rather than production values, prescribed fire can provide a useful tool to achieve management goals, such as manipulating vegetation structure and composition, thinning dense stands, reducing fuel loads, promoting tree and shrub regeneration and controlling the abundance of vigorous dominant wetland plants.

Management practices and principles, silvicultural systems

Management prescriptions are an important component of Forests NSW's Ecologically Sustainable Forest Management system and have been designed to maintain forest structural diversity to retain and enhance flora and fauna habitat, and protect and maintain soil and water quality, while providing a sustainable timber supply (Forests NSW, 2008). There are two types of prescriptions generally applied during forestry operations.

- general, forest wide prescriptions such as riparian buffers and a suite of habitat tree protection measures which are designed to protect key habitat across the landscape. These include prescriptions such as those for retention of habitat trees, found in individual management plans.
- threatened species specific prescriptions which are designed to maintain habitat for particular species.

Habitat trees provide a key ecological function in Australian forests (e.g. Gibbons and Lindenmayer, 2002). Hollows in both live and dead trees provide essential habitat for many arboreal species including those that are threatened. The population of habitat trees may not be the

limiting resource for particular species of concern (e.g. Leslie, 2005). On the basis that production forests are complemented by a reserve system, and incorporate Forest Management Zones in which all habitat trees are retained, a lesser number of habitat trees should be acceptable in those Forest Management Zones in which trees are harvested.

A BROADER RANGE OF MANAGEMENT OPTIONS

There is currently a fragmented, poorly co-ordinated and blurred set of management responsibilities between public service agencies, NGOs, Local Government, public and private land and water management. This has resulted in inefficient use of resources, frustrated and sometimes divisive relationships between and within communities, NGOs, public service agencies and Local Government.

There is a compelling case for a new integrated approach to management to better serve the present and future needs of all stakeholders in the region. The issues have been thoroughly explored over many years and should not in themselves be seen as the problem.

The greatest challenge is overcoming entrenched ideology wedded to failed models. The Green movement has shackled itself to an ideology of reserving more forest than exists in blissful ignorance of real values of the forests, the communities or the record of failed reserve management.

The balance between utilisation and conservation rarely relates to land tenure. Tokenistic changes and site specific, species specific reservations are not a solution. An interconnected network of public land across the landscape that supports healthy ecosystems, productive enterprises and a high quality of life for all communities is the essential foundation. The objective needs to ensure ecologically sustainable development of rivers, forests and wetlands and adjacent lands across the landscape by:

- Protecting the most ecologically and socially important values;
- Ecologically sustainable development of public land resources, uses and values with the support and co-operation of local and regional communities;
- Identifying and connecting open spaces in regional cities and towns and at a landscape level;
- Reducing the potential ecological impacts and risks of development;
- Provide resources for communities and stakeholders to meet the vision and objectives

Hardwood plantations

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. 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 needs to be promoted rather than the antagonistic attitude that currently prevails.

There is no reason that plantations have to be established on agricultural land. The only reason that it is currently confined there, in NSW, is that clearing of native vegetation to establish plantations is not allowable under the Native Vegetation Act. That condition exists regardless of the state or environmental values of the native forest. There are numerous examples of degraded forest which could and should be brought back to a productive forest environment as plantation. Such forests could also be redeveloped

through intensive silvicultural treatment, and returned to a healthy native forest, which is also prevented by the Native Vegetation Act

4. Creating a better business environment for forest industries, including:

Regional Forest Agreements and, in NSW, state based Forest Agreements including Wood Supply Agreements set a secure foundation for the utilisation of native forest resources and investment into hardwood processing. That security attracted over $250 million of investment into value added processing on the north coast of NSW in the first 5 years. On-going investment and development has stalled as agreements are aging and government commitments are failing. Renewing Regional Forest Agreements (RFAs) and development of an evergreen 20 year resource security process – backed by Commonwealth and state legislation, has now become an imperative to support ongoing milling businesses and investment in industry development.

a. investment models for saw log production;

Models for sawlog production rely on forest management and silvicultural treatment to efficiently grow sawlogs of size and quality. Silvicultural research is well established for public native forests, for private native forests and for plantations. However implementation incurring early costs for long term sawlog value are consistently sacrificed for lesser cost and an early return as pulpwood.

Public and private native forests are and will remain the core and dominant resource for hardwood timber in NSW. Resource from plantations is a distant dream to meet timber demand in the Australian market. Plantations will never be capable of replacing all hardwood timber products, particularly infrastructure timbers such as poles, girders, wharfing, bridging and railway timbers. Decline of native forest resources will diminish supply of those products for essential community services. Native forest resources need to be maintained and enable sustainable forest management through sound silvicultural practice.

There is a desperate need to establish an effective mechanism for developing long rotation sawlog plantations for future wood supply and related benefits. The mechanism must include guaranteed silvicultural practice to ensure value of a final crop.

b. new business and investment models for plantation production;

45% of recent plantations in NSW were established under MIS schemes. At least one MIS company established about 25,000 ha of long rotation plantation in northern NSW specifically for the production of high quality sawlogs and included a program of $260 million investment in a regional processing facility. Highly leveraged capital requirements brought about the collapse of that enterprise in the Global Financial Crisis and the future of those trees now remains as an open question.

MIS schemes to attract investment were originally designed for production of sawlogs as long rotations. Most have been short rotation enterprises producing pulpwood. But at present there is no alternative scheme to attract investment into plantations; the schemes need to be re-engineered and to differentiate the incentives between short and long term production. As short rotation crops of pulpwood, replanting to provide longer term resource base for any industry depends on economic viability, maintaining access to viable international markets and/or development of

processing plants within Australia. Economic viability and international market competitiveness for pulpwood has severely declined and there is little likelihood that hardwood processing plants within Australia will ever be realised. The inevitable outcome is that replanting of existing plantations is questionable. The 3 million ha target of Plantations 2020 is not likely to be achieved, it will struggle to maintain the current level of 2 million ha.

Other industry organisations have addressed plantation incentive schemes in detail within their submissions to this inquiry. 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. Critical issues are to:

- Establish an effective investment mechanism for developing long rotation sawlog plantations to complement investment from Managed Investment Schemes (MIS) and to help address the future shortfall in availability of sawn timber to meet domestic housing requirements.
- Maintain MIS arrangements with enhanced safeguards to protect investors and to rebuild investor confidence.

5. Social and economic benefits of forestry production;

The table below shows the production and some values of state forests in NSW taken from Forests NSW Annual Report 2009 – 10, information provide below is drawn and compiled from previous reports.

		Log volume (m^3)	Pulpwood volume (tonnes)	Royalty ($ x1000)	Harvest & Haul cost ($ x1000)	Asset ($ million)
Plantation	Softwood	2,007,745	1,081,236	137,833	71,912	1,161
	Hardwood	133,694	83,777	6,185	239	64
Native Forest		647,068	427,871	40,692	51,052	537

Changes in the period 1999-00 to 2008-09 reflect more the changed access to native forest under the raft of native forest reservations (described below) and the availability of harvestable volumes from plantations.

Production of hardwood sawlogs, veneer logs, poles piles and girders, over the last 2 years from State Forests native forest has fallen by 30% from the 1999-2000 level. While production from State Forests hardwood plantations has doubled it is still at a relatively low level and the total production of these hardwood log products has fallen by 21%.

Forests NSW production of hardwood pulpwood over the last 2 years has fallen by about 10% in total. However it has remained constant from plantations despite a doubling of the sawlog production.

Alarmingly Forests NSW hardwood plantation afforestation has diminished to almost zero over the past few years, yet reforestation at 2,160 ha in 2009 is the dominant activity to maintain the timber supply strategy. That strategy merely maintains the plantation area without any increase in production for future demand.

Economic contribution at national, regional, community levels for forest industries is very well understood. Assessments have been done time and time again but fundamentally ignored under political pressure for reservation. Assessments have only ever been accounted as the acceptable public cost of reservation, after the reservations have been determined. Socio-psychogical impacts have also been conveniently deferred until after reservations (usually occurring only as postgraduate studies some years later) have been locked into legislation, and then ignored.

Jobs, and economic multipliers are also well understood for forest industries. Government assessments and Greens persistently diminish those values by regional dilution and by comparative assessment of whimsical opportunity costs. The real measure needs to be community dependence and significant work is required by sociologists to better define that measure.

6. Potential energy production from the forestry sector, including:

This issue has been well represented in other industry submissions. Electricity, biofuel, biochar and even charcoal for silicon are all potential products from pyrolysis. They all represent renewable energy. The technologies are at various stages of development. In every case the constraint on development is government policy and regulation that obstructs industry from engaging in these markets.

The debate is more importantly directed to carbon sequestration by forest industries, and it is worth representing that issue here. Resolution of this issue will lead an outcome about energy issues in forest industries and open market opportunities for sustainable bio-energy products.

Climate, carbon and energy are critical issues to be addressed in any plan for forest industry development. The linkages are worth a substantial discussion in this submission.

A plan for the broader forest industry needs to be developed including both traditional and emerging new industries for environmental services such as tree carbon sequestration and green energy from renewable biomass.

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 stored in sustainably managed forests (i.e. carbon sinks);
- Carbon stored in durable timber products. *Each cubic metre of wood contains more than half a tonne of carbon. The carbon stored in wood products has been estimated at around 5 Mt CO_2e a year.*
- Timber preference over more emission intensive building materials
- Use of forest industry byproducts for green energy production offsetting fossil fuel emissions.

Timber is the only building material which contributes positively to carbon sequestration
There are about 10 cubic metres of wood in the wall frame and roof trusses of an average Australian family home. If the house has wooden floors, that accounts for up to an additional 7.5 cubic metres of wood. A timber house has locked away 25 tonnes of CO_2 from the atmosphere. There are about 150,000 new homes built in Australia each year. If they all had wooden frames, trusses and floors, that's 3,750,000 tonnes of CO_2 absorbed every year. By contrast, concrete slab construction emits 15 tonnes of CO_2 for each house.

Production of timber requires the least energy of all building materials. The relative carbon balance data is shown below:

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. From a renewable energy perspective, there is 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. In addition to abating climate change, forestry activities can provide benefits such as regional employment, economic diversification, increased biodiversity and reduced salinity and wind and water erosion.

Furthermore, 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.

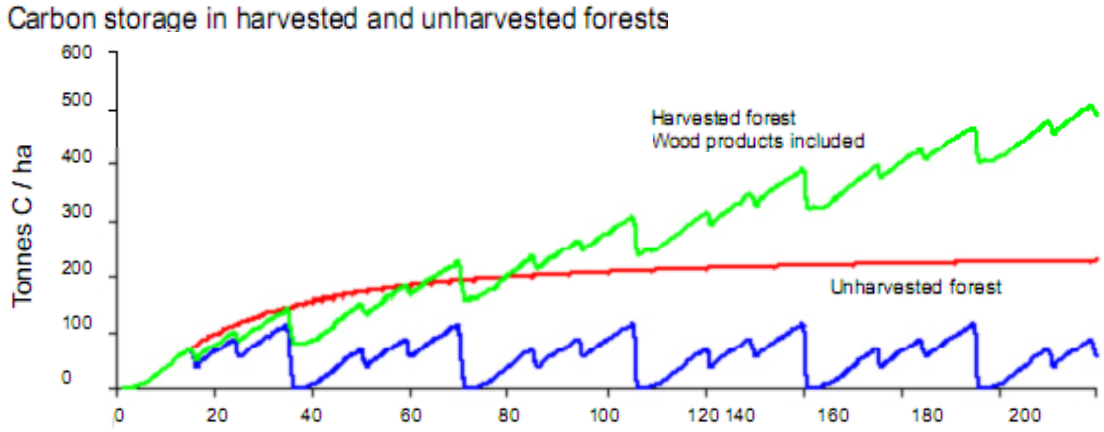
Other key areas of concern include the lack of recognition of carbon stored in harvested wood products and reducing overall scheme compliance and transaction costs

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 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 the regulations for the National Renewable Energy Target Scheme, specifically the high value test regulations that impede the full use of forestry wood waste for green energy.

The accumulated storage in Australia's forest plantations and wood products is about 323 million tonnes of carbon. Wood products store about 230 million tonnes of that carbon. Wood is a natural carbon store which requires very little energy in its production. Carbon storage can be increased only through new plantations and through increased production of wood products.



CLIMATE CHANGE

A recent report published by CSIRO discusses "**Adaptation to climate change in Australia's plantation industry" (**Libby Pinkard, Michael Battaglia, Mark Howden, Jody Bruce, Karina Potter) highlighting potential impacts of climate change on the forest industry, a range of options for adaptation in the framework of sustainable forest management and the need to build flexibility into management systems. Understanding the socio-economic, biophysical and operational barriers to adaptation is identified as important.

Carbon sequestration, improved water quality, shade, shelter, greater soil stability and improved biodiversity are all benefits from growing plantations. However, they remain largely unvalued and

do not contribute to plantation economics. Any new carbon tax will inevitably impact on the viability of plantations and may well affect production from those plantations by affecting economic rotation periods.

Financial returns from carbon sequestration and biofuels are still unclear, due largely to ongoing debate over climate change policy and emissions trading schemes. In contrast, other countries are rapidly moving toward energy production from wood, and markets for such wood are expanding and generating shortages in traditional (sawn and pulpwood) markets.

CARBON CREDITS (CARBON FARMING INITIATIVE) BILL 2011.

If carbon prices in the CFI eventually are linked to a national carbon price (as there is speculation it might be), this will provide a huge incentive for all managers of native hardwood forests (in particular government agencies such as Forests NSW) to create new reserves in order to accrue all credits at the start. The extreme case would see organizations ceasing harvest altogether under an economic (catch 22) philosophy that less production is more valuable.

Simplistic green claims of straight forward greenhouse gains from placing already stored carbon into reserves fails to identify the potential for perpetual sequestration of carbon by growing trees, the placement of that carbon into storage as building products and the savings of not using high energy (heavy emissions) alternative products..

We have argued that timber products from the native forest resource (such as flooring, infrastructure, industrial and engineering timbers) cannot be substituted by timber products from plantations. For other fibre products (such as paper), both hardwood and softwood plantations, may be core resource. The issues of carbon sequestration are the same, but the life cycle shorter. But sound management of native forests for timber production will necessarily produce pulpwood that is better earning a revenue.

The current deficit of trade in paper and paper products is not likely to improve in the foreseeable future. In fact the projections of a strong sell off of the plantation estate which may create a short term spike in pulpwood supply will inevitably create a very large increase in the trade deficit. Sourcing of products as imports may include timber from less sustainable forest practices and a very large increase in the carbon footprint of transport.

We have argued that the domestic production of timber is less than consumption in Australia, that the underlying demand cannot be met from the resources available and that the shortfall is increasing. So imported timber (with the same inclusion of timber from less sustainable forest management practices, potential for illegal logging and the added footprint of transport) will increase and the use of other building materials (concrete, steel, aluminium, plastics) with much higher embodied energy and greenhouse gas emissions will be used without any benefit of carbon sequestration.

While the benefits of carbon sequestration by growing trees and the principle of storing that carbon in buildings and other products has been well established government has been loathe to identify it in any scheme. Even when the principle was recognised it was deferred as too difficult to calculate – calculation of carbon stored in timber products is the easiest of all the greenhouse gas calculations. The current intention of a carbon tax totally ignore the benefits that may accrue from forest industries. Offsets will not be available to improve industry incentives and the tax simply becomes an additional cost to Australian manufacturers.

Native regrowth forests, are actively managed to optimise growth, whereas with minimal management of “permanent” forests, rates of sequestration of mature trees are lower or negative and no new sequestration benefits accrue. No conclusive research about the real magnitude of the carbon carrying capacity of different Australian hardwood forests exist (there are still major flaws in the research from Mackey et al and it is unduly represented in the scientific committee) and just as

importantly, minimal research on environmental factors (fire, draughts, diseases) that play a major part in the natural cycle of most native hardwood forests in Australia.

A view that stopping the sustainable management of native forests for timber production is a greenhouse benefit misconstrues sequestration with storage. It is an incomplete analysis.

A whole of life analysis is critical to assess the full implications of this issue. There needs to be significantly more conclusive research on the carbon sequestration potential of forest growth under various management regimes, the impact of events such as prescription burns (as applied by forest growers) and selective harvest of regrowth on the overall carbon relationships, policy that incorporates credits for ceasing native forest harvest without this analysis will seriously overestimate any potential greenhouse benefits. Ultimately it will not result in any net reduction of greenhouse emissions, which after all, is the first objective of the initiative.

The first objective is to help Australia meet its international obligations, under the United Nations Convention on Climate Change and the Kyoto Protocol, to reduce its emissions of greenhouse gases.

A further objective is to achieve carbon abatement in a manner that is consistent with the protection of Australia's natural environment and improves resilience to the impacts of climate change. This recognises the important contribution that this scheme can make towards environmental objectives such as improving water quality, reducing salinity and erosion, protecting and promoting biodiversity, regenerating landscapes and improving the productivity of agricultural soils – that is simply growing and managing forests.

7. Land use competition between the forestry and agriculture sectors:

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 1). 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.

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).

Government policy needs to:

- Recognize 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.
- Recognise plantations as a legitimate land use that provides significant economic, social and environmental benefits in rural and regional Australia.

Current regulations place undue pressure on agricultural land for plantation establishment. Opportunities to enable improved native forest management (ie silvilculture) in degraded forests (private native forests) will reduce the pressure and with a stewardship incentive for landowners provide timber resource and valuable environmental outcomes.

Establishment of plantations on degraded public forests would also remove the pressure off agricultural land and improve environmental benefits.

c. opportunities for farm forestry.

In NSW this activity is suggested to be 27,950 ha in total and includes 7,632 ha on the North Coast. Much of this is softwood. As individual areas are less than 30 ha in area that means there are thousands of individually owned and operated projects, all capable of producing only very small volumes in a sporadic and disaggregated manner. As such they may only ever form a small supplementary resource to the existing industry and will never be able to achieve any market independence, attract new processing industry investment or drive any new market development.

Suggestions that new industries may form on the basis of this resource are sheer lunacy.
New timber industry, requiring new processing investment of hundreds of millions of dollar requires substantial consolidated resource.

Notwithstanding these qualifications farm forestry plantations can aggregate to provide a valuable sawlog resource supplement to core industry development. But they need much greater incentives and recognition within legitimate and economic farm enterprises. Improvements to the scheme may come from

- Removal of the small area limitation on plantations
- Inclusion of intensive silvicultural management of native forest regrowth
- Creation of stewardship incentives.

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ATTACHMENT 1

OVERVIEW OF THE NSW FOREST INDUSTRY

Forests NSW reported $263 million in forest sales revenue in 2008-09 (Forests NSW, Annual Report 2009-2010). $138 million of that sum is as royalty, $125 million is from the conduct of harvest and haulage contracts, (at a direct cost of $123 million). By sectors the following table is relevant to an understanding of the relative stumpage values of hardwood, softwood and plantation production and assets of those resources.

		Log volume (m^3)	Pulpwood volume (tonnes)	Royalty ($ x1000)	Harvest & Haul cost ($ x1000)	Asset ($ million)
Plantation	Softwood	2,007,745	1,081,236	137,833	71,912	1,161
	Hardwood	133,694	83,777	6,185	239	64
Native Forest		647,068	427,871	40,692	51,052	537

Production of hardwood sawlogs, veneer logs, poles piles and girders, over the last 2 years from State Forests native forest has fallen by 30% from the 1999-2000 level. While production from State Forests hardwood plantations has doubled it is still at a relatively low level and the total production (from native forest and plantations) of these hardwood log products has fallen by 21%.

Data within ABARES 2011 *Australia's forests at a glance 2011* shows:

- Native forest (hardwood) sawlog supply has fallen by 35% from 2000 to 2010,
- Hardwood plantation sawlog supply has increased from 3.4% of total hardwood sawlogs to 5.5% in 2010.
- Hardwood sawlogs have fallen from 38% of total (including softwood) sawlog supply to 24%
- Hardwood pulpwood from native forests has fallen to 51% of the 2000 level, Hardwood pulpwood from plantations has increased by 621%. Total pulpwood production has not significantly changed.

There is clearly a significant decline in native forest hardwood timber resources which is not being replaced with plantation timbers to any substantial extent. This change has occurred subsequent to the impacts of Forest Agreements. Hardwood pulpwood volumes from native forests have been halved but replaced with hardwood pulpwood from plantations. That is, hardwood plantations are only replacing pulpwood yields from native forests, not sawlog yields.

Forests NSW production of hardwood pulpwood over the last 2 years has fallen by about 10% in total. However the volume from plantations has remained constant despite a doubling of the sawlog production. That outcome is the direct result of the failure to establish plantations for the decade prior to Forest Agreements (the 1990s) and will occur again in the 2030s (when the resource will be desperately needed) as the result of failure to establish plantations since 2005.

Alarmingly Forests NSW hardwood plantation afforestation has diminished to almost zero over the past few years, yet reforestation at 2,160 ha in 2009 is the dominant activity to maintain the timber supply strategy. That strategy merely maintains the plantation area without any increase in production for the future.

Reduced forest area - Reduced forest industry

The reservation of State Forests as national parks has significantly reduced the area of state land from which forest resources can be accessed. This process commenced with the Rainforest Decisions of the 1970s and 1980s significantly reducing the area of state land from which forest resources could be accessed, severely reduced the policy of self sufficiency from native resources and left a significant gap before new softwood plantations could become productive.

In 1995 the NSW Labor government launched a Forest Industry Reform Agenda, including a structural adjustment package to build modern mills, a 20 year guarantee of timber supply increased value-added processing, and commitment to increased hardwood plantation establishment. Forest reservations since 1995 have included the following areas:

- Forest and Reserves Revocation Act 1995 12,563 ha
- Forest and Flora Reserves Revocation Act 1996 1,572 ha
- Forest Revocation and National Park Reservation Act 1996 247,785 ha
- Forestry and National Park Estate Act 1998 - Eden 42,379 ha
  - LNE 260,500 ha
  - UNE 151,073 ha
- National Park Estate (Southern Region Reservations) Act 2000 322,449 ha
- National Park Estate (Reservations) Act 2002 92,034 ha
- National Park Estate (Reservations) Act 2003 45,704 ha
- Brigalow and Nandewar Community Conservation Area Act 2005 359,229 ha
- National Park Estate (Reservations) Act 2005 9,008 ha
- National Park Estate (Lower Hunter Region Reservations) Act 2006 16,934 ha
- National Park Estate (Riverina Red Gum Reservations) Act 2010 117,475 ha
- National Park Estate (South-Western Cypress Reservations) Act 2010 71,132 ha

The remaining State Forest native forest estate for hardwood timber production is a mere 1.38 million hectares of which only 31% is effectively available for harvesting.

ATTACHMENT 2

THE NATIONAL FOREST POLICY STATEMENT

The Governments agree that, to achieve their vision for the forest estate and to ensure that the community obtains a balanced return from all forest uses, eleven broad national goals must be pursued. These goals should be pursued within a regionally based planning framework that integrates environmental and commercial objectives so that, as far as possible, provision is made for all forest values. The eleven broad national goals are as follows:

- *Conservation*. The goals are to maintain an extensive and permanent native forest estate in Australia and to manage that estate in an ecologically sustainable manner so as to conserve the full suite of values that forests can provide for current and future generations. These values include biological diversity, and heritage, Aboriginal and other cultural values.

- *Wood production and industry development.* The goal is for Australia to develop internationally competitive and ecologically sustainable wood production and wood products industries. Efficient industries based on maximising value-adding opportunities and efficient use of wood resources will provide the basis for expansion in wood products manufacturing, which in turn will provide national and regional economic benefits.

- *Integrated and coordinated decision making and management.* The goals are to reduce fragmentation and duplication in the land use decision-making process between the States and the Commonwealth and to improve interaction between forest management agencies in order to achieve agreed and durable land use decisions.

- *Private native forests.* The goal is to ensure that private native forests are maintained and managed in an ecologically sustainable manner, as part of the permanent native forest estate, as a resource in their own right, and to complement the commercial and nature conservation values of public native forests.

- *Plantations.* One goal is to expand Australia's commercial plantations of softwoods and hardwoods so as to provide an additional, economically viable, reliable and high-quality wood resource for industry. Other goals are to increase plantings to rehabilitate cleared agricultural land, to improve water quality, and to meet other environmental, economic or aesthetic objectives.

- *Water supply and catchment management.* The goals are to ensure the availability of reliable, high-quality water supplies from forested land and to protect catchment values.

- *Tourism and other economic and social opportunities.* The goal is to manage Australia's forests in an ecologically sustainable manner for a range of uses, including tourism, recreation and production of non-wood products.

- *Employment, workforce education and training*. The goal is to expand employment opportunities and the skills base of people working in forest management and forest-based industries.

- *Public awareness, education and involvement.* The goals are to foster community understanding of and support for ecologically sustainable forest management in Australia and to provide opportunities for effective public participation in decision making.

Research and development. The goals are to increase Australia's national forest research and development effort and to ensure that it is well coordinated, efficiently undertaken and effectively applied. This research will expand and integrate knowledge about the many aspects of native forests, plantations, forest management, conservation, and forest product development.

- *International responsibilities*. The goals are to promote nature conservation and sustainable use of forests outside Australia and to ensure that Australia fulfils its obligations under relevant international agreements.

ATTACHMENT 3

SUMMARY OF THE NSW GOVERNMENT'S 1998 FORESTRY DECISION

INTRODUCTION

The Government's recent decisions on forests in Eden and the northern regions are the culmination of nearly four years of intensive data gathering, analysis and negotiation by major forest stakeholders. Legislation giving effect to key parts of the Government's decisions has now been passed through the NSW Parliament. (The *Forestry and National Park Estate Act 1998* came into effect prior to and on 1 January 1999.)

The aim of the NSW Government's forest policy since 1995 has been to secure a balanced outcome in the forest regions: an outcome which takes into account conservation issues as well as economic and social issues. The Government has been working towards the development of both a comprehensive, adequate and representative reserve system of forests and an ecologically sustainable, value-added and secure native forest timber industry.

The Government's decisions:

- Give effect to the Government's Forest Policy to protect old growth, wilderness and other
- conservation values through a comprehensive, adequate and representative reserve system.
- Give effect to the Government's Forest Policy to develop an ecologically sustainable, value-
- added and secure native forest timber industry.
- Integrate the regulatory regimes for environmental planning and assessment, for the protection
- of the environment and for threatened species conservation, through legislation that provides for Forest Agreements and Integrated Forestry Operations Approvals.
- Protect nearly 449,500 hectares of former State forest in national parks, nature reserves, flora reserves and Crown reserves through:
  - Reservation in national parks and nature reserves of 382,000 hectares in the Upper and Lower North East and up to 37,000 hectares in Eden.
  - Reservation in flora reserves of 3820 hectares in the Upper and Lower North East and 6450 in Eden.
  - Reservation in Crown reserves of 20,080 hectares in the Upper and Lower North East.
- Reserve key areas of conservation significance and protect habitat of threatened or vulnerable species.
- Provide the timber industry long-term security and certainty of supply through 20 year term
- agreements, subject to achieving value-adding criteria and resource review.
- Create a net employment gain related to public forested areas in the Eden Region of between 39
  and 49 jobs and in the Upper North East (UNE) and Lower North East (LNE) Regions of between 202 and 212 jobs.
- It is important to note that the decisions taken in New South Wales do not preclude Regional Forest Agreements (RFAs) between the New South Wales and Commonwealth Governments being signed at any time in the future.

KEY ELEMENTS OF DECISION FOR UPPER AND LOWER NORTH EAST NSW Forest Agreements and Integrated Approvals

The new Forestry and National Parks Estate Act institutes a coordinated approach to environmental regulation of forestry, providing for

- 20 year Forest Agreements between the Ministers for the Environment, for Planning and for Forestry and, optionally, the Minister for Fisheries which must cover:
  - Provisions that promote ecologically sustainable forest management.
  - Provisions relating to sustainable timber supply from forestry operations covered by the Agreement.
  - Provisions relating to community consultation on forestry operations and other matters covered by the Agreement.
  - Provisions regarding arrangements on native title rights and interests and other provisions.
- The performance of the Agreements are to be reviewed every five years.
- A system of Integrated Forestry Operations (IFO) Approvals for future forestry operations.These approvals will set out the terms and conditions under which logging may occur in a State forest or on Crown timber lands (which are subject to a Forest Agreement).

An IFO approval may be for up to 20 years, but must be reviewed every five years. An IFO approval is granted by the same Ministers as for Forests Agreements. It is only effective in areas where there is a Forest Agreement in place.

Conservation Outcomes in Upper and Lower North East

The Government's decision protects nearly 406,000 hectares of former State forest in national parks, nature reserves, flora reserves, Crown reserves and historic sites with reservation of key areas of conservation significance and protection of habitat of threatened or vulnerable species. This includes the following outcomes:

- The total hectares added to dedicated reserves in the Upper and Lower North East regions is 405,898 hectares.
- About 382,000 hectares is added to the reserve system as national park or nature reserve under the National Parks and Wildlife Act, including 85 new national parks or nature reserves, and 37 additions to existing parks.
- UNE - 136,572 hectares will be added to the reserve system as either national park or nature reserve, representing 31 new reserves and 23 additions.
- LNE- 245,628 hectares will be added to the reserve system as either national park or nature reserve, representing 54 new reserves and 14 additions.
- 3818 hectares (UNE – 214 hectares; LNE – 3604 hectares) of new and additions to existing State Forest flora reserves (formal reserves with similar conservation status to national parks and nature reserves).
- 11,732 hectares will be dedicated under the Crown Lands Act as Crown Reserves in the UNE and 8,348 hectares in the LNE, with the Director General of the NPWS to be manager of the reserve trust.

Seed funding for the establishment of a revegetation program in new national parks for carbon sequestration (ie. greenhouse abatement).

Funding proposal for the establishment of the Yamba Coastal Walking Track. • Funding for vegetation data compilation, publication and community access.

Areas for further consideration

Approximately 77,000 hectares of State forest which is held under Crown leases and/or has potential mineral potential is to be considered for inclusion in the reserve system due to its high conservation value. Every effort will be made by the State agencies to resolve the status of these areas by February 28 1999, with the aim of including those areas in the reserve system after consideration of the potential impact on mineral interests and wood volumes. Any reservation will be under the National Parks and Wildlife Act where possible. Reservation of State forest under Crown leases would require voluntary sale of the lease.

Wilderness issues in the Upper and Lower North East

Areas of wilderness identified before the CRA process within State forests will be investigated further for reservation, subject to concurrence of the Minister for Forestry. Where the identified wilderness is within the areas for further consideration (see above, section 1.2.2) it will also be considered in those negotiations. “Areas for further consideration” includes almost all areas of previously identified wilderness on public land which are not in the reserve system. Areas previously assessed as ‘State Capable’ and ‘Provisionally Identified Wilderness’ which remain within State forests will be accessible for logging operations, where appropriately zoned.

For provisionally identified wilderness (PIW), National Parks and Wildlife Service will prepare for public exhibition a Wilderness Assessment Report for the northern regions. In that report, the Director-General, National Parks and Wildlife Service will formally identify additional wilderness. However, as required by the Act, areas subject to an IFO approval (i.e. on State forest) will not be identified.

Industry and Employment Outcomes in the Upper and Lower North East Regions
Outcomes for industry include:

- UNE
  – Minimum of 129,000m3 per annum of high quality large (HQL) sawlogs to meet existing commitments to Term Agreement and Wood Supply Agreement holders.
  – High Quality Small (HQS) logs at a minimum of 2,000 m3 per annum to meet existing Term Agreement and Wood Supply Agreements.

  - 20,000m3 of the 129,000m3 of HQL sawlogs allocated in the UNE region will come from the LNE region.
- LNE
  - minimum of 140,000m3 per annum of high quality (HQL) large sawlogs to meet existing commitments to Term Agreement and Wood Supply Agreement holders. As indicated above, an additional 20,000 cubic metres will be allocated to UNE from the LNE, giving a total of 160,000m3 sourced from LNE.
  - High Quality Small (HQS) logs at a minimum of 8,500 m3 per annum to meet existing Term Agreement and Wood Supply Agreements.
  - This outcome also provides for 20 year Long Term Wood Supply Agreements based on existing 5 by 5 year term agreements which have eight years to run, and their renewal for a subsequent 12 years, in line with the 20 year term of the relevant Forest Agreement and IFO approval and subject to resource availability. The Wood Supply Agreement with Boral will similarly be extended for 20 years with a mid term review. The volume contained in the extended contracts will be subject to a review of resource level at the eight year review. This review will be based on the Forest Agreement land base, the Environment Protection Authority (EPA) conditions and the conservation protocols applying to the Approval and updated timber inventory information.
- Interim “top up” arrangements, above Term Agreement/Wood Supply Agreement levels negotiated in 1997, will be maintained at existing levels for 12 months beginning 1 January 1999 and then be reduced by half in the following year and end at 31 December 2000.
- Supply of additional timber volumes produced in association with the quota supply to Term Agreement and Wood Supply Agreement holders, including high value-added timber products such as girders, piles, poles and veneer products to existing good faith customers in the UNE and LNE at 50 % of 1995 purchase levels and allocations of pulp grade timber to the existing wood panel plant located at Raymond Terrace and Boral.
- Seed funding and allocation of pulpwood for proposed Biomass Electricity Generation Plant at Walcha.
- Wood Supply Agreements between the Minister for Forestry, and Boral and North Forest Products Ltd to process thinnings for export as woodchips from hardwood plantation and native regrowth forest operations. This was part of the September 1996 Government decision. The volumes under this approval are to be adjusted to conform with the outcome of the present forestry decisions.

- To assist in transitional supply arrangements, a strategy will be developed for timber supplementation from private property involving the purchase of private land timber rights or private property. To ensure security of supply and the application of equivalent environmental controls to those on State Forest lands, the funding package provides for private forest management and $18 million over five years for timber supplementation (ie. to purchase timber).
- Further modelled reductions after 20 years of Term Agreement/Wood Supply Agreement allocations for UNE and LNE to 70,000 m3 and 113,500 m3 respectively, subject to changes due to supplementation from private property land purchased for timber and plantations.
- Industry development projects in the Upper and Lower North East, together with additional State Forests and National Parks and Wildlife Service positions, will provide an opportunity for the employment of between 273 and 283 people in the short to medium term, which is a net increase of between 202 and 212 jobs once potential job losses have been accounted for. This will be funded from a combination of Consolidated Revenue, Forestry Industry Structural Adjustment Program (FISAP) funds and existing funding.
- A Timber Industry Development Taskforce will be established, chaired by an independent chairperson with suitable industry background, to perform two functions: to provide advice to State Forests and the Minister for Forestry on private property supplementation and to assist the implementation and further identification of timber industry and related regional development initiatives.
- There will be an extension to the Forestry Industry Structural Adjustment Program (FISAP) for a further five years from 30 June 2001 until 30 June 2006.
- A log haulage assistance scheme has been authorised of up to $1 million per annum over the next five years. Haulage is necessary as timber supply patterns change, and where costs associated with haulage are expected to rise as timber is sourced from outside traditional supply areas.
- Funding towards the establishment of 2,000 hectares of eucalypt plantations each year over the next five years for long term sawlog production.
- Funding to assist State Forests in the immediate need for inventory work following the completion of the CRA process in the UNE and LNE Regions.

Plantations within new reserves

The issue of whether to incorporate, or harvest prior to incorporation in the reserve system, larger areas of plantation of higher merchantable value was largely resolved during the reserve selection process, but some site-specific issues remain. These will be resolved as part of the boundary refinements process. As a general rule, plantations on the edge of proposed reserve areas will be excluded from the reserve system, while plantations totally enclosed by proposed reserves will be included in the reserve system. There may be exceptions to this general rule. The areas requiring further consideration are in Mebbin, Nullum, Goonegary, Kiwarrak, Lorne, Burrawan–Queens Lake, Bulahdelah and Chichester State forests. Negotiations will continue with State Forests and NPWS, and where necessary DUAP (RACD), to resolve this issue by the end of February 1999.

Management of State Forests

The following management provisions will apply on State forests in the Upper and Lower North East regions:

- Integrated Operations will proceed under the terms of the Forest Agreements, Approvals and State Forests' Native Forest Management System.
- Extension to the Timber Industry (Interim Protection) Act will provide for continuation of activities while Forest Agreements are being developed.
- State forests will be available for harvesting subject to applicable controls. The North East Harvest Advisory Board (NEHAB) will be dissolved as it will be no longer required or relevant.
- The EPA and SFNSW will clarify the operational interpretation of the licence conditions, including filter strips.
- A silvicultural regime will be implemented which will include the use of light and medium Australian Group Selection and light, medium and heavy single tree selection.

- Mapped, high conservation value old-growth as defined during the CRA negotiations will be protected from logging [subject to area minima].
- Rainforest shall be protected.
- There shall be continued use of forest roads within newly reserved areas for forestry purposes, as negotiated with SFNSW and NPWS, consistent with the Forestry and National Parks Estate Act (s.13 and clause 7 of Schedule 7).

Informal Reserves (Forest Management Zone 2)

- In the development of the reserve system, a number of State Forest areas were specifically identified to be declared Forest Management Zone 2 (FMZ 2) under the forthcoming SFNSW Forest Management Zoning System. In the case of the Upper North East and Lower North East decision, the areas specifically identified for declaration as FMZ 2 ('informal' reserves) were identified as having conservation value but were excluded from formal reservation specifically due to concerns regarding mineral and petroleum potential. In addition, 'general' areas of FMZ 2 have been delineated as part of the management of State Forests. These FMZ areas will contribute to meeting conservation targets and hence be part of the comprehensive, adequate and representative (CAR) reserve system.
- FMZ 2 informal reserves are to be created under the amendments to the Forestry Act made by the Forestry and National Park Estate Act which give the Minister for Forestry power to establish special management zones to protect special conservation values. Under the Act, these 'informal reserves' can only be revoked or the boundaries amended by the Minister of Forestry following public consultation. Minerals exploration and mining are permitted activities (along with other activities) in areas of State Forest zoned FMZ 2, but logging and grazing are excluded.
- FMZ 2 areas are 'informal' reserves as defined under the Nationally Agreed Criteria for Reserves (otherwise known as JANIS). State Forest flora reserves and national parks and nature reserves are classified as part of the 'formal' reserve system under the JANIS criteria.
- Forest Management Zone 3 [FMZ 3] are areas managed by prescription according to JANIS criteria. They will also contribute to the comprehensive, adequate and representative reserve system.
- If at some time in the future Department of Mineral Resources waives its objections, negotiations can commence with State Forests for the areas to be included in the formal reserve system. If however mineral exploration is successful, mining will be able to proceed subject to the normal environmental impact assessment and the development approval process.

Improved management of private forests and timber supplementation

NSW has approximately 5 million hectares of privately owned native forest. While the conservation of natural values of these areas is accommodated through the provisions of the Native Vegetation Conservation Act, Threatened Species Conservation Act, Clean Waters Act etc, the development of a Forest Agreement provides an opportunity to also improve the standard of commercial forest management of privately held native forests and, at the same time, to improve employment opportunities in the private forest sector and provide a supplementary raw material resource to the timber industry.

The private forest project has two major components. The first is concerned with establishment of a Private Forests Unit by State Forests to provide a substantially enhanced level of extension and advice to private forest owners. The second component is concerned with acquisition of areas of private forest or the timber rights over private forests as a supplementary resource to industry to partially offset resource losses resulting from transfer of areas of State Forest to the CAR reserve system. The acquisition by State Forests of these areas of private forest areas or rights will also enhance their long term sustainability.

Summary of Achieved Targets

In the Upper North East Region there are 162 forest ecosystems and 144 old growth ecosystems. If the additions to the formal reserve system are adopted, as outlined in this Cabinet Minute, a total

of 59 forest ecosystems and 26 old growth ecosystems will achieve conservation targets. This will leave 103 forest ecosystems below target, of which 74 are ranked highly vulnerable, and 118 old growth forest ecosystems below target, of which 76 are ranked highly vulnerable (see attachment G). In the Lower North East Region, there are 198 forest ecosystems and 169 old growth ecosystems. If the additions to the formal reserve system are adopted, a total of 83 forest ecosystems and 59 old growth ecosystems will achieve conservation targets. This will leave 115 forest ecosystems below target, of which 87 are ranked highly vulnerable, and 110 old growth ecosystems below target, of which 56 are ranked highly vulnerable (see attachment H).

ATTACHMENT 4

REVIEW OF NSW FOREST AGREEMENTS

The Review of NSW Forest Agreements, 2010, is overly weighted to environmental values, processes and reporting, but fails to identify the very high level of environmental compliance achieved by Forests NSW and private forest owners in harvesting operations. The review fails to actually address primary concerns about delivering resource or the balance of forest values set down in the framework.

The review fails to consider any matter relevant to a sustainable forest industry or the effective delivery of sustainable resource. The review fails to acknowledge that since signing of Forest Agreements the NSW hardwood timber industry has:

- Invested over $250 million within the first 3 years (in addition to the government's structural adjustment, industry development fund) in value added timber processing;
- Re-established employment levels in value adding activities to those prior to 1995;
- Through log merchandising and integrated harvesting of all log products into single pass operations, re-equipped the harvest and haulage equipment and created sound OH&S standards throughout forest operations.
- Attained sustainability accreditation for State Forests under the Australian Forestry Standard to comply with the international Program of Endorsement for Forest Certification;
- Integrated private native forestry into sustainable resource in high value production;
- Implemented sound codes of practice in private forest operations to support sustainability of the private forest resource;
- Returned market value to NSW within the stumpage royalty system;
- Created an initial base of hardwood plantation resource to assist future timber demand.

These outcomes have been delivered because of the certainty provided by Forest Agreements and the raft of legislation and regulation culminating in committed long term Wood Supply Agreements to processing companies. That certainty has created investor confidence in the industry at all levels.

On the issues dealt with in this review:

1. PARK MANAGEMENT ISSUES AND BIODIVERSITY OUTCOMES.

An EMS for park management through the Park Management Program has only been delivered for some parks, where it is easy, and have generally failed to be delivered for forest areas reserved through the forest reform package. Environmental values within the reserve system still remain largely unknown. Plans of management for the parks which arose out of the forest reform package are still incomplete despite more than 10 years since those parks have been declared. The claimed record of park management plans at 83% of the reserve system is inflated by those areas which were previously reserved and operated very specifically for tourism.

Development of a new biodiversity strategy at this time is grossly inappropriate as nobody seems to know, or to admit to the outcome of the last strategy. There is a desperate need to prepare a comprehensive statement of all environmental values that are protected in all land tenures and under all management conditions. This review could have, and should have, been able to identify and report these values.

2. ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT.

These plans have been produced and form the basis of forest management planning as delivered by Forests NSW.

However the existence of the plans, and their value substantiating forest management was totally ignored by the NSW government in the election platform of 2003, the Brigalow Decision of 2005, the Red Gum decision of 2010 and the South-western Cypress response of 2010.

Milestones with respect to exclusion areas for rainforest, HCVOG and other protected areas; flora reserves and informal reserves, areas managed by prescriptions in ESFM Plans, FMZs and SMZs have been easily achieved simply because they have been done without any consideration of the impacts on timber resource or social and economic values. Criteria for identification have rarely been tested or verified; that particular sites may be justified as exclusions and other areas relies on a presumption that particular values existed once, still exist and are being maintained through reservation.

The review fails to acknowledge the changed resource arrangements that were created by bringing forward the 2006 review of supply in north coast agreements. That review included additional reservation of 69,000 ha of forest but, without any explanation, actually reserved a total of 107,000 ha. The review resulted in a 25% reduction of high quality large sawlogs and replacement with 90% of that volume with small sawlogs. The review also identified additional small sawlog volumes, from both native forest and plantations, that were made available and enabled an extension of term for Wood Supply Agreements.

The 2003 review in north coast agreements committed the NSW government to provide access to "buffers on buffers" and obtain a specific volume of 50,000 m^3 of high quality sawlogs from those areas. Those areas have never been accessed and none of that volume has ever been produced.

The Eden Forest Agreement also provided for a "filter strip" trial to investigate options of supply from within riparian zones. That work has never been conducted.

3. THREATENED SPECIES MANAGEMENT

The Threatened Species Licence (TSL) enables review of the TSL conditions when more than 20% of the net logging area is made unavailable because of exclusion zones.

At the time of Forest Agreements FRAMES identified 31% of the net harvestable area as unavailable. The Auditor General reported that proportion as almost half. Now the areas available for harvest that are actually harvested are about 35%. A resource supply problem is an obvious consequence.

Information provided in the IFOA section of the review details a total area of native forest within the Forest Agreements under management of Forests NSW to be 1.3 million ha. Of that only 615,000 ha (47%) is available for harvest. If exclusion zones are denying access to 50% of the available harvest area then the outlook for supply of sawlogs from the remaining 300,000 ha is very grim. This can hardly be sustainable for the forests, the industry or the communities. The additional exclusions that are being applied are well beyond the conservation values which have already been identified under the Forest Agreements (and already meeting or exceeding targets) and without any measure of impact against the balance of values on which the agreements are based.

To attribute only 3 reviews of species specific conditions over more than 10 years is far from effective and those reviews actually failed to provide any significant relief on the timber resource access. Regardless there is a significant cost of resource which this review has failed to identify. There is a significant cost of management for environmental values to Forests NSW for the State Forest estate which is not available for timber production.

Regardless of processes for notifications, new records, ecological communities, cooperation on management, refinement of models or joint management plans the actions under milestones listed have failed to present any release of timber resource that has been locked up by excessive

exclusion zones. These actions have been taken as environmental absolutes rather than the supposed balanced outcome of the government's policy.

Pest, weed and feral animal control is non-existent in reserved forest and remains a significant cost imposition on landholders adjoining national park. All the plans and cooperative management mean nothing if nothing is ever done. Undertakings by Forests NSW with respect to planning for such requirements are reported as complete or ongoing; there is no report as to any actual outcomes.

The Bell Miner dieback problem is now well understood and management techniques are well established within forest management. Yet under reserved tenure management they are totally ignored and the dieback is allowed to continue unabated.

Carbon sequestration is identified for the revegetation of sites within reserves. That is a very minor contribution to the most important environmental issue in Australia. Massive carbon sequestration is readily achieved from timber plantation establishment, which is a requirement of forest agreements and has been largely ignored since 2003, and also from the utilisation of timber in sustainably managed forests. Reserved forests merely retain pre-existing carbon stocks, emitting greenhouse gases as they become overmature, and ultimately die or burn.

The forest reform package and all the subsequent legislation enabled access through newly reserved forest to access timber resource. Apparently the agencies, at least at a local operational level, seem oblivious to this requirement. It is not legitimate that the milestone is now considered no longer applicable. That Forests NSW include even very small volumes to be available from areas totally locked by exclusion zones, and absolve themselves from any responsibility for ensuring access, demonstrates a clear need that this milestone be re-applied as a matter of extreme urgency in some areas.

4. CHANGES TO THE IFOA

Proposed changes to the EPL are trivial in effect, and deal primarily with detail of reporting matters. Clarification of some minor road conditions is included. There is no benefit in the efficiency of administering the EPL.

Proposed changes to the TSL are minimal, provide small benefits to the planning processes but do not significantly change exclusions which impact on the net harvestable area. In some cases increased restriction applies, in many cases exclusions add to already excessive reservation.

Proposed changes to the FL are significant in respect of the recommendation to remove the requirement to mark riparian protection boundaries. That will provide a significant supervisory saving to Forests NSW, but threatens to shift responsibility to operators who are not qualified to perform the task.

Non licence issues 3 and 4 involve diminution of the requirements regarding planning of operations. This information is absolutely essential for the orderly management of supply to mills and has a very significant impact on market management and economic viability of mills. The industry is extremely concerned about Forests NSW ongoing poor performance in this regard. We categorically reject any proposal that may diminish Forests NSW obligation to provide this information under the terms of Wood Supply Agreements.

There is no evidence that any of the proposed changes to the IFOA might create any improved efficiency in its administration. All the complexity of planning and reporting at a small scale still exits with very trivial differences.

5. PRIVATE NATIVE FORESTRY

Codes of practice for private native forestry in NSW have been regulated under the Native Vegetation Act. The acceptance and implementation of these codes by industry, forest owners and harvesting operators has produced a high level of sustainability for this resource. Further work is required to institute silvicultural regimes to return productivity (and improve environmental outcomes) to otherwise degraded stands; that cannot occur under conditions of exclusion, production restrictions in low quality (degraded) forests or without markets for low quality forest products.

Private forestry practice under these regulations has proven the gross errors of the BOGMAP and CRAFTI mapping, by an unconscionable and unaccountable agency, of vegetation and stand condition across this freehold resource. All the surveys, committees and promotions have been totally ineffective, yet the agency continues to identify land within a strategy to remove that land from private ownership and management. Local government has been encouraged to create new reservations (as corridors and grassland conservation targets) using dual consent provisions under local environment plans.

Effective conservation mechanisms that would incorporate stewardship benefits have been ignored. As a result the opportunity to include private landholders in specific conservation strategies have been limited to only those prepared to permanently dedicate their land to reservation under conservation agreements as permanent covenants on titles.

The good work of farm forestry networks and Private Forestry Development Committees have been lost as funding was withdrawn. Their work has been overtaken by DECCW and has consequently lost most of its credibility as the DECCW agenda has shifted from sustainable management to exclusion of operations. Without these networks and committees it is unlikely that silvicultural regimes to restore degraded forests may be developed and implemented. They need to be re-established urgently!

Forests NSW role in acquiring private resource to supplement failing timber production, has been uncompetitive. Private forest owners still prefer to deal with local people who they know and trust, who will do the job that they require rather than some compromise between the PNF code and the IFOA regulations.

Private forest owners are increasingly sceptical of the agenda to reserve large parts of their freehold property. A sustainable supply to industry, sustainable forest management on private land, silvicultural treatment of degraded stands and security of environmental values are essential for the future of private forests.

The $10 million package introduced to develop a training and education program was predominantly spent to support the ongoing operation of agencies.

6. PLANTATIONS

The plantation program has been fundamentally neglected since 2003 and funds directed into other activities, such as transport subsidies, propping up log merchandising and private property acquisitions.

Repeated attempts by the NSW government to sell off their existing plantation estate remains a significant threat to the resource and undermines their ability to satisfy agreements including current wood supply commitments. Plantations have over the last few years become a significant component of the production of sawlogs to meet wood supply commitments that were determined from native forest assessments.

Fortunately for the hardwood timber industry, private investment has added to the plantation estate and that will produce sawlogs that may replace the government's failing commitments. However as an outcome of the Global Financial Crisis that resource may well be diminished and

continuity of the program has been severely compromised. That is, timber supply for the future is compromised.

Information provided within the section dealing with the IFOA describes the hardwood plantation estate as a total of 65,445 ha, however 29,996 ha (46%) of that land is not available for harvest. The efficiency of planting land that is not available for harvest is a serious question affecting future resource availability for timber production. Clearly such planting is outside the terms of the Forest Agreements.

7. FURTHER RESERVATIONS FOR WORLD HERITAGE VALUES, WILDERNESS ASSESSMENTS, WILD RIVERS, CULTURAL HERITAGE, SITES OF STATE SIGNIFICANCE, ABORIGINAL INTEREST.

These values are all framed within a context of increased reservation as an absolute requirement rather than the framework of a policy balance. At no stage is there consideration as to the extent that these values may already be protected under the full range of all the other excuses. At no stage is there any consideration of the impact of such ideas on the supposed balance with economic or social values.

While strategies are considered to include aboriginals within forest management, joint management/ventures and access for traditional culture, the NPWS has worked closely with aboriginal communities in the Brigalow, the Riverina and the South Western Cypress forests to remove forest industry jobs and even aboriginal enterprise opportunities. All of these milestones bare little relation to what is actually happening in the field affecting job opportunities for all cultures.

8. TIMBER SUPPLY ARRANGEMENTS

Our major issue is the ability of Forests NSW and the State of NSW, as parties to Wood Supply Agreements with industry, to satisfy the commitments within those agreements under all the terms of those agreements and with appropriate consultation in good faith, under fair, reasonable and competitive outcomes and providing equitable supply arrangements across the whole of the timber industry. That has not occurred and over the past 3 years has become a major problem for the efficient operation of mills.

The IFOA section reports positively and ongoing against undertakings 3 to 7 for planning, notice and reporting of harvesting operations. Forests NSW has consistently failed to deliver plans of operations to industry in accordance with Wood Supply Agreements and refuse to enter any effective consultation in that regard. In one region version 7 of a draft of the plan of operations has been presented 10 months into the current year of supply with a blunt refusal to take any consideration of the company's representation.

Forests NSW is currently failing to deliver on the north coast according to any plans or delivery schedules and is now enforcing a supply arrangement to deliberately deliver less than 70% of allocations. Their plan is firm and they refuse to consult in any faith, good or otherwise, with their customers.

Information provided in the section on the IFOA reveals a significant decline in volume production from the Forest Agreement regions. Since the commencement of the Forest Agreements production of high quality logs has declined by 37%, (up to 57% in the Upper North East), an increase of only 7% in high quality small logs in the Upper and Lower North East despite the review of allocations in 2003, an increase of about 15% in low quality sawlogs on the north coast and a 50% increase in the production of pulpwood except at Eden with a 35% reduction. Transitional volume arrangements and the 2003 election review are relevant as affecting interpretation of this information. This data clearly highlights the deterioration of forest quality and/or an inability to deliver the volumes determined in Forest Agreements. Under such conditions industry cannot operate sustainably.

Forests NSW purchases of private timber supply simply removes that resource from industry by using it to substitute volume committed under Forest Agreements. In effect it reduces the total supply available to industry. These purchases merely highlight the inadequacy of timber assessments on state forests and question the sustainability of those estimates as a basis for the Forest Agreements.

Use of, and development of FRAMES for timber assessment and management of yield is a strategic tool only. It has no connection with actual forest operations. Consequently consistency of actual yield with assessed resource remains unknown. Active pursuit of preferred species and grades by Forests NSW as a priority for their supply arrangements with Boral has been noted by the Auditor General as unsustainable; for other companies it leaves a discriminatory, unviable and perhaps uneconomic resource. Operational activities in frantic pursuit of Blackbutt for Boral are of very serious concern for the regeneration, cutting cycle and long term sustainability of the whole forest resource on the North Coast.

For the Eden Region all the ongoing assessments have only ever produced ongoing assessment, a shortened life of the mixed age forest, and a reduced value/size of regrowth forests. The issue has been exacerbated by agreement with SEFE about the specification for pulpwood production; the inevitable outcome will be that the mill rapidly becomes unviable and pulpwood production is prevented under the terms of the Forest Agreement. Such an outcome is not sustainable for the forests, the industry or the communities.

Review of the FRAMES system is now 8 years old. Since then there has been a significant change in log size and grade, log cost and ability to meet wood supply commitments. An urgent review of the problems is well overdue; milling companies cannot afford to continue without good reliable resource information for the next 8 to13 years.

9. FOREST INDUSTRY ECONOMICS

Sustainability of forest management, of Forest Agreements and of forest industries depends entirely on the commercial viability of those forest industries. Forest sustainability depends on industry sustainability.

At the commencement of Forest Agreements industry responded positively and strongly to the NSW government's commitments of resource security which were set in concrete. More than $250 million was invested by industry, in addition to the government's assistance package, in value adding technology, milling processes and equipment modernisation. Since then, and particularly since the 2003 election platform that extended forest reservation agendas, the economic performance of timber processing has declined.

Viability of forest industries depends partly on revenues earned from the timber market. Fundamentally those revenues are limited by international market values, either available overseas or as competitive values of imports. Australia's free market policies have limited the ability to increase revenues. Even the NSW government fails to recognise forest sustainability, regional economies and local industry development for rural communities in its timber purchasing arrangements. Major government construction and infrastructure development provides preferential use of unsustainable timber imports (even illegally harvested timber) over sustainable hardwood production from Forests NSW under Forest Agreements with international accreditation for sustainable forest management.

Economic viability is also dependant on costs. There are 3 extra-ordinary elements within timber industry costs that are attributed directly to Forest Agreements:

- Heavy investment in plant and processing equipment to achieve government policy for value adding, as included in wood supply agreements, has added substantially to the cost of timber processing businesses. Orderly transition into smaller regrowth and plantation

resource necessitates new investment into processing equipment. Currently the disorderly transition, outside the conditions of Wood Supply Agreements and under conditions of limited economic viability, will deny investment or market development and ultimately will prevent efficient transition into any future regrowth or plantation resource.

- Log cost consists of both stumpage and delivery charges. Log costs have risen over the last 5 years from 35-40% to now be 50-60% of total mill production costs.
    - Stumpage has been maintained consistent with market price movements, until 2008, and according to the government's policy on log pricing documented in August 2000 as a basis for those agreements. In 2009 Forests NSW denied the NSW government's pricing policy and applied a very large royalty increase to recover, regardless of any ability to pay, the loss of $14.4 million identified in the Auditor General's Report.

    - Delivery charges have been managed by Forests NSW as contracted services on the North Coast and have resulted in very large increases in costs since 2005. Increases of 30 to 50 % of these costs over a very short time is a very serious threat to the viability of timber businesses. Discriminatory supply arrangements for Boral exacerbate the impact of increases in these costs for most mills.

That these costs are allowed to be totally unmanaged and have risen to such a high level is unacceptable to any business. They are not recoverable in the market. They have only been met over the last few years by diminishing margins and a cessation of investment.

Predictions that delivery charges will increase further only serves a business strategy of inevitable closure.

- The impact of declining log quality is reduced recovery. That increases the log cost component of total production costs. That is, typical mill recovery levels of 35%, which have dropped to about 30% since 2003, have created an increase in the log cost component of 14%. That has contributed to the increase in log costs from 35-40% up to 50-60% of total production costs.

- Changed species mix and log quality diminish the value of the timber products able to be placed into the timber market. While discriminatory log supply arrangements are in place on the North Coast then other mills are relegated lower value market potential. That reduces mill viability even further. The consequence is that mills forsake the government's policy of value adding and pursue low cost production, low value markets and quick return on cash flow. Forests NSW pursuit of open market sales, available to any mill, diminishes the government's policy and any objective for investment in value adding.

These issues need to be addressed urgently to restore economic viability to the industry. Economic viability is essential to attract investment and development regardless of resource commitments in Forest Agreements.

10. FOREST PLANNING, NOTIFICATIONS AND REPORTING PROCESSES

All of these processes, which were supposed to have been eased under the terms of Forest Agreements, Integrated Forest Operations Approvals and a multitude of operating Licenses have become an enormous regulatory burden to Forests NSW to the point that more time is spent on these processes than in doing the job. The processes are supposed to have operated at a landscape or regional scale but are still being applied on a compartment basis. Under these circumstances and with the additional costs of environmental compliance, the Auditor General found that management of native forest operations was making a loss.

Demands that industry suddenly had to increase payments to cover these losses simply makes the whole of the industry economically unviable. That is contrary to the policy direction to create a strong and competitive ecologically sustainable forest industry.

The presumption of the NSW government and the Auditor General has apparently been that forest industries must pay the cost of the environmental outcomes (to whatever extent may be required at any time) of unavailable and excluded forest areas, forest management for conservation values and the reporting regimes required by government policy. That presumption is contrary to a balanced outcome of the forest policy objectives, and creates an unbearable economic burden, unrecoverable from the timber market.

The value of environmental outcomes and environmental compliance is at least the cost of producing similar outcomes from National Parks.

11. BURNING BIOMASS

Rejection of this milestone on the basis of other legislation is inappropriate. The issue is the sustainability of forest operations, management and silviculture to ensure forest health and regeneration; the by-products that are produced (charcoal, electricity, biofuel) is a matter for industry, not an issue of forest management. Unless an economic basis for silviculture is in place then it will be very limited.

The particular regulation is in need of repeal.

12. EMPLOYMENT

Since delivery of forest agreements employment in the industry has been secure and has consequently developed, with valuable training and OH&S packages, into worthwhile career paths in country towns.

Industry investment and development into value added products, and extended markets, has increased employment numbers in mills.

13. REVIEW OF RESTRICTIVE CONDITIONS OF ACCESS AND HABITAT EXCLUSIONS.

The Forest agreements determined an impact of environmental exclusions amounting to 20% of harvesting areas. Triggers were set in place to ameliorate that impact if it exceeded that level. That impact has never been identified and no amelioration has ever been effected. The Auditor General reported the impact to be close to 50%, it is now even greater. Under such circumstances over-cutting to meet the same supply commitments will be an inevitable outcome.

Species specific conditions were to have been subject to review after survey identifications reached threshold levels. A large number of species, subject to ongoing survey, are now well over the thresholds but have never had any review of prescriptions. This review has identified only 4 species which have been reviewed with an insignificant impact as a result. The consequence is that exclusions from harvesting are now far greater than was determined necessary at the time of Forest Agreements.

The consequence is that resource availability for the life of the Forest Agreements is questionable. The consequence is also that species and habitat protection is now at a greater level than necessary from the forest assessments.

As other Forest Assessments have been conducted it has been increasingly identified that active forest management is an essential tool for the protection of environmental values, forest stand condition, species specific habitat, climate change impacts and bushfire control. Environmental values and protection requirements need to be reviewed in a context of forest management rather than a blinkered approach of reservation and restriction.

14. ESFM CRITERIA AND INDICATORS

Forest ecosystems provide a range of social, economic and environmental values.
Within the current indicators the maintenance for the productive capacity of the forest ecosystems provides a very scant measure, very unbalanced against the environment and biodiversity values. The measure is based entirely on measures of area, taking no account of timber productivity, quality, economic value or sustainability of the industry. Item 6.5 of employment in the forest sector, as a proportion of total employment, does not provide any measure of the sustainability of the industry.

Development of these criteria must necessarily measure the social and economic values. The current indicators do not.

15. IN CONCLUSION:

- The Forest Agreements have provided certainty for timber operations and timber dependant communities across the regions. The delivery of long term Wood Supply Agreements to milling companies delivered the certainty for their ongoing investment, on going operation, certainty of employment, and further processing that added value to the resource. The persistent failure of delivery within the terms of those forest agreements, within a deteriorating set of economic criteria and the failure of Forests to deal effectively with supply arrangements have diminished confidence of industry in Forest Agreements as a strong basis for investment.

  The commitments to industry from Forest Agreements have not been satisfied in:
  - Plantation development
  - Access to volume from buffers on buffers
  - Reviews on access restrictions
  - Economic viability resulting from pricing policy

  Restrictions on operations have reduced forest access for timber production to levels less than necessary for sustainability and greater than necessary for environmental outcomes.

  Resource changes, failure by Forests NSW to deal effectively with industry and discriminatory supply arrangements are having a substantial negative impact on industry confidence, outlook, investment and viability.

- Costs of implementing IFOAs has become prohibitive. There has never been any regard given to the cost of implementing government policy which motivated forest assessments and forest agreements. The outcome for forest operations, as detailed in Integrated Forestry Operations Approvals, has ended as a cost for Forests NSW and the industry. The approvals are extraordinarily complex and have to be managed at a very small (compartment) base with work that is fundamentally repetitive and irrelevant to specific sites. Rationalisation of the requirements in planning, compliance and reporting systems is absolutely essential. The largest part of the $14.4 million loss of Forests NSW reported by the Auditor General is due to these costs. That they do not add any value to the management of Forests NSW is a prime reason that they need revision.

These unjustifiable extraordinary cost increases are a serious threat to investment, development and economic sustainability of industry.

- Discriminatory supply arrangements are resulting in over-cutting (particularly of Blackbutt) of the resource in favour of a single milling company to the deteriorating viability of all other millers.

- Sustainable forest management requires that a sustainable and economically viable industry is operating and developing with on going investment for the long term.

The timber industry has responded positively under the NSW and Regional Forest Agreements, invested heavily, returned a remarkable market performance of high valued timber products, rebuilt employment levels and maintained the contribution of the rural timber industry to regional communities.

Lack of confidence by the industry arising from current supply deficiencies, a general failure of dealings between Forests NSW and mills has created a negative view of strategies to deliver future resource commitments under Wood Supply Agreements. Investment and development has stalled.

ATTACHMENT 5

SILVICULTURE

Silviculture is the fundamental basis of the science of growing trees. That is why the very long history and huge investment of research into silviculture has carried the science to such a high level of sophistication. That is why we can now grow trees to produce particular crops to produce timber products with specific characteristics. That is why we can now manage forests to produce the outcomes and economic values that are needed to attract investment, that are needed to produce a commercially sound business.

Unmanaged forests rarely produce a viable timber crop. Short term plantations with minimal silvicultural treatment produce only pulpwood.

Eucalypts from Australian breeding programs, planted overseas and managed under intensive silvilcultural programs have been successfully producing timber for many years. In Uruguay 26,000 ha of E grandis hybrids is producing 400,000 m3 per year of sawlogs on a 30 year rotation.

Very early thinning produces electricity and grassy understorey promotes grazing.

Treeless landscapes have been converted into productive forested environments and large commercial processing enterprises have been established with government support and assistance.

Critically important for growing eucalypt sawlogs in plantations, as an economically viable crop, is intensive silvicultural (non commercial) thinning at a very early age. Deferral of thinning to an age which may produce a pulpwood harvest will diminish the production of sawlogs in volume, time and quality. Plantations initially grown for pulpwood, regardless of species, which have not undergone early thinning do not readily or economically convert to a sawlog regime. Intensive silvicultural practices have been assessed capable of high quality sawlog production in the major forest areas of NSW from approximate 30 year rotations. Less intensive practices or attempts to convert pulpwood plantations inevitably require rotations in excess of 40 years to grow lesser quality sawlogs.

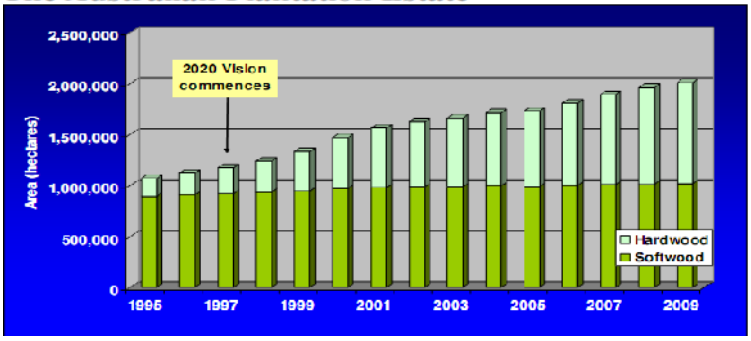
Usually pulpwood plantations have been established with species of much lower commercial timber characteristics, many without process technologies or timer market capabilities.

ATTACHMENT 6

Plantation Establishment

In 1997 the launch of Plantations for Australia: the 2020 Vision (Plantations 2020) aimed to treble the area of plantations in Australia to 3 million hectares by the year 2020. Legislation instrumental to the policy's implementation included the Commonwealth *Managed Investment Act 1998* and the NSW *Plantations and Reafforestation Act 1999*. But by that time production from NSW native forests had been reduced to less than 50% of the 1990 levels, a further 50% resulting from Forest Agreements and ongoing decline in productivity.

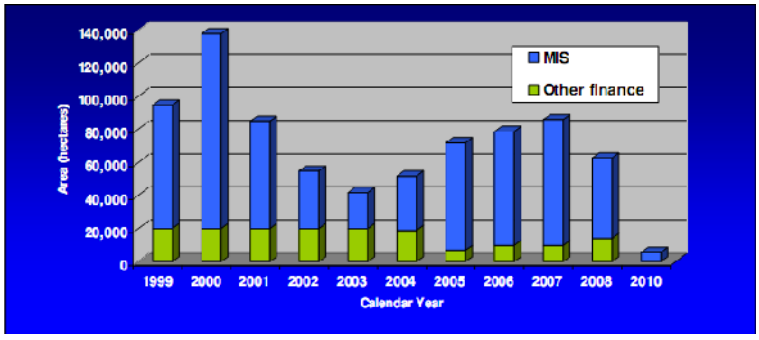
The Australian Plantation Estate



Source: BRS (2010)
Plantation investment models and forestry policy, David Thompson 2010

Plantations 2020 created an enabling market for investment, but it did not result. It was only with direct incentives from Managed Investment Schemes that plantation establishment accelerated throughout Australia. Hardwood plantations now cover 880,00 ha across Australia and 90,000 ha within NSW. Most of the private hardwood plantations are being grown as short rotation crops for pulpwood. Most of this is unlikely to be replanted after harvest because of declining viability and increasing competition in export markets.

Sources of New Plantation Investment



Source: Australian Agribusiness Group
Plantation investment models and forestry policy, David Thompson 2010

In NSW private hardwood plantations on the North Coast had an objective of long term production of sawlogs and the coincident development of major processing operations. The collapse of a large number of the plantation investment companies in the Global Financial Crisis now places production of those plantations at risk and may well see them deteriorate through lack of management, or liquidation by new ownership. Very little of the existing plantation estate is likely to produce high quality large sawlogs for future timber supply. Opportunities for development of new timber processing ventures appear to have been lost.

45% of recent plantations in NSW were established under MIS schemes. At least one MIS company established about 25,000 ha of long rotation plantation in northern NSW specifically for the production of high quality sawlogs and included a program of $260 million investment in a regional processing facility. Highly leveraged capital requirements brought about the collapse of that enterprise in the Global Financial Crisis and the future of those trees now remains as an open question.

MIS schemes to attract investment were originally designed for production of sawlogs as long rotations. Most have been short rotation enterprises producing pulpwood. But at present there is no alternative scheme to attract investment into plantations; the schemes need to be re-engineered and to differentiate the incentives between short and long term production. As short rotation crops of pulpwood, replanting to provide longer term resource base for any industry depends on economic viability, maintaining access to viable international markets and/or development of processing plants within Australia. Economic viability

and international market competitiveness for pulpwood has severely declined and there is little likelihood that hardwood processing plants within Australia will ever be realised. The inevitable outcome is that replanting of existing plantations is questionable. The 3 million ha target of Plantations 2020 is not likely to be achieved, it will struggle to maintain the current level of 2 million ha.

Plantation Investment

The fundamental point is that most mechanisms aimed at fostering additional private investment in plantations involve some type of taxation concession. That is the inescapable nature of enabling an investment with a long time horizon to compete with investments that provide early cash flows. This raises the issue, are alternative tax concessions more 'distorting' than the current MIS taxation arrangements? Or could some changes to current MIS arrangements which improve investor protection be a better solution? The notion of letting the market decide through the normal processes of supply and demand ignores the fact that forestry is at a disadvantage relative to virtually all competing land uses. Not addressing that disadvantage may lead to market failure via under-investment in wood production, and while it has been suggested that we already have enough wood, the analysis below indicates the contrary.

Moreover, the risks of under-investing and becoming reliant on imports in a region where competition for wood appears to be increasing and, where expanding population and housing deficits point to potential wood shortages need to be considered. Further, there are the implications of under-investment in forests for domestic processing and jobs.

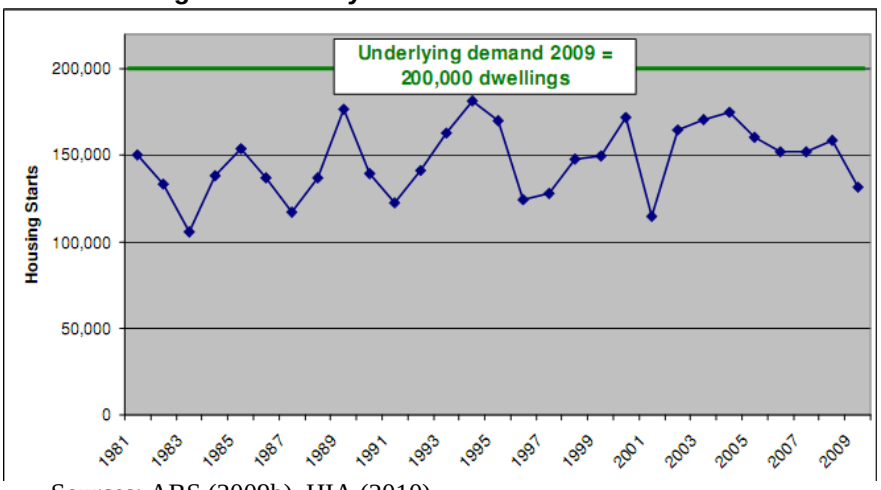
While it is acknowledged that current plantation investment stimulus mechanisms are less than perfect, this does not seem to be adequate reason to halt plantation investment entirely in a region of expanding demand and tightening supply. The time-frames alone associated with wood production would seem to dictate that switching off current investment could lead to considerable supply problems in the future.

ATTACHMENT 7

THE AUSTRALIAN TIMBER MARKET

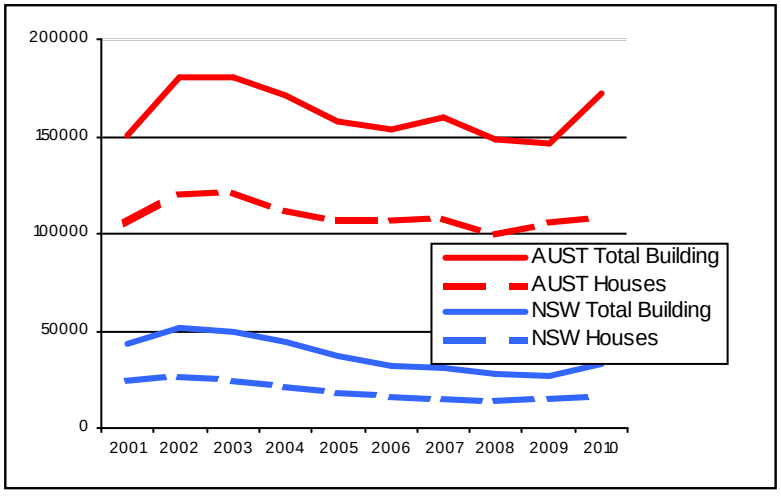
The primary driver of wood consumption in Australia is construction activity. HIA (2010) figures indicate that Australia is heading into a period of significant housing supply shortage, which will continue to put upward pressure on property prices. Current population trends indicate that the underlying demand for housing in 2009 was 200,000 dwellings, which significantly exceeds projected housing completions of 130,000 dwellings in 2009.

Historical Housing Start Activity



Sources: ABS (2009b), HIA (2010)
Plantation investment models and forestry policy, David Thompson 2010

Building and Housing Starts Australia and NSW



Source: ABS building approvals 2010

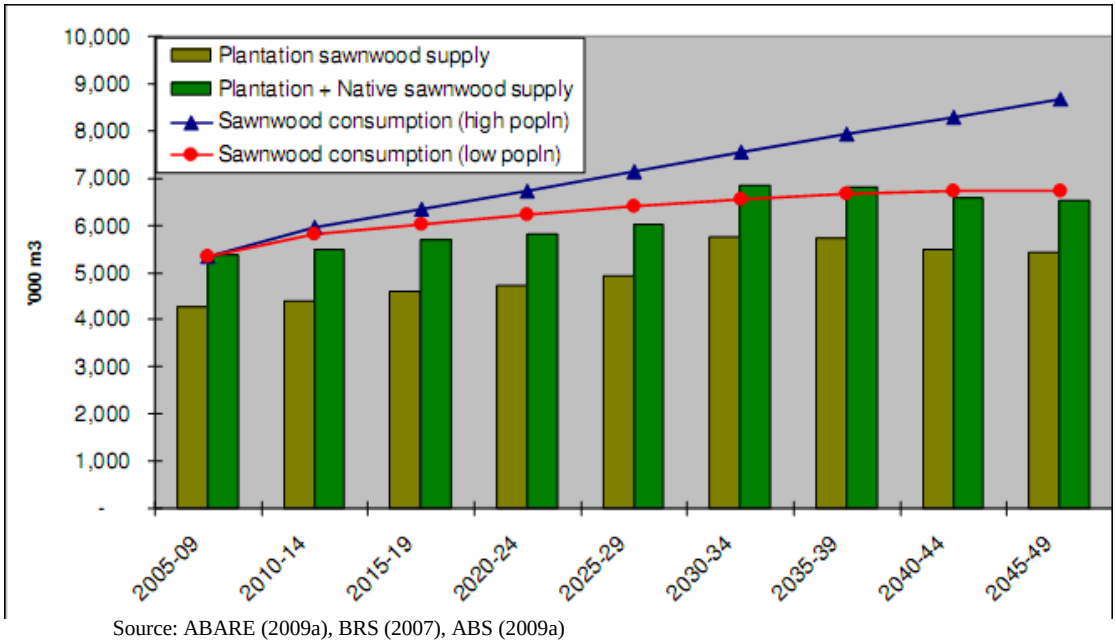
Building approvals for NSW and Australia show a recovery in 2009, but that is not reflected in houses. It is more likely the consequence of the Building Education Revolution program. Housing starts remain below 2002 levels, underlying demand, and future timber deficit continues to grow.

The current housing shortage stands at 109,200 dwellings and is set to reach 466,000 by 2020 (HIA, 2010). The amount of wood required to meet this shortage, at an average wood content of 17.5 m^3 per house, indicates a current deficit of 1.9 million m^3 rising to 8.1 million m^3 by 2020. That is a deficit of 22,000 ha of plantation (softwood) now rising to 65,000 ha in 2020. While-ever the underlying demand continues to grow so the deficit will increase above these levels.
A significant jump by 25% in buildings approvals during 2009/10, as a result of housing and BER policies following the Global Financial Crisis, brought about a significant increase in timber imports rather than from domestic production.

NSW represented almost 30% of the Australian building market in 2002; that has now fallen to less than 20%. Consequently NSW is carrying a higher proportion of the deficit in building approvals. The NSW timber industry also supplies high interstate marketing of timber products and a low production of paper products. That is, the supply deficits in NSW are more significant than highlighted in the Australia wide data.

Other predictions of supply and demand depending on population growth are less severe but are still very significant and highlight the critical shortage of timber availability well into the future.

Future Sawlog Supply and Demand



Source: ABARE (2009a), BRS (2007), ABS (2009a)
Plantation investment models and forestry policy, David Thompson 2010

Economic recovery that stimulates building activity will not be able to be supplied from existing forests and plantations within Australia, imports will have to be increased.

Australian Forest Statistics (ABARE 2010)

Consumption of forest products in Australia has been consistently at about 1 m^3 per person per year. That is well below levels for New Zealand, Europe and America

In 2009 – 10 total gross production (as round wood equivalent) was 25 million m^3, consumption was 20 million m^3, leaving a balance of trade surplus of 5 million m^3. But that trade surplus is

clearly identifiable as exports of woodchips and pulpwood mainly from Tasmania (although the data does not detail the state of origin).

Sawn timber production in Australia accounts for about 93% of consumption, the difference being attributed largely to softwood products. A decline in the consumption of hardwood timbers (from about 1.3 million m^3 to 1 million m^3 in 2008/9) is consistent with a decline in the production over the past 5 years, most probably due to the decline in access to native forest areas as described above.

ATTACHMENT 8

TIMBER INDUSTRY INVESTMENT UNDER NSW FOREST INDUSTRY REFORM AGENDA FOLLOWING PROVISION OF WOOD SUPPLY AGREEMENTS

Company	Description	Value
Big River Timbers Pty Ltd	5 year business plan	$64,500
Cassino Timbers P/L	Replacement & upgrade of sawmill equipment- including timber treatment cylinder	$581,951
Ford Timbers P/L [1]	Upgrade of pilot value adding plant & feasibility study	$150,000
Hurford's Building Supplies P/L	Prelim feasibility study	$53,200
Hurford's Building Supplies P/L	relocation, upgrade & expansion of value adding operations (incl. kiln drying)	$4,271,268
J Notaras & Son Pty Ltd	Business Plan	$25,000
J Notaras & Sons Pty Ltd	Expansion of processing activities incl. increased kiln drying & dressing capacity & introdtn of new finger jointing & glue laminating operations.	$4,028,000
Richards Milling Co P/L	Upgrade power supply	$234,552
Ribana P/L	Upgrade harvesting equipment	$212,395
Kempsey Timbers P/L	Integrated flooring & moulding line	$851,000
Kempsey Timbers P/L	Destack/endmatch line, finger-jointing,parquetry etc	$3,561,840
Park Handles	Lathe to increase production of tool handles	$60,000
Hely Bros P/L	Timber drying kilns for tool handles	$65,896
Forest Products Association	Stroud Bulahdelah Strategic Plan	$21,000
Davis & Herbert	Prelim feasibility study	$30,000
Tablelands P/L	Feasibility study	$37,300
Mason & Sketchley Pty Ltd	mechanised logging operation	$389,621
SP & HM Pope Logging P/L	harvesting equipment	$1,348,862
Brian Smith Timber Transport Pty Ltd	improved system of hauling logs and sawn timber	$130,138
South East Timber Association	strategic planning for region	$95,000
WJ & JH Machin Pty Ltd	increase output of kiln dried and dressed hardwood timber products	$910,472
RA Sweetman & Sons Pty Ltd	feasibility study into seasoning and woodchipping operations	$17,500
A & R Howard Pty Ltd	Business plan	$10,497
Newells Creek Sawmilling Co Pty Ltd	Kiln drying & dressing plant	$4,466,894
Romney Park Sawmill Pty Ltd	Refinance re installation of kilns	$126,000
Fenning Timbers (Aust) Pty Ltd		$11,725,958

Haul-Line Pty Ltd	Business Plan	$20,000
Hardwood Harvest Pty Ltd	Business Plan	$20,000
Tablelands Sawmills Pty Ltd	Refurbishment of Boral Eden Sawmill	$9,481,200
Richards Milling Co P/L	Value-added equipment to process super small logs	$7,153,362
Ford Timbers P/L	SBPI	$20,000
AS Nicholas & Sons	SBPI	$20,000
Big River Timbers Pty Ltd [3]	SBPI	$25,000
AS Nicholas & Sons	emergency IDA	$2,320,499
Boral Timber (Allen Taylor & Company Ltd) -	Restructuring Package	$45,653,000
Big River Timbers Pty Ltd	Equipment needed for flooring & decorative panel manufacture & marketing.	$2,978,737
Coffs Harbour Hardwoods Pty Ltd	Planer, docker, matcher,extraction system, kilns, planner,docker & end matcher.	4,947,400
Greensill Bros Pty Ltd	Excavator, dozer with grapple & B double.	1,380,000
Hurfords Hardwoods Pty Ltd	Three kilns, dry stock, flooring production line, pressure treatment facility, forklifts & dry yard expansion	2,120,000
S.A. Relf & sons Pty Ltd	Two pre-drying kilns.	209,400
AE & JM Boon (Coffs) Pty Ltd	Excavator, skidders, harvester, processing head, barcode scanner and software	985,897
Davis & Herbert Pty Ltd	Five projects across Nowra, Narooma & Batemans Bay. Twin band log edger, two man saw bench, chipping plant, mill waste dock system, chip storage bins & conveyor.	2,820,135
Haul-Line Pty Ltd	Three excavators, felling head, grapple, forks, winch, canopy for caterpillar & two way radios.	1,024,774
J Notaras and Sons	Parquetry line, new kiln & planning mill improvements & associated equipment.	2,846,743
R A Sweetman and Sons	Produce green boards & mill extension, twin edger, one man bench, dust extraction unit, forklift, saw & sharpener.	1,421,200
Weathertex Pty Ltd	Press upgrades, automatic stretch wrapper, paint lines-upgrades, press plates, new product range - tooling, export profiles - tooling, effluent disposal & a coal fired boiler.	2,295,000
Hardwood Resources Pty Ltd	Drying & milling facilities	2,280,000
McGuire Logging (Tumut) Pty Ltd	Harvesting, forwarder, B double & two trailers.	610,000
Whites Lumber Haulage Pty Ltd	Skidder & excavator; 2 prime movers & trailers; 2 excavator; forwarder	$2,762,671
McKinnells Pty Ltd	Prime mover; skidder; 4 excavators (2 with harvester & 1 with felling), 2 forwarders;	$3,257,440
Australian Design Hardwoods	Stages 1 & 2 of expansion of drying facilities: new kilns, site works, sawdust handling facilities	$891,973
Adjungbilly Timbers	Stages 1 & 2 of establishment of a kiln drying facility: boiler shed, kiln, reconditioner & installation of saw-line.	$1,249,985
AE & JM Boon (Casino) Pty Ltd	Excavator & harvester with felling head; grapple skidder & excavator	$745,756
Richards Milling Pty Ltd	Value-added equipment to process super small logs	$1,346,000

Attachment 9

Issues Report for Research and Development

UPDATED JULY 2010	ISSUE	CONSEQUENCE OF NO ACTION	STATUS	INDUSTRY ACTIVITIES	JUNE 2010 PRIORITY	NEW 2010 PRIORITY
ENERGY EFFICIENCY						
National	Government Green Debate, Energy Efficiency & Emissions Trading Taskforce, COAG on Energy Efficiency, Productivity Commission Inquiry into Energy Efficiency, COAG on Low Carbon Economy are looking at energy efficiency in buildings. Role of carbon tax Government are looking at high energy efficiency in the built environment of timber products	Increased focus on building operational energy efficiency will change the construction of homes. This will result in a competitive disadvantage for timber homes. The cost could be a disincentive to invest in timber as a building material. Timber will be at a higher cost than competing products.	ASP submission - June 2010	No current activity	1	
NSW	BASIX - Current building requirements in other states	Consistency for the construction industry to ensure that we have a level playing field. Timber needs to be treated as equitable with competing products for energy efficiency	Likely to be drawn in (via enhancement of the BASIX) in 2011	Monitoring - no current action	1	
VIC	Building Commission to look at how energy efficiency is measured & what it means in practice. It is aware of industry's concerns but is "reluctant to mandate [energy efficiency] tools"	Further loss of competitive timber from market. Market perceptions that timber is a poor material choice for energy efficient construction	6 Star to be introduced this year	Monitoring	1	
QLD	4 star building minimum energy efficiency standard	Poorer thermal mass over timber framed construction	Regulated	Monitoring & lobbying	1	
SA	Not known at this moment in time	Unknown effect on timber market	Not known	No engagement by industry	1	
WA	Not known at this moment in time	Unknown effect on timber market	Not known	No engagement by industry	1	
TAS	Not known at this moment in time	Unknown effect on timber market	Not known	No engagement by industry	1	
Thermal Mass	Numerous competitors promote the benefits of mass solutions	Timber is disadvantaged unless existing products can be developed and favourable outcomes negotiated	Marketing BGA's FCB solutions	Monitoring and PURA project overview	1	
Operational Energy Use	Focus on operational energy promotes mass building products (concrete). Opportunity exists for timber products to be developed and favourable outcomes negotiated	Timber is disadvantaged unless existing products can be developed and favourable outcomes negotiated	Marketing BGA's FCB solutions	Monitoring - no current action	2	
Construction on Shipping Sites	Lightweight construction means provide less land construction xxxxx m² (xxxx ha)	Market share for ground level timber floor systems will be lost	PURA support project agreed	Monitoring - NSW consultation in place, PURA project also underway	3	
ENVIRONMENTAL MEASUREMENT						
Life Cycle Modelling	Lack solid metric could be a complete for biodiversity vs. forestry as a single unit value	Impact inferred in relation where wood does not	Under debate	Monitoring - no current action, case this is being assisted internationally (ATA/CORRIM) methodology, world wide	1	
	NSW JAS – ANZSNZS 4692 modelling for NSW forestry practice	Impact (negative or positive) where wood does very well, particularly harvesting or components, or new applications in the market areas	Under debate	Monitoring - no current action, case this is being assisted internationally (ATA/CORRIM) methodology, world wide	1	
	Protocol on the use of the LCI data	Access to wood LCI information	Under debate	Monitoring - no current action, case this is being assisted internationally (ATA/CORRIM) methodology, world wide	2	
	Gaps exist in industry LCI data – planted, Pine, Hardwood, treatments	Current undertake complete LCA's for some products	Now	Research to Forme for consideration for funding	3	
	Forme is modelling Timber LCI data base – wanted NSW study included fully incorporation of LCA's in information is required	Current LCI values very high/unfavorable to Timber (especially pulp/paper). Incorrect / bias claims of being a low CO2 product	RMIT report still to be released	Waiting at present	3	
All LCA	Industry responsible for modelling wood LCI data based on the methodology/data/LCA policy and processes	Current exist LCI data weighs most resulting in unfavorable data for timber. ISO • LCI 2006, ISO/TR 14049:2000 (Examples "environmental regulations"	Ongoing	Forest Products Act monitoring - no current action	4	
	Modelling are a function of processing impact?	Wood environmental performance is maximum	Under debate	Monitoring - no current action	5	
Life Cycle Assessment Methodology	Uncertainties and data gaps identified	Key wood systems are under positioned	Under debate	Monitoring - no current action	5	
COLLABORATION						

UPDATED JULY 2011	SCOPE		COMPLIANCE (P or V) ACTIVITY	STATUS	ROUTINE ACTIVITIES	ADDED PRIORITY	FEB 2011 PRIORITY
Commercial providers	Commercial providers (Responsible, SFCA) are developing environmental manuals (EMMs) or plans for building standards. Most are now developed, implemented, and generally	Risk against native landscape and biodiversity for FSC certification (and Lot Owners of Eucalypt)	50% treating this as high	No current engagement by industry	2		
Eco-Labelling Standards	Note Australian wood & products marketed in Australia a standard on sustainable. Generally a positive outcome but	Unknown effect on timber products	Research is underway in the Kimberley	No current engagement by industry	3		
ENVIRONMENTAL ASSESSMENTS							
Forestry (national)	Overview work to address for updated ~2007 assessment 2007	Detailed research – impact of the Lapse Model, Model and several papers are subject to peer Reviewed ACF is the principal author of the papers	Discussion by industry but no consultation action	done by various associations	1		
	Undertake update to 2004 to 2006 revision to material	Likely to better address ecol	Future	VFPI was building – no scenario action	2		
Wetlands (national)	Environmental data and information process	Unknown effect on timber stands	No action	No monitoring	3		
RC	Many new plantations, RFA EIS, Building Native Forestry New plantations, RFA EIS, Building Native Forestry Sites and EIS for Environmental Impact Statements of timber	Risk against native landscape and biodiversity for FSC certification	Used by Industries and NGO agenda/opinion	Monitoring by VFPI	3		
Building and Timbers	Mining – Mineral Sands Assessment	No knowledge of its success	No action	No engagement by industry	4		
	Wood Fuels Levies – assessment to be carried out	No understanding of all of it means	No action	No engagement by industry	4		
	Biodiversity – risk to sustainability policy to reduce GHG	No understanding of all of it means	No action	No engagement by industry	4		
CERTIFICATION AND LEGAL ISSUES							
Chain of Custody Certification	No current compliance industry issues, but possible removal of Potential major costs to timber manufacturers to check and get evidence for FSC certification – Industry Representation on FSC is currently limited	Widely varying industry view – needs resolution	High importance to maintain market / market seal of quality CoC	3		
	Difficulty in the certification of recycled timber products and waste wood products	No consistency in application of the principles. Recycled timber products are not consistently defined	Widely varying industry view and understanding	Uncoordinated industry discussion	3		
	Forestry Corporation of NSW (FCNSW) is currently undertaking a review of its Chain of Custody certification	Inhibitory for all companies in the supply chain	Varying levels of commitment	ACF and WWF are involved	1		
Illegal logging	Little evidence of illegal product entering Australian markets. Australian timber industry is committed to eliminating illegal logging	Reviewers view that there is an unacceptable level of illegal timber in the supply chain	On going	Monitoring	5		
	Certain governments (eg Victoria) are considering the introduction of legislation to prohibit the importation of illegally harvested timber	Timber companies (NSW, Victoria, Tasmania) are concerned about the introduction of legislation	Federal Government (WA) NGOs and industry groups	EWA, WWF, TFA, ENTIRES Industry Group	2		X/WE
FIRE PERFORMANCE							
Commercial buildings	Low risk commercial buildings are a potential new market for timber products (CSIRO and Timber Queensland)	Increased market for CLT's and veneer timber	Ongoing	TDA undertaking CRC's market research	1		
Building Standards – AS 1720 Amendment 3	Fire resistance, flog combustion, Volatiles (Timbers) introduced to atmosphere only. Charge and evolution and dynamic behaviour affected by design.	Long combustion and fire resistance research of the industry (CSIRO) produced some new techniques, designs, Regulated in NSW 2011 BCA amendments BASIX 2010 and BCA 2010 in the NSW		Increasing and widely knowledge for timber construction	2		
Building Standards – AS 1530 Part 4	Fire test of construction systems that comply with AS 1530 part 4 and the Building Code of Australia	Complex, process with specific area as an FRL (system) and not allowed, resulting in over-design of construction	Adopted in BCA 2010	Developing an understanding of how fire resistance is measured	3		
AS 1530 Part 10 – 2010	Concern over the fire performance of FRL (new developments, cladding, combustibility, etc) Laws 123 and 124 in Sydney with FRL of construction over 25 m / Fire resistance rating	More resistive requirements. Reason some applications, caused by wood being 300 to 500 of AS/NZS fire grade. Fire test procedure test in the region	Adopted in BCA 2010	Fire action	1		
Tall Timber in AS 1530	Increase in timber requirements	No effect as below 4 star	Adopted in BCA 2010	No action needed	5		
DESIGN STANDARDS AND SOFTWARE							

UPDATED JULY 2010	ISSUE	CONSEQUENCE OF NO ACTION	STATUS	INDUSTRY ACTIVITIES	JUNE 2010 PRIORITY	ITEM 2010 PRIORITY
Wood Handling AS1328.2 (Revision)	Internal pressure (adhesive) voiding due to absorption (garage door rail)	Increases the grade and/or size of timber having elements. May increase cost of production.	Reference to FWPA (SW) for action	Monitoring, action pending FWPA action	3	RESOLVED
Treatment and Preservation (LOSP) AS1605.1	Practice used for adding preservative into voids of PVC with limit (quality) determination.	Increased life cycle cost or cost of timber framing elements required.	Advice prepared for FWPA (SW)	Monitoring, action pending FWPA response	3	
AS/NZS	New 2010 version of AS/NZS has increased – industry needs to inform members and users of changes and options.	Industry needs to maintain knowledge confidence in the old or revised and adoption of new industry technology	To be regulated in the BCA May 2011	Proposal being developed for members	4	
AS/NZS	New 2010 version requires QA which proposes strict design assumptions.	Industry has designers needed to gain greater confidence in timber engineering technology	To be regulated in the BCA May 2011	Proposal being developed for members	4	
Public liability	Down wind Mulgrave (NSW/QLD) Australia (NSW/QLD) verification of software and training for new engineer users	Increase cost to supply (NSW/QLD) industry (NSW/QLD) and overall level of design documentation	This issue has developed into a protocol for inclusion in the BCA	FWPA funded the collection of comments from industry for use by ABCB (SEC) representatives – in WA, NSW and SPDC	4	
Duty of care	Down wind Mulgrave (NSW/QLD) Australia (NSW/QLD) verification of software and training for new engineer users	Increase cost to supply (NSW/QLD) industry (NSW/QLD) and overall level of design documentation	This issue has developed into a protocol for inclusion in the BCA	FWPA funded the collection of comments from industry for use by ABCB (SEC) representatives – in WA, NSW and SPDC	4	
BUILDING REGULATIONS						
QLD (5 yrs) (1.1.2009)	Timber and wood products may represent a negative or condition response from a client	An opportunity to promote timber systems such as wood fibre	Queensland regulation are review used for building regulation change	Timber Queensland monitoring		
QLD CYCLONES	Timber and wood products may represent a negative or condition response from a client	Unknown	Queensland and Federal regulation are review used for building regulation change	Timber Queensland monitoring		
GOVERNMENT PROCUREMENT POLICIES						
Australian Environment and Conservation Council	Determine policies for commonwealth government procurement of building materials	Policies may or may not be favourable to timber	Not known	No engagement by industry	3	
Various Development and Building Regulations	Geographic differences (development and specifications) today promote both significant threats and opportunities to timber markets.	Policies may or may not be favourable to timber	Not known	No engagement by industry	3	
Council (WA)	Not a Council building (WA) environment will influence timber (WA) or PEC).	May restrict solutions	Probably not but WA (July 2010)	TD investigating (WA) with WA timber industry	5	
State policies	No real priorities				5	
BUILDING MATERIALS AND METHODS						
Timber fixers	Concrete retaining consideration for Climate Change flooding (not occurring this level)	May favour masonry/ timber floor construction	No action	None	5	
Timber durability	Energy efficiency requirements are driving up R/W building design leading to potential condensation issues	Problems with R/W/S/S/S of 1/10 – R/S/S/S (PVC) which does not withstand moisture	No action	None	4	
Commercial fixers	Commercial fixers are reluctant to move into residential construction	Information by producers is not adequate. Also reluctant to move into residential	No action	None	4	
Residential buildings	Statistics showed to residential market now being promoted – elevated floors, condensation	Assessor caused from previous water stains. Further risk of mould, stains	Monitoring	No engagement by industry	4	
Timber Regulation	Regulations under Hazel Timber Marketing Act	Continuation regulations (WA) restricts flexibility of environments controlled by standards and the TPA	Ask submission made	Monitoring	4	
Material selection	Client concerning to change by material selection as builders are reducing their exposure to risk.	Encouraging for lightweight systems or professional (specialist) product	Small awareness	Monitoring	3	
Master (2008/2009)	DASS – Materials Code of Practice for Prevention of Mold in Housing Construction	Requires protection for water sensitive systems (HDG mold, masks, stains and composites, requires higher design loads on systems, (AS/NZS) manufacturing)	Published	No engagement by industry	3	
Formal designs	Increasing concern regarding chemical emissions from building products – how are these monitored indoor air quality matters	Possible to require formaldehyde levels / required emission to prevent products are not unnecessarily disadvantaged	ENVIRA monitoring	No specific action	1	
VOCs		Potential regulations limiting indoor emissions could affect timber (PVC, PF, OSB) products	No monitoring	No engagement by industry	3	
MARKETING & JOBS BY CONSTRUCTION						