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Committee Secretariat
Standing Committee on Agriculture and Water Resources
Timber Supply Chain Constraints
PO Box 6021
Parliament House
CANBERRA ACT 2600

AFPA Submission to the House of Representatives Standing Committee on Agriculture and Water Resources Timber Supply Chain Constraints in the Australian Plantation Sector

The Australian Forest Products Association (AFPA) welcomes the opportunity to provide comment to the Standing Committee.

Executive Summary

AFPA is very positive about the continued future market demand for renewable forest and wood products globally, regionally and in Australia; in traditional markets, in emerging markets, and in new bio-fibre based products and services. Wood fibre is a natural, renewable, recyclable, and sustainable resource. This is now well recognised in many countries and supported by communities and governments for the triple bottom-line benefits of forests: environmental, social, and economic.

Australia has a complex forestry supply chain covering both domestic and export markets and is the backbone of many rural communities. The forest, wood and paper products industry is predominately regionally based in Australia, often sharing common policy issues with many other agricultural industries. The industry provides significant employment opportunities, as well as helping to diversify and strengthen regional Australian economies. Australia's forest plantations provide more than 80% of the wood fibre and timber for our national forest product industries. The remainder is provided from sustainably managed native forests for products that, in most instances, cannot be replaced by plantations.

A major challenge facing Australia's forest industries is the current lack of growth in new plantations which underpins the future of the forest products supply chain. Historically in Australia the establishment of new plantations has primarily occurred through support from Federal and State Governments via the appropriate setting of policies. The current lack of new plantation development combined with the 2019/20 bushfire season and the continuing impacts of COVID19 places industry under ongoing pressure. The Federal Government's goal of one billion new plantation trees is vital to allow industry to meet the future increased demand for forest products.

As a result of the 2019/20 bushfire season there is a looming timber resource shortage in key regions. The medium and long-term supply effects from the losses incurred within the forest estate in certain forestry hubs from the fires has decreased the availability of future resources, which will impact the capacity for the industry to meet future demand and will have a direct impact on processors in affected regions with highly likely significantly reduced employment further impacting regional Australian economies.

The effects of COVID19 are only beginning to be felt across the sector however the impacts will be lasting. Australia's timber industries supply most of the renewable timber products for new houses built in Australia and a substantial portion of multi-unit and commercial construction. The future of the new

housing market is uncertain and the effects of the Federal Government 'HomeBuilder' stimulus package, and the various complementary measures in some States, has yet to be fully seen.

The priority is to supply timber and fibre to domestic facilities to underpin competitive existing and new investments, and to capitalise on the down-stream regional economic development and jobs which this generates. The export market for some forest products operates as a relief valve when domestic markets are unable to consume either the volume or specifications, and where there is no commercial domestic alternative.

This submission will provide an overview of Australia's forest product industries current situation regarding supply and demand and highlight some of the opportunities available to enhance both the supply and value of fibre products.

The forest products industry is one of Australia's largest manufacturing industries with an annual turnover around $24 billion. It contributes around 0.5% to Australia's gross domestic product and 6.6% of manufacturing output. Around 80,000 people are directly employed along the industry value chain with a further 100,000 jobs supported through flow-on economic activity.

Australia's forests

Australia has a vast forest estate of almost 132 million hectares, making it the world's 7th most forested nation. However, despite an abundance of forest resources, there are only around 7.5 million hectares of multiple-use public native forests and nearly 2 million hectares of plantations almost evenly split into hardwood and softwood. Forest plantations occupy only 0.5% per cent of the 385 million hectares of agricultural land.

Forest plantations create many benefits for the community with trees a renewable and sustainable resource that can store carbon dioxide in standing timber and in wood, paper and bioproducts. The World Bank expects the global demand for wood fibre to quadruple by 2050, driven by population growth and greater awareness of the environmental benefits of using wood fibre in various applications[1]. The forest industry has the potential to provide a versatile range of wood products to address this looming demand. In addition, new plantations would support the environment, regional employment, economic activity and improve social outcomes.

However, Australia's plantation estate area is actually declining. In 2018-19, only 2,750 hectares of new softwood and 50 hectares of hardwood were planted across Australia[2]. New plantation establishment as shown in figure two has been flatlining for nearly a decade. Furthermore, this lack of new plantings and replanting in Australia's plantation estate will lead to an expected shortfall of wood fibre over the next four decades. Without an increase supply of high quality local timber and forest products, Australia will be forced to import more potentially lower quality and sub-standard timber and fibre-based products.

[1] http://documents1.worldbank.org/curated/en/240231467291388831/pdf/106467-REVISED-v1-PUBLIC.pdf

[2] https://www.agriculture.gov.au/abares/research-topics/forests/forest-economics/plantation-and-log-supply

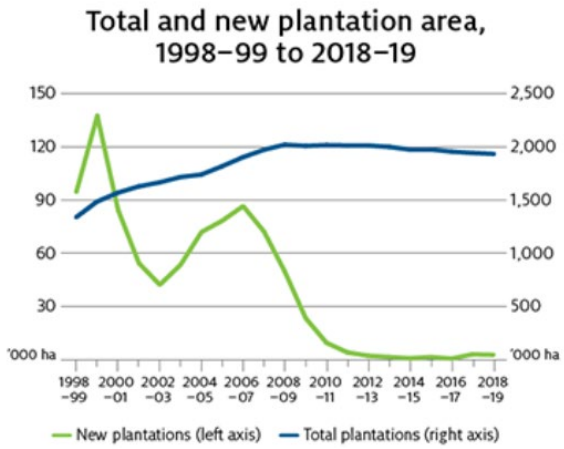

Figure 2. Source: ABARES[3]

Compounding the lack of new plantations, there is emerging evidence that the existing plantation area is reducing in size. Marginal plantations are being converted to other land uses resulting in the weakening of the capacity of the national plantation estate to support future demand for forest products. In 2018-19, there was a decline of 12,000 hectares in Australia's plantation estate which was converted to other land use[4]. In figure 3, the continual conversion of plantation to other land use over the past 10 years is illustrated. Part of the reason for the land use change is how long it takes from planting for forestry crops to deliver a financial return. It can take up to 10 years and in some cases as long as 45 years in comparison to other agricultural crops that produce a financial return within a season.

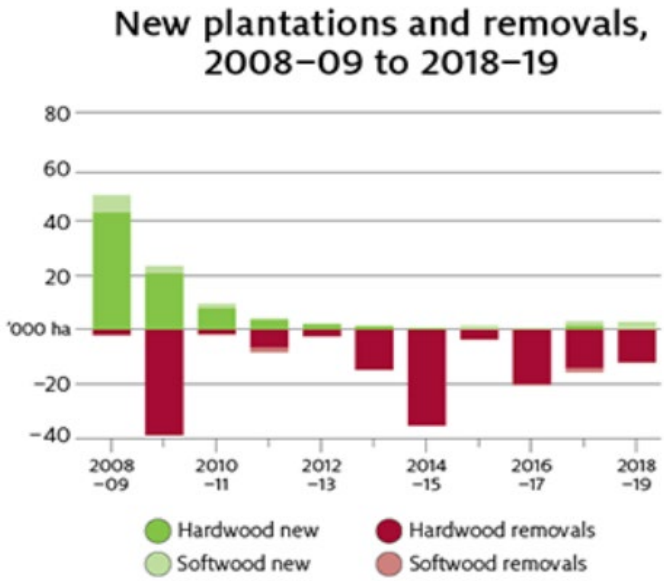

Figure 3. Source: ABARES[5]

Over the past three decades there have been policy commitments by the Federal government to deliver new plantations, but none have yet achieved this goal. In 1997, The Plantations Vision 2020 goal, was signed up to by all Australian Governments, to establish "3 million hectares by 2020". While the plantation estate doubled in size from one to two million hectares following this announcement, most of

[3] https://www.agriculture.gov.au/abares/forestsaustralia/plantation-inventory-and-statistics
[4] https://www.agriculture.gov.au/abares/forestsaustralia/plantation-inventory-and-statistics
[5] https://www.agriculture.gov.au/abares/forestsaustralia/plantation-inventory-and-statistics

the plantings were short rotation hardwood used for pulp and paper making. Australia is presently one million hectares short of the Vision 2020 goal.

In 2018, the Federal Government launched a new policy document 'Growing a better Australia: A billion trees for jobs and growth' (National Forest Industries Plan). The key plank of the plan is commitment to plant one billion new commercial plantation trees. This is an admirable commitment and one that industry fully supports. These new trees are vital to meet the expected future increased demand for forest products. The National Forest Industries Plan has detailed that these trees equate to 400,000 hectares (ha) of new plantation trees over the next decade, including 100,000ha of new farm forestry plantings.

The Forest Industry Advisory Council (FIAC) in its 2016 Issue Paper recommended to the Federal Government that these new plantations need to be 'the right trees, in the right place and at the right scale' to ensure the security of the supply chain and maximise downstream domestic manufacturing opportunities[6]. An issue in the past has been the planting of some new trees too far from processing facilities or trees planted on inaccessible portions of land or the wrong type of tree. An analysis by BAEconomics (2015) has shown that, unless exceptional circumstances exist, the typical economic haulage distance for trees to processing facilities is 100 kilometres. The Federal Government followed this guidance in its National Forest Industries Plan, announcing that future plantation growth would be focused by the formation of Regional Forest Industry Hubs.

The Federal Government has announced and funded ten Hubs:

- South West WA
- The Green Triangle – SA and VIC
- North and North West TAS
- South TAS
- North East NSW
- South West Slopes NSW
- Gippsland VIC
- South East QLD
- North QLD
- Central West NSW

Industry has identified an additional two Hubs (bringing the total to 12) that would ensure all key forestry areas are covered, they are:

- North NT
- South East NSW

[6] https://www.agriculture.gov.au/forestry/industries/fiac/transforming-australias-forest-industry

During the 2019 Federal election, Senator Colbeck, at the time Minister responsible for forestry, announced a $500 million Plantation concessional loan scheme to be administered by the Regional Investment Corporation (RIC). Senator Colbeck said the scheme would deliver 150,000 hectares of new plantation. This loan scheme is still to yet be officially launched.

Recommendation: The two missing regional forestry industry Hubs are fully funded in North NT and South East NSW.
Recommendation: The Federal Government continue its work to deliver on its goal of one billion new plantation trees.
Recommendation: The $500 million plantation concessional loan scheme be fully released.

Softwood manufacturing

Australia's forest-based softwood manufacturing industries are huge contributors to both the Australian economy and to Australia's transition towards a more renewable and sustainable future. Forest based softwood manufacturing industries provide renewable products for housing and construction, fibre and energy, to meet Australia's future needs and the growing needs of export markets.

There are two predominate types of sawmill processors in Australia, hardwood and softwood, hardwood sawmills use logs sourced from public native forests or from commercial forest growers. Softwood sawmill processors only source their timber from commercial plantation growers. In 2016–17, there were 182 hardwood sawmills and 58 softwood sawmills (excluding cypress pine mills) operating in Australia. Softwood sawmills accounted for 82% of the total volume of sawlogs processed in 2016–17 and hardwood sawmills processed 18%[7].

Sawmills in Australia mostly process logs which are turned into timber products for new houses built in Australia and a portion of multi-unit and commercial construction. Softwood sawmills in particular rely on the existence of plantations to supply them with their product. This product needs to be a certain tree type and size both to be processed but also to meet the end use requirements in terms of quality specifications mandated by governments. ABARES is forecasting that the volume of all hardwood is expected to fall from 3.5 to 2 million cubic metres per annum whilst the volume of all softwood is expected to remain relatively flat, at around 4.4 million cubic metres[8]. A lack access to competitively priced wood fibre will make a sawmill uncompetitive and unsustainable and this can eventually result in it closing and leaving the timber resource without access to a processor and multiple people unemployed and regional communities decimated.

ABARES reports that since 2007, the number of sawmills in Australia has decreased significantly, with hardwood sawmills decreasing in number by 64 per cent and softwood and cypress pine sawmills by 31 per cent[9]. Hardwood sawmills have decreased in number due to a variety of reasons including government decisions on resource availability, often they are very small, changing markets and economies of scale. Softwood and cypress pine sawmills have decreased in numbers due to the need to compete on the international market, changing markets and technology.

The Federal Government through recent policy measures, such as the National Forest Industries Plan, has focused on expanding production forest area to promote industry growth. ABARES subsequently has

[7] https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1030542/0
[8] https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/abares/publications/NationalWoodProcessingSurvey2016-17_20190613_v1.0.0.pdf
[9] https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/abares/publications/NationalWoodProcessingSurvey2016-17_20190613_v1.0.0.pdf

released a report which indicates that efforts to increase sawmill productivity and efficiency also have significant potential to increase output and improve international competitiveness[10].

Another issue facing some processors is that whilst log supply may be available it may be located too far away to be economically viable. This situation has been compounded by the 'Black Summer' bushfires which destroyed nearby plantations that processors were dependent upon for an annual supply of logs. Once the salvageable burnt timber has been processed, it will take decades for new plantations to provide adequate log supply for the processors. In the meantime, some processors will need to haul logs from plantations that are hundreds of kilometres away to continue to operate. The cost of hauling timber can be prohibitive, the distance between plantation and processor could be addressed through a freight assistance program.

In Australia there are differing haulage configurations for trucks required region to region impeding on the efficient transport of logs. This places an unnecessary burden on hauling logs from point a to b and in some cases requires trucks to reduce their loads or trucks trailer numbers to be reduce to allow for smaller loads to hauled. The supply deficit for some individual sawmills could be reduced if impediments for transporting logs by more efficient truck configurations were streamlined and made consistent.

The goal of the FIAC 2016 Issues paper is to *triple the economic value of the forest industry by 2050*[11]. The role of government in assisting all parts of industry to position itself in an economic and viable position to triple in size cannot be understated. The Federal Government's One billion tree goal is the mechanism to deliver the plantation estate that industry needs to ensure the future of forestry.

The South Australia FIAC produced a 2020 report that built on the federal FIAC 2016 Issues paper. It recommends increasing the availability of log is essential to the ongoing investment in, and competitiveness of, timber processing. It increases economies of scale, which flows through to efficiencies in other parts of the value chain such as harvesting, haulage and the potential use of biomass. Importantly, the South Australian forest and wood products industry in the Green Triangle has also committed to aim for 100% utilisation of every part of every tree, resulting in more products and less waste.

Recommendation: Investment is needed in new trees, support for impacted processing sector post-bushfires, and R&D for processing innovation.
Recommendation: A Federal and state freight support scheme to underpin the increased cost of hauling timber greater distances following the 'Black Summer' bushfires.
Recommendation: Federal and state governments work together to increase the allowable footprint and types of more efficient log truck configurations.

Wood fibre exports

The majority of wood fibre exports from Australia are paper products, raw wood fibre (woodchip and logs) and recycled wood fibre (recovered paper). AFPA member companies, both growers and processors, agree that the focus is firstly on supplying timber to domestic facilities to underpin existing and new investment, and to capitalise on down-stream regional economic development and jobs.

Growers utilise a mix of long-term, shorter term and parcel wood supply agreements to underpin industry investment and innovation while leaving room for flexibility, new investment and natural timber market

[10] https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/abares/publications/NationalWoodProcessingSurvey2016-17_20190613_v1.0.0.pdf
[11] https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/forestry/australias-forest-policies/fiac/transforming-australias-forest-products-industry.pdf

fluctuations. The current global economic situation highlights the advantages offered by stable domestic markets. Industry strongly supports State and Federal government policy and initiatives that foster the development of efficient domestic processing infrastructure.

Historically export markets have proven to be an important "pressure valve" to allow plantations to be harvested and remain viable in times of domestic market weakness or as outlets for logs and woodchips for which there is insufficient domestic demand. For example, in Queensland in the aftermath of tropical cyclones Yasi and Marcia, export was used to expedite salvage operations. In the aftermath of a large bushfire, there is a tight salvage timeframe where burnt timber that is deteriorating, and at risk of pest and diseases, needs to be harvested. The sheer volume of such timber and the difficulty of storing those logs or processing them into timber or fibre products frequently makes export the only viable option.

In Australia, hardwood and softwood plantations have differing domestic and international market requirements. There is only a small domestic processing market for what are predominantly pulplogs from hardwood plantations, with most being processed into and exported in significant quantities. In softwood plantations the goal is primarily to produce sawlogs, most of which are sold to the domestic processors. Significant quantities of smaller diameter logs also arises during the rotation of a softwood crop and growers must also find a market for the whole crop to be economic – much of this lower value timber also ends up in the export market in the absence of a domestic processing alternative. When sawlogs are sent to processors for sawing there is often a significant amount of woodchips arising which need a market - either domestic or export.

As an example of this the majority of pulplogs in the Green Triangle were once processed into tissue products by the Kimberly-Clark pulpmill in Millicent, with a small volume of posts also recovered from the straighter pulplogs for use in local fencing and vineyards. However, the pulp production facilities at the Mill closed in 2013, necessitating the major growers in the Green Triangle to seek new markets, including export. Without an export market, much of this material would have to be burnt or left to rot on the forest floor, resulting in increased risk of fire, pests and tree diseases.

Australia tends to export higher volumes of less processed and lower value wood products rather than logs as seen in figure 4 below. Factors that influence Australia's wood products markets overseas include international and country-specific economic drivers particularly for wood fibre. Other drivers include production and transport costs, exchange rates, comparative prices of products from competing countries and volumes of supply. In the roundwood category the majority of volume is from pulplogs.

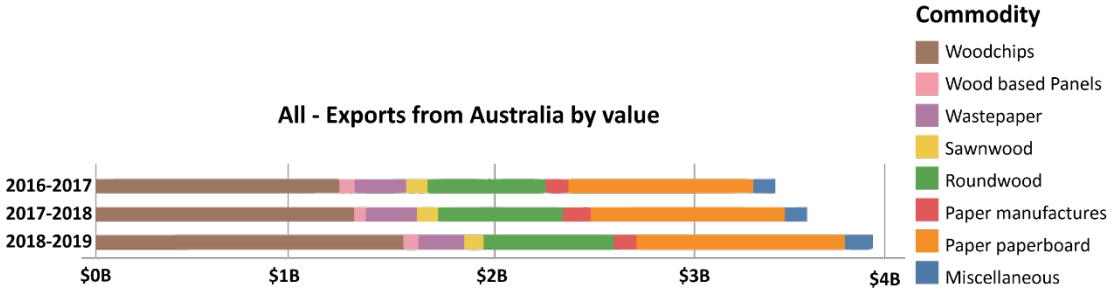

Figure 4. Source: ABARES Australian forest and wood products statistics[12]

Australia has a $2 billion trade deficit in wood products. The information in figure 4 shows the majority of timber exported is wood fibre that could not be processed domestically. When looking at these figures in

[12] https://www.agriculture.gov.au/abares/research-topics/forests/forest-economics/forest-wood-products-statistics#table-2-list-of-import-and-export-countries

the context of the data for both export and import in figure 5 how important it is to increase the plantation estate to give processors long term security to invest in technology to process wood fibre. This will enable processors to plan for the future and will also provide more job opportunities benefiting local regional Australian communities.

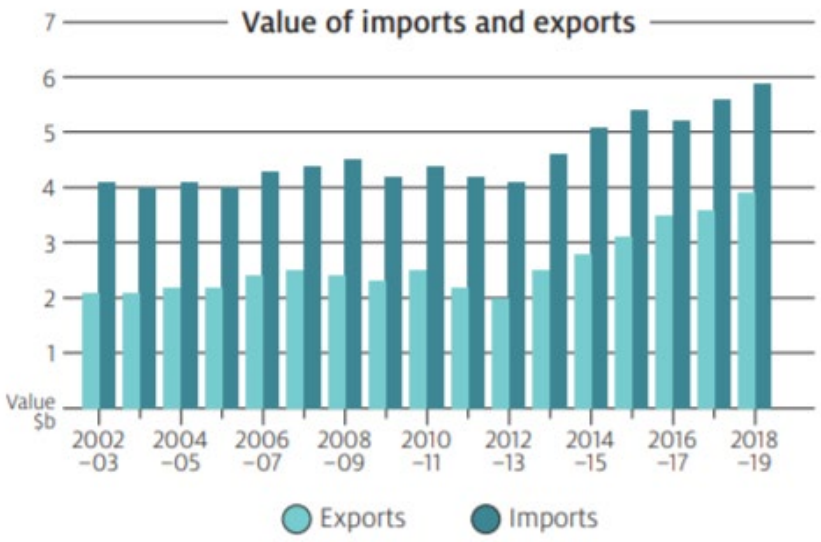

Figure 5. Source: ABARES Australian Forest and Wood Productions Statistics: log harvest 2018-19[13]

A better understanding of Australia's position in the global market would be assisted through the funding of economic research into the domestic industries international competitiveness, including government assistance in countries like China.

Forest product processors need certainty in resource supply to underpin investment in mill upgrades and innovative new products. Plantation managers likewise need certainty of access to markets and supply arrangements to underpin investment in new and existing resource.

Recommendation: Facilitate further domestic processing and internationally competitive scale projects (including investment sourcing) that will be critical in ensuring future value.

Impact of 2019/20 bushfires on our renewable forest industries

The biggest recent threat to Australia's plantation estate and processors was the 2019/20 'Black Summer' Bushfire season. The impact of the fires has been significant, with damage to native forests and forest plantations (particularly in NSW, Victoria, and South Australia), businesses, and regional communities.

There is a window of opportunity over the next year to assess and map what can be harvested or 'salvaged' and coordinate the massive salvage operation required. It is vital that industry and government work together to ensure these operations occur in a timely manner. Replanting and re-establishing the forests as quickly as possible is critical to ensure future timber supplies.

[13] https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1030521/2

The salvage timeframe is limited due to burnt timber deteriorating, along with pest and diseases being an ongoing risk. The volume of burnt timber to be salvaged will be in the millions of tonnes, with significant loss of timber value. Most of the younger plantations cannot be salvaged. Combined, this will create significant gaps in supply of logs in the medium and long term from parts of our hardwood and softwood timber supply zones, which will further reduce the competitiveness of processing industries.

It is estimated that up to 40% of the softwood plantation area (50,000 ha) in the SW Slopes and Bombala regions of NSW has been fire-affected. This equates to around 40% of the total resource on which the SW Slopes and Bombala processing industries are based. The industry annually processes around 3 million tonnes of fibre in total, of which 2 million comes from the SW Slopes plantations.

In Victoria, fires in the east and north east of the state burned a footprint of 1.6 million hectares, over 6,000 ha of plantations in North East Victoria and including a substantial area of timber production native forest in East Gippsland.

In South Australia, on Kangaroo Island 95% of all the plantations owned by private growers and Kangaroo Island Plantation Timber plantations have been adversely affected.

In May 2020, industry welcomed a $50 million bushfire recovery package from the Federal Government for forest industries in NSW, Victoria and South Australia. The package is split into two parts with a $40 million Forestry Recovery Fund that will support timber processors facing significant, long-term reductions in log supply to retool and upgrade their mills and a $10 million Salvage Log Storage Fund to boost mills' capacity to process and store the short-term surplus in burnt logs. The NSW Government also announced a $140 million Bushfire Industry recovery package for industry.

Recommendation: Commensurate firefighting resources be committed to reducing the future loss of plantation area and processing capabilities to avoid an economic disaster for the Australian plantation and processing sector.
Recommendation: State and Federal Governments to recognise plantations as critical infrastructure assets in their bushfire planning going forward, and facilitate the urgent replanting of the burnt plantations through the Federal Government's $2 billion bushfire recovery fund or other mechanisms.
Recommendation: A whole-of-landscape approach be taken to land management and bushfire mitigation through mechanical fuel reduction as well as autumn/winter burns to mitigate wildfire risk to an acceptable level, and to harmonise existing land management regimes.

Impacts of COVID-19

The direct and indirect impacts of COVID19 on forest industries value chain and workers continue to increase, including: decreasing demand of traded wood and paper products; increasing delays in the imports and supply of business inputs; stockpiles of export products are building up in Australia; and direct impacts on businesses and workers from increasing COVID19 restrictions.

Australia's forest products industries manufacture and deliver a range of essential products and services:

- Toilet paper, tissues, medical products, sanitary products and other paper products
- Cardboard packaging for supermarket and retail deliveries, including pharmaceuticals
- Food and beverage packaging
- Wooden pallets for supermarkets and other retailers' distribution operations

- Timber for housing and building construction
- The provision of kerbside, wastepaper and packaging recycling services
- Newspaper for most of Australia's metropolitan and regional newspapers
- Supply of wood residues to the agriculture sector
- Forest managers (including forestry plantations) and their contractors play a key role in Australia's bushfire mitigation and suppression capacity, conducting significant fuel load reduction and frontline fire suppression
- Timber poles for electricity and telecommunications services, as well as fence posts
- Firewood

As the Federal Government looks to assist the economy move past the impacts of COVID19 forest industries could be promoted as an employment opportunity in regional areas. There could be leadership programs created which would improve cohesion in the value chain.

As a result of the pandemic one of the biggest threats to timber processing companies is the major forecast demand drop in building new homes with an associated decrease in sawn timber demand of up to 50%. In response to these figures in June 2020, the Federal Government announced a $688 million HomeBuilder grant program to build a new home or substantially renovate an existing home where the contract is entered into between 4 June 2020 and 31 December 2020. The grant program has been welcomed and is having an immediate impact in helping to stabilize the housing figures however the long-term impact is not yet known.

Recommendation: Forest industries continue to be declared essential industries by Federal and State governments.
Recommendation: The HomeBuilder program to be reviewed to ensure it is meeting its policy objectives in a timely manner.

Bioenergy and bioeconomy

Australia is a laggard on the global scene when it comes to the uptake of bioenergy. Processors and manufacturers of wood, paper and engineered wood products are significant energy users. These industries, like much of the manufacturing sector, have experienced low price rises for their products for many years and increasing quality and performance demands. While the industry has been able to contain costs through increased efficiency and scale (both usually requiring significant capital investment) and competitive sourcing of raw material inputs, it is unable to control the costs of inputs, including energy and energy distribution.

Sustainably produced biomass from timber processing activities (such as sawdust, timber offcuts and forestry waste) and other agricultural sources, can offer significant potential to contribute to Australia's renewable energy future. Currently, Australia's timber industry produces a large amount of sustainable biomass from timber processing and paper manufacturing operations. However, only some of it is being utilised in local or regional bioenergy facilities, or as wood pellets that are exported overseas as a source of renewable energy, generally into the Japanese market where government policy is mandating renewable energy from biomass.

Bioenergy uniquely, provides renewable and dispatchable energy that complements existing power generation and underpins intermittent renewables like wind and solar. Energy from biomass, such as forestry, industry and agriculture residues, is a unique renewable that can be used across all three energy

sectors (transport, heat and electricity). The CO^2 released by the combustion of the renewable wood waste is captured by new plants as they regrow in a sustainable cycle.

Australia is in the bottom quartile of Organisation for Economic Cooperation and Development (OECD) countries with respect to bioenergy as a proportion of total energy supply. In Australia, biomass for energy purposes makes up around four per cent of total energy consumption. This stands in contrast to the European Union, where 10 per cent of energy consumption is derived from biomass[14].

Under the Kyoto Protocol, bioenergy is regarded as CO^2 neutral. The United Nations Framework Convention on Climate Change also defines bioenergy as renewable, if it is produced from biomass that is sustainably managed – as Australia's commercial forestry operations are.

The 4th assessment report of the International Panel on Climate Change (IPCC) stated:

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

Internationally competitive energy costs are essential if manufacturing in Australia is to survive and grow which following the COVID19 pandemic is essential. If Australia is to remain competitive in international markets, it is important that Australia's energy policies do not disadvantage domestic operations by subjecting trade-exposed industries to costs not faced by competitors in other countries.

A major impediment to bioenergy uptake in Australia has been the sole emphasis on renewable electricity rather than energy (including renewable heat) in previous climate change/energy policies, including the existing Renewable Energy Target (RET) framework. The RET only recognises the renewable energy benefits from electricity production and not the benefits from the generation of renewable heat energy in the large-scale component of the RET, despite recognising solar hot water energy in the Small-scale Renewable Energy Scheme. This has severely constrained bioenergy investment in renewable heat and cogeneration opportunities and misses some of the lowest cost opportunities for carbon emissions abatement. This policy inequity needs to change.

Recommendation: Climate change and energy policies recognise and incentivise renewable thermal heat projects.

Antidumping system

Australia must also maintain a level playing field in global forest products trade to counter the threats from predatory pricing and dumping. While recent reform of anti-dumping and countervailing policies have made some progress, additional measures and ongoing effective implementation of the antidumping system is needed to achieve fairness for domestic producers, including information disclosure, compliance, and corrective measures. Better monitoring and public disclosure of trade data is also needed in addition to quicker rulings, given the significant lags in decisions and sustained damage that can be suffered by injured parties.

Recommendation: Continue to strengthen the anti-dumping and countervailing system to achieve fairness for domestic producers, including an improved system of information disclosure, compliance, and corrective measures.

[14] KPMG Bioenergy State of the Nation Report (https://cdn.revolutionise.com.au/news/vabsvwo5pa8jnsgs.pdf)

Carbon stored in trees and forest products

Trees are a sustainable biological resource that produce renewable wood fibre and paper products, including emerging new and innovative products such as biomaterials, biochemicals and bioenergy. They also provide multiple benefits, including the carbon stored over time in the growing forests, the forest soils and renewable wood products, as well as economic activity, jobs, and environmental co-benefits. Government policy and support are needed to establish new plantation production trees to provide much needed forest products, store carbon and underpin emissions reduction.

Major pathways for emissions abatement from the forest products industry include:

- the carbon sequestered in growing forests
- the carbon stored in durable wood and paper products
- the substitution of high emissions materials (e.g. steel, concrete) with wood and other fibre-based products that have low embodied energy, and
- the use of woody biomass for renewable energy (including for renewable heat and biofuels), thereby displacing fossil fuels

In June 2018, AFPA launched '18 by 2030' – Forest Industries help tackle Australia's climate change challenge, detailing a plan to remove over 18 million tonnes of CO^2-e per year by 2030. This is around 23% of the Australian Government's current emissions reduction target[15]. This equates to 115 megatonnes of CO^2-e removed or stored over the period 2019 to 2030.

Forest industries can play a significant role in reducing emissions, transitioning to a carbon constrained future, and assisting the Government achieve national targets.

As an example, a significant economic, environmental and social opportunity could be realised by prioritising sustainable timber building products under a 'carbon neutral city' policy.

A community, place or activity is defined as carbon neutral if it does not effectively release any net greenhouse gases into the atmosphere. This may be because it does not create any in the first place, is able to offset what it does emit through other activities or a combination of the two. This perfectly suits the significant role that sustainable plantation timber products can play in the construction industry.

This policy could provide significant momentum to both lightweight framing and innovative engineered wood product solutions such as Cross Laminated Timber (CLT) in Australia, by promoting a Federal and State government 'wood first' policy that would prioritise the consideration of timber building products given their low carbon footprint. Such a policy would underpin two key policy drivers that all governments are focused on: jobs growth in both traditional and emerging innovative industries and climate change policy (e.g. under a carbon neutral city policy).

Australia is looking for new solutions to curb carbon emissions and to enable the transition of the economy to a renewable and sustainable future. In many ways our renewable forest product industries are ideally placed to assist the transition of the Australian economy to this sustainable, lower emissions future.

[15] The Australian climate change target is to reduce emissions by 26-28 per cent on 2005 levels by 2030. Note current 2017 annual emissions are 532 Mt CO_2-e and 2030 target (@26%) is 453 Mt CO_2-e - difference is 79 Mt CO_2-e per year – potential contribution is around 23%. 2005 annual emissions were 612 Mt CO_2-e. *More info*

Relative to alternative building materials such as steel, aluminium and concrete, timber products have very low embodied energy, with very low fossil fuel energy inputs used in their production.

CLT is an engineered timber building product used for prefabricated structural applications and is making the construction of entire buildings including multi-rise from timber a reality. CLT was developed in Europe and has been used in constructing buildings overseas for more than ten years. CLT is a durable, strong, sustainable, solid-wood alternative to conventional building materials. Until recently CLT was produced overseas and imported to Australia but recently domestic production has begun.

Benefits of using prefabricated CLT panelised building solutions (or similar engineered wood products) include:

- compared to alternative building materials such as concrete and steel the use of CLT reduces CO^2-equivalent emissions by over 1,400 tonnes[16] per average apartment, when carbon uptake during growth is included. That's equivalent to taking 34,517 cars off the road for a year (statistics compiled by Lendlease for the Forte Living Project);
- CLT also has excellent thermal qualities. Timber is warm, natural, smells great, and as a natural product it provides excellent ambient air quality, and
- prefabricated building systems can be constructed up to 90% faster than traditional methods. It can reduce total construction costs by up to 50% and recycle up to 80% of site waste[18].

Recommendation: Federal and State government's must develop policies such as Australian Wood First policy that recognise the significant role sustainable timber products, including the value of embodied energy and stored carbon in timber products can play in emissions reduction.
Recommendation: The creation of a Commonwealth funded timber champion to help Departments/agencies specify and purchase forest and wood products

Investment in wood fibre processing and adjacent technologies is needed

The lack of a critical mass of researchers needs to be addressed in the context of current and future research priorities. Given current and expected changes in resource availability from both naturally regenerated forests and plantations, research into improving the quantity and quality of wood resources will continue to be a high priority, in conjunction with value added processing. This situation demands urgent and decisive action.

[16] RMIT University, Life Cycle Assessment of a Cross Laminated Timber Building Stage 1 – Materials for Construction (not including operation or end of life).
[17] When carbon uptake during growth is included and the average car emits 4 tonnes of carbon dioxide (RACV)
[18] ARC training centre for advanced manufacturing of prefabricated housing.

In Australia, funding of research and development investment in forest industries has fallen from around $104 million in 2008 to less than $20 million in 2019. Associated with this decrease has been a decline in the number of researchers, technical and support staff from 732 in 2008 to about 70 in 2019 (some say this number is as low as 16). In comparison to other countries with significant forestry resources such as Canada and New Zealand, Australia is behind in funding and scientists.

Example 1

FPINNOVATIONS - Canada
People: 600
Budget: CA $97 million per year (64% government / 36% industry)

FPInnovations was created in 2007 through the merger of Canada's four major forest research institutes: Forintek; Forest Engineering Research Institute; Pulp and Paper Research Institute; and the Wood Fibre Centre of Natural Resources. It acts as an innovation hub for the forest products sector, involving industry, governments, universities and other research suppliers. It concentrates Canada's forest research and brings together the three essential strengths for the sector's future development and market alignment, namely: industry initiative and capital, innovative R&D and engineering resources, and financial support from government partners.

Example 2

SCION – New Zealand

People: 299

Budget: NZ $43.7 million per year (62% government / 38% industry)

Scion was launched in 2005 through a rebadging of the New Zealand Forest Research Institute. It brings together the bulk of forest research in New Zealand and is delivering breakthroughs in forestry, wood products and wood-derived materials and other biomaterial sectors.

The forest products industry has the potential to be a major growth sector of the 21st century Australian economy. It can build jobs and income in traditional growing, harvesting, processing and manufacturing in regional areas, and can play a large role in producing the next generation of environmentally friendly materials which will be vital for the 21st century.

The Government has recognised and began to address this crisis over the last several years through the funding of the '*National Centre for Forest Products Innovation*' (NIFPI) centres, in Mt Gambier, and Launceston. The $2 million in Commonwealth funding (matched by $2 million in State funding) in both these locations generated some $17 million in R&D by leveraging industry contributions. Twenty-nine projects were funded across both centres and all the funding was committed in just eight months. Whilst the centres will continue to monitor the delivery of the projects no new work will be commenced. A third NIFPI centre was recently announced in Victoria although it has yet to formally start operating.

The forest and wood products sector is the only agricultural sector with an artificial cap that limits access to the full 0.5% of GVP in voluntary matching funding. The cap is specified in the *Forestry Marketing and*

Research and Development Services Amendment Regulation (2015). Industry has demonstrated its willingness to support research and development through the fact that the matching funding ceiling has been quickly reached in each year since it has been applied. The removal of the cap is vital to allow research and development of the sector to be on the same footing as other agricultural industries.

Industry has identified the best way to build this desperately needed capacity is through the creation of a $100 million National Institute for Forest Products Innovation (NIFPI). It will build the critical mass of researchers and facilities to better deliver R&D outcomes for the forest, wood and paper products industry, as well as providing researchers with attractive career paths, a creative research environment and adequate resources. The NIFPI will strengthen the coordination and planning of R&D capacity and implementation of priority industry research at the national level. It will help accelerate commercialisation pathways through extension and technology transfer programs to better capture strategic breakthrough technologies and productivity improvements; and encourage global networking to ensure the sector is well placed to take advantage of innovations created internationally.

The NIFPI will also help the Federal Government deliver on its goal to growing Australian agriculture to $100 billion by 2030.

A 2019 ACIL ALLEN report, commissioned by the Research and Development Corporations titled 'Agriculture a $100B sector by 2030?' identifies one of the key drivers is investing in off-farm R&D.

"Developing new uses for products helps to diversify the agricultural sector and allows the sector to better withstand uncertainty and a changing environment. Value add is a significant contributor to the agriculture and food industry[19]."

Arguably there are few sectors that have the ability to add more value post farmgate than the forest industries, where innovation is creating new uses for wood fibre that were never thought possible such as biochemicals, bioplastics and biofuels.

Recommendation: The creation and funding of a $100 million NIFPI over four years.
Recommendation: The Government remove the cap on voluntary matching forest industry R&D funding.

Carbon Farming Initiative

A policy to incentivise tree planting is through valuing the carbon stored in trees via the existing national emissions reduction policy frameworks the Carbon Farming Initiative (CFI) and the Climate Solutions Fund (CSF).

Late in 2017, the then Federal Minister for the Environment and Energy approved a new plantation forestry method under the CFI. Eligible participants are now able to apply to the Clean Energy Regulator (CER) to register an ERF project. The method credits abatement by storing carbon from the atmosphere in trees. This is done by establishing new plantation forests or converting short-rotation plantations to long-rotation plantations.

In 2020 the CFI Rule was amended (i.e. Carbon Credits (CFI) Amendment (Excluded Offsets Projects) Regulations 2020) to add a provision to regulation 3.37 of the Regulations to amend the existing water

[19] https://acilallen.com.au/uploads/files/projects/256/ACILAllen_AgriFutures_2019-1566966143.pdf

requirements. This change will allow new projects in areas over 600mm of rainfall to proceed with registration, if they are located in a region declared by the Minister for Energy and Emissions Reduction to be a 'exempt region where material risks to water availability are likely to be addressed'.

On 2 July 2020, the Minister for Energy and Emissions Reduction declared as shown on the map in figure 6, four (4) and half exempt forest regions being: South West (Western Australia), North/North West (Tasmania), North East (New South Wales) the South West Slopes (New South Wales and Victoria) and Green Triangle (South Australia).

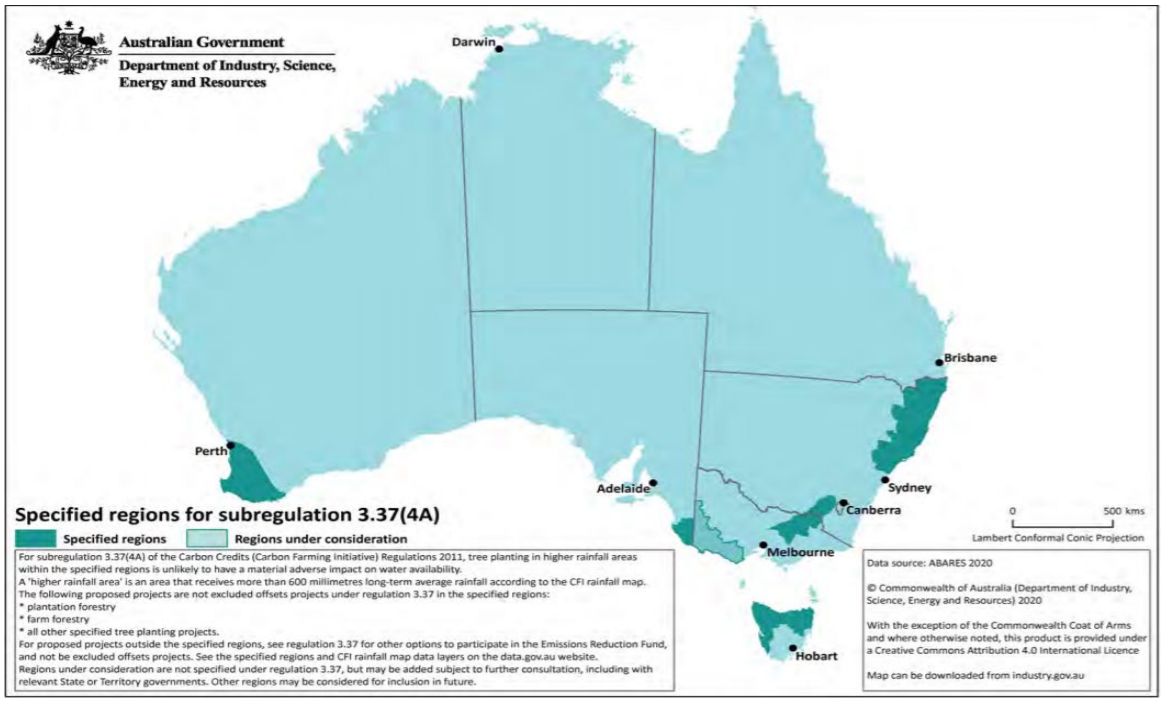

Figure 6 Source: Department of Industry, Science, Energy and Resources

All CSF projects will continue to be required to meet relevant state or territory government rules and regulations. Additionally, new projects under the plantation method are subject to a 'Ministerial Veto', that is, if the Minister for Agriculture assesses a proposed project as having an 'undesirable impact on agricultural production in the region', it will be ineligible.

While there have been four and a half regions declared exempt, there are a further seven and half which also need the exemption to be applied:

- The Victorian side of Green Triangle (Western Victoria)
- South East QLD
- North QLD
- Gippsland
- Central West NSW
- South Tas
- North NT
- South East NSW.

Recommendation: The above listed seven and half regions are also declared exempt from the CFI rule.
Recommendation: An ERF methodology for carbon stored in the built environment

Farm Forestry

Farm forestry is the incorporation of commercial tree growing for multiple benefits into holistic farming systems. For instance, it can include timber belts, alleys, contour plantings and paddock tree plantings on marginal land. Farm forestry is an essential and growing component of the forest products industry.

In the National Forestry Industry Plan, farm forestry plantings were recognised as a key part for providing greater certainty and confidence for our forest industries.

Farm forestry allows farmers the opportunity to plant a long-term agricultural crop for timber production. It can improve agricultural productivity by providing shelter for stock and crops, increase biodiversity, provide other environmental benefits such as decreased erosion, habitat restoration, increased water quality, salinity control, and is an alternative source of income for farmers.

Farm forestry can provide farmers with the ability to reduce their carbon footprint as has been recognised by the Federal Government[20].

There are more than 150,000ha of small-scale planted forests in Australia that have been established by farmers across Australia however farm forestry has not realised it full potential.

In the past attempts to further expand farm forestry have stumbled due to:

- lack of access to expert technical advice
- difficulty in marketing timber as an individual grower especially due to lack of timber price transparency and high costs of processers dealing with individual and dispersed small parcels of farm forests
- inadequate infrastructure for harvest and haul of timber in some areas
- difficulty in scaling and aggregating to make harvest and haul operations economical
- while a farm forestry operation may produce only small volumes or have intermittent supply, customers require a large volume supplied consistently
- inability to cost-effectively participate in group certification schemes which increase access to markets
- mill closures, making transport to other processing centres unviable

Overseas experience: In Scandinavia, southern United States and New Zealand there is a long history of industrial wood supply from many small private landowners and farmers as well as the successful development of marketing cooperatives.

In Sweden 50% of forest land[21] is owned by individuals and families. Several successful marketing cooperatives have been developed, including Norra Skogsagarna – which has 17,000 members[22] and collectively produces and sells around 2 million cubic metres of wood each year.[23]

[20] Carbon Credits (Carbon Farming Initiative) (Measurement Based Methods for New Farm Forestry Plantations Methodology Determination 2014)
[21] http://www.ksla.se/wp-content/uploads/2015/08/Forests-and-Forestry-in-Sweden_2015.pdf
[22] http://www.norra.se/medlem/medlemskap/Pages/default.aspx (about Northern Forest Growers)
[23] http://www.norra.se/medlem/medlemskap/Pages/default.aspx (about Northern Forest Growers)

In the United States, around 50% of the total forest area[24] is owned by small family landowners who actively participate in forestry production in regional and global markets.[25]

In New Zealand, more than 578,000ha or 34% of the plantation forest,[26] is owned by private individuals with parcels of no more than 10,000ha. The New Zealand Farm Forestry Association acts as a national network of farm foresters who share information for mutual commercial benefit.

In Australia: the Australian Forest Growers Organisation represents an established network of small-scale farm foresters. There are lessons that can be drawn from overseas and local experience to build better linkages between the farm forestry sector and the broader plantation growing and processing industry.

The CSIRO is currently researching high value modular agroforestry (in an R&D for profit project supported by Dairy Australia and Agri-futures) to expand the scientific data for farm forestry.

In 2019, a research project led by Professor Rod Keenan from the University of Melbourne on farm forestry called 'Next Generation Plantation Investment' was completed. The project looked at the current needs and past experiences of landowners, industry and the investment community. The information gathered helped inform development of new models for planted forest investment and drive long-term change to position the sector to access new capital and engage in partnerships with farmers. Three types of business models have been created which are recommended: land lease, joint venture and outgrower models. All three of these models have been used successfully previously in Australia. The three models offer alternative models which enable the industry to engage landowners with different scales of suitable land, different interests in growing trees, varying needs for immediate income, and risk appetites. The models allow for landowners with varying needs for permanent plantings, subject to industry constraints.

Another farm forestry project that is still currently underway is by Daniel Mendham from CSIRO Land and Water into the benefits of planting trees on farms. Mr Mendham has identified using commercial trees as shelter belts has a range of positive impacts on adjacent agriculture. One of the properties that is part of the study has found on one paddock the western (shelter belt) half had 30% more biomass (3.3 t/ha) than the eastern (unsheltered) half (2.6 t/ha). The 25 ha paddock (including 1 ha of trees) is effectively growing the same quantity of pasture as a 28 ha unsheltered paddock. This project is still ongoing but the benefits of having trees on farm is shown to supply additional benefits previously not widely recognised.

Additionally a focus on recognising co-benefits (including carbon stored) in national emissions reduction policies is also being advocated by Climate Proofing Australia (CPA), of which AFPA is a founding member. CPA is an industry and conservation led network of organisations committed to advancing the role of farming, forestry and conservation in meeting Australia's emissions targets. This cross-sector collaboration seeks to work together in an unprecedented manner to manage land in ways that reduce the impact of climate change on people, nature, and economies. The members of the alliance are Greening Australia, the Australian Forest Products Association, the Red Meat Advisory Council, and Farmers for Climate Action.

Recommendation: Supportive policy (including carbon storage and co-benefits) should be developed by the Federal and State governments to underpin the growth of farm forestry across Australia.

[24] https://www.pefc.org/forest-issues/who-owns-the-forest
[25] https://www.fia.fs.fed.us/program-features/rpa/index.php
[26] http://www2.stats.govt.nz/domino/external/web/nzstories.nsf/0/b229fe40e690bacacc256b1f00014ebd?OpenDocument

AFPA is the peak national body for Australia's forest, wood and paper products industry. We represent the industry's interests to governments, the public and other stakeholders on the sustainable development and use of Australia's forest, wood and paper products.