

Public submission

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Dear Prof O’Kane, Messrs Duncan and Veitch

Thank you for the opportunity to provide a submission to your panel.

The following submission are my personal comments based on over 44 years of experience working in and consulting on forestry in Australia and overseas. I have a Bachelor of Science (Forestry) degree from the Australian National University and a Master of Forest Business Management from Aberdeen University in the United Kingdom. I am a Registered Forestry Professional, a Fellow of Forestry Australia and a Fellow of the Australian Institute of Company Directors.

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The comments in this submission are mine and do not reflect the sentiments or otherwise of any of the businesses I am associated with.

I am pleased to provide this submission for your consideration. Unless otherwise stated my comments relate to New South Wales (NSW) and I have divided it into three sections:

1. Background – why forestry is hard in Australia (and NSW)
2. Comments on the topics suggested in the Template
3. Suggestions for a positive future for forestry in NSW

Background – Why is Forestry is hard in Australia (and NSW)..

Prior to the arrival of European settlement Australia’s forests were actively managed by our traditional owners, mostly by judiciously using fire. This management is well described by Emeritus Professor Bill Gammage in his book *‘The Biggest Estate on Earth’-how Aborigines made Australia* (Allen & Unwin, 2001). Aboriginal disturbance was a feature of many of our forests and woodlands and this periodic management technique was largely lost following European settlement. However, there are initiatives to resurrect this management practice by Local Aboriginal Land Councils through the implementation of cultural land (burning) management

The passive 'hands off leave it to nature' principle that is applied in many of our National Parks is not natural for our forests and in my professional opinion is detrimental to their health.

Following European settlement forestry in Australia had a difficult history. Our forests were exploited for high value timbers such as Australian Red Cedar (*Toona sp*) and many of our rainforest species and our tall eucalypt forests were selectively harvested for the best trees particularly durable and high strength species for industrial construction like warehouses, wharves, & bridges but also for houses, poles, sheds and fence construction. Throughout the 1800's our forests were harvested to meet the demands of the young colony without any professional forestry oversight or knowledge about the silvicultural requirements to regenerate our unique eucalypt forests. Over this same period significant areas of forests were cleared to develop farmland and cities. (A History of Forestry n Australia - Carron 1985, The Bush - Watson 2014).

Australians were not trained as foresters until the early 1900's and the first Forest Act was not legislated until 1916 nearly 130 years after European settlement.

Our early foresters adopted European forestry techniques to manage our Eucalypt forests but they were not successful as they did not recognise that eucalypts, particularly in southern Australia require disturbance to adequately regenerate.

By the late 1800's the first forest managers recognised the potential problems of over clearing and uncontrolled harvesting of NSW's forests by implementing more controls and creating forest reserves (e.g. Royal National Park in 1879). This created a difficult relationship with both sawmillers who possibly felt they knew more about the forests than the government managers and landowners who wanted to clear their forests for farming. This early division between foresters and farmers has never been successfully repaired.

The difficulties engaging private landowners led to professional forest management efforts focussing on the public forest estate where the government had more control (Carron, 1985).

The lack of engagement with private landowners continued with the expansion of softwood plantations in the 1960's,70's and 80" where the Commonwealth Government provided interest free loans to the States under the *Commonwealth Softwood Forestry Agreements Act (1967)* but while there was consideration of funding the private sector no funding was provided. The Commonwealth ceased funding the states in the early 1980's due to increasing concerns about the states clearing natural forest to establish exotic plantations.

The lack of engagement with the private sector and the absence of open and transparent log market reporting has resulted in the burden of wood production remaining with the public forest manager and there has been no significant increase in the softwood plantation estate since the early 1990's.

While the above scenario relates to NSW the processes were similar in other states and Australia (& NSW) finds itself in the perverse position of being the 6th most forested country in the world¹ and yet it is a net importer of wood products. According to the Australian Bureau of Agricultural Resource Economics and Sciences (ABARES), Australia imported in 2022-23 \$6.8 billion worth of wood products and giving rise to a trade deficit of \$4.1 billion, the highest this century and possibly ever. Without increasing supply from our planted and natural forests this

¹ United Nations Food and Agriculture Organization (FAO) Global Forest Resource Assessment 2020

deficit will only worsen as immigration and economic development continues to increase demand for wood.

In terms of NSW the total forest area according to ABARES is 20 million (M) hectares (ha) of which 7.4M ha (38%) are privately owned. FCNSW manages only 1.8M ha or less than 10% of the total forest estate (9.3%). The balance of the forest estate in NSW is National Parks and conservation reserves 5.6M ha (28%) and leasehold and other crown land which is 4.6M ha or nearly 24%.

As a result of history we have the bizarre situation in NSW where we are trying to meet demand for hardwood from less than 10% of our natural forest estate and various activist groups are asserting that threatened species are at risk of extinction due to a periodic activity (harvesting) or disturbance on a very small percentage of the estate, which in theory is statistically impossible.

This situation can be addressed but it will take time and some structural reform but it is possible if there is a political will to achieve it.

The following comments are provided on the topics outlined in the submission template, they are succinct as I am sure others will cover the same issues, but I am happy to expand on my comments if the panel would like to discuss them with me.

Comments on the topics suggested in the Template

- *Sustainability of current and future forestry operations in NSW*

Forestry is a complex science where many variables such as soil type, rainfall, topography, altitude, species mix, aspect etc combine to define why a certain forest exists. They are dynamic meaning the forests we have today are different from yesterday and will be different tomorrow. This dynamism makes predicting management impacts and growth over time difficult.

Assessing sustainability is a specialist skill it requires an excellent knowledge of the forest estate, particularly species distribution and growth variability. It requires an expert knowledge of sampling theory (forest mensuration or measure), species growth and dynamics over time and biometrics (tree volume measurement). As there are numerous variables involved sophisticated computer modelling (normally linear programming optimising tools) is required and they are expensive. Few people have these skills and/or access to detailed forest records and/or the computer modelling tools to undertake this assessment.

The community can be reassured that FCNSW harvests its forests sustainably because they are independently certified for sustainable forest management under the Australian Forestry Standard by Responsible Wood.

In addition, the Regional Forest Agreement (RFA) requires every 5 years an independent assessment of sustained yield.

While I have not viewed FCNSW inventory data in any detail recently, it is my understanding that they have had a policy of not allocating 100 per cent of their sustainable yield so that they retained a buffer of excess wood to allow for changes in regulations or loss of resource due to events such as bushfires.

- *Environmental and cultural values of forests, including threatened species and Aboriginal cultural heritage values*
 - Environmental and cultural values should be considered in the Code of Practice or the IFOA (Integrated Forestry Operations Approvals)
 - The development of the RFA's required the development of a Comprehensive and Adequate Reserve System, which is meant to be monitored for its effectiveness. To date no monitoring has been undertaken in these reserves and there is no regular monitoring of the effectiveness of our states National Parks which is a significant weakness of our natural resource management.
 - **Threatened species** – NSW has 1000 threatened according to the states Environment Protection Authority or EPA website. Protecting all species is important. According to the Invasive Species Council website (<https://invasives.org.au/>) Invasive species are driving more than 80 per cent of Australia's most vulnerable native plants and animals towards extinction.

There is no peer reviewed research that suggests any native species has become extinct because of forest harvesting.
 - **Active management can monitor invasive pests and develop healthy forests** - which will greatly assist the survival of forest dependant plants and animals – healthy forests without pest plants and animals have healthy biodiversity.
- *The future of softwood and hardwood plantations and the continuation of Private Native Forestry in helping meet timber supply needs*
 - **Our plantation estate is declining** - Australia's national plantation estate is declining the total softwood and hardwood estate peaked at over 2 million ha in 2008-09 and has declined by over 300 thousand ha to be 1.7M ha in 2022-23 (ABARES Forest and Wood Products Statistics). Similarly in NSW our hardwood plantation estate has declined from a peak of 93 thousand ha in 2012-13 to a current reported estate of only 55 thousand ha a drop of some 38 thousand ha. (ABARES). The NSW Softwood estate is also declining but not as significantly. It peaked at 307 thousand in 2016-17 and is now only 294 thousand ha. (note some of this drop could be due to the impact of the Black Summer fires and may recover over time). However, the critical message is that our plantation estate is not expanding to meet rising demand.
 - **Expanding the plantation estate is expensive and has social implications** - To produce 500 thousand cubic metres of sawlog to replace the current sawlog harvest from state forests would require the establishment of at least 50 thousand ha of high quality plantations growing at 10 cubic metres per hectare per year (which is optimistic). This would require for example the purchase of at least 70 thousand ha of land (as not 100% of every farm is plantable, due to roads, firebreaks, drainage, power line exclusions etc). According to the Rural Bank 2023 farm property values report land prices in the eastern seaboard of NSW are around \$10 thousand per ha. An estate of 70 thousand ha would cost \$700 million. It costs around 5 to 6 thousand dollars per ha to successfully establish a

plantation which is a further \$250 to \$300 million. This is a minimum cost to government of at least \$1 billion and there is no guarantee of success.

- **It takes decades to commercialise a timber species in plantations** – the first trials of Radiata pine were planted in the late 1800's and it was not until the 1980's that Radiata pine became an acceptable substitute for hardwood in house frames. There is years of trials and research into tree breeding, silviculture pest management to establish successful plantations of hardwoods. Blackbutt and Spotted Gum are looking positive on the north coast of NSW and Spotted Gum may grow well on the south coast but much more research is needed before private investors would consider them a viable investment proposition.
- **Farmers do not like plantations as neighbours** – following the debacle of the Managed Investment Schemes many farming communities and farmers have negative perceptions about the development of new plantations on prime agricultural land in their community. The loss of family farms and the tendency of plantations to harbour feral pests and plants has not given plantations a 'good neighbour reputation'.
- **PNF could provide a significant sustainable supply of wood products and other benefits, because it already exists.** The 7.4M ha PNF estate in NSW is largely unmanaged and unknown in terms of quality and landowner intent. For reasons explained earlier PNF has not been structurally engaged to share the wood supply to the processing industry in NSW. The potential is significant approximately 5 M ha of the PNF estate is eucalypt forest.

PNF does not grow as fast as plantations but it does respond to silvicultural treatments such as thinning. According to research undertaken by ABARES in 2014, NSW has some of the most productive PNF in Australia.

So what could PNF produce, unfortunately we have to make some assumptions.

If we consider just the eucalypt estate and assume only half the PNF landowners in area terms want to engage in active management and then a further half of those are happy to harvest this would indicate an estate of about 1.25M ha.

If this estate is actively managed by thinning it will improve growth and log quality. In addition and depending on how the thinning is undertaken and maintained it can also reduce the incidence of crown fires as the middle story of vegetation is removed, and just native grass understorey is retained.

ABARES research suggested an average growth rate of PNF in NSW for sawlogs of 0.41m³/ha/year and research into the growth benefit from thinning was reported by (Lewis et al, 2020) that growth on the North coast increased to 1.2 m³/ha/yr.

For illustrative purposes and to keep the numbers simple we can assume an average current productivity of 0.5m³/ha/year (assuming we would choose the better regrowth forests to treat and the response is an increase in growth to average 1m³/ha/yr) Therefore

- Untreated PNF would need 1 million hectares of PNF to be in active harvest to supply 500 thousand cubic metres of sawlogs per year..
- With thinning we only need 500 thousand hectares to be in production and this would cost approx. \$500 per hectare (this could vary significantly but assumes no commercial harvest to offset) and in total \$250 million.
- **Therefore for a quarter of the price of establishing new plantations PNF could be managed to replace the harvest from State Forest and there is no social impact with local communities as the forests already exist.**
 - If 1M ha of PNF were to be thinned and managed the sawlog harvest in NSW could be doubled or even trebled if management of PNF is made a financially attractive diversification to landowners. But this will take many years to achieve due to the lack of engagement in the past.

Note as hardwood plantations mature and reach 30 plus years of age they increasingly take on the appearance of natural forests as the understorey species from surrounding natural forests establish themselves. It can be hard for a lay person to tell the difference (activist are protesting about harvesting plantations on the north coast) especially if the plantation has been thinning and the row definition is lost. The boundary between planted forests and regrowth forests are blurred and can be managed quite similarly. But it is not important how a forest is established what is important is how it is managed.

- *The role of State Forests in maximising the delivery of a range of environmental, economic and social outcomes and options for diverse management, including Aboriginal forest management models*

State Forests already deliver multiple benefits to the community of NSW a significant percentage of State Forest is managed for conservation and recreation is increasing and the staff of FCNSW are recognised worldwide for their expertise in forest fire fighting and the wood products they supply from firewood to high quality sawlogs provide economic and social benefits to not only a large number of rural and regional communities in the State but contribute significantly to the states economy.;

- *Opportunities to realise carbon and biodiversity benefits and support carbon and biodiversity markets, and mitigate and adapt to climate change risks, including the greenhouse gas emission impacts of different uses of forests and assessment of climate change risks to forests.*

Carbon and biodiversity benefits of State forests are not new as mentioned above FCNSW has been delivering these benefits to the community of NSW for the past 100 plus years. While FCNSW reports annually on its financial performance it does not at present have a reliable framework for reporting on its environmental and social performance. FCNSW is working on developing a Natural Capital Accounting model to assist with improved reporting and this will assist significantly in its requirement to meet the forthcoming requirement for Nature Related Disclosures.

However, constructing an argument to create carbon or biodiversity credit will struggle with additionality. That is nothing new is being created.

Suggestions for a positive future for forestry in NSW

Improve Communications – to create a better understanding of active & adaptive forest management to assist in developing a culture of forest management for multiple values. Australia has struggled to move from its historic image of exploitive and commodified approach to forest management. Most Australians are concerned about conservation and want to protect the environment but understand that sustainable harvesting is part of living with nature. Activist are entitled to their view and have been important for critical improvements in forest practices but calls for a complete cessation of harvesting in what is less than 10% of the estate is not learning to live with nature it is just shifting the impact to other countries. Many of which have less forest than we do, poorer environmental regulations and lower forest management skills. Telling our forest management story is critical.

Engaging the private sector & create an open and transparent market – as described earlier it is history that the private sector is not formally engaged in forestry in Australia and the potential for their involvement in NSW is significant. Farmers bring clear land and established forest, innovations in management and potentially new sources of finance. However, to be engaged they need to ‘see the market’ like any other agricultural commodity, farmers need to see an open and transparent market where log prices are reported possibly in various formats (i.e. Stumpage, at mill door, FOB etc) and from various markets within Australia and around the world. But even if this could be implemented tomorrow it will take time possibly 2 or 3 decades for the private sector to become mainstream suppliers to the processing industry.

Enhance forestry technical assistance and market facilitation

There is no private sector assistance for PNF or plantation growers in south east NSW.

Local Land Services maintains a Private Native Forestry team which is a great start but they are a small team and need additional resources. Plantations in NSW are regulated and monitored by DPI and are similarly in need of additional resources. Having two different government agencies providing forestry services to landowners is possibly confusing and does not at least, outwardly appear efficient, is a one stop shop a better alternative.

FCNSW has considerable skill in forest planning, harvesting operations and monitoring etc. Allowing them to interact with LLS and DPI to assist landowners who are interested in harvesting would be an efficient opportunity for knowledge transfer and to increase harvest from PNF in a controlled and facilitated manner.

Create policy and regulatory certainty

Politics and forestry are not well aligned. Political policies are often developed to meet election cycles of 3 to 4 years.

Forestry is a long term investment. A short term decision is 25 to 30 years while long term could easily be in excess of 100 years.

To create an investment environment in forestry long term, certainty is required if sovereign risk is to be avoided.

Recent activity by the EPA in pursuing FCNSW for environmental breaches through the Land and Environment Court is neither efficient because it takes time (often many years) and nor is it delivering cost effective conservation outcomes due to the legal costs being incurred.

I am aware that some forest industry commentators believe that the EPA has been captured by activist groups which may be harsh, but it is difficult not to conclude that they are influenced by activist groups urging them to be tougher on forest industry operators.

Creating regulatory certainty is critical to achieving investment in both PNF and plantations.

The current system in NSW is not working and the panel may wish to review the Tasmanian Forest Practices system which has been successfully operating for over 35 years. The current Chair of the **Forest Practices Authority** (<https://fpa.tas.gov.au/>) is The Hon Pam Allen the former NSW Environment Minister and I am sure she would be happy to brief your panel on how this system has developed over time and is implemented.

Dual consent also creates uncertainty – consent from both state and local governments creates uncertainty and frustrates landowners when consent by local governments may be withheld for political rather than scientific reasons. Tasmania again has a solution to this problem. Landowners who have plantations and or natural forests can apply for a covenant known as a **Private Timber Reserve** to be placed on their land which is recorded and provides certainty to a landowner that allows them to invest in either silvicultural improvement of their natural forests or establish a plantation and know they will be allowed to harvest their forest in the future to recoup their investment. Private Timber Reserves removes the requirement for local government consent, but the landowner must comply with the requirement of the Forest Practices authority by preparing a Forest Practices Plan via one of their certified Forest Practices Officers. A private timber reserve does not compel the landowner to harvest if they change their mind in the future.

CSO's are legitimate payments for land management and are not subsidies – FCNSW receives funding for a number Community Service Obligations, the most obvious one is for fire fighting and prevention. As mentioned FCNSW are expert forest fire fighters and while the RFS is an excellent volunteer fire fighting organisation they do not have the skill or expertise to manage and control fires in our forested landscape. A high level briefing in 2023 suggested that FCNSW has a well earned reputation in forest fires (above other agencies) and this should not be lost.

Investment in applied research and innovative technologies – is important.

In summary forestry is complex but skilled foresters can manage our state forests for multiple values including conservation, fire protection and wood production. Engaging the private sector will improve forest management in a much larger estate which has the potential to significantly increase wood supply at a lower economic and social cost than developing new plantations which carry a high production risk.

Please do not hesitate to contact me if you have any questions.

Your sincerely

