Independent Forestry Panel

Public submission

MICHELLE DE MOL **Submission ID: 205031**

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Dear Forestry Industry Action Panel,

I am providing a submission for the inquiry into the sustainability of current and future forestry operations in NSW.

I'm an avid bushwalker, nature photographer and keen citizen scientist, who has volunteered countless hours in places of wilderness, observing the highly complex interdependencies within ecosystems, and entering that data into a citizen science database to aid researchers in their understanding of interactions in nature. On a personal note, I experience immense benefits from my wellbeing by being out in intact nature, and feel the opposite impact to my wellbeing when I go to places that have been degraded by deforestation and other causes.

Before I respond to the questions in the submission, I will ask some questions of this panel:

I commend the Forestry Industry Action Panel for considering my submission, and thank you for taking the time to consider it. Before I comment on the relevant sections, I ask the panel some urgent and important questions for your consideration:

If logging of native forests in New South Wales isn't stopped now, to preserve nature for the people here and now, and enrich the world for future generations, the critical question is: **Who *will* stop it? *When*?** And how much further gone are we willing to let it get for the sake of short term profit of a product that isn't even profitable--it has to be subsidised by government--provides very few jobs compared to what the native logging industry says--and is completely unpopular (no-one wants our national icon, koalas, to be driven extinct), before it is entirely degraded and the slippery slope of species exctinction, with all the related consequences, has sped up?

1. Sustainability of current and future forestry operations in NSW

The sheer powerhouse ecosystems that old growth forests are, depend on every species within them that have co-evolved together over many millions of years, through their daily actions and interactions, to perform high value "ecosystem services". When forests are protected, these species, in combination, over time, are what cause our environment to thrive. In doing so, they create a liveable atmosphere and a safer environment for all, including humans.

To protect biodiversity for this liveable atmosphere, mature forests must be left intact so trees can grow old to provide adequate hollows for native creatures (such as the endangered greater glider and leadbeaters possum) to safely nest in, diversity and abundance of plant life for food, clean water, an increased volume of water compared to logged or young regenerated forests, a reduction in fire risk & severity, carbon dioxide absorption, and healthier microbial diversity in the soil to provide more resistance to invasive plants.

When left intact, Australia's forests provide crucial benefits to humans as well - we all rely on clean air, drinking water, and nutrient-dense soil. Old growth forests also provide shade and cooling and provide immense mental and physical health benefits for all.

According to a 2019 OECD report:

"Ecosystem services delivered by biodiversity, such as crop pollination, water purification, flood protection and carbon sequestration, are vital to human well-being. Globally, these services are worth an estimated USD 125-140 trillion (US dollars) per year, i.e. more than one and a half times the size of global GDP.

The costs of inaction on biodiversity loss are high. Between 1997 and 2011, the world lost an estimated USD 4-20 trillion per year in ecosystem services owing to land-cover change and USD 6-11 trillion per year from land degradation. Action to halt and subsequently reverse biodiversity loss needs to be scaled up dramatically and urgently. Biodiversity protection is fundamental to achieving food security, poverty reduction and more inclusive and equitable development".[1]

Australia has the second highest rate of biodiversity loss on the planet, and the highest of the developed nations in the OECD. It has the highest rate of mammal extinction in the world.

The speed at which intact natural habitat is being destroyed in NSW has actually increased since the current biodiversity laws were introduced in 2016.[2]

The NSW Government's own data show almost 100,000 hectares of native vegetation was cleared every year after the act was introduced.[3]

This is equivalent to a strip of land the entire length of the NSW coastline and almost 1 kilometre wide being cleared – every year.

(83%) of the clearing was done for farming, though infrastructure claimed 10,000 hectares and forestry claimed more than 6,000 hectares a year.[4]

Native forest logging reduces the function and health of waterways, including streams and rivers. Logged and regenerated forests yield significantly less water than intact old-growth forests, because young, fast-growing trees draw a lot of moisture from the soil and release it through their leaves.[5]

The 2019/2020 Black Summer bushfires, which reportedly killed approximately three billion animals[6], which burnt 40% of NSW State Forests have drastically added to the urgency to end native logging in NSW to protect the animals we do have and as a critical way to combat biodiversity loss.

For true sustainability, native forest logging in NSW must be urgently and completely ended, with the industry moving entirely to sustainable plantations instead (our neighbouring country of New Zealand made this move over two decades ago).

2. Environmental and cultural values of forests, including threatened species and Aboriginal cultural heritage values

THREATENED SPECIES

Research has shown that ongoing logging in NSW affects the habitat of at least 150 species considered at risk of extinction.[7 & 8]

According to the NSW Environment and Heritage, there are almost 1000 animal and plant species at risk of extinction.[9] 269 of these species are nationally listed threatened species in NSW and the landscape scale significance of native forests means that native forest logging compromises many ecosystems and habitats throughout NSW.

ENVIRONMENTAL BENEFITS

Furthermore, the environmental benefits of forests are invaluable. In an article by The Conversation, 26th September 2024, based on research, summarises:

"***Healthy, stable ecosystems provide services that keep us healthy, such as supplying food and clean water, producing oxygen, and making green spaces available for our recreation and wellbeing.***

Another key service ecosystems provide is disease regulation. When nature is in balance – with predators controlling herbivore populations, and herbivores controlling plant growth – it's more difficult for pathogens to emerge in a way that causes pandemics.

But when human activities disrupt and unbalance ecosystems – such as by way of climate change and biodiversity loss – things go wrong."

An example shared of how biodiversity loss can disrupt food chains is ***"When ranchers cleared forests in South America for their cattle to graze in the first half of the 20th century, tiny forest-dwelling, blood-feeding vampire bats suddenly had a smörgåsbord of large sedentary animals to feed on.***

While vampire bats had previously been kept in check by the limited availability of food and the presence of predators in the balanced forest ecosystem, numbers of this species exploded in South America.

These bats carry the rabies virus, which causes lethal brain infections in people who are bitten. Although the number of deaths from bat-borne rabies has now fallen dramatically due to vaccination programs in South America, rabies caused by bites from other animals still poses a global threat." [10 & 11]

It is a compelling example of why we should keep mature ecosystems intact in the first place, not destroy them and disturb the balance of nature.

ECOSYSTEM SERVICES

Every local, native species having co-evolved over millions of years in a particular environment have a crucial role to play. Protecting these species helps them protect *Homo sapiens*.

Here are just a few examples, but there are really too many to name. In fact, there is still a vast amount that is unknown about the extraordinary complexity of ecosystems and untold benefits of

each individual that play a role in them:

Flying Foxes:

From the Queensland Government Environment, Land and Water**:**

"Flying-foxes play an important role in dispersing seeds and pollinating flowering plants and are crucial to keeping native forests healthy. Because flying-foxes are highly mobile, seeds can be moved locally and over great distances. When seeds are able to germinate away from their parent plant, they have a greater chance of surviving and growing into a mature plant. Seed dispersal also expands the gene pool within forests. Mature trees then share their genes with neighbouring trees of the same species and this transfer strengthens forests against environmental changes.

High mobility also makes flying-foxes very effective as forest pollinators. Pollen sticks to their furry bodies and as they crawl from flower to flower, and fly from tree to tree, they pollinate the flowers and aid in the production of honey. This reinforces the gene pool and health of native forests." [12]

It must also be noted that flying foxes are prone to heat exhaustion, and warming temperatures from climate change are likely a threat to flying fox species.[13] So it is imperative that the environment is looked at holistically - protecting forests means larger carbon absorption to combat climate change, which means working to protect the species that depend on them, including flying foxes.

Trees provide oxygen and water filtration and humans depend on clean air and water. We need to end logging of native forests for our own survival too.

Lyrebirds and Brush Turkeys:

"Mound builders like lyrebirds and brush turkeys are territorial, and in the large area where they rake and shift leaf litter, looking for insects and worms, they are also breaking up the dry leaves and twigs and pushing them into the soil. This reduces the fuel available for hot ground fires and can create a refuge for small animals during wildfires." [14]

Insects

According to Dr Ken Walker, Senior Entomologist at Museums Victoria, **"*Most insects are beneficial and they play important roles in our environment and ecosystems. Insects are pollinators, decomposers, herbivores, scavengers, soil mixers, soil aerators, nutrient recyclers, seed dispersers, biocontrol agents, medicinal agents, predators and parasites.*"**[15]

As an example, the young larvae of Golden stag beetles feed on rotting logs, which is an essential part of forest ecology, and the adults are nectar lovers who perform the vital service of pollination.

There is also grounds for concern that climate change (which is in part driven by deforestation) will greatly impact insect populations and will therefore reduce the ability to have thriving ecosystems upon which insects are the foundational basis).[16]

In short, it is imperitive that logging is urgently ended to give all of these beneficial species the chance to thrive (and that we protect them further from invasive flora and fauna with invasive species control) both for their own protection, so they can continue to provide a thriving environment for human survival, and so the entire range of forest ecosystems can work as the biggest, most mature carbon sink possible to combat climate change.

CULTURAL VALUES

Protecting forests from all logging is critical for protecting cultural heritage. Indigenous people feel a deep connection to Country and all aspects of it - air, land, sky, waterways, flora and fauna and according to Indigenous beliefs, ancestral spirits and creation stories. All of it combined is a core part of Indigenous identity and sense of belonging. Logging is therefore yet another example of violence, destruction and theft of Indigenous heritage, valuing only the product that can be exploited, not the preciousness and sacredness of the living environment in its whole form. Ending logging and protecting forests could further provide important employment for First Nations peoples whilst also protecting cultural heritage.

FOR OUR FUTURE - AND FUTURE GENERATIONS

Since European invasion, an enormous amount of deforestation has occurred in the mere figurative blink of an eye: 29 million hectares-- 54% of the forest estate of NSW-- has been destroyed and a further 9 million hectares heavily degraded.[17]

As technology has improved, logging has become more rapid. Australia is the only nation in the developed world[18] that is a deforestation hotspot, largely due to East Coast clearing in Queensland and New South Wales[19].

WWF-Australia conservation scientist Dr Martin Taylor said ***"Land clearing rates rocketed after the axing of restrictions in Queensland and NSW placing eastern Australia alongside the most infamous places in the world for forest destruction,".***

"Despite Queensland restoring some restrictions in 2018, eastern Australia remains a deforestation front. That will not change until we see rates of destruction go down," he said.[20]

It is vital that logging of native forests is ended so that future generations get to experience the immense benefits of these critical natural places (including physical, educational and therapeutic benefits).

3. Demand for timber products, particularly as relates to NSW housing, construction, mining, transport and retail

Only 4% of the biomass in a logged native forest ends up as sawn timber. Of this, only 2% of the total biomass of native logging is turned into high-quality timber such as window frames, floorboards and

furniture.[21]

50% of the logs taken from native forests in 2023 were turned into woodchip and exported[22] - so therefore not relevant to NSW housing at all. It is distressing that precious native forest, including habitat of *endangered species*, is being destroyed primarily to sell a product on a limited basis, that could instead come from plantation timber so all of the species that depend on forests remaining intact can have their homes, and continue to help the forest thrive so the species can continue for many more millions of years.

Sawn and treated softwood logs and composite timber products made from softwoods from plantations can substituted for all current uses for native forest and plantation hardwoods. Furthermore, shifting to properly managed plantation timber supports sustainable industry practices.

4. The future of softwood and hardwood plantations and the continuation of Private Native Forestry in helping meet timber supply needs

According to the Australian Government Department of Agriculture, Fisheries and Forestry, in 2020-21, plantation forests produced over 87% of the 27.1 million cubic metres of logs harvested in Australia. Most plantation logs are derived from softwood plantations (59%) compared to hardwood plantations (41%).[23] Plantation forests could be expanded to make up the final 10% of timber supply needs.

From the Australian Government Bureau of Rural Sciences:

"Plantations provide an economically viable and environmentally sustainable log resource that can be used to make timber products. They can also rehabilitate land, improve water quality and meet other environmental and economic objectives."[24]

From the Australian Government Department of Agriculture, Forestry and Fisheries:

"There is a substantial body of scientific and policy activity through major Australian Government programs. These recognise, promote and evaluate opportunities to achieve multiple objectives through revegetation and plantations. This includes demonstrating that strategically placed plantations can be important for sustainable production and improved soil, water quality and salinity mitigation, and carbon and biodiversity benefits."[25]

5. 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

Forests have greater (and longer term) environmental and economic value from staying intact and being allowed to grow old than from repeated logging. They are priceless, because many millions of years of evolving to create astounding biodiversity and precious ecosystems (and the benefits they afford indefinitely if protected), cannot be replicated by humans.

Tourists flock to natural places such as the Blue Mountains, Wilsons Promontory, Flinders Ranges, the Daintree and oh so much more, because they are vast swathes of largely intact wilderness providing beauty, physical, and mental health benefits to countless tourists and locals over time. Local businesses and tourism ventures benefit, jobs are needed to manage and preserve these incredible places with weed removal and track maintenance, forest restauration and feral animal control, which are important to healing and taking care of Country.

I strongly support training and jobs for Indigenous people following *genuine* and forest protecting/strengthening Aboriginal best practice forest management models in combination with the best and most up-to-date scientific knowledge. In regards to cultural burning, oral Indigenous history, combined with scientific evidence, suggests that there was a lot of forest and woodlands that were *not* burnt, e.g. tall wet schlerophyll forests. So there are places where cultural burning is not appropriate.

I do not support disingenuous partnerships by native logging industry stakeholders that take advantage of First Nations communities in an attempt by the industry to continue logging under the guise of 'cultural thinning' or 'forest gardening' or the equivalent. Not only do many elders disagree with this practice, and not only are these practices unprofitable (and in fact, damage the economy by impacting tourism, and biodiversity and its critical flow on effects mentioned above), they incorporate logging techniques from Western industrial forestry -- developed with international industrial forestry interests -- to heavily thin forests, and use the timber for commercial purposes - not genuine techniques used by First Nations people prior to European invasion. What Victoria has done is a key lesson for New South Wales to learn from about what *not* to do, as logging of native forests was supposedly ended in Victoria, but in practice it is still ongoing and causing detrimental harm to places of wilderness (see for example the Wombat Forest, which resulted in what seems to be business-as-usual logging , and not carried out by Indigenous people, but Vic Forests' usual logging contractors.[26]

Please properly and *entirely* ban native forest logging, as environmental, economic and social outcomes can be achieved better for Indigenous people by protecting and restoring forests.

6. 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

Protecting native forests and ending logging is a critical way to continue to absorb carbon from the atmosphere (and absorb more as forests continue to mature) and are the best way to counter biodiversity loss and work to prevent species extinction.

According to the NSW Forest Carbon Report[27], stopping native logging in NSW could create $100 million in climate-related benefits annually, as opposed to the $9 million the industry cost taxpayers in 2022.

Native forest logging releases a high amount of emissions - around 3.6 million tonnes of carbon per

year - 4 times the amount of NSW's aviation industry, or an astounding equivalent to the emissions of 840,000 medium-sized cars.[28]

The report also notes that **"New South Wales is also still experiencing long-term emissions from decaying waste from the past few decades when the rate of logging was twice as high. This increases the estimates of current emissions. Furthermore, additional greenhouse gas emissions are caused from the burning of waste, which produces methane and nitrous oxide emissions"** and that **"...ending native forest logging would significantly reduce New South Wales' greenhouse gas emissions".**[29]

According to The Conversation, 14 June 2024: ***"Stopping native forest logging avoids the emissions released when forests are cut and burned. It would also allow continued forest growth and regrowth of previously logged areas, which draws down carbon from the atmosphere and increases the amount held in the forest ecosystem.***

The natural biodiversity of our native forests makes them more resilient to external disturbances such as climate change. These forests have larger and more stable carbon stocks than logged areas, newly planted forests and plantations."[30]

Professor David Lindenmayer, a world-leading expert in forest and woodland ecology, resource management, conservation science and biodiversity conservation, provides a detailed vision for a better future and jobs positive opportunities from ending logging, including:

- revegetating large areas of forest that have failed to regenerate after logging and/or repeated wildfires
- storing carbon in forests and generating revenue for the Australian taxpayer
- creating jobs for First Nations people in managing Country
- increasing employment in tourism that generates jobs in regional Australia and helps connect more people to the natural environment for their physical and mental wellbeing
- developing elite fire-fighting crews to protect rural communities
- expanding and then better managing the plantation estate, including processing far more of our Australian-grown plantation timber in Australia, for Australian jobs.[31]

Thank you once again to the panel for your generous time, and for considering my submission in full.

Sincerely,
Michelle de Mol
Australian citizen residing in New South Wales, Australia

CITATIONS

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