Submission No 127

INQUIRY INTO LONG TERM SUSTAINABILITY AND FUTURE OF THE TIMBER AND FOREST PRODUCTS INDUSTRY

Organisation: Climate Action Monaro

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Submission to the NSW Parliamentary Inquiry: Long term sustainability and future of the timber and forest products industry from Climate Action Monaro

Climate Action Monaro (CAM) is a community-based organisation that seeks to educate the public about the science of climate change. It is based in the Snowy Monaro local government region in south-east NSW. CAM was established ten years ago; has a current paid membership of 65 but nearly 200 others who receive a weekly bulletin on climate change.

Although CAM cares deeply about biodiversity and other matters affected by logging, its primary remit is climate change so this submission will largely confine itself to that.

Native forests, particularly old growth forests, must be preserved because they are a major carbon sink. As forests age, they store more and more carbon in their roots and trunks. Destroying forests releases carbon that has been stored over the lifetime of the tree, contributing to climate change. Even where forests are logged for timber which may last for decades, the wood eventually degrades and releases carbon.

According to the Climate Council

> *Land systems can make an important contribution to mitigating climate change by removing carbon dioxide from the atmosphere or avoiding emissions of carbon dioxide to the atmosphere.*
>
> - *Avoiding clearing of old growth, carbon-rich vegetation and protecting regrowth vegetation are the most effective approaches to mitigating climate change using land systems.*
> - *Maintaining and restoring carbon-rich vegetation has many other benefits, including the protection of biodiversity, the maintenance of water quality, and the enhancement of long-term soil carbon storage*[i]

Climate change made the bushfires of 2019-20 worse, largely because climate change exacerbated the three years of extreme drought that preceded the fires[ii]. The south-east of NSW was profoundly affected by the bushfires. Although towns in the Snowy Monaro were saved, nevertheless, farm and forest were severely affected from the north around Michelago, Bredbo and in Namadgi National Park, to the east around Peak View, to the south near Bombala and to the west in the northern Kosciuszko National Park (KNP). While the forests are restoring on much of the Snowy Monaro, those in KNP are very slow to do so, or will not regenerate at all. There will be some successional species change, which will only occur because of the increased frequency and intensity of wildfires.

Apart from the dire effect that the bushfires in NSW and Victoria had on people and wildlife, they added to greenhouse gas emissions, setting up a positive (reinforcing) feedback loop. The bushfires are estimated to have released between 650 million and 1.2 billion tonnes of carbon dioxide into the atmosphere. This is more than the annual emissions of Germany and far higher than Australia's annual emissions of around 531

million tonnes. It was roughly equivalent to the annual emissions from commercial aircraft worldwide.

It is likely that bushfires will increase in a warming world. According to the Climate Council

> *climate change is influencing all extreme weather events as they are occurring in a more energetic climate system. Australia is one of the most vulnerable developed countries in the world to the impacts of climate change. Heatwaves are becoming longer, hotter and starting earlier in the year. In the south of the country, where many Australians live and work, dangerous bushfire weather is increasing and cool season rainfall is dropping off, stretching firefighting resources, putting lives at risk and presenting challenges for the agriculture industry and other sectors, such as tourism.*[iii]

The question then arises, what should be the role of the native forest logging industry in these changed climatic circumstances? Clearly, there is an immediate role following bushfires to fell trees at risk of falling onto roads and property, and the potential resource of heavy equipment for firefighting. But what of the long-term? Is native forest logging beneficial or detrimental? CAM considers, based on the wide-range of available evidence, that it is detrimental and that all logging should stop in native forests. (CAM supports the planting and subsequent harvesting of plantations for timber but not the logging of native forests, particularly old-growth forests).

As the Australian Forest and Climate Alliance noted[iv]

> *As of February 2020, 12 million hectares have burnt. A range of forests, from young regrowth to old growth up to a thousand years old, has been killed or severely damaged. Fire has penetrated world-renowned Gondwana rainforests not burned for longer still. Mega fires have burned across World Heritage areas, National Parks and other reserves. Importantly, forests routinely logged, even as recently as the last one or two years, have also burnt…*
>
> *In the context of changing climate, new approaches to fire and forest management are needed. Although urgent, scientists and fire chiefs warn there is no one, simple solution, and we cannot return to past practices. Monitoring, assessment and reassessment of the impacts of fire must now take place so that all levels of government can develop climate and forest policies that can work for our future…*
>
> *Until a full assessment of loss and options for forest rehabilitation are explored, informed by evidence-based science, no native forest logging should be allowed, nor any other destructive activity…*
>
> *Given the extent of fire impact on native forests, with habitat so drastically degraded and depleted, logging should stop immediately. Its continuation makes neither environmental nor economic sense…*

> *Because of climate emergency induced bushfires and the inter-related extinction crisis, protection of forest habitat should be the highest priority, across all Australia.*
>
> *Healthy forest ecosystems are critical to human health and survival. Evidence-based science must guide the recovery and future management of our nation's native forests to enhance their resilience to climate change.*

Indeed, logging native forests makes the likelihood of bushfire worse. In a paper published in *Nature* on 5 May 2020, Lindenmayer et al said

> *"…recent fires in southern Australia were unprecedented in scale and severity. Much commentary has rightly focused on the role of climate change in exacerbating the risk of fire. Here, we contend that policy makers must recognize that historical and contemporary logging of forests has had profound effects on these fires' severity and frequency.*[v]

A report in the *Sydney Morning Herald* of 11 February this year said that a meta-study by Griffith University and Australian National University had found that logging of native forests

> *makes them much more flammable and elevates the severity of bushfires when they occur, pushing some species closer to ecological collapse…*
>
> *… logging increased the severity of forest fires from about 10 years after the trees are extracted with effects lasting more than three decades. Selective logging or thinning can also increase fire risks…*

Patrick Norman, an ecologist with the Griffith Climate Change Response Program, and one of the report's authors said

> *The research showed that "it is up to seven times more likely that the canopy in a logged forest will burn compared with an unlogged forest", said "Once the canopy is burnt, it takes a long time for the recovery.*

The review found climate change was the key contributor to increased bushfires in Australia, with rising temperatures and more intense dry spells, drastically reducing fuel moisture contents, and priming the forests for burning. However, disturbance of forests, such as from logging, exacerbated the impacts."[vi]

Australia is not unique in this regard. In an article called "Increased logging is a threat to our global climate" about logging in the US state of Oregon by the Bureau of Land Management (BLM), the authors concluded that

> *To mitigate for past emissions and help avoid the worst consequences of climate change, BLM should devote the full productive capacity of their western Oregon lands for carbon sequestration… Forests conserved for*

> *carbon storage and climate mitigation also provide many other public benefits and advance many other policy objectives, including clean water, flood control, fire hazard abatement, fish & wildlife habitat, soil conservation, slope stability, recreation, scenic vistas, and quality of life. Logging undermines climate goals and many of these other important policy objectives.*[vii]

In another article called “Logging Is the Lead Driver of Carbon Emissions from US Forests” the authors argue that if we want to effectively mitigate climate change, it’s time for bold action to protect forestlands.

> *Protecting forest ecosystems is critical in the fight to limit global warming — when forests are disturbed, they release carbon, but when left to grow they actively pull carbon out of the air and store it. When left standing, forests also provide optimal natural protection against extreme weather events, like flooding and droughts.*[viii]

We certainly cannot consider logging and burning of native or planted forests for energy. As Frances Pike wrote in *Independent Australia* on 12 May 2019:

> *Non-carbon neutral forest bioenergy emits more CO_2 per unit of energy than fossil fuels. These emissions cannot be re-captured by tree regrowth within the timeframe required to prevent irreversible global warming. This is the decade in which emissions must be radically cut, while atmospheric CO_2 is simultaneously drawn down from the atmosphere — if we all want to survive.*[ix]

Supporting that position, Danna Smith wrote in an Opinion column for CNN on 5 March 2021

> *When a forest is logged, carbon that would otherwise have been stored in the forest is emitted. Wood does store carbon even after it is chopped down, but much of that is lost into the atmosphere in the manufacturing process, when wood is used as building material, chopped into plywood, or turned into wood pellets; more is lost when wood is burned as fuel. Logging is the largest source of carbon emissions from US forests, according to research published in 2016, with the largest amounts coming from the South-eastern US...*
>
> *“…Second, the science shows that the older a tree gets, the more carbon it can absorb and store. It's like slowly turning up the speed on a vacuum cleaner. That means that we need to not only protect the old forests but also allow the young forests to grow old. It also means that protecting forests that are already established is one of the most effective strategies when it comes to climate change.*[x]

It seems that scientists working on these links between climate change, logging and forests may have had their work suppressed. According to a report in the *Guardian* from September last year

> *Australian scientists say they are prevented from speaking openly about their work and their advice is being suppressed by government and industry when it comes to the impact of logging, mining, land-clearing and the climate crisis…*[xi]

Lead author of the study on which the report is based, Don Driscoll said

> *the potential consequences were profound as it meant policies on issues such as climate change, bushfires and regulation of development proposals may not be informed by the best science.*

Conclusion

Climate Action Monaro (CAM) calls for an end to logging in native forests because they are a major carbon sink. CAM supports, however, the expansion and subsequent harvesting of plantations for timber. CAM particularly rejects logging of native forests for energy. CAM recognises the strong link between climate change and worsening bushfires, and accepts the science that logging makes bushfires worse.

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[i] https://www.climatecouncil.org.au/resources/land-carbon-report/
[ii] https://time.com/5759964/australian-bushfires-climate-change/
[iii] https://www.climatecouncil.org.au/resources/climate-change-extreme-weather/?gclid=CjwKCAjw47eFBhA9EiwAy8kzNBLkWh9oQmFLg1HloKzMxZaV7iavjo-We-Y0nN2HcyowinXLWAGRzhoCkSQQAvD_BwE
[iv] http://forestsandclimate.org.au/national-overview/stop-logging-native-forests/
[v] https://www.nature.com/articles/s41559-020-1195-5
[vi] https://www.smh.com.au/environment/climate-change/logging-increases-bush-flammability-for-30-years-research-shows-20210210-p5719c.html
[vii] https://oregonwild.org/sites/default/files/pdf-files/Climate%20White%20Paper%209.17.14%20O%26C%20Legislation.pdf
[viii] https://www.earthisland.org/journal/index.php/articles/entry/logging-carbon-emissions-us-forests/
[ix] https://independentaustralia.net/environment/environment-display/forests-logging-and-climate-change,12668
[x] https://edition.cnn.com/2021/03/05/opinions/trees-climate-logging-danna-smith/index.html
[xi] https://www.theguardian.com/environment/2020/sep/09/australian-scientists-say-logging-mining-and-climate-advice-is-being-suppressed