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

Name: Dr Oisin Sweeney

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Submission to the inquiry into the long-term sustainability and future of the timber and forest products industry

Dear Sir/Madam,

I welcome the opportunity to make a submission to the inquiry. My submission addresses several terms of reference and, in particular, focusses on the native forest logging industry.

It is my view that the recent changes to the Integrated Forestry Operations Approvals in NSW demonstrate clearly how unsustainable native forest logging has become in NSW and how, in light of the catastrophic 2019-2020 bushfires and associated animal deaths and increased global action on global heating, the commercial forestry industry must be transitioned entirely away from native forests. This was reinforced by the rapacious conduct of Forestry Corp in undertaking native forest logging in south coast forests following the 2019-20 bushfires which stripped away any remaining vestige of sustainability.

A move away from industrialised native forest logging does not preclude the ability to undertake genuinely selective logging on private land (or public land in a new paradigm where sustainability and conservation outcomes are the primary management goals) using mobile mills to supply high grade native timber for genuine craft workers or for high value uses.

Term of Reference B: External influences

By far the most pressing external influence on the native forest logging industry is global heating. The increasingly unpredictable nature of extreme weather events means impacts on wood supply and native species and ecosystems such as the 2019-20 bushfires are increasingly likely. This in turn means long-term timber contracts are increasingly meaningless as wood security is threatened and insecure. In addition, logging can increase the susceptibility of forests to fire^{1,2} thereby further increasing insecurity.

However, global heating also offers a potential pathway to transition away from native forest logging. NSW has committed to net zero emissions by 2050. The use of the term 'net' implies that carbon emissions are cancelled out by carbon storage. It is clear that removing logging and allowing native forests to age and individual trees to grow large increases the carbon storage capacity of forests³⁻⁵. This is because old trees store disproportionately more carbon⁶ than young, small trees, because the rate of carbon uptake increases continuously as trees get bigger⁷ and because habitat features typical of older forests, such as humus rich soils and large fallen logs and stags, also store large quantities of carbon⁸. Given the fact that simply ending logging can dramatically increase carbon storage^{3,9}, transitioning the forest industry to plantation only can help NSW achieve its net zero target.

Term of Reference E: Opportunities for the timber industry

I would be interested to see governments and industry investigate the possibility of value adding to plantation timber through processes such as acetylation and cross-laminating timber. This has potential to produce high-quality, durable, aesthetically pleasing, environmentally friendly and fast-growing timber products.

Term of Reference G: Sustainability of native forest logging

There are myriad examples of the inherent unsustainability of native forest logging. Logging is identified as having a significant impact on many individual species particularly, but not exclusively, those that are hollow-dependent¹⁰⁻¹² because logging inevitably results in a reduction of tree

hollows. Logging also impacts greatly on other areas of forests because the effects of logging can 'spill over' into adjacent, unlogged forest areas¹³. However, in the interest of brevity, perhaps the strongest evidence of a lack of sustainability is contained within the government's own Threatened Species Expert Panel Report that was tasked with assessing the impacts of proposed new Integrated Forestry Operations Approvals (IFOA) settings in 2018. One panel member summed the new intensive harvesting zone setting up thus:

"the intensive harvesting zones are being formally introduced to prop up an unsustainable wood supply arrangement at the expense of the environment".

"it must be clearly understood that these proposed intensive harvesting practices are effectively clear felling diverse native forest to replace with even age native plantations in a deliberate manner."

That the new settings were introduced despite such damning internal criticism says much about the motivation of the 'reforms'.

Term of Reference H: Outcomes from the Forestry Industry Roadmap

The twin commitment to no reduction in wood supply and no erosion of environmental values contained within the Forestry Industry Roadmap was farcical at the time of writing and has since proved to be disastrous for forest policy in NSW and, by extension, forest species and ecosystems.

The Natural Resources Commission (NRC) stated in 2018 that "following analysis of the expected cumulative impact of the agreed and recommended settings, the Commission has determined that it is not possible to meet the Government's commitments around both environmental values and wood supply".

The twin commitment was subsequently abandoned in favour of wood supply, with the regressive intensive harvesting zones introduced, alongside a proposal to open protected areas of old-growth for logging to make up the shortfall. The proposal to formalise old-growth logging was dropped, but the willingness of industry to consider this pathway leaves little doubt as to the sustainability of native forest logging, and has further stripped away the industry's social license.

Please do not hesitate to contact me should you wish to discuss any aspect of this submission.

Kind regards,

Oisín Sweeney

References

- 1 Lindenmayer, D. B. & Sato, C. Hidden collapse is driven by fire and logging in a socioecological forest ecosystem. *Proceedings of the National Academy of Sciences* (2018).
- Lindenmayer, D. B., Hunter, M. L., Burton, P. J. & Gibbons, P. Effects of logging on fire regimes in moist forests. *Conservation Letters* 2, 271-277, doi:10.1111/j.1755-263X.2009.00080.x (2009).
- 3 Keith, H., Lindenmayer, D., Macintosh, A. & Mackey, B. Under what circumstances do wood products from native forests benefit climate change mitigation? *PLoS ONE* **10**, doi:10.1371/journal.pone.0139640 (2015).
- 4 Keith, H. *et al.* Managing temperate forests for carbon storage: impacts of logging versus forest protection on carbon stocks. *Ecosphere* **5**, art75, doi:10.1890/ES14-00051.1 (2014).
- 5 Keith, H., Vardon, M., Stein, J. A., Stein, J. L. & Lindenmayer, D. Ecosystem accounts define explicit and spatial trade-offs for managing natural resources. *Nature Ecology & Evolution* **1**, 1683-1692, doi:10.1038/s41559-017-0309-1 (2017).
- 6 Dean, C., Fitzgerald, N. B. & Wardell-Johnson, G. W. Pre-logging carbon accounts in oldgrowth forests, via allometry: An example of mixed-forest in Tasmania, Australia. *Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology* **146**, 223-236, doi:10.1080/11263504.2011.638332 (2012).
- Stephenson, N. L. *et al.* Rate of tree carbon accumulation increases continuously with tree size. *Nature* 507, 90, doi:10.1038/nature12914;
 https://www.nature.com/articles/nature12914#supplementary-information (2014).
- 8 Keith, H., Mackey, B. G. & Lindenmayer, D. B. Re-evaluation of forest biomass carbon stocks and lessons from the world's most carbon-dense forests. *Proceedings of the National Academy of Sciences* **106**, 11635-11640, doi:10.1073/pnas.0901970106 (2009).
- 9 Mackey, B. G., Keith, H., Berry, S. L. & Lindenmayer, D. B. *Green carbon: the role of natural forests in carbon storage. Part 1, a green carbon account of Australia's south-eastern Eucalypt forest, and policy implications.* (ANU E press, 2008).
- 10 Lindenmayer, D. B. *et al.* How to make a common species rare: A case against conservation complacency. *Biological Conservation* **144**, 1663-1672, doi:<u>http://dx.doi.org/10.1016/j.biocon.2011.02.022</u> (2011).
- 11 Australian Government Department of Environment. *Conservation Advice: Petauroides volans - Greater Glider,* <<u>http://www.environment.gov.au/biodiversity/threatened/species/pubs/254-conservation-advice-20160525.pdf</u>> (2016).
- 12 Lunney, D., Stalenberg, E., Santika, T. & Rhodes, J. R. Extinction in Eden: identifying the role of climate change in the decline of the koala in south-eastern NSW. *Wildlife Research* **41**, 22-34, doi:<u>http://dx.doi.org/10.1071/WR13054</u> (2014).
- 13 Lindenmayer, D. B. & Laurance, W. F. A history of hubris Cautionary lessons in ecologically sustainable forest management. *Biological Conservation* **151**, 11-16, doi:<u>http://dx.doi.org/10.1016/j.biocon.2011.10.032</u> (2012).