Interdisciplinary Conservation Science Research Group, RMIT

GPO Box 2476

Melbourne 3001

Victoria, Australia

Submission to Senate Standing Committees on Environment and Communications inquiry into the Environment Protection and Biodiversity Conservation Amendment (Regional Forest Agreements) Bill 2020

About ICON Science

RMIT University's Interdisciplinary Conservation Science Research Group (ICON Science) recognises that managing biodiversity demands a multidisciplinary approach that reconciles ecological, social and economic concerns.

Over the last 14 years, members of ICON Science have been involved in research relating to threatened species and ecological communities.

We have assisted with guidelines and decision support tools related to threatened species policies and programs at local, state and national levels. Our funding sources include the Australian Research Council, the Australian Government's National Environmental Science Program through the Threatened Species Recovery Hub, and the Clean Air and Urban Landscapes Hub.

https://icon-science.org/

For further information on this submission, please contact Dr Alex Kusmanoff

Summary

The Environment Protection and Biodiversity Conservation Amendment (Regional Forest Agreements) Bill 2020 ('the Bill') would amend the *Environment Protection and Biodiversity Conservation Act 1999* ('EPBC Act') and *Regional Forest Agreements Act 2002* to provide that forestry operations covered by a Regional Forest Agreement are exempted from Part 3 of the EPBC Act.

We note that the Independent review of the EPBC Act led by Professor Graeme Samuel AC recommended that Regional Forest Agreements should be reformed, and that they should also be subject to National Environmental Standards.

It is our view that no individual sector, including forestry, should be exempt from the EPBC Act or any national standards that may be adopted under that Act.

We recommend that the Regional Forest Agreements be phased out and replaced by industry relevant standards under the EPBC Act, thereby restoring consistency in approaches and outcomes for biodiversity and all Matters of National Environmental Significance across their full range.

Such national environmental standards must ensure that:

- Forest biodiversity, and particularly Matters of National Environmental Significance are properly and consistently protected across their range (both in adequate reserves and in off-reserve areas);
- Science-based forestry practices and prescriptions are properly implemented and audited[1] in line with expectations of national environmental standards under the EPBC Act;
- Forest biodiversity and the outcomes of forest management are properly monitored and rigorously reported under a coordinated and properly resourced national biodiversity monitoring program; and
- Forestry operations meet true triple bottom line standards (that is, they are economically, socially and environmentally appropriate).

We note that none of these requirements have been met under existing Regional Forest Agreements.

Please find supporting points below.

[1] And not be routinely breached – see Taylor, C., and D. B. Lindenmayer. 2021. Stakeholder engagement in a Forest Stewardship Council Controlled Wood assessment. Environmental Science and Policy in press.

Supporting points

Species of National Environmental Significance are impacted by multiple and cumulative threats.[2] Hence, Matters of National Environmental Significance, including threatened species, need to be managed throughout their range. Exempting Regional Forest Agreements (RFAs) from the EPBC Act (and subsequent standards) will serve to prolong and exacerbate the complex and disconnected regulatory environment, which is contrary to the intention behind proposed National Environmental Standards.

As a result of exempting RFAs from the EPBC Act, species and ecological communities within the jurisdiction of the EPBC Act will not receive the protection or monitoring that would be afforded by the proposed National Standards. This would result in the applicability of different legislative schemes in different parts of their range, thus complicating and confounding efforts to ensure their viability. Cumulative impacts will not be manageable.

All matters that impact on listed threatened species and ecological communities should be dealt with according to the EPBC Act, without exemption. This is the only reasonable and effective way to ensure that the Australian Government does not contravene its obligations under the Convention on Biological Diversity.

The Regional Forest Agreements were designed to protect Australia's forest biodiversity, yet they have demonstrably failed to do this.[3] This is highlighted by significant declines in a large number of Australian forest-dependent threatened species. For example, populations of Leadbeater's Possum and the Greater Glider have declined by 50% and 80% in the past 20 years. The extent of logged forest in the landscape has been demonstrated to be a key driver of decline in both species.[4] At the same time there has been major declines in an array of forest-dependent bird species.[5]

Spatial analyses conducted Victoria-wide have clearly shown that areas proposed for logging under the Timber Release Plan in that State over the next 5 years are also places of high conservation value for Victoria's 70 threatened forest-dependent species.[6] The problems associated with this major source of conflict in land uses are magnified by the results of a series of studies that have shown that the current reserve is inadequate for a range of key threatened species[7] and hence off-reserve forests are essential for the long-term persistence of these species. Exempting RFAs from the EPBC Act would undermine efforts to secure the persistence of these species. Moreover, an underpinning principle of the National Forest Policy Statement is that reserve systems should be Comprehensive, Adequate and

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[2] Samuel, G. Independent Review of the Environment Protection and Biodiversity Conservation Act 1999.
[3] Lindenmayer, D. B., D. Blair, L. McBurney, and S. C. Banks. 2015. The need for a comprehensive reassessment of the Regional Forest Agreements in Australia. Pacific Conservation Biology 24:266-270; Lindenmayer, D. B. 2018. Flawed forest policy: flawed Regional Forest Agreements. Australasian Journal of Environmental Management 25:258-266.
[4] Lindenmayer, D., W. Blanchard, D. Blair, L. McBurney, C. Taylor, B. Scheele, M. J. Westgate, N. Robinson, and C. Foster. 2020a. The response of arboreal marsupials to long-term changes in forest disturbance. Animal Conservation: https://doi.org/10.1111/acv.12634
[5] Lindenmayer and Sato 2018
[6] Taylor, C., and D. B. Lindenmayer. 2019. The adequacy of Victoria's protected areas for conserving its forest-dependent fauna Austral Ecology 44 1076-1090.
[7] Todd, C. R., D. B. Lindenmayer, K. Stamation, S. Acevedo-Catteneo, S. Smith, and L. F. Lumsden. 2016. Assessing reserve effectiveness: Application to a threatened species in a dynamic fire prone forest landscape. Ecological Modelling 338:90-100; Taylor, C., N. Cadenhead, D. B. Lindenmayer, and B. A. Wintle. 2017. Improving the design of a conservation reserve for a critically endangered species. PLOS One 12:e0169629.

Representative. All analyses to date indicate that they are not adequate to properly protect biodiversity.[8]

The Regional Forest Agreements were designed to ensure that areas of high conservation value are not logged. This includes areas on steep slopes that are critical to maintain the integrity of water supplies for human consumption and for agriculture. Recent analyses have shown that there have been major breaches of logging prescriptions in Victorian water catchments with logging having occurred in areas of much greater slope than the specified threshold of 30 degrees. Indeed, 75% of all logging coupes in some catchments have logged areas that exceed this threshold.[9] This underscores the failure not only of codes of forest practice, but also of overarching initiatives such as the Regional Forest Agreements.

Ongoing logging under the Regional Agreements threatens the integrity of many forest ecosystems. For example, logging is one of the key drivers of the risk of ecosystem collapse in montane forests in Victoria,[10] including the Mountain Ash ecosystem which has been classified under the IUCN Red Listed Ecosystem system as Critically Endangered.[11]

Regional Forest Agreements were also designed to generate certainty in resource availability for logging operations.[12] This has clearly failed as wood shortages are apparent in both Victoria and New South Wales. For example, in the case of the wet forests of Victoria, recurrent wildfires mean there is a very low (~20%) probability of stands of trees growing old enough to provide sawlogs.[13] That is, there is a 4 in 5 (80%) chance that forests will be burned severely before the 80 year period required for stands of trees to reach an age to be suitable for sawlog production.[14] Resource availability challenges means that areas that have high conservation value and/or are on steep slopes (and which should be exempt from logging) have in fact been targeted for logging.[15] Notably, the recent 2019-2020 wildfires had major impacts on forests that were planned to be logged in the next 5 years in Victoria (under the Timber Release Plan) – approximately 60% of forest planned for logging in East Gippsland was burnt in those fires and 30% of forest Statewide.[16] This underscores the problems with resource availability for the native forest logging industry.

Ongoing logging under the Regional Forest Agreements is adding significantly to the fire burden in the forests of south-eastern Australia. This is because logging significantly elevates the risk of high-severity

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[8] Ibid.
[9] Taylor, C., and D. B. Lindenmayer. 2021. Stakeholder engagement in a Forest Stewardship Council Controlled Wood assessment. Environmental Science and Policy **in press**.
[10] Bergstrom, D., B. C. Wienecke, J. van den Hoff, L. Hughes, D. B. Lindenmayer, and e. al. 2021. Ecosystem collapse from the tropics to the poles. Global Change Biology.
[11] Burns, E. L., D. B. Lindenmayer, J. Stein, W. Blanchard, L. McBurney, D. Blair, and S. C. Banks. 2015. Ecosystem assessment of mountain ash forest in the Central Highlands of Victoria, south-eastern Australia. Austral Ecology 40:386-399; Sato, C., and D. B. Lindenmayer. 2017. Meeting the global ecosystem collapse challenge. Conservation Letters 11:1-7.
[12] Lindenmayer et al. 2015 and also Lindenmayer 2018, above n2.
[13] Cary, G., W. Blanchard, C. N. Foster, and D. B. Lindenmayer. 2021. Effects of altered fire regimes on critical timber production and conservation rotations. International Journal of Wildland Fire **in press**.
[14] Ibid.
[15] Taylor and Lindenmayer 2021, above n9.
[16] Lindenmayer, D. B., and C. Taylor. 2020. New spatial analyses of Australian wildfires highlight the need for new fire, resource and conservation policies. Proceedings of the National Academy of Sciences 117:12481-12485.

wildfire.[17] This effect has been seen in forests around the world.[18] This means that biodiversity in Australian forests (which has been massively impacted by wildfires)[19] is at increased risk from further high severity wildfires. Regional Forest Agreements fail to account for the interacting effects of both logging and fire on the decline in forest biodiversity.

Long-term monitoring is essential to understand the status of forest biodiversity.[20] Regional Forest Agreements have failed to ensure that adequate monitoring takes place. This means there is no basis for determining sustainability (or otherwise). The best forest monitoring currently undertaken is being done by third parties and not by Government agencies responsible for management of public native forest estates – including State Governments that have co-signed Regional Forest Agreements.

The basis for the Regional Forest Agreements is extremely dated. For example, the agreements do not account for other key drivers of forest integrity such as the effects of climate change.[21] This is highly problematic for species that are at risk not only from the effects of climate change but also the impacts of logging operations. That is, they are risk of multiple negatively impacting drivers of decline.[22]

Regional Forest Agreements fail to properly account for forest values other than timber. Indeed, formal environmental and economic accounting has shown that water, tourism, agriculture and carbon values far exceed the value of native forest timber in jurisdictions such as the Central Highlands of Victoria.[23] Regional Forest Agreements should aim to provide for the best and highest values from native forests for the owners of those forests (the Australian public). They have failed to do this. Regional Forest

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[17] Taylor, C., M. A. McCarthy, and D. B. Lindenmayer. 2014. Non-linear effects of stand age on fire severity. Conservation Letters 7:355-370; Lindenmayer, D. B., R. Kooyman, C. Taylor, M. Ward, and J. Watson. 2020. Recent Australian wildfires made worse by logging and associated forest management. Nature Ecology and Evolution 4:898-900.

[18] e.g. see Thompson, J. R., T. A. Spies, and L. M. Ganio. 2007. Reburn severity in managed and unmanaged vegetation in a large wildfire. Proceedings of the National Academy of Sciences 104:10743-10748; Zald, S. J., and C. Dunn. 2017. Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape. Ecosphere 28:1068-1080; Tiribelli, F., J. M. Morales, J. H. Gowda, M. Mermoz, and T. Kitzberger. 2018. Non-additive effects of alternative stable states on landscape flammability in NW Patagonia: Fire history and simulation modelling evidence. International Journal of Wildland Fire 28:149–159.

[19] Ward, M., Tulloch, A.I.T., Radford, J.Q., Williams, B.A., Reside, A.E., Macdonald, S.L., Mayfield, H.J., Maron. M., Possingham, H.P., Vine, S.J., O'Connor, J.L., Massingham, E.J., Greenville, A.C., Woinarski, J.C.Z., Garnett. S.T., Lintermans, M., Scheele, B.C., Carwardine, J., Nimmo, D.G., Lindenmayer, D.B., Kooyman, R.M., Simmonds, J.S., Sonter, L.J. and Watson, J.E.M. 2020. Impact of 2019-2020 mega-fires on Australian fauna habitat. Nature Ecology and Evolution:https://doi.org/10.1038/s41559-41020-41251-41551.

[20] Wintle, B. A., and D. B. Lindenmayer. 2008. Adaptive risk management for certifiably sustainable forestry. Forest Ecology and Management 256:1311-1319.

[21] Lindenmayer et al. 2015 and also Lindenmayer 2018, above n2.

[22] Lindenmayer, D. B., C. Foster, M. Westgate, B. C. Scheele, and W. Blanchard. 2020. Managing interacting disturbances: lessons from a case study in Australian forests. Journal of Applied Ecology 57:1711-1716.

[23] Keith, H., M. Vardon, J. A. Stein, J. L. Stein, and D. B. Lindenmayer. 2017. Experimental Ecosystem Accounts for the Central Highlands of Victoria. Summary Report. The Australian National University and the Threatened Species Recovery Hub, Canberra, Australia. Available at http://www.nespthreatenedspecies.edu.au/Ecosystem%20Summary%20Report_V3b_low.pdf; Keith, H., M. Vardon, J. A. R. Stein, J. L. Stein, and D. B. Lindenmayer. 2017b. Ecosystem accounts define explicit and spatial trade-offs for managing natural resources. Nature Ecology and Evolution 1:1683-1692;
Keith, H., M. Vardon, J. A. R. Stein, J. L. Stein, and D. B. Lindenmayer. 2017c. Experimental Ecosystem Accounts for the Central Highlands of Victoria. Final Report. The Australian National University and the Threatened Species Recovery Hub, Canberra, Australia. Available at http://www.nespthreatenedspecies.edu.au/Ecosystem%20Complete%20Report_V5_highest%20quality.pdf.

Agreements have also failed to properly engage with the Traditional Owners on native forests and seek their opinions and input on how they should be managed.

Regional Forest Agreements have also failed to secure the economic viability of the native forest logging sector.[24] There is abundance of evidence that the native forest logging sector is economically unviable. For example, the Corporate Business Case submitted by VicForests shows that logging operations are a major loss-making entity in regions such as East Gippsland.[25] Indeed, various analyses indicate that Victoria would be economically and financially better off (by up to $110m per year) if the forest industry was transitioned into a plantation-only industry.[26]

Thank you for the opportunity to make this submission.

Yours sincerely,

Interdisciplinary Conservation Science Research Group, RMIT

Katherine Berthon
Thami Croeser
Dr Matthew Selinske
Dr Ascelin Gordon
Emily Gregg
Marco Gutiérrez
Lindall Kidd
Dr Holly Kirk
Dr Alex Kusmanoff
Dr Pia Lentini
Roshan Sharma
Dr Freya Thomas
Professor Sarah Bekessy

[24] Lindenmayer et al. 2015 and also Lindenmayer 2018, above n2.
[25] VicForests. 2013. Corporate and business plans, 2013-2014 to 2015-2016. VicForests, Melbourne.
[26] Keith et al. 2017, above n23.