



Submission to “A redesigned NZ ETS Permanent Forest Category”

Organisation

Organisation	University of Otago, led by the Climate and Energy Finance Group https://blogs.otago.ac.nz/cefg/
Authors	<p>Dr Sebastian Gehricke, Director of the Climate and Energy Finance Group and Senior Lecture, Finance</p> <p>Associate Professor Janice Lord, Botany</p> <p>Dr Viktoria Kahui, Senior Lecturer, Economics</p> <p>Professor Craig Bunt, Agricultural Innovation</p> <p>Associate Professor Helen Roberts, Director of the Climate and Energy Finance Group and deputy Head of Department, Accounting and Finance</p> <p>Professor Sara Walton, Acting Associate Dean Research, Deputy Dean of the Otago Business School, Director of the Master of Sustainable Business programme and Co-Director of He Kaupapa Hononga Otago’s Climate Change Research Network</p> <p>Professor Frank Griffin, Director Ag@Otago and Department of Microbiology and Immunology</p> <p>Ray O’Brien, Head of Sustainability, University of Otago</p>

Responses to discussion document questions

Introduction	<p>Firstly, we would like to commend the Ministry for Primary Industries for their continuous efforts to improving the settings of the Emissions Trading Scheme (ETS) so it can be an effective tool to help meet New Zealand’s emissions goals, while also addressing the wider impacts that these settings can have on issues such as biodiversity, well-being etc.</p> <p>We applaud the desire to incentivise permanent indigenous afforestation and very much support some of the proposed changes. We hope our submission provides some valuable comments on how the ETS can be improved to incentivise economically and environmentally sustainable and socially responsible afforestation.</p> <p>We also point out that characterising forests as either harvested or permanent reflects the manner in which NZ “does forestry” rather than a true dichotomy. NZ short rotation clear-felling treats trees like a crop, periodically denuding the soil and destroying any associated</p>
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biodiversity. Many other temperate nations allow for sustainable harvest while maintaining canopy cover – continuous cover forestry (CCF). This allows for the retention of the forest ecosystem, with its benefits for carbon and microclimate, while also producing mill-able timber. Changing the NZ forestry model to incentivise CCF would allow for improved levels of carbon capture along with timber production while reducing issues with slope erosion and damage to waterways by sediment and slash. We comment further on CCF with regard to exemptions, below.

It is a shame this consultation comes not long after a similar consultation on the permanent forest category, to which we had already submitted. Many of our comments remain the same and we hope this time they will be heard. The questions and solutions are not very difficult, but it seems political willpower is generally the main barrier when it comes to sustainability ambition, whether it be in emission reductions, protecting and improving biodiversity or human well-being.

Very important question: Why is a forest that is felled after 50 years defined as a permanent forest?

We hope our comments below, specifically around carbon accounting for transition forests, will lead to a comprehensible and stable ETS setting. Transition forests have a place in our strategy, but they must not create new intergenerational risks.

1

How do you think the Inquiry’s recommendations should be reflected in proposals to redesign the permanent forest category?

The findings and recommendations should help shape the redesign of the permanent forest category to include only those forests with the higher benefit to resilience to the impacts of climate change, namely indigenous forests. Rotation forests, not in the permanent forest category, should have higher management requirements to avoid the externalities of landslides and woody debris.

Requiring forest management plans for ‘transition’ forests is not enough, the carbon accounting needs to reflect the actual success of the transition. As transitioning to native can take decades I think it would be better to withhold credits until there is clear evidence that the transitioning process has effectively commenced, e.g. successful establishment of native trees via planting or evidence of widespread diverse natural regeneration. That type of evidence could be verifiable after 20 years so reducing the financial, and international compliance, exposure due to a gap between the 17 years averaged credits (e.g. for *Pinus radiata*) and the evidence that a forest has fully transitioned which could take 50+ years. This is in line with option 2.2, although carbon credits beyond the averaging method should be held in escrow until transition is achieved.

This approach will ensure that landowners are committed to truly transitioning to long-term indigenous forests as well as mitigating the risk of rewarding transition forest owners prematurely.

2

Do you agree with our assessment criteria for the redesigned permanent forest category? If not, what would you change and why?



Yes, we broadly agree with these criteria. It may be worth adding further requirements around that address issues related to verifiability and compliance. For example, currently the evidence in support of transition forest feasibility is limited and therefore any credits beyond the averaging accounting method should be held in escrow until transition is clearly occurring and verified to ensure the outcomes of such long-term plans come to fruition and the taxpayer is not liable for any shortfall or increased risk.

We support the proposal to have a specific carbon accounting method for transition forests. This will make treatment of these forests for reporting periods comparable and transparent across different ownership groups.

3 Do you think any of these criteria are more important than the others? If so, which criteria and why?

We believe criteria 1, 2 and 3 as well as an additional criterion around verification and compliance (see response to question 2 above) are most important to have an effective ETS. Clearly governance around timeliness and reliability of reporting on transition forests is critical for monitoring ETS reporting of the permanent forest category referred to in the proposal.

4 Of these options, what is your preferred approach? Why? Are there other options you prefer, that we haven't considered? (Note, options 1.2a and 1.2c are not mutually exclusive)

Option 1.1 is the most appropriate for the goals New Zealand is trying to achieve. Again, verification that a transition has effectively commenced before any payment of permanent forest accounting method credits is essential to ensure landowner and foresters are incentivised to successfully transition their forests and the taxpayer is not burdened with the risk and associated cost of failure.

Option 1.2 will decrease the issues highlighted by the consultation document, but not significantly. It will also create increased complexities that will discourage informative disclosures. The development of a Biodiversity Credit scheme and improvements in the cost effectiveness of native tree propagation and establishment stand to significantly reduce the relative difference in feasibility between native and exotic forestation, meaning that many of the identified issues will no longer be of such concern in the future.

Option 1.2a is interesting, but there could be a longer rotational averaging carbon accounting method for such species. Long-lived exotic species would lend themselves very well to a Continuous Cover Forestry model of sustainable timber extraction. However, where harvesting is not feasible, we see no reason why long-lived exotic species should be planted in preference to long-lived native species.

Option 1.2b is aimed to support criteria 4. However, if exotics are not allowed into the permanent forest category, with advances in native tree propagation and establishment methods and the advent of a Biodiversity Credit scheme we would expect the feasibility of permanent indigenous forests to improve and therefore be able to meet criteria 4.

In many government documents, including the current NZ ETS review document, part of the reasoning for the Māori commercial interest in exotic forestry has been given as follows:



“Around 30 per cent of Aotearoa New Zealand’s 1.7 million hectares of plantation forestry is estimated to be on Māori land. This is expected to grow to 40 per cent as Tiriti settlements are completed.”

However, a recent information request to Te Uru Rākau, the New Zealand Forest Service, resulted in provisions of a dataset showing that post-1989 planted forests on Māori land, that is the forests relevant to the ETS settings, is 47,408 hectares and pre-1989 plantation forests on Māori land make up 153,233ha. Even combined that makes up only 11.8% rather than 30%. Where does the 30% statistic come from, as no report or evidence is ever cited. Further, Māori are not a homogeneous group and many of us strongly support limiting removals credits to only indigenous forests (for example: <https://manataiao.wordpress.com/recloaking-papatuanuku/>).

Forestry is certainly an important component of the “Māori Economy”, but commercial timber industries should be profitable, without earning carbon credits and the opportunities of carbon farming with indigenous forests is still there even on marginal land. Currently this is not feasible, in part, due to the downward price pressure of the cheaper Pinus Radiata monocrop plantations that the Government has allowed into the Permanent Forest category without much justification.

If we were to have special consideration for some permanent exotic forests, this should be around their co-benefits to soil stabilisation (deep roots) and avoidance of generating new intergenerational risks.

5	<p>If you support allowing exotic species under limited circumstances, how do you think your preferred ‘limited circumstance’ should be defined? (For example, if you support allowing long-lived exotics to register, how do you think we should define ‘long-lived’?)</p>
	<p>The ‘limited circumstances’ category is not well advised. The category will create additional complexities that will hamper a well-functioning ETS. What is the motivation behind this relative to the criteria of the review?</p>
6	<p>Do you think there is an opportunity to use permanent forests to stabilise erosion-prone land?</p>
	<p>Certainly, and research has shown that the best forests for this are deep rooted, diverse, and established/mature indigenous forests. Fast growing exotic nurse species could play a role in creating conditions for these native forests to establish (fitting within the transition forests category) but care would need to taken to ensure the exotic pioneers do not slow the establishment of a mature indigenous forest.</p>
7	<p>Do you think the Government should consider restricting the permanent forest category to exotic species with a low wilding risk?</p>
	<p>ANY exotic species included within the permanent forest category MUST have a low wilding risk, even if the intent is to transition the forest to native species. The wilding risk also needs to consider future climates not just present conditions. It is extremely perplexing that in some regions councils and other government entities are subsidising the removal of wilding exotic conifers, while the ETS is incentivising more exotic conifers to be planted.</p>



8	<p>Do you agree with the proposal for a specific carbon accounting method for transition forests? If you disagree could you please provide the reasons why? If there are other options you think we should consider please list them.</p>
	<p>Yes, it is extremely important that the yet unproven method of transition forests has its own carbon accounting rules. If a transition fails, the government will have to manage that risk and take responsibility or any carbon shortfall liability. One way to mitigate this risk is to restrict the carbon credits earned by transition forests to those credits awarded at the averaging method of rotation forests. Carbon credits would be awarded at the averaging method rate until the transition is achieved and verified. Subsequent to verification the method in option 2.2 could be used.</p> <p>Landowners and project developers can be fully incentivised to achieve transition by requiring them to be responsible for the risk of transition failure. Management of transition risk would require individuals to have appropriate forest management plans as well as incurring an embedded cost of failure to transition within the ETS rules.</p>
9	<p>If you agree with the proposal for a specific carbon accounting method for transition forests, what do you think it needs to achieve?</p>
	<p>Consistent with our responses throughout this submission, the rules need to reward transition forests after they have achieved a verified transition, that also accounts for the loss in sequestration as the forest is transitioned.</p> <p>All risk of failure needs to sit with the forest owner, not with the government or future generations of tax payers.</p> <p>This will also support the relative feasibility of indigenous afforestation which should be the priority aspiration.</p>
10	<p>What do you think should occur if a forest does not transition from a predominately exotic to indigenous forest within 50 years?</p>
	<p>As previously mentioned in our submission, such a forest should never earn permanent forestry accounting method credits until transition has been shown to be effectively occurring. Using this method, a forest that does not achieve transition will just be earning appropriate credits for the type of forest it is.</p>
11	<p>Of these options, what is your preferred approach? Why? Are there other options you prefer, that we haven't considered? (Note, options 3.2 and 3.3 are not mutually exclusive)</p>
	<p>Option 3.3 is the most appropriate, as discussed above. However, requiring good plans is not enough, rewards should only be allocated after carbon is sequestered, and additional permanent forest credits should only be earned once a forest is successfully transitioning. Criteria for a successful transition could follow existing ETS criteria, e.g. if there is 30% cover of native species capable of reaching at least 5 m in height in the understorey of an exotic forest, that forest is on track to transition.</p>
12	<p>If there were to be additional management requirements for transition forests, what do you think they should be for? Why?</p>



As outlined in Forbes report (MPI Technical Paper No: 2021/22) management requirements could be staged in accordance with a national model of regions and environmental conditions under which natural regeneration under an exotic canopy is highly likely vs where supplementary planting is required. Work currently underway in the Botany Department, University of Otago, also demonstrates that the canopy species, the amount and type of coarse woody debris, as well as light levels, all affect the suitability of exotic forests for native regeneration. In our study *Pinus radiata* and eucalypts provide a poor environment for natives compared with other exotic species (e.g. macrocarpa, poplar), so it is critically important that if exotic trees are included as transitional forest they are the right species to facilitate native regeneration.

It is more important that the additional reward is not earned until transition is achieved. This would allow foresters to decide on the best plans to achieve this and not put this risk on Government.

13	<p>Do you think transition forests should be required to meet specific timebound milestones to demonstrate they are on a pathway to successful transition?</p>
	<p>Yes of course, and only earn additional credits if those milestones are met. Milestones can be short to medium term though, e.g. demonstration of native seedling abundance, demonstration of native sapling cover and height etc, rather than waiting until the 50 year mark.</p>
14	<p>Do you agree with this proposal to allow transition forests to be permitted to clear-fell small coupes or strips to establish indigenous species? Why? And if you agree, what other restrictions should there be?</p>
	<p>This is a good idea, but the change in carbon stock must be accounted for and additional controls should be in place to preserve the integrity of the forest microclimate, e.g. a maximum width of strips of 30m, and no more than 30% of total forest area removed. The caveat to this, though, is that heavy machinery and roading associated with clear felling could be counter-productive and lead to woody weed issues reducing the success of native establishment.</p>
15	<p>If forest management requirements are implemented, do you think these should be prescriptive or outcomes-focused? Why/Why not?</p>
	<p>Outcome focussed, which will create savings for government while ensuring outcomes are met. This role of monitoring outcomes is better suited to government and moves the responsibility for innovation and method prescription to other interested parties.</p>
16-19	<p>What are your views on forest management plans? What should forest management plans include? Who do you think should be allowed to verify and/or monitor forest management plans? How often do you think forest management plans should be re-verified?</p> <p>We support the concept of forest management plans as best practice for transitional forestry will vary throughout the country and depend on species involved. Plans should include the potential for natural regeneration via seed dispersal, recommended interventions, timeline for interventions and key verification milestones. Independent verifiers could provide this service as has happened with ETS verification. These verifiers would need some form of accreditation. Verification need not occur until the initial forest is 10 years old, then every 5 years thereafter.</p>



20	<p>What do you think should happen if there are not enough people to verify forest management plans?</p>
	<p>University of Otago, along with other tertiary educator providers, produces graduates with native forest and vegetation survey expertise. Investing in more native plant-based training in the tertiary sector would ensure a future supply of expertise in this area. Foresters should be allowed to try new methods, however, carbon rewards should only be earned if the required outcomes are achieved.</p>
23	<p>Are there other compliance options that you think we should consider?</p>
	<p>We believe this is one of the most important questions asked in this consultation. As explained and reiterated in our response, the additional carbon credit reward for a permanent indigenous forest should not be paid unless the forest transition is achieved. That should be the compliance focus for transition forests, and will eliminate a lot of work and risk for Government.</p>
24	<p>For the compliance tools you think we should have, when do you think they should be used?</p>
	<p>The main issue in our recommendation regarding carbon accounting for transition forests is the verification of transition. The verification process will require criteria and measurable output metrics. Given that many forests will not transition for quite some time, the opportunity to develop a working definition of a successful transition that can be tested and researched is available.</p>