Submission by Wise Response Society

on the

Climate Change Response (Emissions Trading Reform) Bill

17 Jan 2020

To the Parliamentary Environment Select Committee and the Ministry for the Environment

Support for other Submissions

1. The Society has viewed three particular submissions which it wishes to support and ask that they be given careful consideration.
    a. **Distinguished Professor Dr Robert McLachlan,** School of Fundamental Sciences, Massey University
    b. **Dr Geoffrey Bertram,** Senior Associate, Institute for Governance and Policy Studies, Victoria University
    c. **Banks Peninsula Native Forest/Climate Change group: Comprised** of representatives from Banks Peninsula Conservation Trust Christchurch City Council, Department of Conservation, Environment Canterbury, Lucas Associates, Manaaki Whenua / Landcare Research, Maurice White Native Forest Trust (Hinewai Reserve), QEII National Trust, Rod Donald Banks Peninsula Trust.

Additional submission points

General comment on the ETS and overall process

2. While we recognise that the ETS is at an advanced stage and that fundamental change is unlikely at this juncture, before we comment more specifically on this Bill, we feel compelled to restate what we believe to be fundamental flaws with the market approach taken to reduce emissions in this bill.
3. Since its establishment in 2013, our Society has submitted on Policy proposals affecting the ETS severak times. On each one we have made it clear that we consider taking a market approach to emissions containment is virtually certain to fail to achieve its objectives.
4. The key issue is that if the path that must be taken to contribute fairly to avoiding climate catastrophe is known, then the most certain way to achieve that end is not a market but constraining GHG-emitting activity directly (either by limiting the supply or by applying a tax). All using a market does is introduce unnecessary uncertainty.
5. Dr Bertram in his submission points out how important certainty is to achieve the required response.

> *Uncertainty and lack of credibility kill the effectiveness of abatement policy and dramatically raise the carbon price required to achieve decarbonisation targets This has been the primary reason why the NZETS has failed in the past to reduce New Zealand's emissions, and why it will continue to fail in future in the absence of strong, credible, multi-party political commitment to durable and effective policy settings. [Bertram, pg 6]*

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6. There is increasing recognition that if we have not already passed a point of no return with climate change due to positive feedback, the next 5 years is likely to be our last opportunity to restabilize climate at an inhabitable level. In this sense, they are the most important years in the evolution of the human species.
7. To be willing to use a market when these are the stakes when far less uncertain options are available, in our Society's view this is foolhardy in the extreme. It can only mean that those with key influence over the architecture of this bill simply do not understand the seriousness of our predicament.

Preliminary reduction rates

8. If we accept that action over the next 5 years is critical, then the proposed preliminary provisions are inadequate.
9. Figure 1 from the upcoming IPCC assessment (Source: Dr Martin Manning) shows changes in emissions, relative to those in 2015, for both CO_2 and CH_4, in the region covering New Zealand, Australia and Indonesia and consistent with keeping below 2°C (SSP1-26, hollow symbols) and 1.5°C (SSP1-19, solid symbols)[1].
10. The IPCC have recognised that a 2deg global temperature rise is too dangerous and recommended that 1.5 degree should be the limit.
11. They have also indicated that GHG emissions must be halved by 2030 to achieve (see top CO2 emissions graph in Figure 1). This demands a reduction rate of about 7% a year. Climate system on the current course of warming is expected to pass the 1.5 degC threshold of warming by 2035 (NASA, 14 January 2020).
12. Further, the same graph shows that we are relying on as yet non-existent negative emissions technologies to sequester CO2 at high rates in the second have of the century. We recall that the 1.5 degree limit is a specific purpose written into the Climate Change Response (Zero Carbon) Amendment Act. Clearly, significant reductions are required in the period 2020-2030. To achieve the goals of the Zero Carbon Act we must start on these reductions immediately.
13. The free allocation to agriculture of 95% included in the Labour-New Zealand First Coalition agreement and the proposed 0.01 percent reduction in allocation for industry between 2021 and 2030 are totally inadequate with respect to the IPCC recommendation and must be significantly increased.
14. The key point is that the provisions in this ETS Bill and the provisional emissions budget 2021-2025, must overall, deliver a reduction path that will support 1.5 degrees and it needs to rapidly mitigate greenhouse gas emissions sooner than current provisions guarantee.
15. In this respect, we are highly supportive of the proposed the enhanced transparency proposed for the Bill as an important way to keep all actors on task.

[1] Emissions data used here are publicly available at: https://tntcat.iiasa.ac.at/SspDb/dsd

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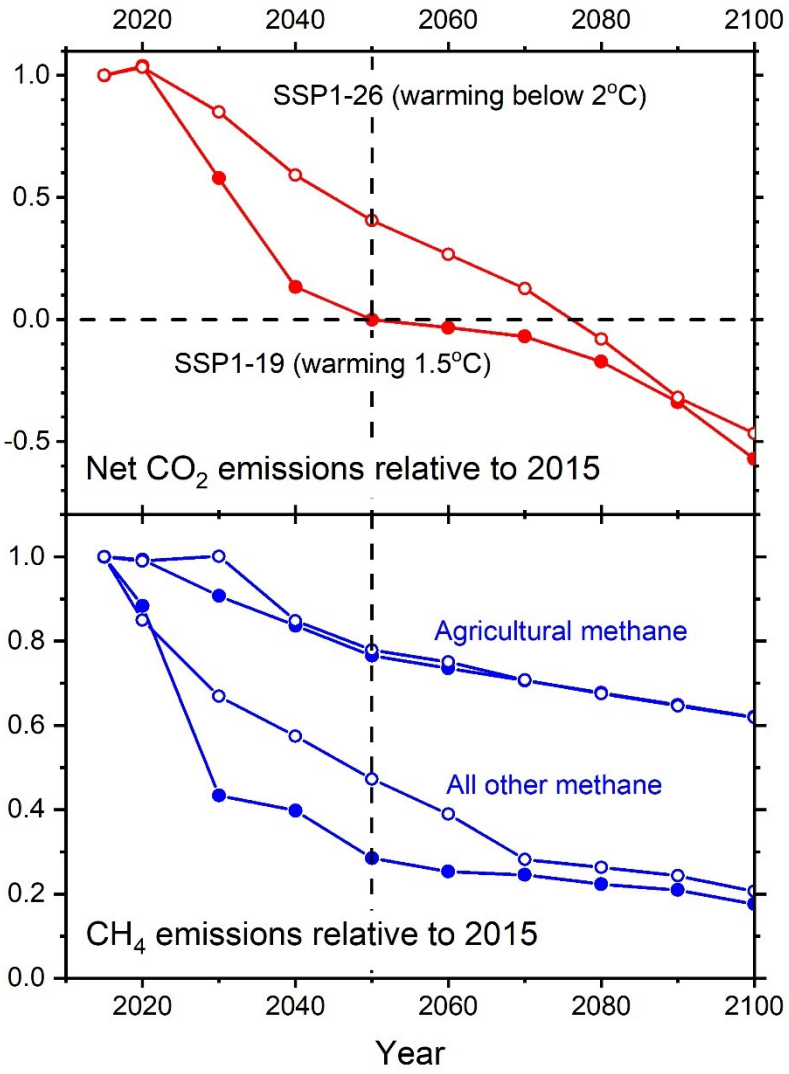

Figure 1. Required reductions in emissions for New Zealand consistent with keeping below 2°C (SSP1-26, hollow symbols) and 1.5°C (SSP1-19, solid symbols). Provided by Dr Michael Manning, this figure will appear in the forthcoming IPCC 6th Assessment.

Sustaining essential services

16. Another major issue our Society predicts using a carbon market is preventing disproportionate migration of carbon units to those enterprises that have the greatest capacity to pay. As an ironic and unintended consequence, this may well be businesses that have most access to fossil energy!

17. In any event, there are many organisations undertaking activities essential for the basic functioning of society which may have limited capacity to sustain the additional cost of securing emission units.

18. The price cap and cost containment reserve appear to be ways the ETS is proposing to try and address this, but we expect there will still be a need to widely introduce special arrangements to ensure the continuity of such activities.

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19. This is one of the reasons our Society have consistently advocated for a cost neutral "fee and dividend" as it would enable the dividend to be easily directed for such purposes and to support low emissions activity.

Climate Change Commission (CCC)

20. The Society were highly supportive of the establishment of this commission to distance the climate issue from political whim and provide certainty that the required emissions pathway would be followed. However, the Zero Carbon Act does not ensure that the recommendations of the CCC will be implemented.

21. This again puts the rate of progress with emissions reduction back in the political arena and means it may be influenced by the level of understanding of individual or small groups of politicians and business interests who may themselves be influenced by short-term political agendas with disastrous consequences.

Risk of passing climate tipping point

22. Figure 1 also illustrates the risk of failing to fully appreciate the extreme level of risk of passing a climate tipping point. Note that the methane emissions in the second graph have been split into agricultural and all other. Dr Manning advises us that the rate of reduction shown for agriculture is politically determined and therefore that sets a more demanding rate for the other methane sources.

23. Recently, however, very high, sustained levels of methane have been measured in the arctic region and the current view is that this is probably due to the exposure of methane hydrates - a vast and potentially huge source of methane which will be impossible to control.

24. For example, Barrow, Alaska registered the massive bursts of methane into the atmosphere, starting in August of this year. Looking at the 2.2-million-year ice core, the maximum methane concentration ever was 800 ppb. In Barrow, it is currently 2,050 ppb and has remained there for 4 months (re Dr Peter Carter, IPCC reviewer).

25. Methane hydrates have long been identified as having the potential to trigger a climate tipping point. With these new trends, achieving the already optimistic order of reduction required from all "other" methane sources (some 80% on the graph) is becoming increasingly unrealistic.

Role of forestry

26. In our submission to Action on Agricultural Emissions Report by the Interim Climate Change Committee (13 August 2019) we wrote the following:

> *The Parliamentary Commissioner for the Environment has questioned the use of plantation forestry as a climate response and points out that "...the benefits of converting land into forest are difficult to estimate accurately."[2] For example what are the net emissions costs of soil disturbance, machinery use, transport, processing, albedo change (potentially ~17-24%[3]) and finally*

[2] https://www.pce.parliament.nz/media/196523/report-farms-forests-and-fossil-fuels.pdf
[3] Implications of albedo changes following afforestation on the benefits of forests as carbon sinks, Kirschbaum et al 2011

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and most importantly, export (where most logs are destined), which effectively loses the carbon from New Zealand. In New Zealand the plantation forest industry devolves all of these emissions costs to other sectors, and so they are not seen as directly resulting from exotic forestry establishment.

27. While these are deeply important questions about the efficacy of relying on plantation forestry offsets (only reinforced by the wild fires in Australia now covering 186,000 square kilometres (or 70% the area of NZ!)), judging by the continuing reliance on them in this Bill, our fear is that they have never been systematically assessed. If that fear is well founded, it raises doubts about the integrity of the overall process.
28. We support the provisions proposed to discourage deforestation and encourage aforestation with indigenous forest (both planting and natural regeneration) and their use for offset, provided the indigenous forest will remain in perpetuity.
29. We support the provisions proposed to encourage exotic forest on marginal land for the wide range of ecosystem and commercial benefits, but not as offsets for carbon emissions. Key reasons are:
    a. It is only useful as an offset for the first harvest period of about 25 years
    b. To preserve that gain in GHG removal from the atmosphere it requires the land to remain in forestry indefinitely which is a liability we are transferring to future generations
    c. With climate change already locked in and increasing pressure on land resources it will become increasingly difficult to ensure that those forests remain
    d. The potential for offsets with exotic forestry gives the appearance that the need to cut carbon emissions less urgent than it is and prolongs unsustainable lifestyle.
    e. Monocultures of exotics such as radiata pine extract water from the environment, and release volatile organic compounds monoterpenes) that extend the life time of CH_4 locally
30. The wisdom of reliance on carbon offsets has been neatly summed in the New Scientist - "Enlarging planted forests by a third could lock up enough carbon to give us 20 more years to stupidly dither on tackling climate change"[4]. We have to be sure that that is not all this Bill gives us!

Thanyou for the opportunity to submit. We would like to be heard on this submission.

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[4] New Scientist, July 2019