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Climate Change Contribution Consultation
Ministry for the Environment

Submission: Government's consultation on setting New Zealand's post-2020 climate change target

OraTaiao: NZ Climate & Health Council thanks the Ministry for the Environment for the opportunity to submit on the post-2020 climate change discussion document.

OraTaiao: The New Zealand Climate and Health Council (OraTaiao, The Council) is an incorporated society of over 300 health professional members who understand that climate change is fundamentally a threat to human wellbeing and are concerned by this, but also understand that well-designed action can bring benefits to health and fairness. Within its membership, OraTaiao has some of the world's leading climate-health experts, and is consolidating linkages with health bodies and other climate-health organisations in New Zealand and internationally.

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We would like to make an oral submission if this opportunity arises.

Attachments:

- 1. Appendix: Supporting arguments**
- 2. Bennett et al. NZMJ 2014**

Summary of recommendations

In summary, climate action protects and can improve our health. The [government's INDC discussion document](#) frames climate action as costly – ignoring the greater costs of climate inaction and the real gains to our health and economy by taking action now. We know that New Zealand can gain from being part of the global solution.

We therefore ask that the Intended Nationally Determined Contribution (INDC)

1. includes health and fairness in the assessment of costs and benefits
2. commits to a global zero carbon target by 2050 - with NZ gazetting this zero carbon target now to replace our current 2050 target, and setting annual steps from 2015 to get there well before 2050 and stay within the overall global carbon budget
3. pledges at least 40% cuts by 2030 in our gross domestic greenhouse gas emissions compared with 1990, towards at least 95% by 2050
4. places an immediate moratorium on fossil fuel exploration, and pledges to phase out existing extraction in the next decade
5. includes credible cross-party plans in the INDC, with a legislated independent Climate Commission to ensure NZ meets its targets and stays within the global carbon budget
6. protect health in the climate-vulnerable Pacific region from the preventable impacts of climate change

In addition, the Council calls **for adequately resourced, transparent, evidence-based consultation with NZ civil society over the next three months on NZ's final contribution to the global agreement on timely climate action.** We consider this INDC consultation with NZ civil society as totally inadequate on timeframe, publicity and misleading non-transparent information grounds. Consequently, the Council has concluded that this can only be the start of consultation on what NZ's climate contribution will be and we call for adequately resourced, transparent, evidence-based consultation with New Zealanders over the next three months. The future health and well-being of New Zealanders demands no less.

Health and wellbeing need to be at the heart of cross-party climate policy. From a health perspective we also call for the following actions to contribute both to the development of New Zealand's INDC and further climate change policy:

1. Commitment by the Minister of Health to attend the International Climate and Health Summit (which is planned alongside the Paris climate negotiations in December);
2. A Parliamentary climate change and health summit;
3. Health sector leadership on mitigation and adaptation to locked-in climate impacts on health;
4. Involvement of public health expertise in climate mitigation policy development to maximise opportunities for health and fairness and minimise negative unintended consequences;
5. Health (including equity) Impact Assessment (HIA) used routinely to inform key climate-relevant policies.

OraTaiao submission

The Council agrees that that climate change is a serious, potentially catastrophic emerging risk to public health, sustainable development and equity. Health equity is one of OraTaiao's core values, and so the Council supports approaches that explicitly incorporate fairness. Our stance on the setting of greenhouse gas emissions reductions targets is that New Zealand needs to rapidly reduce its greenhouse gas (GHG) emissions - substantially more than its targets in international commitments to date.

This submission is structured as follows:

- Comments on the consultation process
- Climate change as an issue affecting the whole of government
- Responses to the Ministry for the Environment's consultation questions
- Further detail and arguments in support of this submission, provided as an appendix.

Comments on the process

The Council is deeply disappointed at the failure to meaningfully consult with New Zealand's civil society over our contribution to the international climate agreement. The requirement to submit New Zealand's contribution (preferably by March 2015) has been known by the New Zealand government since November 2013, yet public consultation was announced via email on 7 May 2015 with 12 days of 12 NZ-wide public meetings starting a week later, and public submissions closing in just 18 working days on 3 June. Meeting venues were added - and changed with just hours' notice as public interest (despite no public advertisement) has been much greater than expected. Ministers with relevant portfolios have been conspicuously absent from all public meetings, leaving government officials to defend political decisions.

The official discussion document is deliberately misleading to the public, providing only partial information on the implications of climate change and our policy capability, and omitting the benefits of action and costs of inaction.

It is difficult to see how this process can be described as 'public consultation' - especially when compared with a whole year and millions of dollars of publicity allocated to the current consultation over NZ's flag. The late release of information by the Ministry, and the modelling itself, so late into consultation, questions the credibility of the consultation itself - with inadequate consultation material, hence public discourse that is uninformed, which the government may easily dismiss. It is also difficult to see how NZ will be able to meet the international obligation to furnish a contribution that is transparent, given the failure to date to share assumptions and methodological approaches with the NZ public.

The Council considers this token consultation is symptomatic of the wider government failure to acknowledge the well-established scientific evidence of human-caused climate changes and the implications for New Zealand's adaptation, and to take a [whole-of-government and whole-of-society approach](#) that maximises the opportunities for New Zealand's equitable transition to a zero emissions future.

We call for adequately resourced, transparent, evidence-based consultation with NZ civil society: The Council considers this INDC consultation with NZ civil society as totally inadequate on timeframe, publicity and misleading non-transparent information grounds. Consequently, we have concluded that this can only be the start of consultation on what NZ's climate contribution will be and we call for adequately resourced, transparent, evidence-based consultation with New Zealanders over at least the next three months. The future health and well-being of New Zealanders demands no less.

Climate change affects all aspects of humanity and government

The discussion document has been released by the Ministry for the Environment. This continues the government's pernicious framing of climate change as a fringe environmental problem. Although the discussion document identifies climate change as a serious global threat, including identifying some of the impacts on New Zealand in the short to medium term, the document also implies that New Zealand will somehow be insulated from the global societal and economic impacts ("we are likely to be better off than many other countries") and therefore fails to come clean about the larger significant indirect implications for New Zealand (such as rising food prices, Pacific migration, diminished demand from trading partners, and potentially increasing global unrest related to resource scarcity).

Furthermore, the document clearly aims to persuade the reader that action on climate change will incur significant economic cost and that New Zealand's greenhouse gas emissions are too difficult to deal with. The economic modelling undertaken is biased towards finding the costs by failing to calculate benefits from timely climate action and relying on economic analysis that excludes forestry and agricultural sectors, assumes no behavioural, regulatory or technological change within NZ, and assumes that NZ will only meet obligations by purchasing international emissions credits. By framing action as an economic debate, underpinning values and ethics by which decisions might be made are entirely absent from the document. Finally, the discussion document frames targets for greenhouse gas emissions reductions as politically negotiable. We respond to these issues of framing one-by-one below.

It is clear from the international and national science that climate change is not an "environmental" problem. Rather it poses a serious threat to human well-being, social stability and the economy in New Zealand, as well as globally. As a small open economy with environment-dependent export sectors, unabated climate changes pose huge risks for New Zealanders' jobs and overall well-being - from the impact of more frequent droughts and flooding, to ocean acidification threatening fisheries, to our trading partners' capacity to buy ultimately non-essential products such as milk powder and tourism. These threats are becoming increasingly salient to the majority of New Zealanders, about 87% of whom are at least somewhat concerned about the effects of climate change on society in general¹.

The global carbon budget, from which emissions reduction targets for developing countries are derived, is determined by the Earth's physics, indifferent to humanity, and is not

¹ http://www.motu.org.nz/news-media/detail/majority_of_new_zealanders_are_concerned_about_climate_change_and_taking_ac

politically negotiable². A global average temperature rise of about 2 degrees centigrade will devastate human society for generations already alive, and those to come after³. Keeping to less than 2 degrees of average temperature increase requires all developed countries to meet a zero carbon target before 2050, as well as reducing significantly other potent but shorter acting greenhouse gases, including agricultural methane and nitrogen dioxide. These, therefore, are not points for political negotiation.

The government needs to make clear in its framing that the targets are therefore a given, and steer the public debate towards the combined science and values based discussion about interim steps, policies to reach the targets and how we might fairly distribute the costs and benefits of a transition to a zero carbon society with significantly reduced other greenhouse gas emissions.

The Council is seriously concerned to learn, from the Ministry's public meetings, that neither the health gains ('mitigation co-benefits') from well-designed climate action, nor the health costs from climate changes, have been included in the economic analysis of the costs of New Zealand's climate action. The government's INDC needs to express to the public how climate action will protect human health and wellbeing, as well as summarise the currently available evidence for emissions reduction policies that provide health and social co-benefits in the short and medium term.

Scenarios for the costs of inaction on climate change can be modelled with as much validity as the economic modelling used to underpin the discussion document. Variable levels of information do not excuse presenting only the costs of action, without attempting to outline the benefits. The discussion document could have easily undertaken scenario analyses rudimentary in any public policy setting, examining a matrix of four scenarios - (i) neither the world nor NZ takes adequate climate action, (ii) the world doesn't act/NZ does, (iii) the world acts/NZ acts, and (iv) the world acts/NZ does not.

Global scenarios for different levels of action are readily available from the IPCC without needing to know what actions the rest of the world is taking. These can be combined with (at a bare minimum) the likely cost implications of direct impacts such as increased probabilities of droughts, bush fires, flooding, sea level rise and extreme weather events. The government has already made such estimates for single events such as the 2008 drought, which cost almost \$3 billion (<http://www.beehive.govt.nz/release/drought-costs-nz-28-billion>). Consistent with [Treasury CBA guidance](#), it is better to manage uncertainty – being explicit about precision and uncertainty – than discard major factors and destroy the model's construct validity.

² IPCC. Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge, UK: 2013.

³ McCoy D, Montgomery H, Arulkumaran S, Godlee F. Climate change and human survival, 2014 11:58:40.

Hansen J, Kharecha P, Sato M, Masson-Delmotte V, Ackerman F, Beerling DJ, et al. Assessing "Dangerous Climate Change": Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature. PLoS ONE. 2013;8(12):e81648. <http://dx.doi.org/10.1371/journal.pone.0081648>

The discussion document is silent on the direct and indirect implications of climate change on health in New Zealand, despite good evidence for likely impacts⁴. Likewise, there is an absence of consideration of the potential co-benefits of well-designed mitigation policies. The Ministry for the Environment's description on their website of [the health impacts of climate change in NZ](#) as 'more heat stress counterbalanced by fewer colds and flu in winter' is specious, misleading and ignores extensive literature on health impacts, health equity implications and potential climate action co-benefits in New Zealand. New Zealand based assessments, including monetary cost-benefit analyses, have already been published for inclusion in the public debate. These are described in more detail below, under the heading ***Important and likely opportunities?***.

A healthy post-2020 climate change target

The Council's responses to the [Ministry for the Environment's consultation](#) and its questions, in brief, as follows:

Questions 1a and 1b: Objectives for the contribution

We urge the government to re-word and prioritise the proposed objectives for the INDC as follows:

1. It must guide New Zealand's rapid transition to a zero emission economy and society

Real steps need to begin, starting this year, so that New Zealand's carbon emissions peak and begin reducing within this government's term. Regardless of what happens in Paris, the world faces a limited carbon budget so New Zealand must future-proof our economy by taking steps now to rapidly and fairly decarbonise towards a zero carbon future - and ultimately zero total emissions. Our INDC must include all-sector actions that centralise health and fairness, build on our clean energy strengths, improve housing and transform transport, resulting in a resilient, fair and healthy zero carbon economy and society by 2050. Agricultural greenhouse pollutants must also reduce now through agricultural diversification and widespread adoption of current best farming practice, followed by ongoing reductions through technological developments.

2. It is a fair and ambitious contribution that meets our globally assessed responsibilities

Secondly, NZ's contribution must **be** fair, ambitious, credible and sufficient – most importantly as an **international citizen** helping stay within the safe global carbon dioxide emissions budget. NZ's economy relies on world climate cooperation. We are also influential. Our contribution must therefore be convincing and not discourage stronger commitments by other nations.

3. Costs and benefits need to be distributed fairly within New Zealand and between countries

Healthy people depend on a healthy climate – we can't afford **not** to take real climate action. Ambitious climate action is the best investment in our future health, wellbeing and resilience as a nation. The costs of climate change are much greater than the costs of responsible action – and climate change will affect our most vulnerable households the most. The important health gains ('mitigation co-benefits') from climate action must be included in the calculations. We need to share the costs and benefits of action fairly, both between countries and within New Zealand.

⁴ Bennett H, Jones R, Keating G, Woodward A, Hales S, Metcalfe S. Health and equity impacts of climate change in Aotearoa-New Zealand, and health gains from climate action. N Z Medical Journal. 2014;127(1406):16-31. <https://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2014/vol-127-no-1406/6366>

Question 2: What would be a fair contribution for New Zealand

Current and future human health and wellbeing depends upon not exceeding our global carbon budget. We need to call for a global zero **carbon** target by 2050 – and NZ needs to demonstrate the annual, credible steps needed from 2015 to reach this target well before 2050. Further, we need to keep up with other wealthy nations in pledging at least 40% cuts in our **gross domestic greenhouse gas emissions** compared with 1990 emissions, by 2030, towards at least 95% by 2050.

Given the lack of transparency around the analysis in the discussion document and the likelihood that contributions to date will be insufficient to secure a ‘safe’ level of climate changes, NZ must be open to the possibility of a more ambitious target to play its part in global climate action. In any case, given the uneven trajectory of NZ’s future emissions with forest harvesting, the overall priority is to not expend our share of the global carbon budget over the next thirty-five years.

Importantly, the world has five times the amount of fossil fuels in reserve as we can afford to burn⁵. We need to immediately commit to zero new fossil fuel exploration and phase out existing extraction in the next decade.

To be successful, our INDC needs to commit to the cross-party agreement and national policies needed to achieve these targets.

Questions 3 and 4: How will our contribution affect New Zealanders

What level of cost is appropriate?

The Council challenges the premise of this question. The economic modelling in the discussion document is flawed where the costs of inaction and the benefits have not been factored in. The costs of climate inaction far exceed the costs of taking action and we need to account for this in climate calculations. The sooner we act, the more likely we will see overall gains not costs. Encouragingly, we can significantly improve short- and medium-term health and equity (‘mitigation co-benefits’) – especially by shifting from cars to active and public transport; better housing energy efficiency; climate-friendly home heating; reducing red meat and dairy intake; phasing out coal and lignite mining. NZ must include these co-benefits when calculating costs and benefits of action. A fair transition means policy designed to especially support changes by vulnerable households.

Important & likely opportunities?

The document focuses heavily on agriculture, but half of our emissions are long-lived carbon dioxide from transport, housing and other energy use which have to rapidly reduce to zero. We already have the technology and policy ideas to reduce these emissions - what is needed now is the cross-party political will to put them in place.

Transport: Significant reductions in transport emissions do not require new technology, rather re-balancing transport investment. Shifting investment from new motorways to infrastructure and supportive policies that make walking and cycling safe, convenient and attractive should be a first priority. Cost-benefit analyses for investment in cycling

⁵ Hansen J, Kharecha P, Sato M, Masson-Delmotte V, Ackerman F, Beerling DJ, et al. Assessing “dangerous climate change”: required reduction of carbon emissions to protect young people, future generations and nature. PLoS ONE. 2013;8(12):e81648. <http://dx.doi.org/10.1371/journal.pone.0081648>

infrastructure suggests that every dollar spent on best practice urban infrastructure can bring tens of dollars in benefit for health and the climate⁶.

Investment in low-carbon public transport (e.g. electric trains, light rail and buses) accompanied by progressive planning and policies can also bring significant social, health and economic benefit through improved equitable access to education and employment for low income households (reducing long-term unemployment); increasing physical activity; reducing road traffic injury; and improving air quality. Transport policy-makers are already able to provide monetary values for many of these health and social benefits⁷.

Shifting heavy freight from trucking to electric rail and low-carbon coastal shipping would also bring health co-benefits that can be estimated and monetised, using New Zealand's existing Vehicle Emissions Prediction Model. Benefits of shifting freight off trucks that can be assessed and monetised include improvements in air quality and reductions in road traffic injury. Encouragement of the uptake of electric vehicles and other new vehicle technologies (including for freight) can then be used to address the vehicle trips that are not able to be transferred to healthier, more climate-friendly modes.

Housing: The Warm Up evaluation studies in 2011 and 2012 demonstrated health co-benefits of insulation and clean, energy-efficient household heating of between 3.6 and 4 dollars return for every dollar spent⁸. These analyses were limited to mortality savings and hospitalizations from a limited number of conditions. Cost-benefit estimates are therefore conservative.

Agriculture: We will also need to reduce our economic reliance on ruminant livestock farming. Rebalancing the diversity of our agricultural economy is vital for resilience in the face of climate changes and fluctuating global demand with dairy price volatility, as well reducing climate-damaging emissions. There is also an urgent need for rapid plantation planting on marginal land to mitigate the financial fall-out from harvesting during the 2020s.

Although dairy emissions intensity per litre appears to be gradually dropping, any positive change is overwhelmed by increasing dairy farming. There is much in the sector that unnecessarily increases emissions (or supports emission increases) and undermines NZ's clean green identity - including coal-powered milk treatment (such as the new Darfield plant), 'land-farming' fracking waste-products, importing palm kernel and applying nitrogenous fertilisers at exponentially increasing rates, and failing to fence all animals away from waterways.

⁶ Macmillan A, Connor J, Witten K, Kearns A, Rees D, Woodward A. The Societal Costs and Benefits of Commuter Bicycling: Simulating the Effects of Specific Policies Using System Dynamics Modeling Environmental Health Perspectives. 2014;122(4).

Lindsay G, Macmillan A, Woodward A. Moving urban trips from cars to bicycles: impact on health and emissions. Australian and New Zealand Journal of Public Health. 2011;35(1):54-60.

⁷ NZTA 2013 Economic Evaluation Manual page 2-8 <http://nzta.govt.nz/resources/economic-evaluation-manual/economic-evaluation-manual/docs/eem-manual.pdf>

⁸ Howden-Chapman, P., & Preval, N. (2014). Cobenefits of insulating houses: Research evidence and policy implications. In R. Cooper, E. Burton & C. L. Cooper (Eds.), *Wellbeing: A complete reference guide (Vol. II): Wellbeing and the Environment*. (pp. 607-625). Wiley-Blackwell. doi: 10.1002/9781118539415

Taking immediate steps to change the intensity of dairy farming has the potential to significantly reduce agricultural emissions, and improve profits and working lives of farmers. Intensive dairy farming means higher input costs including more regrassing, more herd replacement, more veterinary costs, more fertiliser use, more supplementary feed and more farming labour. Although less intensive dairy farming reduces outputs, because less inputs are needed, this has the potential to be easier and more profitable for farmers. There's also a strong argument for more resilient farming practices for climate resilience.

NZ needs a healthy climate partnership with the farming sector as the export backbone that funds the health sector. Current best practice needs to become universal now - to easily reduce emissions and to ensure that future technological breakthroughs are adopted quickly, and to help farming manage climate changes. Furthermore, we understand that three-quarters of future NZ emission growth will be from agriculture. This year NZ needs to agree immediate steps to reduce all three gases in the agricultural sector - including nitrous oxide which, like carbon dioxide, is dangerously long-lived.

Fossil Fuel Extraction: Low carbon energy generation and rapid phase-out of fossil fuel extraction needs to happen in a planned and managed way, described as a 'just transition' where sustainable clean energy, low carbon jobs are created. When supportive, resilience-based planning occurs with communities, there is emerging evidence that long-term social benefits accrue from moving away from a "boom-and-bust" economy to more sources of income that can be sustained over time. In the shorter-term, the health harms of fossil fuel extraction are immediately removed. These include direct occupational hazards and harms as well as community-wide impacts on air and water quality. Again, these harms are already able to be measured, modelled and monetised⁹.

"Many people argue that we must continue to open new coal mines because of the social and economic benefits the jobs bring. That argument places limited short term jobs ahead of the long term detrimental climatic effects of digging up and burning more coal. It also overlooks the social disruption that results from coal mining's boom and bust economy. The boom and bust nature of coal mining delivers social disruption to their communities"¹⁰

Question 5: Summary

Taking into account future uncertainties of technologies and costs in setting a target?

The precautionary principle and the level of evidence already available, compel us to act now. Risks of further delay are very high, while we have reasonably good certainty about potential short to medium term gains of well-designed emissions reductions policies. We need government to give clear, strong, consistent signals to spur both behaviour change and rapid technological development. More than technology, we need bold leadership.

The fact that the economic modelling in the discussion document assumes no technological changes leads to exaggerating the estimated costs of action and means any proposed action will be less ambitious than it should be. We are in a period of rapid technological transition,

⁹ Epstein PR, Buonocore JJ, Eckerle K, Hendryx M, Stout Iii BM, Heinberg R, et al. Full cost accounting for the life cycle of coal. *Annals of the New York Academy of Sciences*. 2011;1219(1):73-98. <http://dx.doi.org/10.1111/j.1749-6632.2010.05890.x>

¹⁰ Baxter C, Campbell J, Eyre, R, et al. Jobs after Coal. A just transition for New Zealand Communities. 2015 https://coalactionnetworkaotearoa.files.wordpress.com/2015/05/jac_2015_final-low-res2.pdf

where, for example, renewable energy is vastly more effective and more affordable than it was even five years ago. So any “future uncertainties of technologies and costs” are only uncertain in magnitude - what is clear is that technological change will make future emissions reductions substantially easier and cheaper than they currently are. An assumption of ‘no technological change’ makes no sense and biases suggested action towards the status quo. However, regardless of the opportunities that new technology may bring, there are actions already available to us - as outlined above under “Important & likely opportunities” - that can reduce emissions, improve health and create economic benefits. These are actions that NZ should be taking right now.

Question 6: Other comments

Further information for our government to consider?

Human health and wellbeing need to be at the heart of cross-party climate policy. From a health perspective we also call for the following actions to contribute both to the development of New Zealand’s INDC and further climate change policy:

1. Commitment by the Minister of Health to attend the International Climate and Health Summit (which is planned alongside the Paris climate negotiations in December);
2. A Parliamentary climate change and health summit;
3. Health sector leadership on mitigation and adaptation to locked-in climate impacts on health;
4. Involvement of public health expertise in climate mitigation policy development to maximise opportunities for health and fairness and minimise negative unintended consequences;
5. Health (including equity) Impact Assessment (HIA) used routinely to inform key climate-relevant policies.

Further detail and arguments in support of this submission are available in the attached appendix and New Zealand Medical Journal article.