



nzmsa

New Zealand Medical Students' Association

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Submission on Zero Carbon Bill 2018

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COVERING LETTER

Tuesday, 17th July 2018

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Re: Submission on the Zero Carbon Bill 2018

To the Ministry for the Environment,

The New Zealand Medical Students' Association (NZMSA) is proud to provide a submission to government on the proposed Zero Carbon Bill.

The following submission has been prepared by our association in collaboration with the voices of many medical students who are passionate in seeing Aotearoa become a leader in action against climate change.

We warmly welcome the opportunity to provide feedback and wish to appear before the Zero Carbon Bill working team to speak to our submission should any further information be required.

Thank you for your consideration.

Ngā mihi nui,

NZMSA and Students

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NZMSA'S POSITION ON CLIMATE CHANGE

The New Zealand Medical Students' Association (NZMSA) is the national representative body for medical students in New Zealand. Our organisation represents over 1,900 medical students who, as future health professionals, have an interest and stake in issues pertaining to public health, the future of our healthcare system, and the wellbeing of our future patients.

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NZMSA is of the position that Climate Change is, and will be, one of our generation's greatest public health issues. There is irrefutable scientific evidence that Climate Change already poses a significant risk to public health, and it is clear that this issue will only become more significant in New Zealand in the years to come (NZCCC, 2014)¹.

If we are to become the future doctors of tomorrow, and provide the best possible care for our patients and communities, then we must act now to ensure New Zealand's legislation reflects a commitment to creating healthy environments for all New Zealanders to thrive. NZMSA therefore strongly supports firm action, such as the Zero Carbon Bill, to reduce the extent of Climate Change and its impacts both in Aotearoa and around the world.

For our full position statement on climate change, please see:

<http://www.nzmsa.org.nz/wp-content/uploads/2011/06/NZMSA-Climate-Change-Position-Statement.pdf>

¹ New Zealand Climate Change Centre (NZCCC), 2014. Climate Change. IPCC Fifth Assessment Report. New Zealand findings. Retrieved from:
https://www.niwa.co.nz/sites/niwa.co.nz/files/NZCCC%20Summary_IPCC%20AR5%20NZ%20Findings_April%202014%20WEB.pdf

EXECUTIVE SUMMARY

The New Zealand Medical Students' Association strongly supports a healthy, evidence-based and ambitious Zero Carbon Act. We also believe that the principles of equity, fairness and Te Tiriti o Waitangi must be cemented in the foundation of this legislation.

Finally, the current proposal risks neglecting the role of public health and potential health co-benefits in addressing climate change. We wish to underscore the importance of climate change in the health and wellbeing of Aotearoa. The following summarises key principles we would like to see emphasised in the Zero Carbon Bill.

Ambitious and Evidence-Based Targets

A target must be set in law *now* and must be ambitious. For this reason, we are advocating for a target of achieving Net-Zero Emissions **before 2050**. We believe there is already mounting evidence to suggest a net-zero emissions by 2050 target is not ambitious enough. This is an opportunity for New Zealand to become world-leaders in climate change action and believe targets we set must be ambitious if we are to protect the health and wellbeing of our population for generations to come.

Targets must also be firmly rooted in the scientific understanding of climate change. This includes appreciating the difference in long-term contributions to climate change by short and long-lived gases. For this reason, we are advocating for *negative* emissions of long-lived greenhouse gases, whilst reducing short lived climate pollutants to sustainable levels - totalling in **Net-Zero Emissions across all gases by 2050**. We believe these targets must only be adjusted in light of new scientific evidence and only in favour of bringing these timelines closer in proximity.

Equity, Fairness and Te Tiriti o Waitangi

Evidence tells us that those from the least privileged backgrounds are the most affected by the ramifications of climate change. This is particularly problematic in the New Zealand context where we have one of the highest rates of inequality in the OECD. We know countries with higher inequality have worse health outcomes. If we wish to see all New Zealanders thrive, not only must we take action against climate change, we must also ensure that our action and legislation serves those who are most vulnerable. This means incorporating social sustainability when implementing change. To achieve this, action must include early warning for communities and businesses to prepare and adjust to changes, as well as support for workers and creation of new job opportunities in industries where there will be job losses.

Climate change is an equity issue in Aotearoa, with Māori and Pacific people likely to be disproportionately affected (NZCPHM, 2016)². Given the inequitable access to health services, and the quality of these for Māori, it is likely that Climate Change will widen inequities between Māori and other New Zealanders (NZCPHM, 2016)².

² NZCPHM, 2016. Climate Change Substantive Policy. Retrieved from: http://www.nzcp hm.org.nz/media/85321/2016_05_03._nzcp hm_climate_change_substanti ve_policy__final_.pdf

It is also important to consider the unique relationship that Māori have with the whenua (land) and natural environment, which may be at risk due to the effects of climate change. Altered weather patterns, such as flooding and increased droughts, may compromise the natural environment, by altering native ecosystems; destruction of wāhi tapu (sacred sites eg. urupā); and degradation of reliable water sources (eg. for traditional activities and also for supplying marae). These may have direct health effects for Māori communities, but may also have indirect biopsychosocial effects by undermining the traditional role of Māori as kaitiaki of the natural environment.

We must strive to reduce inequity in Aotearoa, and under Te Tiriti o Waitangi and as key stakeholders in climate change, we believe the Zero Carbon Bill and the Commission must reflect the needs and views of Māori.

Public Health and Co-benefits

Climate change is a health issue - it has been labelled by many scientists, health professionals and leading researchers as the most serious threat to human health in modern times (Lancet Commission, 2015)³. It is well understood that climate change has both direct and indirect health consequences, such as increased air pollution on rates of respiratory diseases and adverse events leading to displacement of populations. Climate change has also been correlated with increased mental health burden in youth and adults, as well as increased admissions to Emergency Departments⁴⁵. Of particular concern, those that are already underserved by our healthcare system, such as Māori and Pacific communities, people living with disability and chronic illness, and from lower socioeconomic backgrounds, are more likely to be affected by climate change. This underscores the need for any climate change legislation to have health equity as a primary concern in its formation.

Equally however, addressing climate change presents an opportunity to create health co-benefits and improve these disparities. For example, retrofitting homes with insulation not only reduces gas emissions spent on heating homes, it also improves respiratory illnesses and health equity. Other co-benefits of tackling climate change include increased physical activity and its associated benefits like improved mental health, cardiovascular health as well as reduced carbon emission, with a change towards active transport such as walking and cycling (WHO, 2011)⁶. It is undeniable that burning fossil fuels for transportation, industrial activity and electricity generation are major man-made contributors to air pollution (WHO, 2016)⁷. A shift towards cleaner sources of energy and environmental friendly mode

³ Lancet Commission on Climate Change, 2015. Health and climate change: policy responses to protect public health. *The Lancet*. Retrieved from: <http://www.thelancet.com/commissions/climate-change-2015>

⁴ Majeed, H., & Lee, J. (2017). The impact of climate change on youth depression and mental health. *The Lancet Planetary Health*, 1(3), e94-e95. Retrieved from: [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(17\)30045-1/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(17)30045-1/fulltext)

⁵ Berry, H. L., Bowen, K., & Kjellstrom, T. (2010). Climate change and mental health: a causal pathways framework. *International journal of public health*, 55(2), 123-132.

⁶ WHO, (2011). Health Co-benefits of Climate Change Mitigation: Transport Sector. World Health Organization. Retrieved from http://www.who.int/hia/green_economy/transport_sector_health_cobenefits_climate_change_mitigation/en/

⁷ WHO, 2016. Ambient (outdoor) air quality and health. Retrieved from: <http://www.who.int/mediacentre/factsheets/fs313/en/>

of transport would not only lead to better environmental outcomes but also reduced risk of asthma, COPD, heart disease and other medical complications caused by air pollutants (WHO, 2016).

We want a Zero Carbon Act that will reduce health and social inequity in Aotearoa as well as generate a number of excellent health co-benefits. To achieve this, the Zero Carbon Bill must have a stronger focus on achieving better health outcomes through mitigating climate change. Furthermore, the Commission should include members with expertise in public health to ensure these needs are being met. We strongly believe many costs associated with investing in climate change action can be offset by savings made in the health care sector.

ZERO CARBON BILL DISCUSSION DOCUMENT QUESTIONS

The following includes NZMSA's responses to the 16 questions asked by the Ministry for the Environment in the Zero Carbon Bill Discussion Documents.

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2050 TARGET

1. What process should the Government use to set a new emissions reduction target in legislation?

The Government sets a target that is by 2050 in legislation now.

Comments:

New Zealand, having signed to the Paris Agreement, has committed to limit the increase in global average temperature rise to well below 2°C above pre-industrial levels, and to pursue limiting the increase to 1.5°C.

The second draft of the IPCC Special Report on Global Warming of 1.5°C has reported substantial differences in the harmful effects of global warming limited to 1.5°C compared to 2°C. The potential for harm is particularly critical for vulnerable regions including Pacific neighbours.

Recent evidence supports that restricting warming to 1.5°C will require net-zero global anthropogenic CO₂ emissions by 2040 in combination with rapid reductions in other emissions, particularly methane. This is consistent with models proposing a *fair* net-zero target for New Zealand of 2022-2038 when accounting for historical contributions to emissions, contemporary wealth and ability to adapt, and inequitable distribution of climate change harms.

The legislation should ultimately be informed by the recommendations made by the forthcoming IPCC Special Report.

2. If the Government sets a 2050 target now, which is the best target for New Zealand?

Net zero emissions: Net zero emissions across all greenhouse gases by 2050.

Comments:

New Zealand should act in concordance with the best available evidence for limiting global warming and legislate net zero emissions across all greenhouse gases including carbon dioxide, methane, and nitrous oxide.

Some evidence indicates that short lived climate pollutants (SLCPs), such as methane, affect warming in proportion with the emission rate. This is in contrast to cumulative pollutants, such as carbon dioxide, where the total cumulative emission is most relevant. This would suggest that short lived gases need only to be stabilised to sustainable levels in order to prevent further temperature increase. It is important to recognise however, that evidence shows short lived gases contribute significantly to sea level rise through thermal expansion beyond their atmospheric lifetimes. [<http://www.pnas.org/content/early/2017/01/03/1612066114.short>].

Informed by this current information, Net-Zero Emissions should be achieved by *negative* emissions for long-lived climate pollutants such as carbon and a reduction of short-lived climate pollutants to sustainable levels.

Limiting the global average temperature increase to 1.5C requires net-zero global anthropogenic CO2 emissions by 2040 alongside rapid reductions in other emissions like methane. New Zealand as an established economy has historically contributed more significantly to emissions, has benefitted from them, is less affected by climate change, and is more able to adapt to reduce emissions compared to developing nations. Fair climate action requires that New Zealand sets an ambitious and firm net-zero target.

The Zero Carbon Act should be ultimately informed by the recommendations and findings of the IPCC Special Report.

3. How should New Zealand meet its targets?

Domestic emissions reductions only (including from new forest planting and improved soil health)

Comments:

Again, we believe this legislation should be ambitious. Purchasing international emissions reductions comes at the opportunity cost of investing in New Zealand's own domestic emissions and undermines possible longer-term benefits from investing in this new infrastructure. Similarly, there have been issues in previous carbon trading schemes regarding unreliable, low-quality carbon sinks.

Whilst it is important to develop emission sinks, such as new forest planting, if we want to achieve negative LLCP emissions, our main priority and investment should be in reducing these emissions in the first instance - all gases across all sectors.

4. Should the Zero Carbon Bill allow the 2050 target to be revised if circumstances change?

Yes - but only to increase make the target stronger. If we are to encourage businesses and communities to make sustainable, long-term adjustments, they will require certainty.

EMISSIONS BUDGETS

5. The Government proposes that three emissions budgets of five years each (ie, covering the next 15 years) be in place at any given time. Do you agree with this proposal?

Yes

Comments:

By having three budgets in place at any given time, thereby covering at least the next 15 years, it will provide the certainty business and communities require to make adjustments and plan for the future. Furthermore, evidence suggests we need to be

acting now and urgently. To ensure our best chances of success, we would like to see shorter-term budgets introduced immediately to begin tackling this issue.

6. Should the Government be able to alter the last emissions budget (ie, furthest into the future)?

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The Government should only be able to alter the last emissions budget under exceptional circumstances, and only in order to improve our target. This would include major changes in scientific understanding of climate change or international agreements, such as the Paris Agreement, becoming more ambitious.

It is not appropriate for the budget to be altered for economic purposes. In order to help the market for innovation stay as flexible as possible - the emissions budget should remain robust for the entire length. It also means that businesses and industry can trust the numbers given by the government and have more stability in predictions, employment and growth.

7. Should the Government have the ability to review and adjust the second emissions budget within a specific range under exceptional circumstances?

As per question 6, the Government should only be able to review the second emissions budget under exceptional circumstances - and only to commit New Zealand to emitting less than budgeted.

8. Do you agree with the considerations we propose that the Government and the Climate Change Commission take into account when advising on and setting budgets?

NZMSA agrees with the proposed list, however we believe there are many important considerations lacking which must be included or emphasised. This includes but is not limited to:

- **Science-based evidence:**

The first and foremost consideration must be what is dictated by science. The Climate Commission Emissions Budgets must be consistent with what provides our best possible chance of limiting global warming to less than 1.5°C and ensuring climate and ecological tipping points are never reached.

- **Equity and Te Tiriti o Waitangi**

Considerations must be made in accordance with Te Tiriti o Waitangi, as well as having undertaken appropriate consultation to make these decisions. Budget considerations must be acting to minimise and improve inequity in Aotearoa

- **Health and Co-benefits**

Impacts on health, as well as potential co-benefits should be taken into consideration and budgeted for. Budgets should also be made with consideration for the long-term benefits and potential longer-term savings from investing in new climate mitigating technologies and improved health outcomes.

- **Public Input**

On top of the publishing of the proposed list, there should also be an outlined plan on how to include stakeholders/how to include public input. How does the government plan to translate what the people of New Zealand want into the CC Commission, and budget planning? In the response list (page 39), there seems to be no address to what the public opinion is.

GOVERNMENT RESPONSE

9**9. Should the Zero Carbon Bill require Governments to set out plans within a certain timeframe to achieve the emissions budgets?**

Yes.

10. What are the most important issues for the Government to consider in setting plans to meet budgets? For example, who do we need to work with, what else needs to be considered?

As medical students and future health professionals we believe the most important considerations include health equity and Te Tiriti o Waitangi obligations.

Presently, the most disadvantaged populations in New Zealand suffer the greater burden of harm to health from climate change. Action to address our emissions and mitigate the warming effects can therefore address and protect against health inequities. Conversely, regressive legislation has the potential to cause further harm to the already disadvantaged. Strategies must therefore enable health equity by improving outcomes for disadvantaged groups.

Te Tiriti partnership should be established with a substantial effort to reduce inequities between Māori and other New Zealanders, whilst also upholding Tikanga Māori. To ensure this, appropriate consultation with iwi and community leaders should be undertaken.

Where possible, consultation should also be held with the public and key stakeholder industries. This is including gas, coal, energy source, agricultural, and our own healthcare system. As these sectors are big contributors to carbon emissions, collaboration is needed to allow for innovation but also a strong direction towards reduction of emissions. Beyond this, public opinion should also be gauged. Education and communication about this budget should be effectively translated to the people as ultimately, they are the consumers of the industries and businesses that are the source of many carbon emissions.

Other important considerations include Pacific partnership, obligations to Trade Agreements and those made in the Paris Agreement. As in Question 8, we also believe the Commission should strongly consider the longer-term benefits of investment, such as that in technology and innovation, as opposed to only short-term gains.

CLIMATE CHANGE COMMISSION

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11. The Government has proposed that the Climate Change Commission advises on and monitors New Zealand's progress towards its goals. Do you agree with these functions?

Yes. It should advise and monitor New Zealand's progress as well as hold the Government to account, but should not be a decision-making body.

12. What role do you think the Climate Change Commission should have in relation to the New Zealand Emissions Trading Scheme (NZ ETS)?

The role of the Climate Change Commission should be to advise the the Government on policy settings in the NZ ETS.

13. The Government has proposed that Climate Change Commissioners need to have a range of essential and desirable expertise. Do you agree with the proposed expertise?

Yes.

Comments:

NZMSA generally agrees with the proposed list that collective skills held by the Commission should include:

- Climate change policy (including emissions trading)
- Resource economics and impacts (including social impacts, labour markets and distribution)
- Te Tiriti o Waitangi, te reo me ona tikanga Māori and Māori interests
- Climate and environmental science including mātauranga Māori
- Experience with addressing adaptation challenges like planning, insurance and local government
- Risk management
- Engineering and/or infrastructure
- Community engagement and communications.

However we believe there are a number of additional expertise that should be included as essential in the Commission. Of concern, missing from this list is **public health expertise**. As we have stated, climate change is of paramount importance to population health and health equity. To fully appreciate this, and create legislation and recommendations that put these concerns at the forefront, the Commission must include members with expertise in climate and public health. We would like to emphasise that it is essential that *all* members of the Commission have training in understanding equity issues to ensure these concerns are not marginalised.

The Commission must also have sector experts - particularly those in innovation and technology industries. It is important however these experts do not hold vested, financial interests in the industry they are representing.

ADAPTING TO THE IMPACTS OF CLIMATE CHANGE

11**14. Do you think the Zero Carbon Bill should cover adapting to climate change?**

Yes.

Comments:

With the current rate of temperature rising, it is essential to be able to adapt faster than the changes of the environment. This should have a comprehensive inclusion of many systems and having plans for crisis. In particular for health, any illnesses/injuries arising from adverse weather events should have plans set in place to cope with an acute influx of patients.

As is the case in the UK, it may be valuable to consider a separate committee focused on adaptations.

15. The Government has proposed a number of new functions to help us adapt to climate change. Do you agree with the proposed functions?

Yes.

Comments:

NZMSA is in support of:

- A national climate change risk assessment
- A national climate adaptation plan
- Regular review of progress towards implementing the national adaptation plan
- An adaptation reporting plan

We would also like to highlight our desire for all these proposed functions to be applied to the healthcare sector. Climate change is a public health concern, which means our public health institutions must also be held accountable. The environment in which we work and provide care to patients should be informed by, and reflect, our greatest health concerns. The healthcare sector is a significant contributor to greenhouse gas emissions and therefore any risk assessments and adaptation plans should include changes for healthcare.

16. Should we explore setting up a targeted adaptation reporting power that could see some organisations share information on their exposure to climate change risks?

Yes. We believe this could be explored further - beginning first with voluntary reporting and moving into compulsory reporting in the future.

FINAL REMARKS

If the very purpose of climate change mitigation is the sustainability of our environment, and therefore also human population, then health and wellbeing must be at the centre of our legislation.

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We challenge this Government to be leaders in Climate Change and place greater emphasis on the role of Climate Change in healthcare and health outcomes. Knowing that climate change has the potential to widen gaps in our society, it is imperative that all action is taken to mitigate and minimise these risks. If the changes we have outlined are included, the Zero Carbon Bill poses an exciting opportunity to achieve a number of health co-benefits, and improve health equity in New Zealand.

As future health professionals, we want to see an Aotearoa where everyone has the opportunity to thrive. In the context of climate change, this begins with a Zero Carbon Bill that is ambitious with science-based targets, based on the principles of Te Tiriti o Waitangi and equity, and has public health at its heart.