

## Put health at the heart of Aotearoa's climate response

### OraTaiao's guide to submitting to the Climate Change Commission – March 2021

The Climate Change Commission is consulting on its first package of advice to the Government which will help shape Aotearoa's climate crisis response. In their current form the Commission's draft recommendations ignore the important health and equity gains that could be made from the right kind of climate action. They also do not sufficiently recognise Te Tiriti o Waitangi.

According to the former WHO Director-General, Dr Margaret Chan: *“achieving net zero emissions is the most important global health intervention now and for decades to come,”* and that the *“health benefits will outweigh the costs of mitigation policies, even without considering the longer-term health and economic benefits of avoiding more severe climate change.”*<sup>1</sup>

**We strongly encourage all health professionals and organisations to make a submission** - short or long. Let's ask the Commission to count health and health equity gains in their analysis and recommendations. **Submissions are open until 28 March 2021.** You can make your submission online or by post. See the Climate Change Commission's website for more information: <https://www.climatecommission.govt.nz/get-involved/consultation/>

In summary, the Commission's advice must:

- **focus on health and wellbeing, and seize important opportunities for better health, and health equity, in Aotearoa**
- **support global health equity through proposals that are responsible, ambitious and transformational**
- **centralise Te Tiriti o Waitangi.**

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<sup>1</sup> Chan Fung Fu-Chun, M. (2021) Accelerating towards net zero emissions: the most important global health intervention. *The Lancet Planetary Health*. 5 (2), e64-e65.

In your submission, you can tell the Commission “your one big thing” and/or answer their “big six” questions. There are also a further optional twenty-four questions in which you can delve more deeply.

When making your submission share examples, where possible, of ways that emissions can be cut which also improve health AND health equity through e.g. less air pollution, better diets, active travel and healthy homes.

Below is a guide to answering “the one big thing” and the further “big six” questions. At the end we have provided a bibliography of evidence which can be used to strengthen your submission and/or to answer the more detailed questions.

## **The Climate Change Commission’s consultation questions**

### *Your one big thing?*

*If you're here because you have one big thing to tell the Commission, you can do that here. If this is all you want to provide by way of your submission, that's fine. The Commission will consider all the submissions they receive.*

### **Climate action which will also improve health, health equity and centralise te Tiriti o Waitangi**

**OraTaiao asks that the draft advice focus on human health and wellbeing, and seize opportunities to greatly improve health:**

- We can cut emissions in ways that greatly improve health, health equity and wellbeing. The draft advice must recognise, quantify and optimise these important health co-benefits. Recent studies clearly show that well-designed climate action is needed to optimise health gains<sup>2</sup>.
- The right to the highest attainable standard of health is recognised in the UN Declaration on Human Rights<sup>3</sup>, and hauora (health and wellbeing)<sup>4</sup> is one of the taonga guaranteed to all citizens under te Tiriti o Waitangi.

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<sup>2</sup> Hamilton, I. et al. (2021) The public health implications of the Paris Agreement: a modelling study. The Lancet Planetary Health. 5(2), E74-83.

<sup>3</sup> United Nations (1948) Universal Declaration of Human Rights. GA Resolution 217A (III), UN GAOR. Resolution 71, UN Document A/810. 1948, United Nations: New York.

<sup>4</sup> Reid, P. & Robson, B. (2007) *Understanding health inequities* in Robson, B. & Harris, R. (eds). Hauora: Māori standards of health IV. A study of the years 2000-2005. Te Rōpū Rangahau Hauora a Eru Pōmare: Wellington.

- Health and wellbeing must be a top priority, including mental health given the known mental health effects of climate change.<sup>56</sup>
- The draft advice must consider and advise a more responsible Nationally Determined Contribution (NDC) based on our Paris Agreement commitments. Taking into account greater capability and historic responsibility, Aotearoa's fair share increases ten-fold from our current NDC. This means careful cost-benefit calculations, stronger emissions budgets, offshore emissions trading, and climate financing beyond our fair share.
- To ensure Aotearoa's climate policy delivers the full potential health and health equity gains, we recommend the Minister for Climate Change appoint a public health specialist to the Commission and set up a multi-disciplinary health advisory group to review Aotearoa's emission reduction options.

### **OraTaiao asks that the draft advice centralise Te Tiriti o Waitangi:**

- For Māori, climate change means displacement and dispossession from lands, heritage and resources, disruption of family relationships; loss of cultural identity and knowledge, increased poverty and marginalisation, worse health, and effects on their spiritual relationship with the natural environment<sup>7</sup>
- The draft advice report acknowledges the 'Treaty Partnership' but it is important that we don't reduce a te Tiriti kaupapa and narrative to simply an equity argument. We need the special partnership relationship, as contemplated by te Tiriti, to be front and centre, and acknowledging that Māori are **not** "just one-of-many stakeholders".
- In revising Aotearoa's Nationally Determined Contribution (NDC), we note that the Waitangi Tribunal states<sup>8</sup> in their Ko Aotearoa Tēnei (Wai 262) report: *"...that it is for Māori to say what their interests are, and to articulate how they might best be protected - in this case, in the making, amendment, or execution of international agreements. That is what the guarantee of tino rangitiratanga requires."*
- OraTaiao agrees with the draft advice to include a progress indicator to partner with iwi/Māori and local government to implement emissions reducing pathways. But,

<sup>5</sup> Berry, H. et al (2010) Climate change and mental health: a causal pathways framework. *Int J Public Health*. 55: 123-132.

<sup>6</sup> Royal Australian and New Zealand College of Psychiatrists (2020) *Addressing the mental health impacts of natural disasters and climate change-related weather events. Position statement*. Available at: <https://www.ranzcp.org/news-policy/policy-and-advocacy/position-statements/addressing-mental-health-impacts-natural-disasters> (Accessed 23/02/2021)

<sup>7</sup> Jones R, Bennett H, Keating G, Blaiklock A. (2014) Climate Change and the Right to Health for Māori in Aotearoa/New Zealand. *Heal Hum Rights J* 16(1):54–68. Available at: <https://www.hhrjournal.org/2014/07/climate-change-and-the-right-to-health-for-maori-in-aotearoanew-zealand/> (accessed 23/02/2021)

<sup>8</sup> New Zealand. Waitangi Tribunal. (2011) Ko Aotearoa tēnei : a report into claims concerning New Zealand law and policy affecting Māori culture and identity. Te taumata tuatahi. (Waitangi Tribunal report 2011). <https://www.waitangitribunal.govt.nz>

this advice must recommend how this partnership will be funded/resourced, operationalised, and monitored for accountability, efficacy and impact.

## Consultation questions continued - the Climate Change Commission's Six Big Issues

### 1. The pace of change

*Big Issues question 1. Do you agree that the emissions budgets we have proposed would put Aotearoa on course to meet the 2050 emissions targets?*

*Strongly agree - Agree - Neutral - Disagree - **Strongly disagree** - Do not know*

Background: There are three emissions budgets within the draft advice covering the periods 2022-2025, 2026-2030 and 2031-2035. These will dictate the pace of change within each sector. The second two budgets can be amended in future advice, but the first budget will be set formally this year.

OraTaiao **strongly disagrees** because the emissions budgets are not ambitious nor set to be achieved quickly enough:

- They do not meet our international obligations under the Paris Agreement 2015 and are inconsistent with our IPCC 2030 targets.
- Aotearoa has a greater responsibility as a developed nation to contribute to a globally equitable response, so at a minimum our IPCC 2030 targets should be met.
- Without more ambitious emissions budgets, Aotearoa will contribute to deepening health, social and economic inequities. The health and socioeconomic impacts of climate change disproportionately harm populations who have contributed the least to the problem. Moreover, climate change interacts with existing structural and socioeconomic determinants of health exacerbating long standing health inequities within and between countries.<sup>9</sup>
- The budgets ignore the importance of rapid cuts now and instead postpone the deeper necessary greenhouse gas emissions cuts to the second and third budget, which raises the issue of intergenerational equity and tikanga.
- The cuts to biogenic methane are on the lowest trajectory of the 24-48 percent cuts needed by 2050.
- We support the focus on decarbonisation and away from net emissions reductions through forestry sinks.

<sup>9</sup> [The 2020 report of the Lancet Countdown on Health and Climate Change](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32290-X/fulltext)  
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)32290-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32290-X/fulltext)

## 2. Future generations

**Big Issues question 2. Do you agree we have struck a fair balance between requiring the current generation to take action, and leaving future generations to do more work to meet the 2050 target and beyond?**

Strongly agree - Agree - Neutral - Disagree - **Strongly disagree** - Do not know

OraTaiao **strongly disagrees** that a fair balance has been struck.

- The principles of both intergenerational equity<sup>10</sup> and tikanga require the current generation to do everything possible to stop climate breakdown and reduce the harm we inflict on future generations. We must also catch up a generation of neglect since 1990.
- The United Nations Committee on the Rights of the Child has said that “climate change is one of the biggest threats to children’s health and exacerbated health disparities.”<sup>11</sup>
- Failing to implement healthy and equitable climate policies now accepts an avoidable burden of ill-health in future generations, disproportionately affecting already marginalised children<sup>12</sup>
- The risk of a 1.5°C overshoot and crossing tipping point boundaries may create an irredeemable situation for future generations. This is an unfair risk to which they must not be subjected.

## 3. Our contribution

**Big Issues question 3. Do you agree with the changes we have suggested to make the NDC compatible with the 1.5°C goal?**

Strongly agree - Agree - Neutral - Disagree (our changes are too ambitious)- **Strongly Disagree (our changes are not ambitious enough)** - Do not know

Nationally Determined Contributions (NDCs) are at the heart of the Paris Agreement and the achievement of these long-term goals to limit warming to no more than 1.5°C above pre-industrial levels. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.

<sup>10</sup> Mary Robinson Foundation (2015) Meeting the needs of Future Generations: Applying the principle of intergenerational equity to the 2015 processes on climate change and sustainable development. Position paper. Dublin. Available at: [https://www.mrfcj.org/wp-content/uploads/2015/09/MRFCJPositionPaper\\_MeetingtheNeedsofFutureGenerations\\_12August2015.pdf](https://www.mrfcj.org/wp-content/uploads/2015/09/MRFCJPositionPaper_MeetingtheNeedsofFutureGenerations_12August2015.pdf) (Accessed 23/02/2021)

<sup>11</sup> United Nations Committee on the Rights of the Child. General Comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health (art. 24), 17 April 2013, UN Doc. CRC/C/GC/15 [Internet]. Geneva. Geneva: United Nations Committee on the Rights of the Child; 2013.

<sup>12</sup> 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. *NZ Med J.* 2014;127(1406)

A useful summary of the Nationally Determined Contribution and how it fits in with the overlapping targets of the emissions budgets and Emissions Trading Scheme can be found on pages 21-24 of Johnson and Tong's report for Oxfam New Zealand.<sup>13</sup>

The reason to stay within this limit of warming has significant implications for health as laid out by the IPCC: "Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C"<sup>14</sup>

### **Increase NZ's Nationally Determined Contribution**

OraTaiao agrees with the Commission's recommendation that to make our Nationally Determined Contribution (NDC) more compatible with global efforts to limit warming to 1.5°C above pre-industrial levels, Aotearoa's reduction of net emissions must be much more than 35% below 2005 gross levels by 2030. However, OraTaiao **disagrees with the Commission's failure to make specific recommendations on strengthening our contribution.**

- The Commission should provide specific advice to the government that New Zealand **increase its contribution to global efforts to reduce greenhouse gas emissions at least ten-fold**, ranging from 80 - 133% reduction on 1990 levels in order to contribute our globally equitable share and account for our high historic emissions<sup>15</sup>. This would be met with a combination of our national emissions reductions, international offsets and climate finance for developing countries.
- As acknowledged in the report, deeper emission reductions will contribute to reducing the risk of an overshoot beyond 1.5°C with its incrementally greater health risks.<sup>16</sup>
- The Commission should consider and account for the health co-benefits in their advice on how much the government should strengthen the Nationally Determined Contribution beyond 35% and the policies used to achieve it. Beyond health costs/savings in economic terms, the Commission should be compelled to strengthen our contribution and centre health in its strategy based on everyone's right to the highest attainable standard of health.
- In order to meet our global obligations as a relatively wealthy nation (according to Gross National Income per capita) and as a historically high emitter, New Zealand

<sup>13</sup> Johnson, A. & Tong, D. (2020) Oxfam New Zealand, A Fair 2030 Target for Aotearoa. Available at: <https://www.oxfam.org.nz/wp-content/uploads/2020/09/Oxfam-NZ-Briefing-A-Fair-2030-Target-for-Aotearoa.pdf> (accessed 01/03/2021)

<sup>14</sup> <https://www.ipcc.ch/sr15/chapter/spm/>

<sup>15</sup> ibid

<sup>16</sup> Watts, N. Et al. (2021) The 2020 report of The Lancet Countdown on health and climate change: responding to converging crises. *The Lancet*. 397 (10269); 129-170.

must contribute further to global mitigation by doubling its climate financing, particularly to least developed countries.

Annual reporting and offshore mitigation strategy communication:

OraTaiao strongly recommends that the **Commission reports annually on a wider range of data**. This will help us better identify and manage risks quickly and demonstrates our good faith emissions reductions to other nations. In practice, this information may be collated by other government agencies for the Commission.

This wider information includes:

- **Thorough cost-benefit analysis of domestic mitigation**, including: immediate and longer-term health benefits; impact on Māori economy; well-being and te Tiriti partnership; job creation (rates, pay level, conditions, distribution, locations and ease of transition); impacts on Treasury Living Standard framework domains; infrastructure value over this century; equity across New Zealand and across generations, and overall well-being.
- **GDP changes are much too crude a measure** to evaluate New Zealand's well-being, future resilience, and how best to allocate NDC components including recommended domestic mitigation policies.

#### 4. Role and type of forests

*Big Issues question 4. Do you agree with our approach to meet the 2050 target that prioritises growing new native forests to provide a long-term store of carbon?*

*Strongly agree - **Agree** - Neutral - Disagree - Strongly disagree - Do not know*

OraTaiao **agrees** with the approach to provide a long-term store of carbon.

- Native forests offer ecosystem rehabilitation and protection, and we depend on the health and biological richness of the living world.
- We support the significant increase in new native forests and the assumption that no further native deforestation occurs from 2025. All native habitats must be incorporated into this approach. For example, wetlands and tussock should be recognised for their role in storing carbon and protected from destruction.
- Our approach to forestry must consider how Mana Whenua will be enabled to act as Kaitiaki.
- We support the development of this policy in conjunction with an increased focus on emission reduction rather than offsetting.

## 5. Policy priorities to reduce emissions

**Big Issues question 5. What are the most urgent policy interventions needed to help meet our emissions budgets? (Select all that apply)**

Action to address barriers - Pricing to influence investments and choices - Investment to spur innovation and system transformation - None of them

OraTaiao recommends the following urgent priorities:

### **Include public health and equity benefits and impacts in Aotearoa's climate policy**

- OraTaiao recommends public health representation on the Commission's board and the immediate establishment of a multidisciplinary health advisory group to the Commission for the purpose of ensuring health and health equity benefits and impacts are accounted for in the Commission's advice to the Government.

#### Why?

- There are significant opportunities to improve the health and wellbeing of New Zealanders at the same time as reducing greenhouse gas emissions.
- Non-communicable diseases (including cardiovascular disease, chronic respiratory, cancers and diabetes) account for 89% of deaths annually in Aotearoa including 27,000 premature deaths<sup>17</sup>, disproportionately affecting Māori<sup>18</sup>. Healthy equitable climate policy that promotes affordable active transport, sustainable food systems and healthy homes can substantially reduce the burden of non-communicable diseases in Aotearoa and contribute to reducing health inequities.
- For example, respiratory diseases are the third most common cause of death in NZ, costing \$ 5.5 billion every year, accounting for one in eight hospital stays<sup>19</sup>. Elimination of air pollution from fossil fuel burning and better insulated warm homes could offer significant health benefits.

<sup>17</sup> WHO (2018) *World Health Organization - Noncommunicable Diseases (NCD) Country Profiles, 2018*. WHO:Geneva. Available at: [https://www.who.int/nmh/countries/nzl\\_en.pdf](https://www.who.int/nmh/countries/nzl_en.pdf) (Accessed 28/02/2021).

<sup>18</sup> Phillips, B et al (2017) Mortality trends in Australian Aboriginal peoples and New Zealand Māori. *Population Health Metrics*. 15, 25. Available at: <https://link.springer.com/article/10.1186/s12963-017-0140-6> (Accessed 28/02/2021)

<sup>19</sup> Health Navigator (2020) *Respiratory disease*. Available at: <https://www.healthnavigator.org.nz/health-a-z/r/respiratory-disease/> (Accessed 28/02/2021)

## Transport: Increase and improve active and public transport

- OraTaiao agrees with many of the recommendations to reduce greenhouse gas emissions in the transport sector such as rapid decarbonisation of the vehicle fleet but have significant concerns the advice represents a continuation of the status quo dominance of private vehicle ownership. What is required is a transformational shift in transport mode to electric public transport, active transport and from road freight to sea and rail freight. This will address greenhouse gas emissions but also improve health, wellbeing and equity.
- The co-benefits of more ambitious goals for active and public transport should be included in the Commission’s recommendations. For example, more equitable access to transport; further reduced air pollution (half of motor vehicle related air pollution deaths are caused by non fossil fuel burning such as tyre wear and brake use<sup>20</sup>); improved population health through increased exercise<sup>21</sup> and improved liveability of towns and cities due to reduced vehicle movements.
- We agree with the Commission’s summary (p.85) that, “Access to transport is a particular issue for some Māori, iwi Māori wellbeing, hauora and health outcomes. Transport is hugely important for Māori to connect to their whānau, haukāinga, and tūrangawaewae...(transport is a) key enabler for the haukāinga to collect resources and provide services to the marae.” We recommend this specifically be addressed and strengthened.
- The Commission recommends 4% of road freight is moved to rail and sea by 2030. This is unambitious and does not factor in the environmental and financial costs of electrifying heavy road vehicle traffic or the associated safety benefits of moving freight off roads.

### Strengthen policy advice on public transport:

- a. Reclassifying Necessary action 2 “Develop an integrated national transport network to reduce travel by private vehicles and increase walking, cycling, low emissions public and shared transport” as a time critical action.<sup>22</sup>
- b. The “National Land Transport Fund” should be reorientated to reflect a focus on active and public transport. In particular a focus should be on access to public and active transport for children travelling to and from school.

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<sup>20</sup> European Commission JRC Policy and Science Reports. (2014) Non-exhaust traffic related emissions. Brake and tyre wear PM. Available at: <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC89231/jrc89231-online%20final%20version%202.pdf> (Accessed 28/02/2021)

<sup>21</sup> Lindsay, G., Macmillan, A., Woodward, A. (2011). Moving urban trips from cars to bicycles: impact on health and emissions. *Australian and New Zealand Journal of Public Health*. 35, 54–60.

<sup>22</sup> Macmillan, A. (2021) The Climate Change Act will now shape the nation’s health: an assessment of the first policy recommendations to reach our zero carbon target. *NZMJ*. 134 (1530), 8-11.

- c. Electrified public transport needs major investment as a public health good and should be free for under 25's, with reduced fares for other age groups. There should be enhanced quality and access to public transport.
- d. Mode shift to cycling needs to be supported by incentivising the rapidly accelerating uptake of electric bikes and through safe cycling infrastructure such as separated cycling lanes and quiet streets.<sup>23</sup>
- e. Strengthen targets for public and active transport - at a minimum a 25% for walking, 15% for cycling and 15% for public transport by 2050 based on public health research.<sup>24</sup>
- f. Private vehicle use should be curtailed through measures such as increased parking charges, zero emissions zones, widespread adoption of "traffic calming" measures and reduced speed limits.
- g. Private vehicles should be regulated as a health hazard including the advertising of high emissions vehicles such as fossil fuel powered SUVs.
- h. All light vehicles entering the country should be zero emissions by 2030 (only battery electric vehicles). We support a feebate scheme to support this transition.
- i. Policy advice on charging infrastructure should be strengthened to allow comprehensive networked access to urban and rural areas to support widespread uptake of affordable lower range electric vehicles.
- j. An enhanced target for road freight shifted from roads to sea and rail.

### **Agriculture: Develop healthier low-emissions food systems**

- OraTaiao believes the advice to the Government must be more transformative in regards to food systems. We need to establish a food and agricultural system that is equitable, improves health, is based in te Tiriti and reduces greenhouse gas emissions and environmental pollution.
- There is an understandable focus on food production emissions within the draft advice considering that agriculture accounts for almost half of New Zealand's overall emissions<sup>25</sup>. However the targets are too weak and to optimise health outcomes significantly more attention must be paid to diet.
- Unhealthy diets are a major contributor to increasing rates of non-communicable-diseases including heart disease, diabetes and cancers. At the same time, global food

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<sup>23</sup> Macmillan, A., Woodward, A., et al. (2014) The Societal Costs and Benefits of Commuter Bicycling: Simulating the effects of specific policies using system dynamics modelling *Environmental Health Perspectives*, 122(4)

<sup>24</sup> <https://www.otago.ac.nz/active-living/otago710121.pdf>

<sup>25</sup> Ministry for the Environment. (2020). New Zealand's Greenhouse Gas Inventory. Available at <https://www.mfe.govt.nz/climate-change/state-of-our-atmosphere-and-climate/new-zealands-greenhouse-gas-inventory>

production is threatening local ecosystems and pushing the limits of the Earth's natural systems.

- The EAT-Lancet Commission's report (Jan 2019)<sup>26</sup> quantitatively describes a universal healthy reference diet, based on an increase in consumption of healthy foods (such as vegetables, fruits, whole grains, legumes, and nuts), and a decrease in consumption of unhealthy foods (such as red meat, sugar, and refined grains).
- The Government needs to address economic disparities so that people are enabled to make healthy food choices.

All industries are being asked to make changes, and this must include agriculture.

- OraTaiao recommends cuts in biogenic methane well in excess of what is planned in the draft advice. We should target the 48% reduction by 2050 as a floor, not as a roof.
- A defined reduction in national herd numbers is needed to ensure the 'expected' reduction and more happens by 2030. This can be achieved through:
  - maximum stocking numbers
  - as early as possible (2022) incorporation of Agriculture into the Emissions Trading Scheme. Legislation is already present to allow this<sup>27</sup>, and it needs to be coupled with a rapid, clearly signposted reduction to zero of free credits in the Emissions Trading Scheme.
  - a ban on new dairy conversions and support to re-convert existing farms.
- Urgent reductions in synthetic nitrogen fertilisers, acknowledging the increasing body of evidence linking nitrate groundwater pollution with colorectal cancer causation.<sup>28</sup>

### Support farmers

Given the changes that are required to the agricultural sector, the capacity and wellbeing of farmers needs to be centred throughout the transition.

- Farmers themselves must have buy-in and feel supported through the entire process, which is a key principle to a just transition and climate justice.
- Their wellbeing must also be centred given the [need to improve and support](#) the [mental health](#) of our farmers in Aotearoa.

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<sup>26</sup> Willett, W. et al (2019) Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet Commissions*. 393 (10170), 447-492. Available at: <https://www.thelancet.com/commissions/EAT> (Accessed 28/02/2020)

<sup>27</sup> Ministry for the Environment (2020) *Overview of the New Zealand Emissions Trading Scheme reforms*. Available at: <https://www.mfe.govt.nz/overview-reforming-new-zealand-emissions-trading-scheme> (Accessed 23/02./2021)

<sup>28</sup> Ward, M. et al (2018) Drinking water nitrate and human health: an updated review. *Int J Environ Res Public Health*. 15(7): 1557. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6068531/> (accessed 25/02/2021).

- We recommend the Government develop a strategy that outlines how farmers will be supported towards a zero-carbon future.

#### Promote and centre food sovereignty of Māori as Tangata Whenua

OraTaiao supports the Commission's recommendations around partnership with Māori but this needs to include enabling food sovereignty for Māori as Tangata Whenua which is critical for enabling a just transition. For example:

- Extending the Māori Agribusiness fund beyond 2023.
- Funding to support developments in Māori agribusiness and regenerative farming that is iwi led.

#### **Heat, industry and power: Move away from fossil-fuels and increase insulation in homes and buildings**

- OraTaiao advises more rapid removal of coal from the NZ energy system with a transition to non-fossil fuel-based forms of energy including replacing industrial coal boilers.
- Immediate cessation of new gas burner installation.
- Warmer and better insulated homes:
  - NZ housing policies need to keep its residents warm and healthy through:
  - adopting more efficient, well-insulated housing which will lead to warmer homes and reduce seasonal electricity demand.
  - Switch away from solid fuel heating in houses to electricity and enable greater renewable supply.
- Phasing out of coal for food processing (mainly in the dairy sector) is not scheduled to occur until 2035. This should be revised down to 2027, at the latest.
- Removal of free credits from the Emission Trading Scheme.

#### **Recognise the mental health impacts of climate change**

- Extreme climatic events pose immediate risks which can have negative effects on wellbeing<sup>29</sup>. People with existing mental illnesses are also more exposed to the physical impacts of climate change<sup>30</sup>.

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<sup>29</sup> Royal Australian and New Zealand College of Psychiatrists (2020) Addressing the mental health impacts of natural disasters and climate change-related weather events. Position statement. Available at: <https://www.ranzcp.org/news-policy/policy-and-advocacy/position-statements/addressing-mental-health-impacts-natural-disasters> (Accessed 23/02/2021)

<sup>30</sup> Bouchama, A., et al (2007) Prognostic factors in heat wave related deaths: a meta-analysis. *Arch Intern Med.* 167(20), 2170-6.

- There is a need to revisit strategies that protect the areas that are vulnerable to increased flood risk and preserve Māori sacred sites that are exposed and positioned at erosion-prone coastal lands.
- For New Zealanders, especially for Māori community<sup>31</sup>, their natural environment is the heart of their identity. Threatened coastal areas, disturbed forests, encroachment into their cherished lands and even routine exposure to climate change news can cause ongoing grief and anxiety and further escalate their risk perceptions, pessimism, helplessness and guilt. The Commission's recommendations must consider these mental health effects when devising strategies.

### Reduce emissions in the healthcare sector

- F-gases are a significant contributor to healthcare emissions, especially anaesthetic gases or metered-dose inhaler propellants. OraTaiao recommends the draft advice directly address these, and offer advice for rapidly reducing their use as is already clinically indicated (for inhalers<sup>32</sup>), or where clinical equipoise exists (anaesthesia)
- Procurement is the major source of healthcare emissions. We support Necessary Action 15 (p 126 of draft advice) under consultation question 19 requiring government procurement policies to "include climate change considerations," but recommend this advice be strengthened significantly.

## 7. Technology and behaviour change

*Big Issues question 6. Do you think our proposed emissions budgets and path to 2035 are both ambitious and achievable considering the potential for future behaviour and technology changes in the next 15 years?*

*Strongly agree - Agree - Neutral - Disagree - Strongly disagree - Do not know*

OraTaiao **strongly disagrees**.

- The draft advice is overly focused on future technology changes when we already know actions we can take now to achieve more rapid decarbonisation and reform of our food systems.

<sup>31</sup> Ngati Porou. Kaitiakitanga/Environment. Available at: <https://ngatiporou.com/nati-story/our-korero/kaitiakitanga-environment> (accessed 28/02/2021)

<sup>32</sup> Beasley, R. (2020) *NZ Adolescent and Adults Asthma Guidelines*. Asthma and Respiratory Foundation NZ: Wellington. Available at: [https://www.nzrespiratoryguidelines.co.nz/uploads/8/3/0/1/83014052/arf\\_nz\\_adolescent\\_and\\_adult\\_asthma\\_guidelines\\_.pdf](https://www.nzrespiratoryguidelines.co.nz/uploads/8/3/0/1/83014052/arf_nz_adolescent_and_adult_asthma_guidelines_.pdf) (accessed 28/02/2021)

- Future technology changes may increase the pace of change, but should not be depended upon when there are actions we can take now.
- “Ambitious and achievable” must also be evaluated in the context of the relative benefits, costs, and risks in meeting some of our responsible (ten-fold greater) Nationally Determined Contribution through international emissions trading over the coming decades. OraTaiao calls for much more sophisticated economic modelling in the draft advice - Aotearoa’s future health and well-being matters, likewise the other humans we share this world with.
- The advice must account for projected health costs (in economic terms) from delayed action, and the health cost savings resulting from changes in its advice, and in amendments to the 2025-2030 and 2030-2035 budgets.
- The draft advice must also recognise that behaviour is often the result of our system and can be changed by government policy.
- In order to maximise health benefits and emissions cuts, and to optimise behaviour change, we recommend: Public health expertise on the Climate Change Commission, and a multidisciplinary health advisory group including behaviour change expertise (e.g. from psychology, health promotion, and social and behavioural science).

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