



NZ Climate & Health Council

OraTaiao: The New Zealand Climate & Health Council, Incorporated
Auckland, New Zealand
www.orataiao.org.nz

27 June 2022

Committee Secretariat

Environment Committee Komiti Taiao

Parliament Buildings

Wellington

Submission on: Emissions budgets published in 2022, and the first Emissions Reduction Plan.

Tēnā koe,

OraTaiao: The New Zealand Climate and Health Council welcomes Aotearoa's first Emissions Reductions Plan - and that the Environment Committee is not questioning that our climate is changing and we have to limit global warming to a humanly adaptable 1.5 degrees Celsius. After OraTaiao's twelve years of calling for fast fair Tiriti-founded climate action that is healthy for our planet and those who live here, we have mixed feelings about this plan. We are both relieved that legislative and governmental structures are in place with the first plan for climate action finally being proposed, and deeply concerned at how slow and limited this action is.

We wish to highlight two fundamental flaws with this Emissions Reduction Plan, which need to be addressed in order to produce a plan that takes fair account of our historical emissions, our economic make-up, and our obligations to current and future generations. Every corner cut and delayed action now simply means that when the correct action is finally taken, it will be unfairly and unnecessarily more difficult than it needs to be. Our legislated goals of a net-zero carbon Aotearoa by 2050 have been set, but these should be looked on as an absolute minimum, and we should be ambitious enough to significantly exceed them and realise the health and equity benefits much faster than otherwise.

Yours sincerely,



NZ Climate & Health Council

A handwritten signature in black ink, appearing to read "Dermot Coffey".

Dr Dermot Coffey
OraTaiao Co-convenor
co-convenor@orataiao.org.nz
Mobile: 021 026 75452

A handwritten signature in black ink, appearing to read "Summer Wright".

Summer Wright
OraTaiao Co-convenor
mco-convenor@orataiao.org.nz

PART 1

1. Fundamental Flaws

There are **two fundamental flaws** with the Emissions Reduction Plan (ERP):

(i). **The level of ambition (speed, scale and coverage) is just a fraction of what's needed** for Aotearoa to contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels. We ask the Committee to consider our previous submissions on the Emissions Reduction Plan (ERP) and the Climate Change Commission (CCC)'s draft advice to Government. Both the Paris Agreement and other international human rights agreements, which Aotearoa has signed, commit us as a relatively wealthy nation with high historic and current emissions to acting much faster than the global average of net zero emissions by mid-century. Oxfam Aotearoa (2020) made a strong case on equity grounds for Aotearoa to reach net zero before 2030. Envisaging **Net Zero in Aotearoa ideally within seven years (not twenty-eight) and into negative emissions thereafter, demands a broader plan that goes further and much faster**. As the Committee has stated, our focus must be on domestic reductions of gross emissions. Scaling up climate finance then helps us make up for delays in overshooting 2030, and vegetation expansion supports our negative emissions pathway (especially protection and regeneration of native vegetation).

(ii). The proposed ERP is Te Hau mārohi ki anamata - but **half the economy is missing: the agricultural sector, which is our biggest climate polluter, is absent**. Although there is much focus globally on carbon dioxide as a “long-living gas”, over ten percent of Aotearoa’s climate-damaging emissions are from nitrous oxide, which has 300 times the potency/warming potential. A realistic ERP would include phasing out nitrogenous fertilisers within a few years - as an essential measure to protect our climate, with significant environment and health gains too. An ERP that misses out methane and nitrous oxide is not a serious plan. Methane is also a more powerful greenhouse gas than carbon dioxide, and as the window to limit global warming to a humanly adaptable 1.5 degrees is rapidly shutting within years, cutting nitrous oxide and methane quickly are arguably the best levers we have in this country to help keep that window open. Methane is also a direct danger to Aotearoa’s extensive and expensive coastline infrastructure. Although relatively short-lived in the atmosphere, methane warms and expands our oceans for hundreds of years, contributing to costly sea-level rise here and for our low-lying Pacific neighbours. The rapid and powerful climate impacts of methane make more rapid reductions in methane emissions a necessity, rather than the opposite.

Recognition of the significant health gains from a plant-dominant diet is growing rapidly here and internationally. OraTaiao has written extensively on healthy food - we refer the Committee



NZ Climate & Health Council

to former OraTaiao co-convenor Dr Alex Macmillan's 2021 presentation to the Environment Committee (see Appendix One), where she outlined how Aotearoa can seriously support the UN Sustainable Development 2030 Goals - and exposed the myth that NZ farming is supporting these goals. Health gains for plant-based diets are yet another powerful incentive to seize the methane lever, halve our cattle herds, and phase out nitrogenous fertiliser within a few years. There are no sacred cows in our race to keep climate changes and sea level rises humanly adaptable. More delay is dangerous.

2. OraTaiao commends the ERP focus on empowering Māori and animate a just transition. Aotearoa must rapidly cut emissions in ways that are co-led and decolonise, not perpetuate further colonisation. Māori world views and expertise must be clearly valued and tangibly resourced in every aspect of emissions reduction, living with respect for the natural world we are part of. OraTaiao notes that “support” is used frequently in the ERP in relation to various communities who currently experience much disadvantage. We strongly recommend that ERP action is “**working with and resourcing**” these communities, including financially acknowledging the valuable lived experience contributed. In the process of consultation, the field is not even. Aotearoa’s biggest climate polluters are incredibly well-resourced with easy access to political representatives. OraTaiao would like to see much more practical and financial recognition of low-paid and volunteer time given to shaping Government policy to work better for the least advantaged communities. This includes considering previous submissions and position statements by the various NGOs that represent these communities. We would also like to see many more **pilots working with communities to shape how thriving in our net-zero could look** - and rapidly sharing, spreading and scaling up that valuable learning.

PART 2

OraTaiao's response to the Environment Committee Komiti Taiao's key questions:

1. Is the emissions budget for 2022-25 achievable, and if not, what additional actions or changes to the key actions in the Emissions Reduction Plan would make it more likely the budget was achieved? Please state reasons.

The 2022-25 Budget is definitely achievable - **the real problem is that Aotearoa is an under-achiever**, modelling inadequate climate action as a relatively wealthy high-emitter blessed with



NZ Climate & Health Council

abundant natural resources and responsible for high historic emissions from our devastating deforestation, farming and high fossil-fuel vehicle ownership. We need **emissions budgets and plans that see us become Aotearoa Net Zero much closer to 2030**, not almost a generation of twenty years later. Aotearoa, with export earnings dependent on stable climate, ocean and world markets, can't afford to encourage the rest of the world to act as languidly as us.

2. Any analysis of the costs and benefits of the actions in the Emissions Reduction Plan, the adequacy of the costs and benefits analysis, and any gaps.

OraTaiao has long campaigned for recognition of the important immediate health gains from well-designed climate action. These effectively **deliver a double dividend on taxpayer and ratepayer spending** - with immediate health savings and longer-term savings from avoided climate changes. **This is a “good news” story to share widely** - backed by powerful international evidence covering half the world’s population and three-quarters of global emissions e.g. [Hamilton et al 2021](#) (as well as local evidence including healthy homes, safe cycleways, and high health costs of sedentary transport).

OraTaiao supports “Equity First” across the health sector - and asks that the new health agencies also **prioritise policy that protects our climate and our health**. The new Public Health Agency must have the power to establish **health-in-all-policies** across the government sector. As an example, transport that puts human health first, would both drop the pressure on our health system and cut emissions much more quickly.

3. Is the emissions budget for 2026-30 achievable and if not, what additional actions or changes to the key actions in the Emissions Reduction Plan would make it more likely the budget was achieved? Please state reasons.

The 2026-30 Budget is definitely achievable - again, the real problem is that Aotearoa is an under-achiever modelling inadequate climate action as a relatively wealthy high-emitter blessed with abundant natural resources and responsible for high historic emissions from our devastating deforestation, farming and high fossil-fuel vehicle ownership. We need emissions budgets and plans that see us become Aotearoa Net Zero much closer to 2030, not almost a generation of twenty years later.

4. What tools or initiatives would help implement the key actions in the Emissions Reduction Plan and why?

OraTaiao would like to see a focus on **behaviour change promotion** across the government sector, led by the Climate Change Commission, with substantial funding for this project so that



NZ Climate & Health Council

the Commission can quickly spread expertise across government. The extent of cultural change and public understanding and support needed, is even greater than the COVID-19 pandemic. Climate protection must move from political to cultural. The good news story of double dividends (see Question 2) needs sharing widely. **This is time to share hope and stories of positive changes that make a real difference. We all need to see ourselves in this mahi.** To see the real actions that ease anxiety about our future. And for the Government to take the urgent steps to make healthy climate actions the easy choices for everyone, regardless of income and situation.

OraTaiao would also like to see the coming Government financial year from 1 July 2022 to 30 June 2023 to become **the Year of the Contract** - where so many contracts are signed to set up a cascade of positive changes to protect our climate. We have climate legislation, the Climate Change Commission, emissions budgets and now the ERP, this is the time to make the real changes happen and become solidly embedded in our country, with contracts that require real change.

The ERP must be seen as just a starting point - and in line with our responses above, **become a much more ambitious starting point.** We value the ERP's flexibility and urge that every aspect of the plan be accelerated and scaled up for bigger, faster climate action. Piloting approaches with a view to quickly spreading the learnings and setting up contracts for fast delivery. Given the climate challenge we face globally with the humanly adaptable 1.5-degree window closing fast, overachievement is probably not possible.

5. Are there other key actions which can better achieve the emissions budgets than those in the Emissions Reduction Plan, what are they, and why are they more likely to succeed?

We refer the Committee to our previous submissions on the Emissions Reduction Plan (ERP) and the Climate Change Commission (CCC)'s draft advice to government, plus OraTaiao's recently released Active Transport Position Statement (see Appendix 2)

6. What type of monitoring and reporting would enable you to be confident that the key actions in the Emissions Reduction Plan are being implemented, and that emissions are falling in line with the emissions budgets? Please state reasons.

Aotearoa has become accustomed to almost daily reports of how many of us have COVID-19, are in hospital, or have sadly passed. The impact of climate changes and sea-level rises, are on another level of existential threat, and likewise, need the whole team of five million (plus another million of us abroad).



NZ Climate & Health Council

OraTaiao would like to see **monthly reporting on Aotearoa's climate emissions** - noting that this might be initially quite hard to quantify and may be more descriptive initially with new actions and expected emissions impact. We would like to see this with **real stories of change and hope that are relatable for a wide variety of people**, and use different media to reach different audiences. Climate champions may help relatability - recognised public figures from diverse backgrounds. We would also like to see **reporting on consumption emissions developed**. Although this is not the metric used for emissions reporting under the Paris Agreement, Aotearoa also contributes to the likelihood of limiting global warming to 1.5 degrees via our consumption emissions.

About OraTaiao

OraTaiao: The New Zealand Climate and Health Council is an organisation calling for urgent, fair, and Tiriti-based climate action in Aotearoa; we recognise the important co-benefits to health, well-being and fairness from strong and well-designed mitigative policies.

We honour Māori aspirations, are committed to the principles of te Tiriti o Waitangi, and strive to reduce inequities between Māori and other New Zealanders. We are guided in our practice by the concepts of kaitiakitanga (guardianship), kotahitanga (unity), manaakitanga (caring), and whakatipuranga (future generations).

OraTaiao has grown over a decade to more than 900 health professionals concerned with:

- The negative impacts of climate change on health, well-being, and fairness;
- The gains to health, well-being, and fairness that are possible through strong, health-centred climate action;
- Highlighting the impacts of climate change on those who already experience disadvantage or ill-health (i.e., equity impacts);
- Reducing the health sector's contribution to climate change.

As well as individual and organisational members, we are backed by 21 of New Zealand's leading health professional organisations for our Health Professionals Joint Call to Action on Climate Change and Health (see https://www.orataiao.org.nz/friends_and_supporters). This support includes the New Zealand Nurses Organisation, Public Health Association, the Royal Australasian College of Physicians and the Australasian College of Emergency Medicine, plus numerous other specialist colleges. Together, these organisations represent tens of thousands of our country's health workforce.



NZ Climate & Health Council

As an organisational member of the Climate and Health Alliance, and of the Global Climate & Health Alliance, we work with a worldwide movement of health professionals and health organisations focused on the urgent health challenges of climate change - and the health opportunities of climate action. OraTaiao signed the Doha Declaration on Climate, Health and Wellbeing of December 2012, which reflects this international perspective.

Appendix One

Phasing out SNF – Environment Select Committee Hearing

Dr Alex Macmillan

Expertise: Public Health Physician, Associate Professor Environmental Health, University of Otago.

Ngā mihi ki a koutou

My expertise is in integrative systems research about the environmental building blocks for human health and fairness, including healthy sustainable food systems, climate change and health and this is a question that is central to those bigger issues.

Already heard clear evidence that the poor stewardship of nitrogen in Aotearoa has direct effects on public health through water pollution and through livestock intensification, and that all the industrial self-regulation and technical changes have been ineffective at addressing this.

I'm going to briefly but thoroughly rebut the fertilizer industry and MBIE's written and oral arguments that NZ's use of N fertilizer is somehow vital for "feeding the world" and addressing the Sustainable Development Goal of "Zero Hunger" now and into the future. Two main arguments

1. NZ is not currently contributing to reducing world hunger or malnutrition – or even hunger and food insecurity in NZ through its SNF use, by mostly turning it into milk solids for a South Asian market
2. NZ and Global SNF and its resulting livestock intensification, inextricable as they are, are actually already deeply undermining food security and this will worsen through climate change and directly through N runoff into coastal marine environments

Berners-Lee et al 2018 Current global food production is sufficient to meet human nutritional needs in 2050 provided there is radical societal adaptation

<https://online.ucpress.edu/elementa/article/doi/10.1525/elementa.310/112838/Current-global-food-production-is-sufficient-to>

Global average meat and dairy consumption exceeds that commensurate with a healthy diet by 20%, with very high consumption in North America & Oceania and Europe – in every region. Our export market is heavily reliant on the idea that we can encourage South Asia to over consume protein – as



NZ Climate & Health Council

well as persuade South Asian middle-class mothers that it's better to feed their infants imported formula than follow World Health Organization guidelines on breastfeeding for health.

Global N balance is similar to carbon – with some countries (like NZ) using way too much and some countries too little. Like for carbon, from a global fair share's perspective, OECD countries need to drastically cut their SNF use so that LMICs can increase theirs modestly – THIS would be effective at addressing hunger, which MPI has acknowledged is one of the SDGs we've signed up to.

It's clear from the recent [EAT-Lancet commission](#) work that the methods we've used to increase food production in the last 50 years have benefited some populations, but at the expense of the survival and health of future generations – a drawdown we can't continue. Because of nitrates direct and indirect effects via livestock intensification, on climate change, it's continued use is an own goal for food security.

The [Lancet Countdown on climate change and health](#) provides a global assessment of the effects climate change is already having on health, much of it through food insecurity:

From 1981 to 2019, the truly essential land foods **crop yield** potential for maize, winter wheat, soybean, and rice has followed a consistently downward trend, with reductions relative to baseline of 5·6% for maize, 2·1% for winter wheat, 4·8% for soybean, and 1·8% for rice

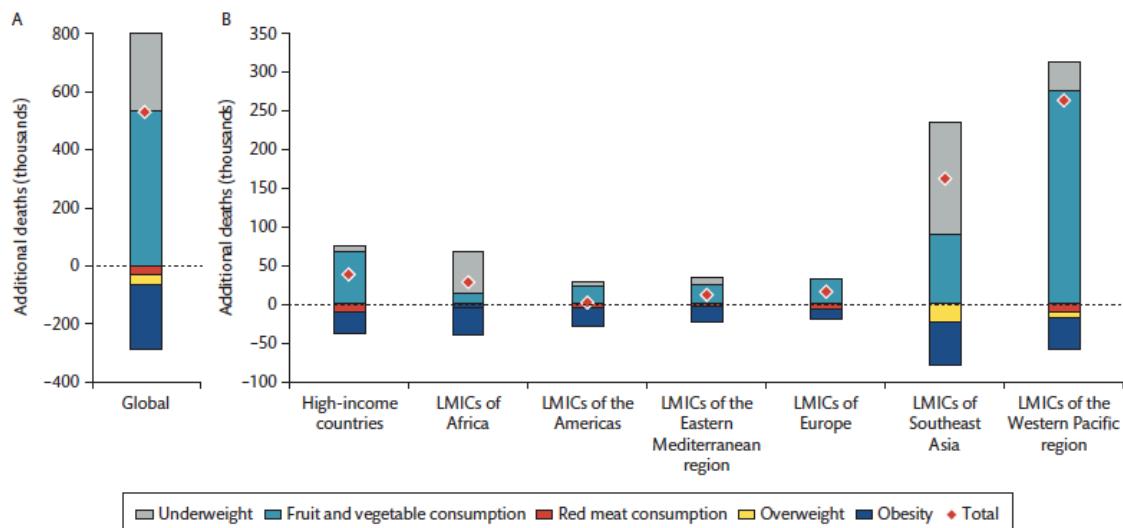
The yield potential of maize, winter wheat, soybean, and rice continue to decline globally and for most individual countries

This reduction compounds the current negative impacts of weather and climate shocks, exacerbating undernutrition and food price rises.

Nitrous oxide's contribution to climate change, plus direct Nitrate runoff into **coastal marine environments** is a double whammy for ocean acidification, marine food security and protein undernutrition for a large proportion of the global population, especially in low-income and middle-income countries, who are highly dependent on fish sources of protein.

In Aotearoa, this includes undermining customary rights and nutrition for Māori and Pasifika people.

The best modelling we have of the effects of climate change on food and nutrition related deaths through food system disruption – one of the major pathways for climate health effects already happening (full paper attached):



Springmann et al 2016 Global and regional health effects of future food productions under climate change, Lancet

For high income countries like NZ, we will see increasing problems with the price of fresh fruit and vegetables. Prices of these essentials are already really high, resulting in huge nutritional inequities by income and ethnicity, and food insecurity for 1 in 5 children ([NZ Health Survey 2019](#)) – and for our Pacific whanaunga, you can see from the graph this will be even more stark.

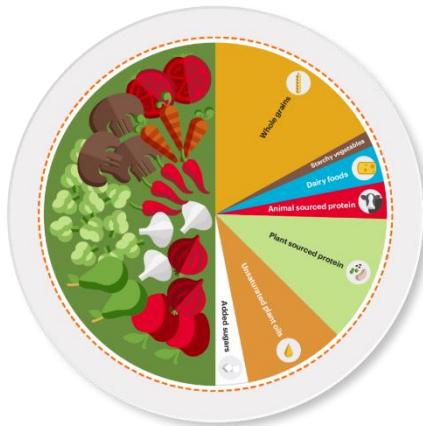
<https://theconversation.com/why-global-food-prices-are-higher-today-than-for-most-of-modern-history-168210>

- The problem of food is not one of production, rather it's one of distribution, as well as the use of crops to feed livestock, that would be better fed directly to humans
- Despite growing more than adequate amounts of food to feed the global population we still have a massive problem of hunger and food insecurity, including in NZ, so fertilizer hasn't fixed hunger, even here.
- About 2/3 of N fertilizer used in NZ is turned into milk powder. This isn't really a food, it's a commodity. A significant (commercially sensitive) percentage of it is sold to Asian mothers as infant formula, undermining the WHO's breastfeeding recommendations – hardly a selling point from a public health perspective
- Despite the six-fold increase in N use since 1990, since 2000, food prices have been inexorably rising. There's no relationship between NZ's fertilizer use and world food availability and affordability – especially for the poor

The only sensible thing for Aotearoa to do from a public health/food and nutrition perspective, is to become a world leading, climate-resilient, zero emissions, plant-based food producer – with exports geared towards feeding the Pacific.

This would also save lives and billions of dollars for the health system because eating less meat and dairy would be really good for our health. <https://ehp.niehs.nih.gov/doi/10.1289/EHP5996> - our own modelling of healthy and climate-friendly diets in Aotearoa shows that every step the adult population makes towards a plant-based diet saves lives – 13B – 20B depending on how much of a change is made, over the life of the current cohort of adults. And that only accounts for direct dietary risk factors, and not for the improvements in freshwater quality, or the climate health benefits

Below is EAT Lancet's healthy and sustainable diet and Canada's new recommended diet (one of the few developed without meat and dairy industries at the policy table) makes clear we don't need meat or dairy to have a balanced diet:



<https://eatforum.org/eat-lancet-commission/the-planetary-health-diet-and-you/>

Appendix 2

OraTaiao:NZ Climate and Health Council

Active Transportation Policy Statement

OraTaiao recognises the strong link between improving climate health and population health through policy and infrastructure that supports and facilitates active transportation across New Zealand's population.

Background

For better health outcomes, the World Health Organisation (WHO) recommends regular physical activity by all children, adults and older adults and to limit time spent being sedentary. The WHO recognises the value of active transportation for increasing physical activity levels, and that global growth in personal motorised transport has increased sedentary behaviour (World Health Organisation, 2020).

Commuting by active transportation (any self-propelled mode of transport) has been shown to improve the health of humans through both increased physical activity levels and reduced air pollution from vehicle emissions. Policy and infrastructure which supports and provides for safe active transportation therefore results in improved population health with reduced prevalence of cardiovascular disease, respiratory disease, cancer and all cause-mortality; and further contributes to improved mental health, social cohesion and greater independence for children and youth. Specifically, research demonstrates that cycling to work is associated with lower risk of cancer, heart disease and premature death (Celis-Morales, et al., 2017).

Subsequent lower density of motorised vehicles improves air quality and reduces carbon emissions, which contributes to better population health and planetary health. Further reduced road traffic density correlates to reduced road traffic accidents and therefore improves health (Macmillan, et al., 2020).

New Zealand's current motorised dominated land transport system contributes to inequities, with those living in higher deprivation, especially Māori, having less access to safe and legal personal vehicles, which impedes their ability to access employment,



NZ Climate & Health Council

education, healthcare and other necessities (Macmillan, et al., 2020; Raerino, et al., 2013). Due to the current lack of investment in walkways and cycleways, those persons using them are at higher risk of traffic injury and crime, especially women and children (Macmillan, et al., 2020).

Perceived and actual lack of safety and risk of injury and crime, along with accessibility, are barriers to active transportation for the majority of the population (Jones, et al., 2020; Macmillan & Mackie, 2016; Macmillan, et al., 2020).

Policy Recommendations

We call for action to improve the population's health, reduce health inequities and take action on climate health by increasing active transportation.

OraTaiao makes the following recommendations for New Zealand's policy on active transportation.

1. Target inequity when planning, implementing and evaluating active transportation networks to achieve equity for vulnerable and diverse groups in New Zealand.
2. Fulfil obligations to Te Tiriti o Waitangi with tino rangatiratanga (Māori co-governance and self-determination) and using Māori frameworks to guide planning, implementation and evaluation of active transportation networks.
3. Create safer streets for active transportation so that people's perception of safety and actual crime and injury rates are reduced. This can be done by improved lighting around footpaths and cycleways and by facilitating active transportation, more people and community in the area thus reducing isolation. Increased lighting is particularly important during daylight savings as it is dark during the time that many people are commuting to and from employment or education.
4. Ensure that all new active transport infrastructure optimises both access and safety for disabled people. Make footpaths continuous, with on/off ramps at public transport interchanges to allow for continuous journeys for those persons who are unable to make the journey entirely by active transportation.
5. Provide separate pedestrian and cycling infrastructure, recognising this is the safest as cyclists and pedestrians travel at different speeds and behave differently.

6. Appropriately designed cycleways which have safety and accessibility as primary concerns, including fully separated cycleways on all arterial roads. This will increase safety to cyclists and reduce road traffic injuries.
7. Make active transport routes direct and accessible, and lead where people need to go including employment, education and healthcare facilities. They must be complete rather than partial routes, so that people are encouraged to commute via active transportation to get to their destinations safely.
8. Implement traffic calming measures where footpaths and cycleways are, to reduce actual and perceived risk of traffic injuries to non-motor vehicle users
 - i. Reduce vehicle speed in suburban areas through the use of physical traffic calming infrastructure (e.g., speed bumps or chicanes), and reduced speed limits.
 - ii. Create low traffic neighbourhoods by reducing access to certain roads to motorised vehicles and/or making certain streets one-way for vehicles.
9. Provide guaranteed spaces in trains and buses for bicycles, to allow for journeys that would otherwise be possible only by car. Locate public transport interchanges along cycle and footpath routes.
10. Provide bicycle parking in areas of usage, which are easily visible to reduce theft, along with other theft prevention measures.
11. Ensure all legal and regulatory frameworks and processes prioritise, promote and support active transport at all levels and sectors.

References

Celis-Morales, C. A., Lyall, D. M., Welsh, P., Anderson, J., Steell, L., Guo, Y., Maldonado, R., Mackay, D. F., Pell, J. P., Sattar, N., & Gill, J. M. R. (2017). Association Between Active Commuting and Incident Cardiovascular Disease, Cancer, and Mortality: Prospective Cohort Study. *BMJ*, 357. j1456. <https://doi.org/10.1136/bmj.j1456>

Jones, R., Kidd, B., Wild, K., & Woodward, A. (2020). Cycling Amongst Māori: Patterns, Influences and Opportunities. *New Zealand Geographer*, 76, 182-193. <https://doi.org/10.1111/nzg.12280>



NZ Climate & Health Council

Macmillan, A., & Mackie, H. (2016). Optimising Low Carbon Mobility for Health and Equity. In D. Hopkins & H. J (Eds.), *Low Carbon Mobility Transitions* (pp. 45-65). Oxford: Goodfellow Publishers Ltd. <http://ehp.niehs.nih.gov/1307250/>

Macmillan, A., Smith, M., Witten, K., Woodward, A., Hosking, J., Wild, K., & Field, A. (2020). Suburb-Level Changes for Active Transport to Meet the SDGs: Causal Theory and a New Zealand Case Study. *Science of The Total Environment*, 714, 136678.
<https://doi.org/10.1016/j.scitotenv.2020.136678>

Raerino, K., Macmillan, A. K., & Jones, R. G. (2013). Indigenous Māori Perspectives on Urban Transport Patterns Linked to Health and Wellbeing. *Health & Place*, 23(0), 54-62.
<https://doi.org/10.1016/j.healthplace.2013.04.00>

World Health Organisation. (2020). WHO Guidelines on Physical Activity and Sedentary Behaviour. Geneva. file:///C:/Users/wicke/Downloads/9789240015128-eng.pdf