

INDC Submission

To the New Zealand government:

I am 21 years old, and am writing this submission in response to the upcoming climate talks in Paris. I am a medical student and geography student at the University of Otago and am concerned by the New Zealand government's unambitious goals for emission reductions, and what this means for our future. I am involved in Generation Zero, Oil Free Otago and Medical Students for Global Awareness because I recognise the inextricable link between the health of the planet and our people. I want New Zealand to call for a global emissions target of **zero carbon by 2050** or earlier, alongside reductions in other greenhouse gases. 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 to 1990 levels) by 2030. The current discussion document does not put forward a strong enough effort to achieve significant emissions reduction. Awaiting information on the future place of carbon markets, and waiting for rules on the land sector should not restrict us from taking responsible action now.

Climate change is the largest and most wide-reaching issue affecting humanity. As Mr Tim Groser states in 'New Zealand's 6th National Communication under the United Nations Framework Convention on Climate Change and the Kyoto Protocol,' it is the greatest challenge of our time. There is no scientific debate about the fact that human actions are causing an enhanced greenhouse effect, with serious consequences for changing the global climate. There may be political debate, but that is seeded by other agendas. There are projected rises in average temperatures, reducing polar ice cover, changing precipitation patterns, sea level rise, declining soil and water quality, species extinction, increasing extreme weather events (for example, as I finish writing this Dunedin is being flooded) and ocean acidification ... and effects of these are already emerging. Unfairly, developing nations who have contributed least to emissions may bear the worst of the impact initially. But New Zealand is not, and will not be, exempt from the effects of climate change.

In the previously mentioned document there were clear targets for New Zealand's action on climate change. The first target for 2008-2012 was to reduce emissions to 1990 levels or lower. Yet our emissions have steadily risen. The document states that in 2011, (the most recent year of available data) New Zealand's gross emissions were 72,834.9 Gg CO₂-e, an increase of 22 percent since 1990. New Zealand's net greenhouse gas emissions projections were 59,294.7 Gg CO₂-e, an increase of 88 per cent since 1990. Under current policies our emissions will continue to rise, putting our way of life and international reputation at risk. At the current rate of global emissions, we will blow our carbon budget by 2035.

Climate change is not just an environmental issue. It is not an issue that only 'hippie greenies' care about. It is connected to concerns regarding health, social inequalities, poverty, pollution, soil and water quality, nature tourism, biodiversity, food production, education, the influence of weather events, justice (including intergenerational justice), economic sustainability and conflict. The more research I do regarding climate change, the more links I find to an expanding web of issues. While this is frightening, it also sparks some hope – in taking action on climate change, we are helping to address multiple other problems at the same time. And this makes sense, because at the heart of our existence is the planet we live

on – so why continue to treat it as though its capacity and resources are infinite? It seems ‘the environment’ is often pushed to the side in favour of economic development, yet it is our greatest asset and resource. Continued degradation of our lands, oceans and air is economically and morally risky.

Just recently, the International Monetary Fund (IMF) estimated that in 2015, fossil fuel companies are benefiting from global subsidies of \$5.3tn a year- that’s \$10 million a minute and is greater than the amount spent on health care by all governments. Big polluters are not paying the price for their contribution to climate change, and the rising extreme weather events, high pollution levels and other hazards that result. The IMF states that cutting global subsidies to fossil fuel companies would reduce emissions by 20%. In addition, this would free huge amounts of money that could be invested in infrastructure, health and education, fuelling economic growth and reducing poverty. I believe divestment from fossil fuels is a strong first step the government should be taking. Many institutions around the world, including Oxford University, have decided to divest. New Zealand has an opportunity to improve its reputation as a ‘clean and green’ country by increasing this movement.

I was at the well-attended public consultation in Dunedin along with 300 other concerned members of the public (I am interested as to why Dunedin was not on the original list for public meetings on this topic, and why the meetings were so poorly advertised? It was also a shame that these meetings were not recorded, and the ministers themselves were not there to listen to public views). There were university professors, city councillors, doctors, teachers, policy analysts, writers, students and youth groups, children, parents and grandparents. And this was only a small fraction of the people in Dunedin, and across New Zealand, who care deeply about our environmental impact – and the impact this has on us.

Despite all this diversity, there was absolute consensus that New Zealand is not doing enough to reduce emissions. At this meeting, someone said that the weak targets and feeble excuses for inaction in the discussion document made them feel ashamed to be a New Zealander. Another highlighted increasing anxieties among the younger generation about bringing children into the world predicted by ‘business as usual.’ Advisers at the meeting confirmed that climate costs to human health, and benefits of taking action, had not been taken into account in the calculations of impact on New Zealanders. This is unacceptable. Questions such as “why is the NZ Climate Minister currently in Australia encouraging oil and gas exploration in New Zealand?” were raised. Outrage about deep sea drilling was expressed. Myriads of reasons for being leaders in the field of emissions reduction were put forward – the unsustainability of economic reliance on finite fossil fuels, the huge potential for further expansion and uptake of renewable energy, the wide-ranging benefits for health of taking action, our responsibility to protect our Pacific Island neighbours, and the need to have strong leadership advocating for a fair and ambitious target.

In terms of the discussion document questions:

Question 1. Questions 1a and 1b: Objectives for the contribution

I agree with the objectives of setting a fair and ambitious contribution, with costs for society managed fairly and appropriately (or BENEFITS to society!) and that there needs to be a clear plan for how to achieve our goals. However, these objectives need to be re-prioritised and reworded - the INDC:

- **Must guide New Zealand's timely transition to a zero emission economy and society**

The top priority is for carbon emissions to peak within this government's term followed by annual reductions. INDC targets must include all-sector actions that centralise health and fairness, future-proof our economy, 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 through agricultural diversification then technology.

- **Must be a fair and ambitious contribution that meets our globally assessed responsibilities**

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 contributions must therefore be convincing and not discourage stronger commitments by other nations. In line with this theme of fairness, the government process and decisions should be transparent and in keeping with public views. Our target should be supported by all parties and upheld by all governments in years to come.

As referred to by Generation Zero, the UK Climate Change Act provides a model for government commitment and accountability that New Zealand should adopt. This Act puts national emissions targets in domestic law (which is not the case in New Zealand) and requires every government to produce credible plans to meet these. This will show other countries we are serious. The Act also sets up an independent Climate Commission to advise government on its policies and hold whoever is in power accountable. This makes the issue of climate change less politicised by having an authoritative independent voice in the debate.

- **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. 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. Climate change effects will impact more heavily on those in society who are most vulnerable, including children, the elderly, and Maori and Pacific communities.

The government's narrow, short-term focus on the financial cost of tackling climate change is disappointing. In the discussion document there is no mention of the much more significant cost to New Zealand, and all countries, of inaction. And importantly, it seems that the real benefits of taking action to our health and the economy have been ignored. As the World Bank warns, the longer action is delayed the more difficult it will be, with rising costs for future generations. May I recommend the World Bank article 'New Study Adds up the Benefits of Climate-Smart Development in Lives, Jobs and GDP.' It describes how government policies on emissions

reduction and energy efficiency in industry and buildings ‘can boost economic performance and benefit lives, crops, energy and GDP.’ One stark example is this: “In the transportation policy scenario, for example, if the five countries (Brazil, China, India, Mexico, and the United States) and the EU shifted more travel to public transit, moved more freight traffic off of roads to rails and sea, and improved fuel efficiency, they could save about 20,000 lives a year, avert hundreds of millions of dollars in crop losses, save nearly \$300 billion in energy, and reduce climate changing emissions by more than four gigatons.”

That is very compelling!

Question 2: What would be a fair contribution for New Zealand given the nature of our economy and emissions

Current and future human wellbeing depends upon not exceeding our global carbon budget. We need to call for a global zero **carbon** target before 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. The ultimate goal should be a carbon zero Aotearoa by 2050.

Critically, the world has five times the amount of fossil fuels in reserve than we can afford to burn. Bill McKibben (350.org) is a leading American climate scientist and has put forward some simple math (based on very sophisticated climate models). There are 3 important numbers. The first is 2 °C – the politically agreed limit for rise in average global temperatures in order to avoid catastrophic climate change. The second number is 565 gigatons – the amount of CO₂ humans can pour into the atmosphere by 2050 in order to have a chance of staying below those 2 degrees. The third number is 2,765 gigatons – the amount of carbon already contained in the proven oil, gas and coal reserves ie. five times the amount we can afford to burn!

We need to immediately commit to zero new fossil fuel exploration and phase out existing extraction in the next decade. According to global conservation organisation WWF, in 2013, the National NZ government was subsidising the oil and gas industry to a scale of \$46 million annually (doubling their subsidies since 2009) - whilst internationally boasting its efforts to reform fossil fuel subsidies. This continues today and needs to stop. According to the Minister of Foreign Affairs, financial subsidies encouraging the production and consumption of fossil fuels serves to “inhibit innovation and the development of cleaner technologies, and they reduce incentives to produce and use fossil fuels more efficiently.” A very fair commitment would be to withdraw subsidies to the fossil fuel industries and invest in ethical and clean energy production, as a simple first measure.

In the discussion document, our national circumstances framed as ‘restricting.’ This is ridiculous when actually we have so much potential and opportunity. If we, with the huge amount of solar, wind, geothermal and hydro energy at our fingertips, cannot take bigger steps, what message does this send to the rest of the world? In 2013 our per capita emissions were 3rd highest in the world – 17.2 tonnes of CO₂ equivalent! (climate change information, newzealand.govt.nz). Excuses such as New Zealand’s high proportion of electrify generation from renewable energy (although this is fantastic) and our ‘particular situation’ with half GHG emissions coming from agriculture do not stack up as reasons for inaction. We should be aiming for 100% renewable energy, tackling transport emissions reductions, increasing

forest planting and effective land use and so on.... our national circumstances actually allow us to set an ambitious, but achievable, emissions reduction target.

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

What level of cost is appropriate?

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.

The discussion document is written in a way that creates uncertainty and diminishes New Zealand’s capacity to act. Table 1 outlining the supposed impacts of different annual targets on annual household consumption is biased. Yet again, there are many factors such as the huge cost to humans of climate change, and costs of inaction, that are excluded.

Dr Rhys Jones, co-convenor of OraTaiao, (NZ Climate & Health Council) has eloquently stated:

“It’s hard to take this climate consultation seriously, when the government analysis has completely ignored New Zealanders’ health and well-being. This is totally irresponsible, when the evidence tells us we must reduce climate-damaging greenhouse gas emissions to keep our climate compatible with human health and survival.” (Count human health in your climate calculations’ Scoop.co.nz)

The cost analysis to date is incomplete and needs to be revised.

According to the New Zealand Climate Change Centre, time in drought could triple in NZ by 2040, and extreme rainfall and flooding could increase by 32% if we continue with business as usual. This will have significant effects on New Zealand households, businesses and industries – including agriculture. In order to keep this a viable centre for the economy it would seem prudent to conserve the climate needed in order to sustain agricultural practices. Farmers have already been severely affected by drought and other extreme weather events. Thus, using the excuse that about half of NZ GHG emissions are from agriculture as a reason for not doing much about climate change, will really come back to bite us.

In the discussion document NZ is described as a responsible and constructive global player – it is time to live up to this image. Great research is taking place with regards to methane reduction, but more needs to be done – and reducing our intake of meat and dairy products is advisable from a health perspective! Agriculture is presented as key in a world with increasing food demands. However, raising cows is extremely energy and water intensive, destroys soil, and research shows there are health benefits associated with cutting down on red meat consumption. It would be much more productive to plant crops with better nutritional value, and lower resource requirements. In addition, it seems risky to rely on one sector for such a significant portion of our GDP. Consideration needs to be given to diversifying our export markets.

It also seems financially unreasonable to need to buy offshore credits in order to cover our increasing emissions. Treasury has found that the failure to cut the huge increase in New Zealand's emissions could cost the Government \$52 billion. Why not instead focus on cutting our emissions?

Important & likely opportunities?

Whilst taking action on climate change may appear to be a confronting and overwhelming task, it can also be seen as providing huge opportunities. Actions to reduce our emissions will have parallel benefits for the economy, health and wellbeing of our people, environment and productivity. The document focuses heavily on agriculture, but half of our emissions are long-lived carbon dioxide from transport, housing, industry and other energy use which have to rapidly reduce to zero. We already have the technology and policy ideas to reduce these emissions – we need the cross-party political will to put them in place. We will also need to reduce our economic reliance on ruminant livestock farming.

In addition, making Aotearoa the clean and green country we proclaim it to be will create many jobs in renewable energy, building, transport and other sectors as well as creating energy security by reducing dependence on foreign oil. It will also make our cities more liveable – it would have great effects in cities like Auckland where current housing, transport and energy systems are failing. Rather than inhibiting economic growth, the transition to clean energy will be driving it. We will be left behind other wealthy countries who are making more use of new technologies, if we don't get on board. Prices for oil exploration and extraction will only rise as it becomes more difficult and dangerous. Also, in the future demand for products that are produced in an energy efficient and ethical way will rise. To continue to be competitive in the global market this is an important goal to have.

New Zealand road transport emissions are up 70% compared to 1990 levels – here is another great opportunity to lower our environmental impact. Significant advances have been made in the field of electric vehicles and biofuel technology but governmental policy is needed to make this a reality. There are so many things that should be happening – improving public transport systems, car pooling, encouraging active transport such as cycling and walking to name a few. These have significant co-benefits in terms of health – exercise has proven effectiveness in helping to prevent the majority of non-communicable diseases affecting New Zealand society. These include obesity, type 2 diabetes, depression, cardiovascular disease, stroke, and cancer to name a few. Not only this, but it improves mood, brain functioning, vitality and fitness. This would have flow on effects for the economy by enabling a healthier workforce with less sick leave, a more productive economy (and less time in traffic jams!), less strain on the health system and hugely reduced spending in secondary and tertiary level care. Forms of active transport also encourage more social interaction and cohesion with further benefits for mental and emotional wellbeing. Acting on climate change can be seen as a very effective disease prevention measure. Huge savings could be made here, and this could help fund lower income countries in the transition to clean energy – resulting in global health and equality improvements. OraTaiao is comprised of health professionals concerned about the human impacts of climate change, and plenty of information regarding this can be found on their website.

Another example is improving energy efficiency and climate-friendly energy in New Zealand homes. Steps such as insulation, increased use of solar and wind power and other smart methods will improve the population's health both short and long term. Healthy housing is a

key area that needs to be addressed, with warm dry homes not currently the norm. Moving to 100% renewable energies and implementing countrywide policies would make cheap, clean energy available to all families, as well as reducing domestic sources of pollution and their associated health effects. Currently 1 in 4 children in New Zealand live in poverty – an unacceptable statistic for a ‘developed’ country. Warmer, healthier homes help reduce spread of infectious diseases, and would lower the incidence of ensuing conditions such as rheumatic fever, as well as reducing asthma and other respiratory problems. Actions to reduce emissions would improve children’s health, make them more able and eager to learn, and result in improvements in education attainment. Renewable energies are very commercially viable, and in many places have overtaken the fossil fuel industry, including in main American cities such as Boston, Los Angeles, San Francisco and New York.

Question 5: How should New Zealand take into account the future uncertainties of technologies and costs when setting its target?

The precautionary principle compels us to act now. Risks of further delay are very high, while we have good certainty about potential short to medium term gains of well-designed emissions reductions policies. Many of the technologies and solutions already exist, as well as citizen will-power. We need our government to give clear, strong, consistent signals to spur both behaviour change and technological development.

The discussion document implies more uncertainty about the availability and research on climate- smart technologies than what truly exists.

Further information for our government to consider

In keeping with OraTaiao’s recommendations, I support the idea that health and wellbeing needs to be at the heart of the government’s climate action.

We urge: a Parliamentary climate change and health summit; health sector leadership on mitigation and adapting to locked-in climate impacts on health; involvement of public health expertise; Health (including equity) Impact Assessment (HIA) routinely used to inform key climate-relevant policies; and climate commitments that protect and promote health in the climate-vulnerable Pacific regions.

To conclude, I implore the government to take an ambitious INDC to the Paris talks in December. Help lead the New Zealand nation we all want to be a part of and proud of. Whilst a challenging issue, it also provides huge potential for New Zealander to become a global leader, and for us to ensure that we conserve what we love about this country for future generations. Action on emissions reductions has wide-reaching benefits for all aspects of our lives, from health and food production, to economic viability, reducing social inequalities sustainability, international and domestic political reputation. The time to act is now, and governments will be judged by their commitment to taking action. Rather than creating barriers, recognise opportunities and work towards a fairer world. Take the goal of zero carbon by 2050 on, and be a climate hero.

With hope and encouragement,

Sarah Mitchell