Consultation on setting New Zealand's post-2020 climate change target

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Objectives for the contribution

Do you agree with these objectives for our contribution? Yes

1b. What is most important to you?
We need to put sustainable, ambitious plans in place to combat climate change and stop focusing on the cost of action, and instead look at the cost of inaction. As medical students we are worried for not only our futures but also those of the patients we will inevitably be treating one day for what should have been preventable disease. Mitigation is the key to tackling climate change and not only will this be easier and cheaper to do without delay, it will also have a variety of other positive impacts for the people of New Zealand. It is crucial that we set targets and start transitioning to make changes as soon as possible.

What would be a fair contribution for New Zealand?

2. What do you think the nature of New Zealand's emissions and economy means for the level of target that we set?
• It is essential that we set a zero carbon target and that New Zealand takes necessary steps now to reach this goal at least before 2050. Other wealthy nations are pledging at least 40% cuts in our gross domestic greenhouse gas emissions by 2030 compared with 1990 emissions, and NZ must do at least the same, going towards a 95% cut by 2050.
• Greenhouse gas emissions in New Zealand are unique compared to other developed countries because a large proportion comes from agriculture. However 50% still comes from transport and energy. To reduce these emissions there are a variety of possible actions:
• New Zealand needs to show innovation and creativity to reduce CO2 emissions from farming. The government should provide funding for research in this area and also incentives for farmers to reduce CO2 emissions. We have a rich land which is suitable for other use that has less of an impact on the environment:
• Non-ruminant farming
• Reforestation
• Crop growth
• Big business and industry are large contributors to New Zealand's level of CO2 emissions. We believe that they should be taxed more than farmers because we think that this fairly reflects the size of the companies involved i.e. multi-million dollar companies vs. individual farmers. We have the technology to have 100% renewable energy but changing farming will take more time and more research is needed.
• Individual emissions. While individuals are responsible for emitting CO2 we believe that the government has a large role to play in adapting services so that reducing CO2 is easy to do. For example city planning is crucial in reducing CO2 emissions by designs to reduce car dependence and allow for cycling and public transport. Especially considering our population's high per capita use of road transport. The government also needs to make the switch to renewable energy easier e.g. subsidy clean energy technologies as well as reduce the overall energy needs of the population e.g. insulating homes.

• The Government is paying big companies to offset their CO2 emissions; this is currently more money than the government receives from ETS. Not only is this economically unviable it is morally disreputable as the government is supporting the biggest polluters while taking money from smaller emitter. This needs to stop. Tax money should not be spent on aiding the largest polluters to keep emitting CO2. Furthermore these are the companies with the most resources to change their emissions and they need to be motivated to do this not supported in keeping CO2 high.
• We are also outraged at the government's hypocritical stance by making a target to reduce CO2 while promoting fossil fuel exploration in New Zealand. The earth has 5x the amount of fossil fuel that we can afford to burn and we need to stop looking for it. Not only will this increase our contribution to worsening climate change but there are also significant effects on the environment. We believe that the government should take a strong stance on this issue.
• We also think that our contribution should consider the effects of worsening climate change on Pacific nations. Our goal should be to reduce global warming effects so people in the Pacific can stay in their countries, failing this, there needs to be plans to accept ecological refugees. Ecological refugees are and will be a big problem if climate change is not dealt with. We see it now, with residents of the Pacific Island like Tulun Atoll and Tuvalu needing to relocate due to sea water eating away at the land. What burden will these refugees have on the economy and health nationally?
• It is important to note that climate change disproportionately affects the lower socioeconomic population. It is not justified to only want to adapt to any changes, when those who are hit hardest will find it hardest to adapt.

How will our contribution affect New Zealanders?

3. What level of cost is appropriate for New Zealand to reduce it's greenhouse gas emissions? For example, what would be a reasonable reduction in annual household consumption?
• Before we talk on the cost of action, attention should be drawn to the cost of inaction in terms of health:
• It is not just an economic impact that we are concerned about. The cost on human health from climate change (heat waves + droughts, severe storms, rising sea levels, warming etc etc etc) could be catastrophic. The government, as well as every NZ citizen has a moral obligation to the world and future generations to take action.
• California, USA, is suffering from a drought and India is currently in the midst of a severe heat wave (greatest at 50 degrees Celsius!) that has claimed over 800 lives, and this number is sure to rise. Global warming will only increase the frequency of these events.
• Freak weather events will impact our pacific neighbours greatly - taking lives and huge chunks of our already stretched costs on medical care.
• NZ is not a tropical climate, so we do not have problems with Denge fever, malaria or other tropical diseases. But with warming, the possibility of them coming to NZ is not dismissable. Especially with the rising number of ecological refugees from the Pacific Islands and other areas severely affected by climate change. Of course, another option to prevent this would be to reject refugees altogether, like our friendly neighbours; the Abbot administration is doing.
• We believe that cost comes down to short term and long-term costs.
• Short term costs include costs to change to systems that do not emit CO2 or are more energy efficient e.g. insulating homes or switching to energy efficient heaters. The Government should subsidise the initial costs of setting up these projects, basing them according to the household income.
• Long term reduction in cost:
• Cost to repair cities after extreme weather
• Cost to the economy when extreme weather affects agriculture
• Cost to the healthcare system with rise in infectious diseases, injury from extreme weather, increased mental illness, malnutrition etc.
• The cost of inaction far outweighs the initial costs needed to mitigate the effect of global warming. Not only in an economic sense but also in a moral sense, the government needs to act now to prevent social, environmental and economic cost to the people of New Zealand.
• Where the money should come from:
• Government will need to show leadership in emphasising that this is an important issue that deserves funding.

We also think that most of the costs should come from big business with some subsidies from the government, as well as extensive rather than intensive tax to the individual. Cost is also complex because there will need to be national changes rather than just changes at the individual or even business level.
• It requires the government taking the issue of global warming seriously and seeing that costs now will reduce cost in the future as well as the moral imperative to act.
• Another important aspect to consider is how funding to avoid global will have other benefits for New Zealand citizens. There are convincing arguments for the health co-benefits:
• Moving away from car-centric transport system towards active and public transport
• Less motor vehicle injuries
• More walking/cycling etc results in less obesity, diabetes and cardiovascular disease
• Increased social connection
• More energy efficient housing
• Improved respiratory health
• Reduced winter deaths
• Reduced days off work/school due to sickness
• Decreased ruminant diet
• Cleaner water
• Decreased cancer
• Decreased cardiovascular disease
• Move away from coal-centred energy
• Less mining injuries
• Improved respiratory health due to decreased pollutants
• With temperature increases comes new disease
• Water-borne diseases due to less water safety and resources
• Vector-borne diseases due to increased temperature
• Extreme weather events can cause injury, mental health issues and death
• Climate friendly development worldwide will increase international policy on health that is centred around fairness and health
• Overall we believe that the cost to the government will be significant given the amount of change that needs to happen to reach our targets. However, given the severity of the issue and the certainty of rising costs the longer we delay action on climate change we believe that it is money well spent. Furthermore, while there is an economic cost, the government cannot deny the cost on human health that will result from worsening global warming. There is a moral obligation to act now to prevent this from happening.

4. Of the opportunities for New Zealand to reduce its emissions (as outlined on page 15 of the discussion document), which do you think are the most likely to occur, or be most important for New Zealand?
• We agree with all opportunities presented, however as future medical professionals we will primarily be focusing on the cost inaction could have to health. Hence, as there was only one opportunity that mentioned health and wellbeing we agree most with this possible action:
• 'Reducing greenhouse gas emissions and increasing forest sinks can lead to improved health, environmental and social well-being, and improved erosion control and water quality.'
• The effects of climate change have been scientifically proven to be indiscriminate and multi-faceted. All aspects of life (social, economic, environmental and health) are directly affected by the climate and therefore all will be affected by its change. By acting against the negative effects of climate change we are simultaneously improving all of these aspects.These undeniable co-benefits of climate change action have been mentioned in previous sections of this submission and should not be ignored.
• Here are just some ways New Zealand can reduce its emissions in order to reach our target:
• Tax CO_2 in industries and big business that produce a lot of CO_2 emissions and provide initiative for them to reduce emissions. Reducing emissions from big business should start as soon as possible and will occur if the government puts pressure on these companies, who have the resources and current technology to change.
• Rethink the use of our land, decreasing our dependence on ruminant farming and increasing reforestation and crop growth. The reduction in emissions in agriculture will be focused in more long-term changes but more funding

needs to go into research to reduce emissions and benefits for farmers who reduce CO2 emissions. Promising research includes lab grown meat and the use of biochar as fertiliser.
• Government initiatives to improve town planning to reduce individual CO2 emissions and use energy that doesn't create CO2 emissions
• Christchurch is a HUGE opportunity to start it right. From a terrible misfortune we have an incredible opportunity to rebuild a city. The possibilities to make a 100% sustainable city where health is the first choice by ensuring the city has cycle paths, more green spaces, uses renewable energy. All of this would raise awareness, and put New Zealand on the international stage of climate change action and innovation.

Summary

5. How should New Zealand take into account the future uncertainties of technologies and costs when setting its target?
• New Zealand needs to accept the inevitable worsening of climate change unless we start to act to significantly reduce our CO2 emissions now. It is an opportunity to lead the world in using the latest technologies to reduce our impact on the environment. Not only will this have economic benefits e.g. selling technologies to other countries that reduce emissions, but it will also emphasise the 'Clean Green' image of New Zealand that has been tainted by our inaction on global warming.
• Climate change will have a devastating impact on the nation (and the globe) - this is a certainty. The only uncertainty is how the government will act to face this challenge and show the leadership needed to allow New Zealand to reduce CO2 emissions.

Other comments

6. Is there any further information you wish the Government to consider? Please explain.
• As the future doctors of New Zealand we believe it is imperative to look at the effect global warming will have the on health of New Zealand citizens. This was not mentioned in the document, which emphasises the focus on economic cost, rather than the true cost to the people of New Zealand. Not only will this impact health and put a huge burden on the health system but the government is under a moral obligation to protect its citizens.
• We strongly emphasise the imperative to act now, because we have the knowledge, resources and technologies to reduce our CO2 emissions. Reduction of CO2 emissions needs to be thought of not as the cost of action but what the cost of inaction will be for our country.