Dr Lawrence Patchett

Thanks for the opportunity to contribute to this consultation. I am submitting in a personal capacity and my views are my own. I'm pleading for a serious target of at least 40% below 1990 levels, coupled with legislation to bind NZ to that target.

I'm submitting as a resident of Kapiti. I'm also submitting as a father of two teenage daughters who I know are concerned about the implications of climate change for their safety.

As requested, I have responded to the target questions below. But first I want to make the point that, as a resident of Kapiti, let alone as a New Zealander, I am appalled that our national action on climate change is so poor. To talk about economic costs just for a moment, the costs of inaction on this problem are already too great to ignore.

This year we have been experiencing, at considerable public and private cost, precisely the climate impacts that have been predicted for Kapiti in the climate change modelling for so long. On the Ministry for the Environment website, for example, the climate change modelling forecasts for Kapiti drier summers and wetter winters, with a greater number of very intense rainfall events.

According to the MetService, January 2015 was the driest January ever recorded in Kapiti. We received 4mm of rainfall in the whole month. It was also the driest January in 12 other places in New Zealand. That followed the highest ever recorded global temperature in 2014.

Then in May we experienced a very intense rainfall event, with more than 116mm of rain falling in 24 hours. This caused a flood of extraordinary ferocity. It was described as a 1-in-50 year flood. According to TV3, 24 homes in Kapiti were evacuated. Kapiti schools were closed, transport routes via rail and road to Wellington were cut off, and there was considerable cost in lost workplace productivity. The total financial costs of this event are still being calculated, according to TV3, but the recovery is predicted by the local council to take months.

My point is that this record dry summer and record flood are precisely what we can expect more of in the future, according to the climate change modelling. Currently we're at just 0.86% of global warming, and we're experiencing these kinds of impacts, with their considerable costs. When you think of the 2% rise in temperature we're trying to 'limit' global warming to, and look at the predicted impacts associated with that increase, the costs become alarming, with Treasury predicting costs of up to $52 billion in the longer term.

It gets worse when you add it to the increasing intensity of cyclones like Ita and Pam, which climate scientists say are made worse by a warming atmosphere. Those cyclones imposed additional costs through aid (in the case of Pam), and damage to New Zealand infrastructure and the conservation estate (in the case of storms associated with Ita). We can't afford to continue to try to 'dodge' these costs by not cutting our carbon emissions, which is just stoking the fire that feeds an increasingly destructive climate. When you add in the marketing and trade costs to New Zealand's brand as our poor record on climate change becomes known around the world, it just doesn't make sense.

Even in short-term economic terms, it's a self-defeating and illogical policy. This is to say nothing of our moral responsibility, as a developed nation with a poor record on emissions to this point, to actually do the right thing. Instead of paying lip service to our stated commitments to the health of our environment and the people who share it with us - particularly in the Pacific - we should act urgently to stop making the problem worse.

Answers to specific questions.
'Do you agree with these objectives for our contribution?'

No. The framing of the discussion around the costs of action is false. The costs of inaction are already becoming too urgent, as outlined above. I believe that if the discussion document had presented to New Zealanders the likely costs per household of NOT taking action to cut emissions, it would be a much fairer document. I object to the skewed picture that the discussion document presents of the economic, environmental, and social costs associated with acting/ not acting on climate change.

1b. A fair and ambitious contribution means a serious target of 40% below 1990 levels. We have to be ambitious, committed and urgent because the altered climate consequences that we are experiencing now, especially in my community of Kapiti, are serious, costly, and frightening.

2. A fair contribution is 40% below 1990 levels, coupled with legislation to bind us to that commitment. New Zealand has one of the highest emissions rates per capita and therefore has a responsibility to invest urgently in serious reductions of our emissions. We should show commitment and leadership, like the EU, and commit to 40% below 1990 levels. There are economic, moral, and justice imperatives that drive us to take this stance.

3. The costs of inaction are already considerable. Moreover, the costs are rising. To take just the example of Raumati, the recent very intense rainfall event cut off Wellington (rail and road), evacuated 27 homes in Kapiti and elsewhere, closed schools, and caused extra cost in lost workplace productivity and emergency call-outs.

I object to the framing of this discussion around costs rather than urgent investment with many benefits: economic, social, and environmental.

The costs of not acting will be much worse, so it's counter-intuitive and impossible to attempt to escape these costs.

4. If serious investment is made in educating, motivating and mobilising the New Zealand people to be aware of their emissions and ways to reduce them, huge gains can be made in terms of transport emissions, car ownership rates (currently very high on a per capita basis), and reduction of fossil fuel use. Reducing New Zealand's reliance on car transport is important, and education to encourage and enable people to make the transition to sustainable transport. Incentives such as subsidies for sustainable transport options will assist further.

5. Electric vehicles and innovation in the agricultural sector may have some impact but it is inappropriate to rely on - and hope for - currently unavailable technological change to rescue us from a problem we have created through technology. Educating New Zealanders in the need to change behaviour urgently is much more important.

6. My community of Raumati has experienced the driest January ever recorded this year, and a flood of extraordinary ferocity - a one-in-50 year rainfall event. These impacts of drier summers and wetter springs/ autumns, with more intense rainfall events, are precisely the effects predicted on the Ministry for the Environment website. These enormously costly and damaging impacts are
coming from 0.86% of global warming. We are nowhere near 2% at the moment, and I hate to imagine what those impacts will look like.

It may be tempting to think short-term on this issue but that is precisely my point - these costs are being felt right now, in the short-term. Ignoring them just introduces more and higher costs in the short, medium, and long-term. We need to commit to reducing them: 40% below 1990 levels.