



# Setting New Zealand’s post-2020 climate change target

## Submission form

### Contact information

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### Objectives for the contribution

**1a. We have set the following three objectives for our contribution:**

- **it is seen as a fair and ambitious contribution – both by international and domestic audiences**
- **costs and impacts on society are managed appropriately**
- **it must guide New Zealand over the long term in the global transition to a low emissions world.**

**Do you agree with these objectives for our contribution?**

Yes

No

Before New Zealand was colonised about 150 years ago by people from other countries it had a landscape, biology, ecology and so forth similar to many other parts of the world. Since the arrival of those settlers the attributes of the country have been changed hugely by human endeavours and intervention. This entailed much hard work and toil and has radically changed the country’s greenhouse gas landscape. To put it simply, from the very beginning ‘we’ have

been extracting money from the bank – something we have done after many countries, and before others.

One could strongly argue the present discussion must start from a level playing field, not from the situation New Zealand (and other countries) find themselves in now. To do otherwise is probably disingenuous and unfair to those countries which have been ‘late starters’. Starting from elsewhere could be argued to be unreasonable as well as unfair – and the discussion document often mentions fairness. The approach taken could also be considered as patently unethical, perhaps less than honest. It seems to imply some societies are more equal than others. Yet, New Zealanders consider themselves (and are ranked by various indices) as being highly ethical and fair minded. Consequently, right from the beginning of this discussion paper there is a dichotomy; dishonesty perhaps to ourselves, to other peoples and to the ‘commons’ (<http://en.wikipedia.org/wiki/Commons>).

A possible thread throughout the discussion document is one of ‘entitlement’. That New Zealand and New Zealanders are entitled to its current and continually increasing rate of GHG consumption and emissions, including those, which under the Greenhouse Gas Protocol could loosely be classified as “Scope 3” (<http://www.ghgprotocol.org/>). That consideration of these types of emissions does not form part of the discussion seems to be significant omission. The impacts of our activities go far beyond New Zealand’s shores.

**Hence NO** to the proposition. Except, I do agree with the notion of a need for fairness within our society and that New Zealand must transition to a low emissions world rapidly, with vigour and tenacity. These are absolutes. That New Zealand needs to reduce its GHG emissions, become more self-dependant and resilient has been fostered for years by organisations such Transition Towns – the notion is not new (<http://www.transitiontowns.org.nz/>).

It would be pertinent to frame any discussion in terms of *Seven Generation* thinking. It was about seven generations ago that significant settlement of New Zealand commenced. The implications of what was being done to the country, was not well thought out, if thought about at all – admittedly that was the state of knowledge of the time. We now know better.

*“We cannot simply think of our survival; each new generation is responsible to ensure the survival of the seventh generation .... Indigenous people are the poorest of the poor and the holders of the key to the future survival of humanity.*

-- authors of *Our Responsibility to the Seventh Generation*, 1992

[http://www.iisd.org/pdf/seventh\\_gen.pdf](http://www.iisd.org/pdf/seventh_gen.pdf)  
<http://www.cityyear.org/about-us/culture-values/founding-stories/seven-generations>

## **1b. What is most important to you?**

It is my belief New Zealand should take a leadership position (for New Zealand, our Pacific neighbours and neighbours further afield) stimulating and leading low-carbon economies based on clever and smart solutions, nimbly implemented.

It is important to start from where we want to be and by using backcasting techniques, work out how we are going to get there. New Zealand has the intellect, inventiveness and capabilities of doing this. It considers itself to be a smart, clever, nimble country. Let’s reinforce that – with

vigour – and show what can be achieved using whole system thinking.  
(<http://www.naturalstep.org/backcasting> and <http://www.naturalstep.org/en/abcd-process>,  
also <http://www.futuresearch.net/> and <http://www.tipuake.org.nz/index.php>)

A perception I have is the government has been “listening with its ears wide open and its mind shut”. It has seemingly and persistently been dismissive of efforts of its citizens to engage and obtain the change in hearts and minds which is so important to progress the issues. The issues go far beyond party politics. There is a need for a robust whole of Parliament (cross-party) engagement setting aside political perspectives. A credible entity separate from Parliament seems to be needed and which by research, collaborative dialogue and other techniques determines what is required and the “how”. The model provided by the Land and Water Forum could be a useful starting point. Another is the central planning organisation (IPPUC) of Curitiba Brazil as outlined in the Parliamentary Commissioner for the Environment’s 2002 report “*Showing the Way*”. An ongoing programme to engage meaningfully with New Zealanders on climate change (including GHG) solutions and to operationalise them is necessary (<http://www.landandwater.org.nz/> and <http://www.pce.parliament.nz/assets/Uploads/Reports/pdf/CURTIBA.pdf> ).

Having ambitious GHG targets embodied in New Zealand’s law, in a manner somewhat similar to the Bill of Rights is an essential piece of what is required. It would send clear signals to citizens as well as other governments, trading partners and civil society entities. A law such as this would also hold future governments accountable. The GHG target should be below 350ppm to achieve no more than 2<sup>0</sup>C increase in global warming by the end of this century. Some consider even that level could lead to a disaster scenario. (3<sup>rd</sup> December 2013, <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0081648>).

## 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?

Based on the response to Question 1 I don’t think it means much. That is not to say it is not a substantial issue – it is. New Zealand needs to adopt a greenhouse gas baseline which is no larger than, and preferably less than can be sustained globally for the world’s population i.e. X tonnes/per year/person adjusted downwards for the current excess GHG which is already in the atmosphere. We have a responsibility to put GHG back into the bank – we have likely overdrawn our “allowance”, our “entitlement”.

This implies that as world population increases, the allowance per person decreases.

The base figures would need to be science-based and yet recognise they would be approximations rather than precise. We should take responsibility of showing what can be done and how it can be done. And not grizzle that it’s too hard. And that is what the discussion document seems to do.

New Zealand was among those nations which signed up to and endorsed the Montreal Protocol to protect the ozone layer. For instance refer “*The regulatory process and linkages between the*

*Montreal Protocol and the Kyoto Protocol, ozone, UV and Climate*” which in its conclusion asks for reflection on the similarities between the ozone hole issue and climate change (<https://www.niwa.co.nz/sites/niwa.co.nz/files/import/attachments/Macleod.pdf>).

Further, initiatives in British Columbia, Canada, (which seems to have attributes broadly similar to those of New Zealand), is achieving successes in addressing the issues. (*“How British Columbia Gained By Putting a Price on Carbon”*; 30<sup>th</sup> April 2015 [http://e360.yale.edu/feature/how\\_british\\_columbia\\_gained\\_by\\_putting\\_a\\_price\\_on\\_carbon/2870/](http://e360.yale.edu/feature/how_british_columbia_gained_by_putting_a_price_on_carbon/2870/)).

Without question New Zealand’s targets should be set 20% below 1990 levels and should be based on a world population base-line as existed in 1990. (Nick Smith and Tim Grosser per <http://www.beehive.govt.nz/release/2020-target-balances-economy-amp-environment> and [http://en.wikipedia.org/wiki/Climate\\_change\\_in\\_New\\_Zealand](http://en.wikipedia.org/wiki/Climate_change_in_New_Zealand).

New Zealand’s GHG performance in recent years is a widely recognised as being about the worst of any developed or industrialised country. For instance [http://www.wwf.org.nz/what\\_we\\_do/climate\\_change\\_new/solutions\\_to\\_climate\\_change/new\\_zealand\\_s\\_response\\_to\\_climate\\_change/](http://www.wwf.org.nz/what_we_do/climate_change_new/solutions_to_climate_change/new_zealand_s_response_to_climate_change/) and page 22 of <http://www.victoria.ac.nz/law/about/news/new-zealands-defective-law-on-climate-change/ClimateChangeSpeech16Feb2015Final.pdf>. It is widely known New Zealand has been, with good reason, strongly criticised for its performance of recent years.

We are talking here of managing risk. Managing world-wide risk. Managing risk for at least seven generations out. Among many references the risks are discussed by Sir Geoffrey Palmer in his speech of 16<sup>th</sup> February 2015 (<http://www.victoria.ac.nz/law/about/news/new-zealands-defective-law-on-climate-change/ClimateChangeSpeech16Feb2015Final.pdf>).

## How will our contribution affect New Zealanders?

### **3. What level of cost is appropriate for New Zealand to reduce its greenhouse gas emissions? For example, what do you think would be a reasonable impact on annual household consumption?**

Why assume greater cost will be involved? If we align our capital and consumption spending, as well as our production to a low carbon economy we will find savings and efficiencies which should see a reduction in annual household, agricultural, industrial, commercial and transport consumption through mega efficiencies.

There seems to be a premise in the discussion document the burden should be borne by households. The present style of New Zealand’s agriculture is the largest contributor. It would seem the ‘style’ of that agriculture has to be changed and recognise the work of the laudable New Zealand Government initiated Global Research Alliance on Agricultural Greenhouse Gases (GRA) of itself may not be sufficient. What is their target? By when? Is that, or are those, targets realistic for New Zealand to achieve its overall reductions? Talking of emissions intensity of itself is not sufficient. The discussion needs to be about absolute maxima and the future we aspire to have for New Zealand.

Government's apparent lack of receptivity to ideas about addressing the issues is reflected in its lack-lustre reception of reports such as "*New Zealand's Position in the Green Race*" and "*Green Growth: Opportunities for New Zealand*" published by Pure Advantage (<http://pureadvantage.org/about/>).

It is also pertinent to reflect on "*The true cost of milk: Environmental deterioration Vs. profit in the New Zealand dairy industry.*" Published by the New Zealand Agricultural and Resource Economics Society August 2014 and available at [http://ageconsearch.umn.edu/bitstream/187496/2/FooteJoy\\_2014.pdf](http://ageconsearch.umn.edu/bitstream/187496/2/FooteJoy_2014.pdf).

"*Radical is the new Normal: Local opportunities from global challenges*" presentation to SOLGM's forum by Rod Oram 12<sup>th</sup> May 2014 is another of numerous relevant think pieces worthy of reflection in considering what is appropriate for New Zealand (166 page PDF at [http://www.solgm.org.nz/Folder?Action=View%20File&Folder\\_id=243&File=Oram%20SOLGM%20May%202014%20revised\\_compressed.pdf](http://www.solgm.org.nz/Folder?Action=View%20File&Folder_id=243&File=Oram%20SOLGM%20May%202014%20revised_compressed.pdf) ).

As is, among others, Landcare Research's "*4 Future Scenarios for New Zealand*" published 2007. (<http://www.landcareresearch.co.nz/science/living/sustainable-futures/future-scenarios>)

**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?**

The most important are the biggest sources of greenhouse gas emissions created in New Zealand.

Secondly we should not discount GHG's embodied in imports. We must remember New Zealand has off-shored much of its industry and some of its agricultural production to other countries. The country therefore has a responsibility to assist those countries in reducing their GHG emissions.

The issue is world-wide. New Zealand does not live in a silo and therefore should not confine itself to silo thinking. That would be unethical and unfair.

As a for instance, New Zealand imports over 2.2 million tonnes of palm kernel per year. Although a by-product of palm oil manufacture much of the product would be sourced from areas which have contributed to deforestation, environmental and social damage. There is also the GHG emissions involved in its transport from supplying countries through to distribution on individual farms in New Zealand. Until 2002 this product was barely used in New Zealand (<http://www.indexmundi.com/agriculture/?country=nz&commodity=palm-kernel-meal&graph=imports>) The use of palm kernel in New Zealand has contributed to the intensification of dairying in New Zealand and which in itself results in considerable GHG emission impacts aside from other adverse impacts.

We also import cotton in the form of manufactured products. Cotton growing causes substantial GHG impacts "*Cotton and Climate Change: Impacts and Options to Mitigate and Adapt*" 2011 refers to some of the issues (<http://www.intracen.org/cotton-and-climate->

[change.pdf/](#)). Among other reviews of impacts is the information at <https://www.worldwildlife.org/industries/cotton>.

New Zealand has a consumption sector predicated on fashion and throw-away thinking. If we reduced our consumption of clothing, much of which contains cotton, we would have some (minor) positive impacts on GHG emissions, soil degradation, water contamination and adverse environmental impacts arising from fertilisers and pesticides in some of the poorest countries in the world.

A further example is timber used for construction and contained in imported furniture. There is a high probability much of it is not sourced from Forest Stewardship Council certified sources, or equivalent. Similarly for paper.

Collectively there are undoubted adverse GHG, social and other impacts world-wide arising from New Zealand's use of imported goods. New Zealand should not seek to escape its share of responsibility for this. Why should we our make our problem problems for others?

There are many other inter-linked issues within New Zealand. Examples include; poor urban design, housing design, size and location of schools, transport infrastructure, and motor vehicles. (Engine capacity, size and age at time of first use in New Zealand – if for example the age of imported vehicles was limited to no more than 5 years at time of import we would reduce the number of vehicles imported).

By having a fair and equitable employment and wage structure the number of vehicles imported would probably decrease as fewer people would be required to work, fewer would be required to have multiple jobs, more could walk their children to school, health would improve – housing would become healthier. Together, these would reduce demands for travel and hence importation of fuels – and the use of scarce overseas funds.

Tourism growth, especially in the high volume low value segment drives GHG growth.

Industrial style agriculture of commodity products as another driver of GHG growth.

It would be useful to adopt thinking expressed in the brief video "*How Wolves Change Rivers*" available from [www.monbiot.com/2014/02/13/how-wolves-change-rivers/](http://www.monbiot.com/2014/02/13/how-wolves-change-rivers/).

## Summary

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

New technologies are coming at a pace and scale which make accounting for their impacts impossible. Scenarios with varying timescales might be useful but will most likely be wrong. We can assume technologies will come faster and most likely better than we expect.

We can also presume supplies of some raw materials will either run out, or become very expensive. These will have considerable impacts on current and future technologies. Radically different approaches to a wide range of issues will be required. Already a number of metals and rare earths are thought likely to run out within a few years.

Anthropogenic climate change is multifaceted; it does not fit neatly into an isolated silo. It is connected to a wide number of other issues. Thinking solely of GHG and climate change is silo thinking.

We must therefore start our thinking about where we need to be by specific dates. Then and only then look at how we will get there. Ongoing changes in technologies and much else will occur along the way. System dynamics could very well change hugely; for example as a result of rising sea levels not only in New Zealand, but in numerous other countries. There are already seeing climate change refugees, some of Pacific neighbours are among those voicing concerns. We are also seeing wars and political instability triggered in part by climate change impacts. These issues will increase and New Zealand together, with 'far away' islands of the Pacific, with small GHG impacts of themselves are intrinsically bound up with what is happening elsewhere. Hence, it is in New Zealand's and New Zealanders' interests to do far more than the current political mindset seems willing to tackle.

A message in the two minute monologue of 21<sup>st</sup> May 2015 at [www.1millionwomen.com.au/blog/julia-roberts-just-made-most-powerful-video-about-climate-change](http://www.1millionwomen.com.au/blog/julia-roberts-just-made-most-powerful-video-about-climate-change) is worth bearing in mind.

## Other comments

### 6. Is there any further information you wish the Government to consider? Please explain.

**Global reputation is very important** to New Zealand and New Zealanders. Brand "100% Pure" is embedded in our psyche. Among the reputational risks are risks which could arise to New Zealand and Pacific neighbours' **banking sector** as a result of climate change; perceptions of a country which cares little and is making little effort to make a difference; not pulling its weight. This could impact the central and trading banks. Such could relate to actual and perceived climate change exposure of New Zealand and Pacific economies.

There could also be risk exposures to the **world banking systems and exchange rates**. These risks could adversely impact a wide spectrum of entities including exporters, insurance companies and the Government's ability to borrow on favourable terms. Downgrades to country, company and local authority **credit ratings** could arise. Local authority ability to borrow could be hindered. Consider reductions in size of their rating bases from coastal erosion and inundation, plus infrastructure exposures. Also consider exposures of infrastructure owned by others such as wharves, railways and airports, plus exposures of communication and electricity systems. (28<sup>th</sup> May 2015 <http://uk.reuters.com/article/2015/05/28/us-climate-change-finance-idUKKBN0OD2EO20> and <http://econews.com.au/news-to-sustain-our-world/expert-finance-markets-ignore-climate-at-their-peril/>).

The discussion paper is framed as a problem, or series of problems. A significantly better approach would have been to have framed it around the notion of “where we want to be”. As a consequence the focus would be on the opportunities rather than the perceived difficulties. That’s how New Zealand has grown as a nation.

Frameworks such as those used for dealing with “Wicked Problems” could provide pathways for the ‘journey’ of where we want to be. Such techniques are currently being used in New Zealand, for instance via social labs: <http://blog.convergeforimpact.com/> and <http://irvinenewleadershipnetwork.org/thinking-about-design-a-framework-for-solving-wicked-problems/> plus <http://social-labs.org/> and <http://www.eco-business.com/news/who-will-solve-the-worlds-wicked-problems>

New Zealand has the capability and capacity to take a leadership position and set an ambitious climate change target. New Zealand has a long and well regarded reputation of ‘punching above its weight’. It should not shirk from the current opportunities.

There are many entities within New Zealand are trying to make a difference in this field. Many, if not most of them likely feel their aspirations pertaining to climate change are being thwarted by the Government. This has occurred especially since the end of 2008. Many feel seven years of opportunities have been lost.

New Zealand should be among countries which have extraordinary ambition. It has in the past for instance shown extraordinary ambition and fortitude with France and USA over nuclear weapons. It continues to take a strong stance about whaling. Why not GHG emissions? Is New Zealand at present acting in the same way in regard to GHG as Japan has for many years with whaling?

**"Without vision and commitment, progress will remain out of reach".**

**"A country’s values, including its culture of support for sustainable development both among leaders and the population, is considered by experts to be the main driver of perceived leadership among national governments.** Experts also associate action on energy and climate change – especially aggressive goals around renewable energy – with sustainable development leadership, followed by a **country’s policies being particularly ambitious, innovative, comprehensive, or strict.** Being able to show results is also seen as a key factor of sustainable development leadership among national governments.

*("The 2015 SustainAbility Leaders", page 29, 28<sup>th</sup> May 2015 via <http://www.sustainability.com/library/the-2015-sustain-ability-leaders>)*

"It's not because things are difficult that we do not dare;  
it's because we do not dare that they are difficult."

Seneca.

<http://www.sustainability.com/library/the-2015-sustainability-leaders> SustainAbility (London) 29<sup>th</sup> May 2015.

"..... Governor Jerry Brown recently raised California's bar, ordering the state to cut its greenhouse gas emissions to **40% below the 1990 level within the next 15 years** – the most ambitious target in North America. To meet the new directive, planners say Californians will need to step up their energy transition even more.... Reaching the state's aggressive new energy target likely will raise costs. A recent study by the consulting firm Energy+Environmental Economics and Lawrence Berkeley National Laboratory estimated the steps needed would add an average of \$14 to monthly household bills. But Berkeley energy professor Kammen points out that the effort also will spur innovation, stimulate the economy, and create jobs.

"Lancaster Mayor Parris agrees. '**Once you release the creative forces like that,**' he said, '**it doesn't stop.**'

("Surge in Renewables Remakes California's Energy Landscape", 26<sup>th</sup> May 2015,  
[http://e360.yale.edu/feature/surge\\_in\\_renewables\\_remakes\\_californias\\_energy\\_landscape/2879/](http://e360.yale.edu/feature/surge_in_renewables_remakes_californias_energy_landscape/2879/)

"There is no room for the globalisation of indifference, the economy of exclusion or the throwaway culture so often denounced by Pope Francis."

"Former Mexican President Felipe Calderon, who chairs the Global Commission on the Economy and Climate, said global action to stop climate change had long been stymied by fears that economic growth and jobs would be sacrificed.

"The commission's studies, he said, had found the opposite.

"We can foster economic growth and mitigate climate risk at the same time," he said.

"In fact, this is the only way to achieve long-term, sustained economic growth, and through it to alleviate poverty for the millions of souls that need, demand and deserve it."

<http://econews.com.au/news-to-sustain-our-world/papal-climate-encyclical-call-for-new-development-model/> 26<sup>th</sup> May 2015 and  
[http://www.nzherald.co.nz/world/news/article.cfm?c\\_id=2&objectid=11452191](http://www.nzherald.co.nz/world/news/article.cfm?c_id=2&objectid=11452191)

Rachel Kyte, the World Bank's special envoy for climate change, said to decarbonise economies, **"we will need to begin with extraordinary ambition at the end of this year"** in Paris where countries are due to agree a new global deal to tackle climate change.

<http://econews.com.au/news-to-sustain-our-world/figueres-world-has-no-choice-but-to-decarbonise/> 29<sup>th</sup> May 2015.

I wait with eager anticipation for the government, within its present term, to commence cutting New Zealand's GHG emissions in a substantial way.

"Where there's a will there's a way".

If the government can find the ways, energy and means to push for a change in the country's flag, and which most people do not want, then it has the capability and capacity to move with vigour on issues as important as GHG emissions. The lives and wellbeing of future generations of New Zealanders, our Pacific neighbours and those further afield depends on it.