



Methodist Church Te Haahi Weteriana - Methodist Public Issues

SUBMISSION ON NEW ZEALAND'S CLIMATE CHANGE TARGET JUNE 2015

DRAFT

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Tena Koutou - Greetings

This is a brief submission on the proposed changes to the National Policy Statement for Freshwater Management.

Methodist Public Questions is a network of the Methodist Church, Te Hāhi Weteriana o Aotearoa. The church has outreach contact with approximately 200,000 people, and a Public Issues network of about 500 people engaged with public issues.

Members of the church are made up of the constitutive Partnership of the Methodist Church: Te Taha Maori and Tauwiwi. Tauwiwi is comprised of Sinoti Samoa, Vahefonua Tonga, Wasewase ko Viti kei Rotuma e Nui Siladi and Pakeha. There are ecumenical groups associated with the Network as well.

Public Issues has engaged with members and various organizations and experts in preparation of this submission. Members attended the MfE Climate Consultations and considered the Discussion Document.

Warm regards

Betsan Martin
Co-ordinator, Methodist Public Issues
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This is a submission on the Climate Change Target and the New Zealand contribution to the new international climate change agreement.

The Methodist church has agreed to a pathway of transition to low carbon and the Public Issues Network is supporting this commitment. We are running professional development workshops, preparing a system for parishes to become certified as 'low carbon' churches, working with an architect on a building and renovations guide, and developing teaching resources. The church is considering the case for divestment. Public Issues is engaged with Climate Change from several perspectives: ethical approaches, economic interests, and the science. This submission has been prepared with contributions from Public issues member and in reference to several collaborating organizations and advisers.

Ethical approaches involve an approach of climate justice, with responsibility to transition to a low carbon economy and public good interests. Public good interests arise from priorities of stewardship, environmental safeguards, intergenerational justice and climate responsibility.

A target for reducing emissions needs to go hand in hand with a policy pathway with milestones for achieving the target. We consider the Discussion Document to fails to identify a pathway for transitions to low carbon. The discussion document is framed in terms of the costs for meeting a low carbon target without setting out the economic benefits of such a policy; nor does it identify the costs of doing nothing.

We would like to see New Zealand be part of the leadership on setting targets and in developing policy settings to achieve these targets.

This submission follows the Questions in the Discussion Document, with additional matters not covered.

Summary

1. We wish to see a policy pathway to achieve reduced emissions in accordance with a target which is in accordance with no more than 2 degrees rise in temperature.
2. We need to set a course for a zero emissions target by 2100
3. It will be essential that New Zealand puts a price on greenhouse gas emissions.
4. At present NZ meets 4/5ths of our remissions target (currently 5% below 1990) by buying carbon units, not by reducing emissions. Indeed NZ is currently about 25% above 1990 levels. New Zealand should contribute to reducing emissions by reducing emissions in practice, along with offsets from renewable sources such as forestry.
5. Establish an Independent Climate Responsibility Commission with Maori and iwi representation and in accordance with a cross party, whole of government approach.
6. Implement a Law for Climate Responsibility to set a pathway of binding commitments to emissions reduction
7. Develop policy coherence by aligning NZ economic policy with policies of low emissions support in Pacific Islands. For example the support for solar energy in the Pacific needs to be parallel with similar support through mechanisms such as tax benefits and subsidies for solar and other renewable energy installations in New Zealand
8. Transition away from coal. See [*Jobs after Coal*](#)
9. Pursue a cross party whole of government agreement on New Zealand's target and pathway for achieving it.
10. Incentivize forestry
11. We support a public education programme, including developing school curricula

Q1 : Do you agree with the objectives for our contribution ?

a. *It is seen as a fair and ambitious contribution both by international and domestic audience.*

Economic Costs

Public Issues submits that the economic analysis of the Discussion Document needs revision. The stated economic costs of \$ 295.5 billion for a target of 5% reduction in emissions below 1990 levels (p. 13 of the MfE Discussion Document), does not equate with other analyses with a more proactive view of the potential benefits of climate responsibility.

The statement by the European heads of mission, states:

“There is clear evidence that transition to a low carbon economy brings net economic benefits to all countries: new jobs, cleaner air, better health, innovation, less poverty and greater energy security.

“Economic growth and action to address climate change are not incompatible.”

([European heads of Mission on Climate Change](#))

Economic growth needs to be qualified. We need to plan for phasing out the use of fossil fuels, stop polluting our water, air land and seas, and advance the use of renewable energy. Economic growth measures flow not stocks. Because green house gases are cumulative, we need to constrain the stock of emissions we add to what we already have. The current measures of economic growth fail to take that into account.

Zero Emissions Goal

New Zealand needs to put in place a long term zero net emissions by 2100, with 40-70% reductions below 2010 levels by 2050. The approach of fairness is ambiguous; clarity about ambition is more relevant to New Zealand because New Zealand is in a position to reduce emissions.

Fairness must be assumed to be a comparison with other countries. It is hard to get a full comparative profile of NZ in relation to other countries because of our small economy. An international comparative assessment from the German ‘Climate Change Performance Index’ 2014 shows NZ in the bottom half of 42st out of 61 countries, therefore rated ‘poor’ on the Climate Change Performance Index. [from <http://germanwatch.org/en/7677>].

This assessment is based on an aggregation of emissions trends, emissions levels and climate Policy. On this list Denmark is the top performer and Saudi Arabia the worst. Australia is at number 57. On each of the performance criteria, NZ trends and emission levels are rated as moderate, and policy, as very poor. The Performance Index states:

Regarding emissions levels, results are poor across the board and inadequate by far to meet the 2°C limit set by the UNFCCC in Cancun.

New Zealand emitted approximately 32,000 Gtonnes CO₂ in 1990, 42,000Gt in 2010, and is projected to increase to 80,000Gt by 2020. According to NZ’s First Biennial Report to the UNFCCC: Under current policies, New Zealand’s net emissions (including forestry) will increase by 12% by 2020 and 159% by 2030 relative to 1990 levels. Gross emissions are projected to increase 29% and 38% by 2020 and 2030, respectively.

With NZ CO₂ emissions coming from industry, transport and energy these are the areas for policy development.

Key areas for change to low emissions include a strategy to exit from coal production, and development of biofuels.

Coal:

In 2012 New Zealand burned 3.2 million tonnes of coal. The coal was mainly used for electricity generation and industrial purposes. Coal use contributed 5 per cent of New Zealand's total greenhouse gas emissions in 2011. A pathway to move away from coal is set out in the report [Jobs after Coal](#).

Biofuels:

We have the knowledge and the technology to substitute imported oil with biomass using non-agricultural land (Bioenergy options for NZ, Scion Energy Project April 2009, Lead authors Peter Hall and Michael Jack).

Transport

Convert to low carbon cars to turn the tide on production and investment in electric cars. This is being realized as an alternative in the near future. New batteries are coming onstream; [Tesla](#) is producing a car battery for plug in electric cars that will run for 400 kilometers. Investment in plug in infrastructure

Why is agriculture and dairy not included in the gross emissions calculation?

Agriculture was the largest contributor to New Zealand's emissions in 2011 (47.2%) followed by the energy sector (42.6 %). www.mfe.govt.nz/publications/climate/greenhouse-gas-inventory-2013-snapshot/

Almost half of New Zealand's emissions come from agriculture, compared to about 12 per cent in other developed countries. Agricultural emissions increased by 12 per cent between 1990 and 2011 (MFE 2013, p. 37)

With the highest proportion of our emissions, 48% Methane, coming from the Agricultural sector there needs to be parallel policies to reduce agricultural emissions:

- Diversify production
- Change consumers habits toward meat and dairy intake
- Provide financial incentives to farmers who which transition to a diversify food production
- Raise the acreage of our native forests as they are helping to absorb greenhouse gas emissions and we need to anticipate the growth of population.

b. Costs and impacts on society are managed appropriately

The costs of climate inaction far exceed the costs of taking action and we need to account for this in our calculations. The sooner we act, the more likely we are to see overall benefits rather than costs. Encouragingly, there are significant short and medium-term and equity co-benefits to be gained (NZ Climate and Health Council).

c. *It must guide New Zealand over the long term in the global transition to a low emissions world :*

What is a definition of 'long term' ? Is it a deadline by 2050? The transition to post-carbon era must start now. Beyond the setting up of a target by 2050, the transition must be achieved by educating the public, students and school children.

Transitioning includes:

- **Reviewing our cities designs** and implementing a mandatory percentage of « green space » - parks and forest plantations – to absorb gaz emissions, relevant to the percentage of population in a specific urban zone.
- **Encouraging city centres to be car free** or with a restricted access only with renewable transportation like electric (delivery) vehicles.
- Commuting is an essential issue. Auckland's forecast growing population and shortage of housing pushes Aucklanders to live further to the city hub and commute longer distances. Train networks should be extended to further North and South areas to minimize transport pollution and maximize quality of life, with less traffic jams. With a population over 30 million, London city was the world first, in 2009 to implement the Congestion tax to charge a fee on most motor vehicles between rush hours (7 :00 am- 18 :00 pm).

On a smaller scale, some major urban centres in New Zealand could follow this trend. This tax could help to finance sustainable transportation – train network extension, replacing city buses by electric cars etc to prepare cities for future demographic growth.

Q. 2. A Fair Contribution for New Zealand?

Some contributions:

Transport

Our most rapidly rising emissions of the CO₂ are from transport (MfE, 2014) Options include in the short term redirecting resources from building new roads which only exacerbate congestion, to upgrading and building new public transport and cycling infrastructure in our urban centres. Policy settings to incentivize electric and hybrid cars need to go beyond the weak incentive of foregoing road user charges (MfE Discussion document p.

Forestry

The latest NZ greenhouse gas inventory shows we have been removing more trees than we are planting. Furthermore, much of our planted forest estate is approaching harvest in only a few years. These factors undermine the feasibility of using planted forests in our currently ineffectual ETS. Also, internationally there may still be strong opposition to the use of such offset policies, particularly in Europe.

If our harvested forests are replanted, and new land planted in trees, it may be possible to partly offset our fossil CO₂ emissions if this is allowable under new rules to be worked out in Paris in December.

The New Zealand Forest Climate Change Accord is an important reference for forestry policy. This [ACCORD](#) is between the New Zealand Forest Owners' Association (Inc.), the New Zealand Timber Industry Federation, the New Zealand Farm Forestry Association, the New Zealand Wood Panels Manufacturers' Association and the Royal Forest and Bird Protection Society of New Zealand (Inc.) together with nine environmental or recreational organisations who collectively comprise the New Zealand Rainforest Coalition

Objectives Of Accord

- define those areas where it is inappropriate to establish plantation forestry
- recognise the important heritage values of New Zealand's remaining natural indigenous forests and the need for their protection and conservation
- acknowledge that the existing area of natural indigenous forest in New Zealand should be maintained and enhanced
- recognise that commercial plantation forests of either introduced or indigenous species are an essential source of perpetually renewable fibre and energy offering an alternative to the depletion of natural forests
- acknowledge the mutual benefits emanating from an accord between New Zealand commercial forestry enterprises and conservation groups and the example that this unique accord can provide for the international community.

Q. 3. How will our Contribution affect New Zealanders?

The economic cost of acting now to achieve the emissions' reductions indicated above could be as low as 0.1-0.2% of our GDP. This is based on recent Australian data (Nature Climate Change doi: org/4bf), as no similar analysis has been done for New Zealand. This analysis is urgently needed with a full account of the benefits of low carbon investments. Speakers at the Climate Consultation pointed out the need for modelling that includes the full range of costs and benefits. These include:

- the rising costs of extreme weather impacts,
- the effects of removing fossil fuel subsidies,
- the benefits of maintaining the New Zealand image of clean and green,
- the benefits of healthy food, including the niche market of organic food

Our advice is that a price on carbon is a key strategy to achieve the move away from fossil fuels. A price on carbon should be combined with targeted policies to achieve strategic outcomes like phasing out the use of fossil-fuelled generation and transitioning to electric vehicles and biofuels ; these may require a higher implied price on emissions than can be tolerated by the rest of the economy. (Catherine Leining, Motu Research)

Q4. Of these opportunities which do you think are the most likely to occur, or to be the most important for New Zealand ?

All these opportunities are of equal importance as we need concerted action from all of the parties such as Industries, Agriculture, Transportation and Education.

An Independent Climate Commission and a Climate Responsibility Act

Generation Zero have published an important reference for legislation for climate responsibility. [The Big Ask](#), its purpose would to sign emissions targets into law.

In support of a New Zealand Act for Climate Responsibility with an independent Climate Commission to provide expert advice on climate policy and hold the Government accountable.

A Climate Responsibility Act demonstrates Government commitment and accountability that New Zealand can adopt. The UK Act led to greater ambition, due to both pressure throughout the development of the Act, as well as updated science projections suggesting more policy action had to be taken.

Clean energy for transportation

The NZ ETS can be improved to introduce a meaningful price of carbon into the economy to shift investment decisions and help us avoid stranded assets, but it is a blunt price instrument.

Despite the benefits of biofuels, it must be implemented with care as shown in a report led by Henry Lee, William C. Clark and Charan Devereaux in May 2008 during an Executive session on Grand Challenges of the Sustainability Transition in Venice :

Biofuel production can put upward pressure on food prices, increase greenhouse gas (GHG) emissions, exacerbate degradation of land, water sources, and ecosystems, and jeopardize the livelihood security of individuals immediately dependent on the natural resource base. Guiding biofuel development to realize its multiple potential benefits while guarding against its multiple risks requires the application of a similarly diverse set of tailored policy interventions. Most session participants agreed that any single rule – such as production subsidies, a simple ban on biofuel production, or the immediate revocation of existing mandates for biofuel use – is too blunt an instrument, and will almost certainly do more harm than good.

Create a pathway for low carbon innovations

New Zealand need to bet on innovations and encourage young generation via contests etc. to promote clean and green innovations especially toward energy.

There are worldwide example of clever use of energy like the production of air compressed engines for instance that will make energy clean and accessible to each one of us.

The inventor Nikolas Tesa used said 'Electric power is everywhere present in unlimited quantities and can drive the world's machinery without the need of coal, oil, gas, or any other of the common fuels'.

Solar is a significant technology which is already available. Policy to incentivize solar installations is needed to make this form of energy capture available to lower income households.

More sustainability in the Agricultural sector

It is important to reduce methane and nitrous oxide from Agriculture, but what really matters for long-term climate change is reducing CO₂. There is still room for efficiency improvement in the Agriculture sector which can generate emissions benefits while we continue to work toward technological improvements. Agriculture should remain part of the solution but the lack of transformational technologies does not need to stand in the way of nationwide action. ».

Sustainable forestry needs to go along with the protection of Native forest zones. The intensive cultivation of a single species can rapidly become invasive and a pest for our ecosystem causing more harm than good such as Pine tree plantations. See appendix for further suggestions for agriculture responses.

Green zoning should be integrated to urban planning as mentioned in this document.

Q5. How should New Zealand take into account the future uncertainties of technologies and costs when setting its target ?

Moving towards renewable energies is not an uncertainty, it has proved over the past decades that they play a major role in reducing gas emissions. Greenpeace statistics shows that 70% of our export revenue is directly attributable to NZ's clean green reputation, worth NZD \$36,7 billion to our economy each year.

There are more uncertainties in the future of oil production – which is depleting at a fast pace.

Costs associated with the set-up of renewable energy are less important - as for instance, waste management is reduced - the benefits will be seen on the long term.

There are not uncertainties regarding investment in a healthier and cleaner future.

6. Additional Considerations

I. Education

A programme of public education and school from a younger age toward sustainability, climate change awareness, improved diet with less meat/dairy ratio as mentioned previously in this document, shall be reinforced.

Education is an essential tool to change habits and thus, manage a smooth transition on a daily basis. School programs and materials should be integrate this issue to provide results on a transition.

II. Policy Coherence with Pacific Region

To achieve alignment with Pacific interests and commitments, new Zealand needs climate commitments that protect and promote health in the vulnerable Pacific region.

New Zealand has a strong historical and cultural heritage with the Pacific Islands. The National Ethnic Population Survey Projection led by the Government statistics, shows that Pacific Islanders represent 0,34 million of the country population in 2013. A number projected to increase by nearly 40% by 2038.

Pacific islands are the first to testify of climate change: sea rise level which has disastrous consequences on the agricultural sector, health

Indeed, the World Health Organisation raised the alarm in a bulletin published:

« About 40% of the Pacific island region's population of 9.7 million has been diagnosed with a noncommunicable disease, notably cardiovascular disease, diabetes and hypertension. »

The surge of these diseases in Indigenous population is correlated to the introduction of imported goods : « Historically, food was imported from Australia and New Zealand, but now it comes from much further afield: China, Malaysia and the Philippines. Nutrition labels are not only inconsistent but often not in English, the common language spoken in most Pacific island countries. ».

Encouraging local energy and food production and reducing importation of food and oil will support resilience, and reduce dependence on imported fossil fuel trade.

Appendix

Agriculture represents nearly half of New Zealand greenhouse emissions (induced by Methane gas).

Current farming practices are not sustainable ; neither for our environment nor for our economy on the long term.

It is time to change our methods of farming and finance those expenses of creative ideas rather than investing expensive vaccine to reduce emissions. Launch a call out for entrepreneurs and New Zealand people who can have some creative and cost efficient ideas to find solutions.

Dairy farms have large carbon footprints, and conventional manure storage is the largest contributor. Manure stored in lagoons breaks down without the benefit of oxygen. This anaerobic slurry produces and emits methane, a greenhouse gas 21 times more potent than carbon dioxide.

According to the Landcare Research inventory, methane emissions from ruminants have increased by 10 % since 1990. Even if transportation increased by 62% on the same basis – Agriculture remains the main source of Greenhouse gas emissions in New Zealand.

We may look at intelligent alternatives :

- **Anaerobic Manure Digesters.** In the 1980s, after the first energy crisis in the US, a few hundred manure waste-to-energy digester systems were built. These used captured biogas to generate electrical power. Like solar and wind systems at the time, the digester technology was not mature and falling electricity prices halted their expansion.
- **Manure Separation Equipment :** Manure separation technology removes the solids from manure slurry stored in lagoons. Keeping organic matter from entering the slurry prevents the anaerobic decomposition that produces methane
(Sources :<http://www.nativeenergy.com/farm-methane-reduction1.html>)
- **Reducing the amount of fertilizer in farms.** Manufacturing nitrogen fertilisers uses large amounts of fossil fuels.
- **Diversity our agricultural sector** to avoid an economic crisis if a sector like dairy farming were about to downfall. Encouraging farmers to diversify their productivity will benefit the industry as it could minimize the losses due to a hazard and alleviate the impact on environment.
- **Reduce our meat and dairy consumption.** Both of these industries have an important economical power but diversifying livestock farming would result in a better and healthier economic balance. New Zealand meat industry relies mainly on exportation. In 2007, North America accounted for 47 percent of exports by value and E.U and the UK as its main export market.

As for the growth of population, the number of cattle has raised resulting in an increased of Methane emissions!

Focusing on domestic and diversified markets contributes to a future healthy NZ economy.

NZ Climate and Health council warns the 'costs of making the needed transition need to be borne fairly, with wealthy polluters paying and low income households supported to make a healthy transition'.