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|  | **Methodist Church Te Haahi Weteriana - Methodist Public Issues** |



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| **Submission on New zealand’s climate change target june 2015** |

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Tena Koutou - Greetings

This is a brief submission on the New Zealand Climate Change Target.

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 Tauiwi. Tauiwi 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

**Consultation, Ministry for Environment**

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 members 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 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 showing leadership on setting targets and in developing policy settings to achieve these targets.

This submission follows and adapts the Questions in the Discussion Document, with additional matters **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. Set a policy pathway for a zero emissions target by 2050,
3. New Zealand needs to put a price on greenhouse gas emissions alongside sector-wide policy instruments
4. At present NZ meets 4/5ths of our remissions target (currently 5% below 1990) by buying carbon units, not by reducing emissions. Currently NZ is about 25% above 1990 levels. New Zealand should contribute to reducing emissions in practice, along with offsets from renewable sources and carbon sinks including forestry.
5. Establish an Independent Climate Responsibility Commission with Māori and iwi representation, cross party representation, whole of government, public good approach.
6. Implement a Law for Climate Responsibility to set a pathway of binding commitments to emissions reduction
7. Design a plan to bring agriculture into the emissions reduction policy profile. New Zealand’s advantage in renewable hydro energy should sit alongside emissions reduction in agriculture
8. 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
9. Transition away from coal. See [*Jobs after Coal*](https://coalactionnetworkaotearoa.wordpress.com/jobs-after-coal/)
10. Pursue a cross party and whole of government agreement on New Zealand’s target and pathway for achieving it.
11. Incentivize forestry, and include reference to the Forests Climate Accord.
12. We support a public education programme, and school curriculum development

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

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

In terms of contribution, Public Issues supports New Zealand planning for a 40 percent cut in greenhouse gas emissions by 2020 over 1990 levels and at a minimum a 80-90 percent cut by 2050, and preferably a zero emissions target by 2050, with policies which allow and encourage this decision path.

Currently New Zealand has no strategy or planning to reduce greenhouse gas emissions, despite expectations of the UNFCCC. **This is the key issue of this submission**. Many countries have developed strategies, including countries comparable to new Zealand such as Norway, UK, the EU, Switzerland. They are therefore in a credible position to put their targets on the table. At this stage, even if New Zealand identifies a target, there is no policy in place to back it up.

**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](http://www.stuff.co.nz/dominion-post/comment/68703451/eu-leading-way-on-climate-change))

Economic growth needs to be built on a plan for phasing out the use of fossil fuels, stop polluting our water, air land and seas, and advance the use of renewable energy. 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 2050, with 40-70% reductions below 2010 levels by 2050. Achieving a 40 - 70 % reduction will require a mix of policy instruments. A price mechanism (eg ETS) needs to go hand in hand with regulatory, educational, the direct provision of advice with incentives for insulation, solar and other renewable energy options. Insulation and active transport would both provide a double dividend of emissions reductions, better health outcomes, and a better sense of well-being on the part of households and individuals (Environment and Conservation Organizations Submission on NZ Climate Target).

The idea 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 42nd 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 increas 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*](https://coalactionnetworkaotearoa.wordpress.com/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](http://www.stuff.co.nz/technology/digital-living/68237963/teslas-powerwall-shows-the-coming-revolution-in-energy-storage) 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/](http://www.mfe.govt.nz/publications/climate/greenhouse-gas-inventory-2013-snapshot/)

New Zealand’s emissions from agriculture are high 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). Cuts to greenhouses gases need to include methane as well as CO2. . Methane and nitrous oxide are potent greenhouse gases. There is strong evidence that methane is a more important greenhouse gas n the short –term as an essential element of getting global greenhouse gases under control – in the first five years of emissions methane causes nearly 100 times the warming of the same amount of carbon dioxde (Smith K (2009) Methane first, OK? New Scientst Vol 202 No 2714. pp24-25)

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 consummers 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.
1. *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).

1. *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 forcast 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 )

**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](http://www.nzfoa.org.nz/resources/file-libraries-resources/agreements-accords/5-climate-change-accord/file) 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 (K. Tate, Climate Target Submission, Landcare Research).

**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 ?**

Our response to this question is adapted to be framed in terms of proposals.

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**

Public Issues requests the establishment of an independent Climate Commission to provide expert advice on climate policy and hold the Government accountable. We advocate for Maori representation in accordance with Treaty co-governance arrangements, on the Climate Responsibility Commission. This could include representation through the NZ Maori Council, as well as Iwi representation.

In support of New Zealand achieving a zero emissions target by 2050, or indeed and target, Public Issues supports a New Zealand Act for Climate Responsibility. Such an Act would be developed through a cross party agreement and whole of government approach (following the lines of the Childrens Action Plan with six Ministries accountable for the implementation of the Childrens Action Plan). The Climate Responsibility Commission would similarly need representation across parties and government, as well as members to ensure public good interests.

Generation Zero have published an important reference for legislation for climate responsibility.  [The Big Ask](http://www.generationzero.org/thebigask), its purpose would to sign emissions targets into law. 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 he benefits of biofuels, it must be implemented with care as shown in a report let 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 livehood security of individuals immediatly 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 needs to invest in 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 incertainty, 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**

1. **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.

1. **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 desastrous 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 marketscontributes 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’.