

Setting New Zealand's post-2020 climate change target

Submission form

The Government is seeking views on New Zealand's post-2020 climate change contribution under the United Nations Framework Convention on Climate Change (UNFCCC).

You can have your say by making a submission using this form or using the online tool available at www.mfe.govt.nz/more/consultations.

For more information about this consultation:

- Read our [Consultation on New Zealand's post-2020 international climate change contribution web page](#)
- Read our discussion document: [New Zealand's Climate Change Target: Our contribution to the new international climate change agreement](#)

Submissions close at 5.00pm on Wednesday 3 June 2015.

Publishing and releasing submissions

All or part of any written submission (including names of submitters), may be published on the Ministry for the Environment's website www.mfe.govt.nz. Unless you clearly specify otherwise in your submission, we will consider that you have consented to website posting of both your submission and your name.

Contents of submissions may be released to the public under the Official Information Act 1982 following requests to the Ministry for the Environment (including via email). Please advise if you have any objection to the release of any information contained in a submission and, in particular, which part(s) you consider should be withheld, together with the reason(s) for withholding the information. We will take into account all such objections when responding to requests for copies of, and information on, submissions to this consultation under the Official Information Act.

The Privacy Act 1993 applies certain principles about the collection, use and disclosure of information about individuals by various agencies, including the Ministry for the Environment. It governs access by individuals to information about themselves held by agencies. Any personal information you supply to the Ministry in the course of making a submission will be used by the Ministry only in relation to the matters covered by this consultation. Please clearly indicate in your submission if you do not wish your name to be included in any summary of submissions that the Ministry may publish.

“New Zealand already has one of the highest levels of renewable electricity generation in the world. So unlike many nations, our electricity sector has less potential to reduce emissions further.”

The document also notes our agricultural sector accounts for half our GHGEs, higher than any developed country. Then there is the nature of those emissions: our CO₂ emissions per capita are lower than other developed countries. With our large agricultural sector, methane makes up a large share of our emissions - but the planet's food has to be grown somewhere, and our industry is very efficient. Further, NZ has a fast-growing population, the majority of which comes from immigration not birth rate (those immigrants would be responsible for emitting GHGs wherever they were in the world, so we are effectively absorbing these emissions from other countries).

Because of all these factors, NZ's position is beyond unusual and likely unique. The country is excessively constrained in its ability to reduce GHGEs. So, in the light of: 1. Previous exaggerations about climate effects and attribution (see answers to 3 and 6); 2. New data and research on the climate's response to CO₂ emissions (ibid); 3. Other uncertainties and the massive cost of mitigation compared to adaptation, New Zealand should not make ANY 'contribution' to GHGE reductions. To do so will definitely have a detrimental effect on NZ's economy and it will have no perceivable effect on climate change, even assuming low-likelihood, worst-case projections.

How will our contribution affect New Zealanders?

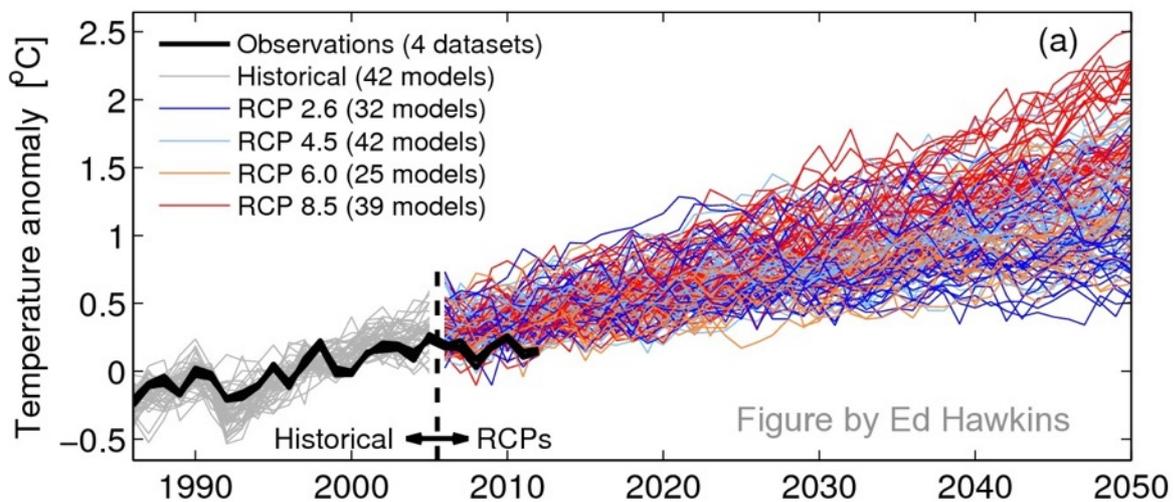
3. What level of cost is appropriate for New Zealand to reduce its greenhouse gas emissions? For example, what do you think would be a reasonable impact on annual household consumption?

This question is based on false premises. It assumes there are such things as an 'appropriate' reduction in GHGEs and a 'reasonable' reduction in wealth to achieve it. This sort of flawed thinking arises from applying what is known as a 'low discount rate' to suppositions of future harm. This necessarily means accepting more harm now in order to avoid harm in the future.

Projections of future harm from climate change are just that: projections. We do not know them to be true. They come from computer models that attempt to show the effect of GHGs on climate, based on the link between two hypotheses: 1. the reasonably well understood ability of GHGs like CO₂ to reduce earth-surface radiation escaping back to space AND 2. the hypothesis that this will be amplified by the biggest GHG of all—water vapour, thus creating a positive feedback. Without the feedback, a doubling of CO₂ in the atmosphere would create an untroublesome ~1°C of warming.

Everything, therefore hinges on the actual climate response, or sensitivity, to GHGs. And the modelling of it to date has resulted in extreme exaggeration that is flatly contradicted by empirical observations:

Global mean temperature near-term projections relative to 1986–2005



It's not just the projections of future warming that have been exaggerated. So too have projections of harm from that warming. Examples include the UN warning of '50 million climate refugees' by 2010 (where are they?) and the doom-laden predictions of sea level rise swamping tropical island nations. The latter largely put to bed by the work of [scientists at our own University of Auckland](#).

More unqualified scare stories surround the health risks of 'global warming', when it should be patently obvious that cold is more harmful than warmth. A recent paper by Gasaparrini, Guo, Hashizime et al published in [The Lancet 20 May 2015](#), shows how skewed reporting has been on this. The sheer scale of the sample should give high confidence in the findings - over 74 million mortalities were studied:

"We analysed 74 225 200 deaths in various periods between 1985 and 2012. In total, 7.71% (95% empirical CI 7.43–7.91) of mortality was attributable to non-optimum temperature in the selected countries within the study period, with substantial differences between countries, ranging from 3.37% (3.06 to 3.63) in Thailand to 11.00% (9.29 to 12.47) in China. The temperature percentile of minimum mortality varied from roughly the 60th percentile in tropical areas to about the 80–90th percentile in temperate regions. More temperature-attributable deaths were caused by cold (7.29%, 7.02–7.49) than by heat (0.42%, 0.39–0.44). Extreme cold and hot temperatures were responsible for 0.86% (0.84–0.87) of total mortality."

Given:

- a) Global Climate Models' poor accuracy and exaggeration of warming from GHGs
- b) a track record of exaggeration of harm from warming
- c) NZ's tiny contribution to GHG emissions
- d) inescapable, quantifiable detrimental effects to our economy from trying to mitigate GHGs, and

e) the irrationality of applying a low discount rate to unvalidated projections of future harm,

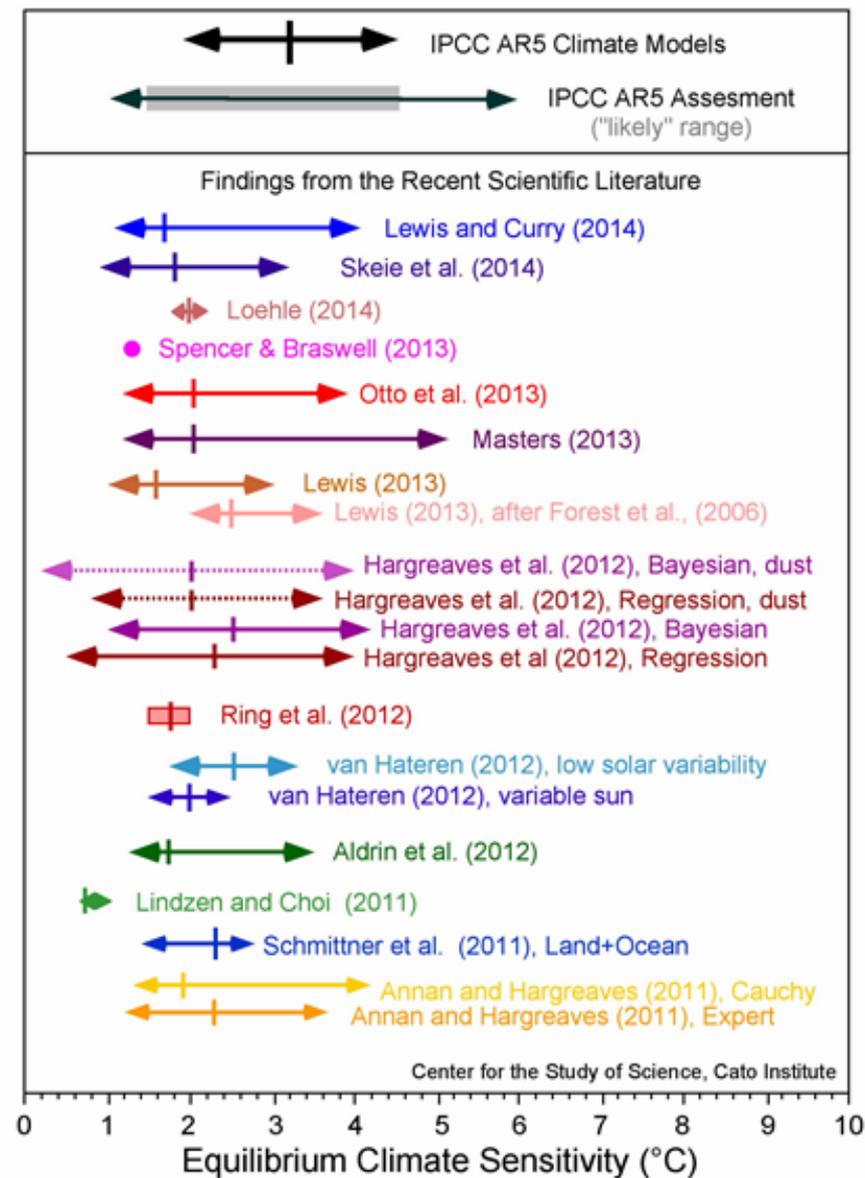
there is no justifiable reason to impose a reduction in wealth on NZ households. We should not deliberately sacrifice wealth and growth pursuing mitigation measures that will have no measurable effect and that are likely unnecessary.

Nor can I see in the discussions **any quantification of the actual harm that will result from making our country poorer** than it otherwise would be—poverty, infant mortality, geriatric mortality, reduced access to medicines and health resources; deaths, illness and injuries resulting from inferior infrastructure. It is irresponsible to undertake measures that will have these effects without quantifying them and comparing them to them to the supposed harm averted by cutting our emissions by 5, 10, 20 or more %.

There is also something illogical about throwing our money at ‘Carbon credits’ when our GHG profile is largely shaped by methane, as an agricultural economy.

- 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?

Climate sensitivity estimates from new research beginning in 2011 (colored), compared with the assessed range given in the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) and the collection of climate models used in IPCC AR5:



- Given increasing evidence that the climate is not following the exaggerated projections of climate models and that sensitivity is low, there is no need to rush into knee-jerk responses to reduce emissions. The dangers of so doing are clear in the sorry story of 'biofuels', and it is astonishing that they are even being

mentioned as an 'opportunity' in this document. That is addressed below.

Cheap, effective., reliable energy is the bedrock of a successful economy and, in fact, modern civilisation. Its contribution in transport is obvious. Skewing transportation choices away from cheap, reliable and effective options fuelled largely by petroleum, in favour of low-energy, unreliable sources, or even ecologically-disastrous alternatives such as biofuels, will do nothing to support the NZ economy.

Improving fuel efficiency does make sense. There is already a natural incentive to do this in the form of market costs. And vehicles' fuel efficiency continues to improve. One area where government might consider aiding improvement is in road design. For example, low rolling-resistance road surfaces rather than NZ's common chip seal. Chip seal is a cheap, shoddy method that passes soon costs in the shape of higher fuel consumption and lower safety. Increased noise means more driver fatigue, loose chippings result in accidents. Mandating better road surfaces would reduce NZ's fuel bill, emissions and road toll.

Other easy wins in fuel efficiency and emissions would be to remove the blight of 'speed bumps' on so many roads. The unnecessary braking and acceleration these cause has a hugely adverse effect on fuel consumption and attendant emissions on many urban journeys. There are better alternatives for preventing dangerous excess speed, such as local enforcement.

2. Electric vehicle technology, despite the hype, is nowhere near as capable as the internal combustion engine. The tired refrain that it will all be different 'in five years' time' has surely and obviously been exposed as a myth. As a means of powering a vehicle fleet, electricity is a non-starter. It has huge concomitant costs for infrastructure and fixed-site charging is impractical on many levels.

Electric or hybrid vehicles do have their place, however. Zero emissions at the tailpipe makes perfect sense in urban environments. Diesel buses—held up as something we should desire as public transport—are filthy. They make a serious contribution to hazardous pollution, spewing dangerous particulate matter out at street level. With fixed, relatively short routes in urban areas, buses are a prime contender for being electric or hybrid powered. Even better are vehicles running on fixed infrastructure, like trams and trains. By all means encourage public transport operators to adopt electrification.

3. I cannot believe that biofuels are still being touted as any kind of solution to anything. Even [hard-line environmental activist organisations](#) have slunk away from [earlier support](#) of them because they are an all-round disaster. Here are the conclusions of the UK's Royal Institute of International Affairs in 2013:

Current biofuel standards do not ensure biofuel use is sustainable

Agricultural biofuel use increases the level and volatility of food prices, with detrimental impacts on the food security of low-income food-importing countries.

Agricultural biofuel use also indirectly drives expansion of agriculture into areas of high carbon stock such as rainforest or peatland, resulting in indirect land-use change, the emissions from which may outweigh any greenhouse gas savings the biofuels are able to offer.

Biodiesel from waste products such as used cooking oil or tallow offer the most favourable sustainability characteristics; however, the risk of indirect emissions increases at higher levels of use and may already be material. Neither indirect land-use change nor food security is addressed in UK sustainability criteria. In the absence of such safeguards, increasing biofuel consumption could have significant environmental and social consequences outside the United Kingdom. It is unclear whether such safeguards will be agreed at the EU level.

Biofuels are not a cost-effective means to reduce emissions from road transport

The current generation of biofuels provides an expensive means of reducing emissions from road transport. Carbon abatement costs, excluding emissions from indirect land-use change, are broadly in the range of \$165–\$1,100 per tonne of carbon dioxide equivalent (CO₂e). This compares unfavourably with an appraisal price of around \$87 per tonne.

Accounting for emissions from indirect land-use change increases abatement costs for agricultural biofuels to between \$330 and \$8,500 per tonne of CO₂e depending on the feedstock used. Biodiesel from vegetable oils is found to be worse for the climate than fossil diesel.

Full paper [here](#).

The Royal Institute is far from alone in these findings. The UN admitted they were a '[crime against humanity](#)', and that their use [could make global warming worse](#).

The only way that biofuels make sense if is they are made and used locally from waste products. Otherwise they take food from the hungry, pose a real and immediate danger to the environment through habitat loss, and to the climate, through land use/land cover changes.

Summary

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

The most important considerations on uncertainties of technologies and costs are covered in the discussion document:

“Agriculture is our hardest problem to address. It makes up around 50 per cent of New Zealand’s emissions and reducing emissions in this sector is very difficult without affecting production.”

“[W]e need to be very clear...about the assumptions that sit behind our contribution...Given that we have fewer low-cost opportunities to reduce domestic emissions, these assumptions are more important to us than many other developed countries.”

As discussed, New Zealand’s position is unique among developed countries and the difficulties we face in making any significant emissions reductions are intractable. Not only that, our contribution to global emissions is miniscule. Even if you accept the most extreme, worst-case scenarios of global warming, we could reduce our emissions to zero and it would have no effect on global climate whatsoever. We should therefore not attempt to match any targets set for other developed nations, adopting a wait-and-see approach. If a low-cost way emerges to cut our agricultural sector’s emissions, great.

There are also more important uncertainties to consider, detailed in section 6.

Other comments

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

Too much of the discussion document presents uncertain findings and hypotheses as if they were incontrovertible fact.

There remain huge uncertainties in the field of climate change. It is in fact defined by uncertainty. These are some of the largest:

Uncertainties of precedent

We do not know for certain how our current temperature and climate compares to the past. There are few reliable records going back very far and some the ones we do have, such as the Central England Temperature Record, don't show much, if any, warming.

Scientific debate continues about the scale and extent of prior climate events, such as the Medieval Warm Period, the Roman Warm Period, the Little Ice Age and even older events such as the Younger Dryas.

Conclusion: we cannot be certain that current temperatures, rapid cooling or rapid warming are anything unusual.

Uncertainties of attribution

The IPCC in AR4 claim that it is ‘very likely’ that most modern warming is caused by GHGs. But this is disputed by climate scientists like [Judith Curry](#), who points out that this has not been based on scientific calculation but, in the IPCC’s own words, on ‘expert judgement’ and ‘assessment’. In a field where everything hinges on fractions of degrees C, this is hopelessly imprecise.

And what do they mean by ‘most’? In the later AR5, it’s described as ‘more than half’. But this still leaves enormous uncertainty. Judith and Gavin Schmidt (head of GISS), continue to [argue](#) about the [level of attribution](#). It should also be noted that there is a

subsidiary attribution to make when talking about ‘anthropogenic’ contribution to warming, between that caused by GHGs and other man-made causes including changes in land use and land cover.

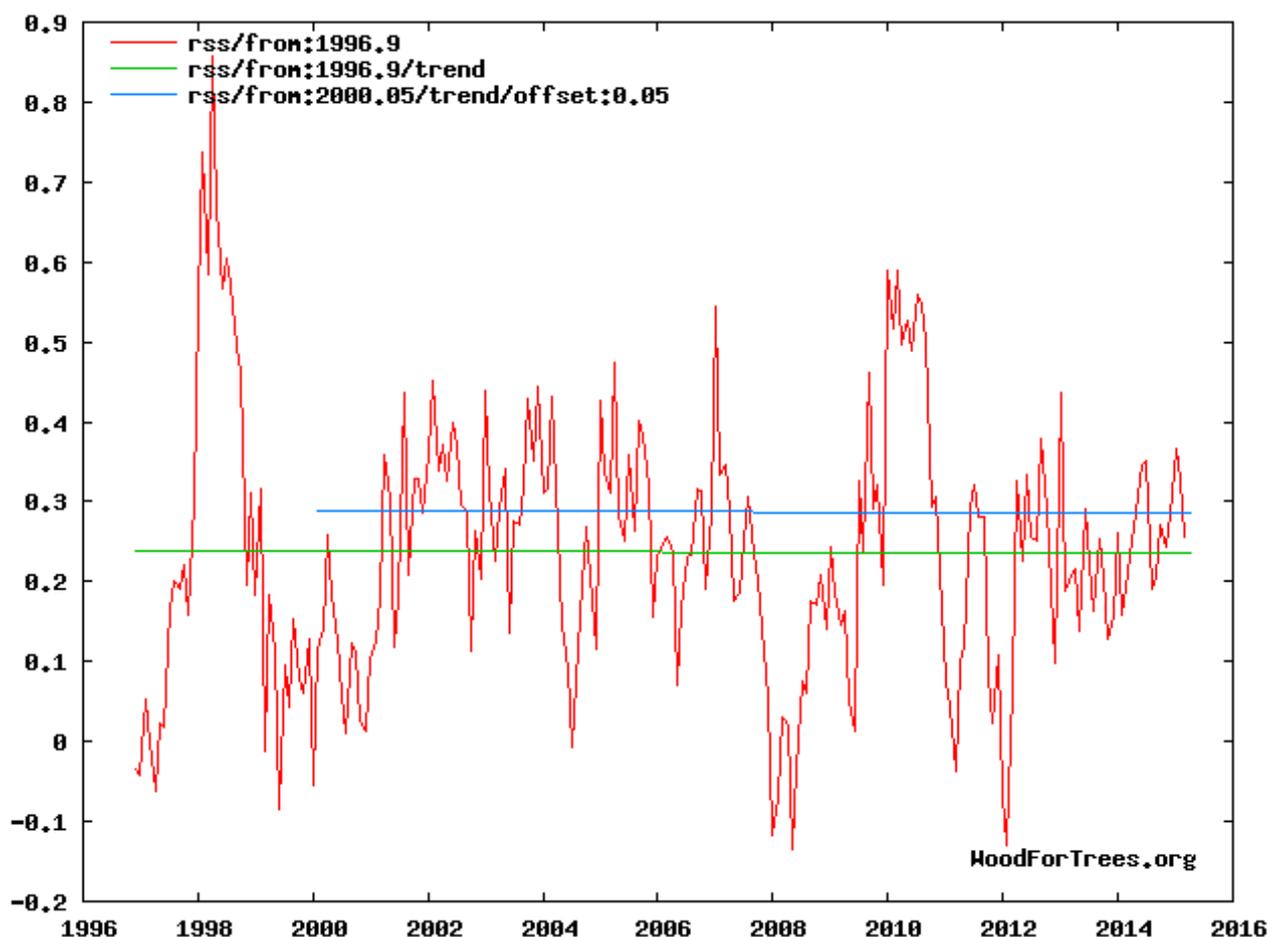
Interestingly, CO2 from anthropogenic emissions is currently no more than 6% of the total atmospheric CO2 (as shown by the isotopic ratios 13C/12C) instead of the 25% to 30% said by IPCC.

Conclusion: we cannot be certain how much of recent warming is down to long-term natural variation (recovery from the Ice Age), shorter term natural variation (El Nino, PDO, AMO etc.) and anthropogenic causes other than GHGs (e.g. land use/Land cover changes).

Uncertainties of measurement

Debate continues about the accuracy of surface temperature records, whether from the [contamination effect](#) of [Urban Heat Islands](#) or the constant ‘[adjustment](#)’ of past temperature records.

Certainly, precisely calibrated satellite measurement (RSS), free from local contamination, continually shows less warming than the surface station records (e.g, GISS):

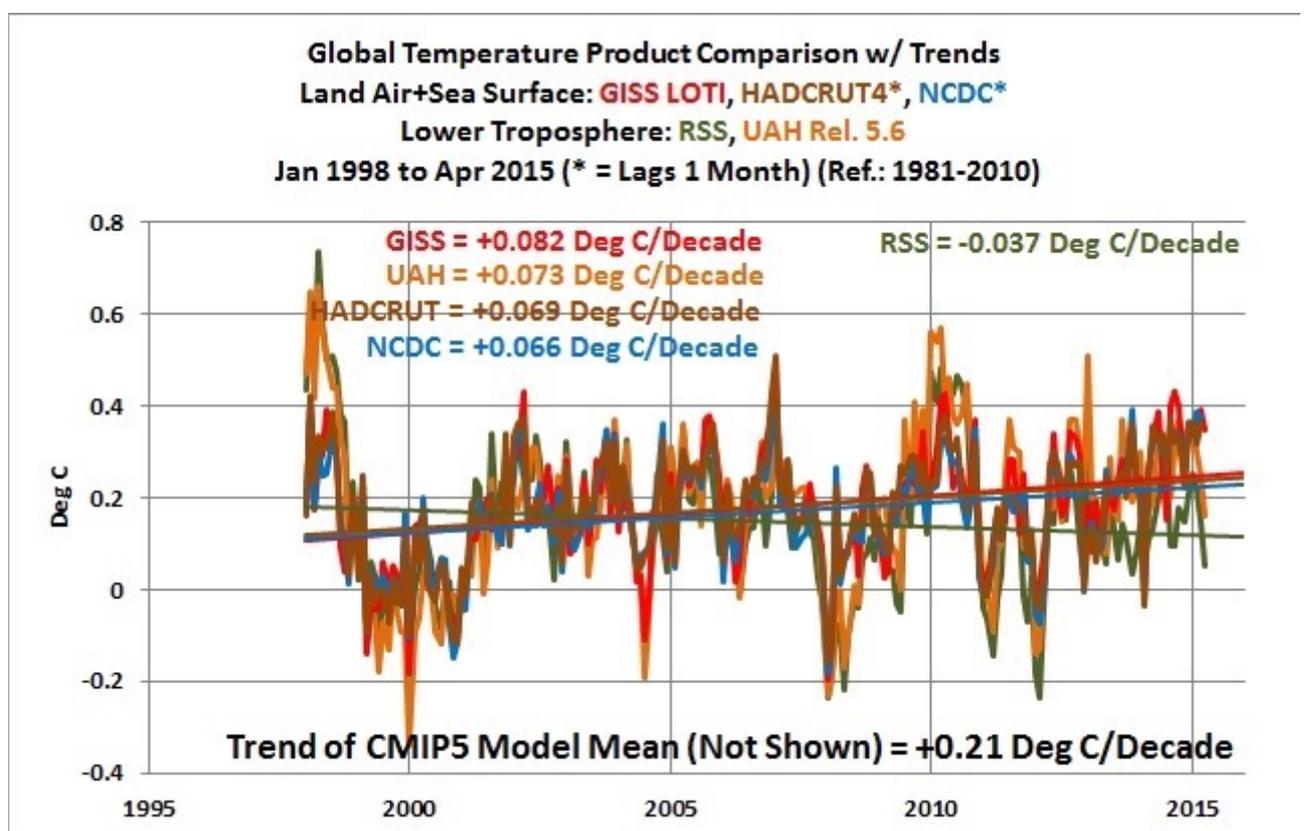


Conclusion: we cannot be certain that the warming shown in surface temperature records is little more than an artefact of data collection and homogenisation methods.

Uncertainties of effect

Contrary to much of the propaganda distributed by extremist activist organisations, we simply do not know enough about the empirical outcomes of higher GHG concentrations in the atmosphere, or a warming planet.

57% of the cumulative anthropogenic emissions since the beginning of the Industrial revolution have been emitted since 1997, but the temperature since that time has been stable:



Too many 'doomsday' projections have either been and gone or are being defended with misinformation and propaganda. Global sea ice is unchanged. Polar bear populations have increased. Ocean 'acidification' is beyond measurement. Weather extremes, as even the IPCC are forced to acknowledge in AR5:

- “In summary, there continues to be a lack of evidence and thus low confidence regarding the sign of trend in the magnitude and/or frequency of floods on a global scale”
- “In summary, there is low confidence in observed trends in small-scale severe weather phenomena such as hail and thunderstorms because of historical data inhomogeneities and inadequacies in monitoring systems”
- “In summary, the current assessment concludes that there is not enough evidence at present to suggest more than low confidence in a global-scale observed trend in drought or dryness (lack of rainfall) since the middle of the 20th century due to lack of direct observations, geographical inconsistencies in the trends, and dependencies of inferred trends on the index choice. Based on updated studies, AR4 conclusions regarding global increasing trends in drought since the 1970s were probably overstated. However, it is likely that the frequency and intensity of drought has increased in the Mediterranean and West Africa and decreased in central North America and north-west Australia since 1950”
- “In summary, confidence in large scale changes in the intensity of extreme extratropical cyclones since 1900 is low”

In conclusion

There are even more widespread uncertainties at the heart of climate science. Too many to list. Taken together, they show a pattern of widespread uncertainty from which only tentative evidence may be drawn. This is at complete odds with the made-up certainty of environmental organisations’ press releases and sympathetic media coverage. It should also be at complete odds with a rational, cautious approach to findings and policy. But unfortunately many have been drawn into this web of false certainty and a panic that ‘something must be done’.

What should be done is to take time for clear, dispassionate reflection on just how uncertain we are about climate change and the shocking lack of assessment on such things as its benefits, the definite negative impact of attempts at mitigation, and the silliness of a low-discount position to potential future harm.

New Zealand has the opportunity to show leadership in a new, more rational, approach to the infant science of climate change. The influence of activists needs to be acknowledged and driven out. Unbiased assessments need to be made. And, certainly, no further commitments to GHGE reductions or other futile measures should be taken that would disadvantage this country and harm its people.

When your submission is complete

Email your completed submission to climate.contribution@mfe.govt.nz or post to Climate Change Contribution Consultation, Ministry for the Environment, PO Box 10362, Wellington 6143.

Submissions close at 5.00pm on Wednesday 3 June 2015.

