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21 July 2006

AN OPEN LETTER TO MADAM SPEAKER AND MEMBERS OF THE NEW ZEALAND HOUSE OF REPRESENTATIVES

Madam Speaker and Members,

CALL FOR A ROYAL COMMISSION TO INQUIRE INTO CLIMATE ISSUES

We are a coalition of concerned citizens who believe that the public is being given incomplete, inaccurate and biased information about the effects of increased concentrations of greenhouse gases in the atmosphere.

This information is often tainted by the emotional arguments of the environmental movement and seldom stands up to objective scientific analysis.

A recent example of this is the discrediting of the “Mann hockey-stick” in a report issued by the United States House Committee on Energy and Commerce earlier this month¹. The Mann hockey-stick is an important temperature assessment that has previously been adopted by the Intergovernmental Panel on Climate Change (IPCC) and is widely cited in the international media as evidence of global warming.

The House Committee report made this comment which is particularly relevant to New Zealand: “Especially when massive amounts of public monies and human lives are at stake, academic work should have a more intense level of scrutiny and review.”

Claims that the world is threatened by dangerous global warming caused by man-made emissions of greenhouse gases are widely propagated but cannot be substantiated. The climate is always changing and the nation may well benefit from moderate global warming. Having said that, temperature records indicate that New Zealand has not warmed significantly in the last fifty years.

Future projections of large temperature increases are based on computer models that over-simplify the vastly complex climate system. These models have not been validated and are unable to forecast changes in the sun, the oceans, or in volcanic activity. Climate models failed to predict the 1998 peak in global temperatures caused by El Nino, a natural climatic event. Because of these flaws, the models are incapable of providing a reliable projection of future temperatures.

The government relies too heavily on advice from the Intergovernmental Panel on Climate Change (IPCC) to develop its global warming policies. As the Wall Street Journal commented in an editorial on July 14 in response to the US House Committee report: “climate research often more closely resembles a mutual-admiration society than a competitive and open-minded search for scientific knowledge”¹. Scientific expertise that is independent of the IPCC needs to be consulted.

The government is presently reviewing its climate change policies. It is vitally important that any policies that are adopted should be reasoned, cautious and founded on valid scientific evidence, rather than on the questionable projections of flawed computer models and discredited temperature assessments.

Costly mistakes have already been made. Our commitments under the Kyoto Protocol may cost the nation over \$1 billion more than was originally estimated. We cannot afford to make such mistakes again.

The present misinformation circulating about global warming resembles the recent hysteria surrounding genetic modification. An independent Royal Commission made an excellent job of bringing out the scientific facts about genetic modification, and provided sensible and reasoned advice to the government. We believe that in the present environment a similar process is the best way to examine climate change.

Our Coalition therefore calls for the establishment of an independent Royal Commission into the science and economics of climate change. This would be asked to:

- Establish the scientific facts,
- Review theories about global warming,
- Examine the credibility of climate change models,
- Determine how New Zealand’s environment and economy, and the welfare of its citizens, are likely to be affected if the climate changes,
- Review the diplomatic implications of not aligning our climate change policies with those of our major trading partners, Australia and the United States,
- Review the need for, and the effectiveness of, the New Zealand Climate Change Office, and
- Provide recommendations to the government.

Below are **nine reasons why we believe a Royal Commission into climate issues is justified**. For further details please refer to the enclosed summary.

1. There is no scientific consensus about man-made global warming.
2. The extent to which the globe is warming is questionable.
3. New Zealand climate data shows little evidence of warming and no evidence that humans are affecting the temperature.
4. Climate change projections are based on unproven computer models.
5. The IPCC uses circumstantial argument, vagueness and ambiguity to hide the fact that direct evidence to support man-made global warming is lacking.
6. Carbon dioxide is essential to life on earth and an increase in its atmospheric concentration may be beneficial.
7. There is a poor relationship between annual carbon dioxide concentration in the atmosphere and global temperatures.
8. The Kyoto Protocol will not prevent climate change, and could well cost the nation many times more than the \$1 billion the media has been focusing on.
9. Advice to the government has thus far been one-sided, with little provision for contestability.

Members of the coalition are happy to answer questions in detail about any of these topics. Please email the secretary, Terry Dunleavy (terry.dunleavy@nzclimatescience.org.nz), who can arrange for the appropriate expert to reply.

We urge you to make your own objective investigations into global warming and to seriously consider our call for an independent Royal Commission. The cost of this inquiry would be substantially less than the cost of making another poor decision about New Zealand's climate change policies.

Yours truly,

New Zealand Climate Science Coalition (NZCSC)

(signed)

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Leighton Smith, Broadcaster, Auckland

Gerrit J. van der Lingen, PhD

Bryce Wilkinson, PhD

¹ In addition to the enclosed summary, further information is available at: www.climatescience.org.nz. We draw your particular attention to the following:

- ***Report raises new questions about climate change assessments***, US House Committee on Energy and Commerce, 14 July 2006
- ***Hockey Stick Hokum***, editorial, The Wall Street Journal, 14 July 2006
- ***Debate on climate change far from over***, The Australian, 19 July 2006

SUMMARY

Nine Reasons why the New Zealand Climate Science Coalition believes that a Royal Commission into the science and economics of climate change is justified:

1. There is no scientific consensus about man-made global warming (page 2)
2. The extent to which the globe is warming is questionable (page 3)
3. New Zealand climate data shows little evidence of warming and no evidence that humans are affecting the temperature (page 4)
4. Projections of changes in the climate are based on unproven computer models (page 6)
5. The IPCC uses circumstantial argument, vagueness and ambiguity to hide the fact that direct evidence to support man-made global warming is lacking (page 7)
6. Carbon dioxide is essential to life on earth and an increase in its atmospheric concentration may be beneficial (page 8)
7. There is a poor relationship between carbon dioxide concentration in the atmosphere and global temperatures (page 9)
8. The Kyoto Protocol will not prevent global warming, and is already projected to cost the nation over \$1 billion more than was originally estimated (page 10)
9. Advice to the government has thus far been one-sided, with little provision for contestability or open debate (page 11)

1. There is no scientific consensus about man-made global warming

Scientists only agree when they have hard scientific evidence to agree on...

The reports issued by the Intergovernmental Panel on Climate Change (IPCC) have created the false impression that there is a scientific consensus on global warming.

There is no consensus. Thousands of qualified scientists around the world disagree both with the reports issued by the IPCC and the dangers it says are posed by greenhouse gas emissions. Many of these scientists have signed statements to this effect.

Though some climate scientists believe human activity may provoke changes in the climate, others think that human effects are minor compared to natural influences on the climate. Arguments can even be made that human activities will cause global cooling.

There is disagreement among scientists because **there is no empirical evidence that verifies global warming theories**. The IPCC relies on computer models that have not been validated (see point 4) and until empirical evidence emerges that supports these models, there will continue to be a lack of scientific consensus.

The government should be wary of anyone who claims that a particular opinion on climate change represents a "scientific consensus" that ought to drive policy.

Policy should be based on the known scientific facts, and an assessment of the costs and benefits to human welfare of alternative courses of action. It should make allowance for the uncertainties involved with climate science. And it should note that human influences on the climate cannot yet be measured and that any claimed effects are highly speculative.

The Royal Commission should be asked to consider the full range of scientific opinion of qualified climate scientists. It should establish the known scientific facts of global warming, and advise the government to make allowance for these in its policies.

2. The extent to which the world is warming is questionable

Heating up or cooling down? It depends on when - and where - you look.

According to temperature records, the world today is approximately 0.2°C cooler than it was in 1998.

Go back 100 years and the world may have been about 0.6°C cooler than it is now. Go back 1000 years and you'll see that the world was pretty much the same temperature then as it is today. Go back several million years and you'll see that we live in a fridge compared to the balmy temperatures enjoyed by our ancestors.

The temperature is always changing. Whether you see this as warming or cooling depends on the time frame that you're looking at. It also depends on where in the world you are.

In the last few years the media has run a number of alarming stories about how Antarctica is warming. This is not reflected in temperature records.

A large part of the Antarctic continent has been cooling since 1966. It's only on the Antarctic Peninsula, that small part of the continent that strikes out towards South America, where temperatures have actually increased.

A similar thing is occurring at the other end of the world. The media has been drawing attention to apparent warming in certain parts of the Arctic. Yet temperature records indicate that other areas of the Arctic, such as southern Greenland and Russia's Kola Peninsula, are actually cooling. According to climate scientists Bengtsson et al reporting on their research in the 'Journal of Climate' in 2004, the huge warming of the Arctic that started in the early 1920s and lasted for almost two decades is one of the most spectacular climate events of the twentieth century. Clearly this had nothing to do with human emissions of greenhouse gases.

The Royal Commission should be asked to examine temperature records from around the world, and advise the government just how much or how little the world has warmed, and whether or not this warming is part of the normal climate cycle.

3. New Zealand temperature data shows little evidence of warming and no evidence that humans are affecting the temperature

New Zealand may be no warmer in 2006 than it was in the early 1800s...

According to temperature records from NIWA, New Zealand has not experienced significant warming since about 1955.

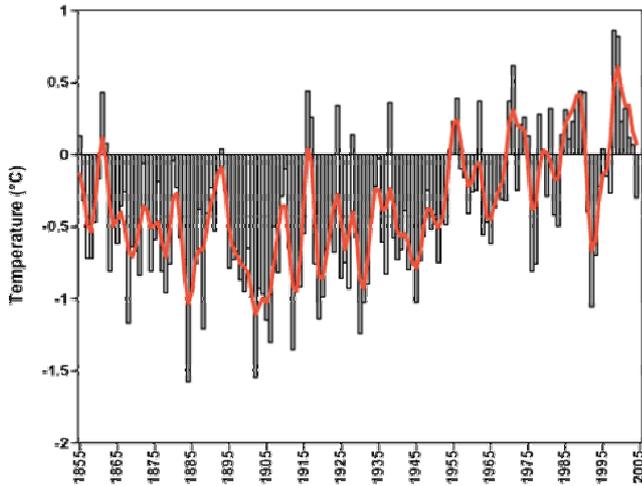


Figure 1 (NIWA original)

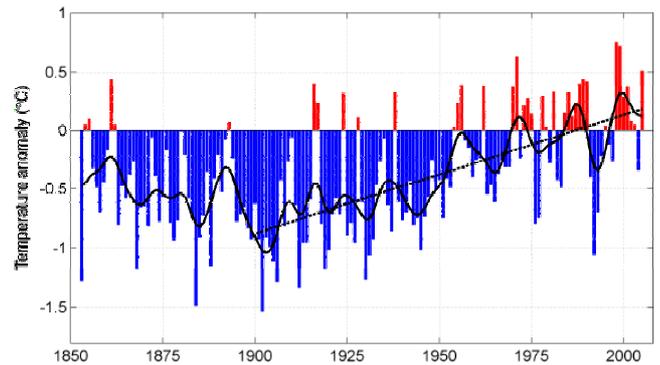


Figure 2 (NIWA revised)

Figure 1 was taken from NIWA's website. The extreme warming spike around 1998 was the result of the El Niño southern oscillation, a natural climate event.

Shortly after our Coalition drew attention to this graph, it was removed from the NIWA website and replaced by Figure 2 (right). This included a less variable rolling average trendline and a dotted linear trendline for 1900-2005 which emphasises the steeper warming of about 1°C for this particular 106 year period, and attempts to downplay the obvious variability in temperature over that time.

The addition of data for 1853-54 in Fig 2 and the alteration of the rolling average trendline for this period when temperature records in New Zealand were very sparse, has the effect of slightly increasing the apparent warming in Fig 2 when compared to that shown in Fig 1. This selective use of data to produce a desired result is typical of the data manipulation that is often carried out in the current global warming debate.

The problem of data manipulation is compounded when temperature data is not released into the public domain, as in this case. This means that calculations can not be checked by independent scientists. NIWA and other government agencies should be required to make free, public release of all the climate data that they use as the basis for advice to government.

In any case, Figures 1 and 2 show a temperature movement from about -0.5°C to about +0.2°C in 100 years, a total net “warming” of about three-quarters of 1°C. This is hardly catastrophic. Interestingly, the fifty years of temperature records prior to 1902 show a gradual decline in temperature of approx 0.4°C. This suggests that the New Zealand climate in the first half of the 1800's may have seen temperatures not so different from that of recent decades.

NIWA's warming trend is all but impossible to identify when individual temperature records are examined.

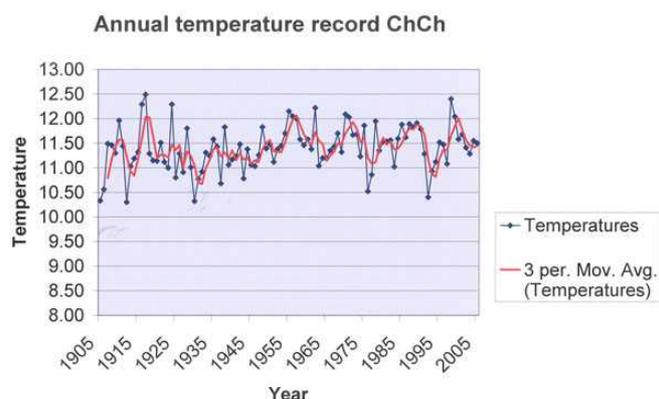


Figure 3 (Christchurch)

The temperature record for Christchurch (Figure 3, above) shows a temperature peak in 1915 that is greater than the 1998 El Niño peak, and a cooler period from 1925 to 1955, but very little overall change since 1905.

The Wellington record (Figure 4 below) (available only up to 1989), shows peaks in 1918 and 1922, a cooler period between 1925 and 1955, but no overall change since 1880. Note that the years from about 1930 to 1982 tended to be cooler than those from 1880 to 1922.

The Auckland record (Figure 5 below) shows large variability and no obvious warming trend.

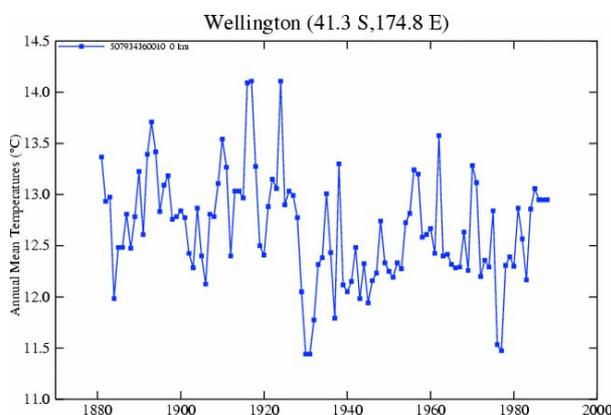


Figure 4 (Wellington)

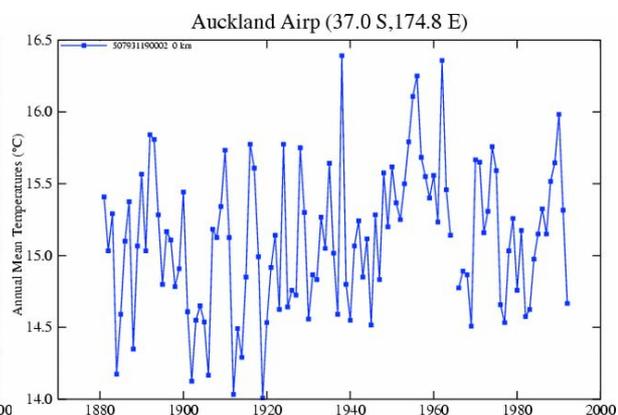


Figure 5 (Auckland)

These individual temperature records show that there is some warming and some cooling, but any overall trend is indiscernible. They also suggest that annual mean temperatures can fluctuate by at least 2°C. This means that an alleged warming trend of three quarters of a degree over a century is insignificant.

The Royal Commission should be asked to examine New Zealand's temperature records in some detail and advise the government just how much or how little the country has warmed or cooled in recent history.

4. Climate change projections are based on unproven computer models

Models aren't worth much unless they agree with what's happening in the real world...

The climate models endorsed by the Intergovernmental Panel on Climate Change (IPCC) are based on the assumption that greenhouse gas increases are the only influence on the climate. These models have not been validated and are unable to forecast changes in the sun, the oceans, or in volcanic activity. None of the models have, to date, consistently predicted actual changes in the climate even though they have been running since the early 1990s.

No climate model predicted that global temperatures would peak in 1998 and then cool slightly. Nor has any model predicted the temperature stasis that occurred between 1998 and 2005.

The IPCC's climate models project global temperature increases based on unrealistic future scenarios. These scenarios speculate on future population, energy use and GDP growth. Some of the scenarios include absurd assumptions such as an eleven fold increase in coal production, or a GDP for African countries above that of the United States by the year 2100.

Combining unrealistic scenarios with models that do not incorporate real influences on the climate results in nonsensical temperature projections.

The IPCC does not sanction the use of the term "predictions". They insist that "scenarios are not predictions of the future and should not be used as such". They use the word "projections" and make it clear that these are dependent on the assumptions made in each scenario. Claims that these "projections" can be taken seriously as "predictions" do not have the endorsement of the IPCC. The temperature projections vary greatly depending on which of the scenarios is used.

The government should not use the projections from IPCC climate change models to determine climate change policy without carefully scrutinising the scenarios used to generate them. The scenarios must be reasonable and must reflect likely conditions in the real world.

Climate models should only be used for policy formulation if it has been demonstrated that they can accurately predict future temperatures. We all know that weather forecasting, which also uses models, is guesswork beyond just a few days. Why should we believe that it is possible to accurately predict the temperature in fifty or a hundred years' time?

The Royal Commission should be asked to examine the validity of IPCC climate change scenarios and models and advise the government on how useful these models are in determining climate change policy.

5. The IPCC uses circumstantial arguments, vagueness and ambiguity to hide the fact that direct evidence to support man-made global warming is lacking

Some cities are warming but the world is not...

The IPCC claims that "new analyses indicate that the magnitude of Northern Hemisphere warming over the 20th century is likely to have been the largest of any century of the last 1000 years".

Note that this is only an indication, it is only likely, and it only applies to the Northern Hemisphere. Furthermore, it has been superseded by a recent report by the US National Academy of Sciences which states only that: "the world is warmer than it has been in the last four hundred years".

The IPCC deliberately avoids clear conclusions. A typical statement is "The balance of the evidence suggests a discernible human influence on the climate".

This is only a "suggestion" and it is, in any case, self-evident. Everyone agrees that humans influence the local climate through land use changes. The IPCC takes great care not to mention that recent increases in greenhouse gases cause global warming.

Global warming trends promoted by the IPCC include temperature data from major cities that have become warmer over the last century (because of more buildings, more roads, more concrete etc). This is known as the urban heat island effect. When only rural temperatures are considered, virtually all of the warming trend disappears.

Temperatures in the lower atmosphere are unaffected by the urban heat island effect. Since 1979 they have been measured by satellites, and show no warming that could be attributed to greenhouse gases.

The Royal Commission should be asked to examine the reports produced by the IPCC in an effort to find hard scientific evidence for man-made changes in the climate, and to advise the government on how any such evidence should be used to formulate climate policy.

6. Carbon dioxide is essential to life on earth and an increase in its atmospheric concentration may be beneficial

We're getting feedback, and it's negative...

Carbon dioxide (CO₂) is not a pollutant. All green plants live and grow by absorbing CO₂ from the atmosphere. Thanks to the increase in CO₂ over the last 70 years, plant and tree growth has been enhanced by over 5% without any increase in water uptake. The economic and environmental benefits of this have been ignored yet must be substantial.

CO₂ concentration in the atmosphere is near saturation in terms of its ability to trap more heat. This means the effects of adding more CO₂ into the atmosphere are likely to be insignificant.

For significant global warming to occur, increased concentrations of CO₂ must set in motion positive (or destabilising) feedback processes. Such processes would cause temperatures to rise by some other mechanism (such as increased absorption of solar energy) or cause increases in the concentration of other greenhouse gases, the most important of which is, by far, water vapour.

Yet to date, scientific evidence suggests that negative (or stabilising) feedback processes prevail. This means that it is unlikely that higher concentrations of CO₂ in the atmosphere will greatly influence the climate.

The Royal Commission should be asked to investigate whether or not increasing concentrations of carbon dioxide in the atmosphere will be beneficial, and to advise whether these increases have any relationship to significant global warming.

7. There is a poor relationship between carbon dioxide concentration in the atmosphere and global temperatures

If you are worried about global temperatures, it might pay to look at the sun...

There is no close relationship between changes in atmospheric carbon dioxide (CO₂) and global temperature over the past 150 years. Most of the 0.6 °C rise in global temperature that is claimed to have occurred over the last century took place before 1940, but over 80% of man-made CO₂ has entered the atmosphere since then.

From the late 1930s to the late 1970s the Earth's atmosphere actually cooled despite an increasing use of fossil fuels and a large increase in atmospheric CO₂ concentration.

Climate models endorsed by the IPCC are unable to explain this period of cooling, except by using ad hoc assumptions which assume that other influences such as aerosols are to blame. These models take little or no account of variations in solar activity and assume that an increase in carbon dioxide will always lead to an increase in temperature. This explains why they tend to predict a steady temperature rise, and why they failed to predict that world temperatures would peak in 1998, during the El Nino, and cool thereafter.

Solar activity varies substantially over time, and because the sun has such a huge influence on global temperatures, a much closer examination of its role in the earth's climate needs to be undertaken before the IPCC's climate projections can be accepted with any confidence.

The Royal Commission should be asked to investigate the extent to which variations in solar activity are influencing the world's climate, and to assess whether adequate allowance has been made for this in the IPCC's climate projections.

8. The Kyoto Protocol will not prevent climate change, and is already projected to cost the nation over \$1 billion more than was originally estimated

Fortunately, we can still get out before it's too late...

There is a growing awareness among the signatories to the Kyoto Protocol that the agreement imposes indefensible costs for no discernible environmental benefits.

It was a short-term political decision for signatories to commit to an arbitrary 1990 baseline for emissions, regardless of the future costs to citizens. Even if the citizens of signing nations were to incur those costs and achieve those goals, there would be no discernible environmental benefits. An examination of the IPCC's projections indicates that if fully implemented the Kyoto Protocol will make the world only 0.06-0.11°C cooler in 2100 than it would be otherwise. Such an effect would be too small to be discernible since the IPCC's uncertainty range for a doubling of atmospheric CO₂ is 1.5° to 4°C.

Few countries miscalculated more greatly than our own. New Zealand signed the agreement even though two of its most important trading partners, Australia and the United States, did not.

Media attention has focused recently on revised estimates that indicate that instead of gaining \$200 million or \$500 million during the first commitment period in 2008-2012 from sales of carbon credits, the country might have to purchase credits at a cost of perhaps \$500 million. However, such estimates ignore the obligation to buy (back) credits in future if trees are felled and not replanted. They also ignore the costs to New Zealanders of any loss of competitiveness or misallocation of resources, and the likely costs of purchasing carbon credits beyond 2012.

Castalia economist, Alex Sundakov, has estimated that the overall cost of purchasing carbon credits alone could be of the order of \$9 or \$14 billion, at a 6 percent rate of discount. It is not credible that New Zealanders will accept such a cost for no discernible benefits.

As a result, the media focus on the likelihood that the Kyoto Protocol will cost New Zealand over a billion dollars more than was originally forecast during the 2008-2012 period is distracting attention from the potential for far greater costs beyond this period.

New Zealanders might have thought that they pay government departments to give the government of the day good quality professional advice about whether important decisions are in the national interest. Sadly, to the best of our knowledge, the government's lead agencies did not advise their own ministers individually as to whether ratification of the Kyoto protocol was in the national interest.

Fortunately, under article 27, New Zealand can still withdraw from the Protocol in February 2008 without incurring any cost.

The Royal Commission should investigate the likely effectiveness of the Kyoto Protocol, conduct a thorough economic analysis of the agreement and advise the government whether it is in the interests of the nation to withdraw from it.

9. Advice to the government has thus far been one-sided, with little provision for contestability

Where is the second opinion?

The government's agencies rely almost entirely upon the reports of the Intergovernmental Panel on Climate Change (IPCC) to formulate climate change policy.

The IPCC has established itself as the world's monopoly provider of authoritative information, evidence, analysis, and interpretation on all issues relating to climate change. Like most monopolies, the IPCC lacks any effective oversight by independent professional bodies. This has caused some serious flaws in how climate data is collated, manipulated and reported.

A recent example of this is the "Mann hockey-stick" which was discredited earlier this month in a report issued by the United States House Committee on Energy and Commerce. The Mann hockey-stick is an important global temperature assessment that has previously been adopted by the IPCC and is widely cited in the international media, including Al Gore's film "An Inconvenient Truth", as evidence of global warming. In fact, the discrediting of the hockey-stick is an inconvenient truth that seriously threatens the credibility of much of the work carried out by the IPCC.

It is probably futile to propose reform. Like most large bureaucracies, the IPCC has too much momentum and its institutional interests are too strong for anyone to suppose that it can assimilate more diverse points of view, even if a more representative range of scientists and economists joined it.

The credibility of the IPCC and the advice that it gives, can best be improved not through reform, but through competition and audit. Some signatory countries of the Asia-Pacific Climate Accord (AP6) are considering the creation of a Science Audit Advisory Panel (SAAP). This would provide critical analysis of scientific and technical advice on climate change proffered to member countries, including advice from the IPCC. New Zealand should seriously consider supporting the establishment of the SAAP or a similar independent climate science body.

To date, economic analysis of changes in the climate has concentrated on what the Kyoto Protocol compliance costs might be, a subject that is not part of the IPCC process at all. Economic analysis needs to focus on the economic inputs to climate change models because these inputs have just as great an influence on the projections of the models than the "climate science" inputs.

An independent economic analysis of these economic inputs would be a useful starting point for an independent climate change body such as the SAAP.

The Royal Commission should be asked to investigate the review and oversight procedures of the IPCC, investigate the feasibility of New Zealand establishing or joining an independent climate change body such as the SAAP, and advise the government accordingly.