

**INQUIRY BY THE SENATE SELECT COMMITTEE ON
CLIMATE POLICY**

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Abstract

The Government, in response to the various Intergovernmental Panel on Climate Change (IPCC) Reports and subsequent publicity and concerns, has signed the Kyoto Protocol and now proposes to introduce the “Carbon Pollution Reduction Scheme Bill 2009” into Parliament, and take other action to reduce emissions of carbon dioxide (CO₂) and the other “greenhouse gasses” collectively denominated as CO_{2-e}.

This action is based in the first instance on the proposition that increasing levels of anthropogenic (man induced) CO_{2-e} are the primary cause of the current warming, with a claimed greater than 90% certainty.

A careful reading of the IPCC Working Group 1 Reports, outlining the scientific justification for the above claim, in fact provides NO empirical evidence in support of their claim.

The 4th Report relies entirely on the scenarios produced by the GCM computer models as justification.

No claims are made about the ability of these computerised mathematical representations of global climate to accurately predict future global climate, hence the production of a widely varying series of ‘scenarios’.

Despite continual and significant improvements in the models, they are deficient in a number of basic areas and possibly hundreds or thousands of minor ones, making them an inappropriate basis for Government to found far reaching policy decisions on.

There is a wide and increasing body of scientific opinion that challenges the claims made by the IPCC and its adherents, on the role played by CO₂ in current and future climate.

In great contrast to the dearth of evidence in respect of the role played by CO₂, there is a vast body of evidence, science and history indicating that the present warming is a natural event, part of the ongoing cycle of warmings and coolings that have always characterised climate on this planet.

The Terms of Reference that the IPCC was established to investigate and report on, were specifically confined to the role of CO_{2-e} as the root cause of the current warming. As a result it has not investigated other possibilities.

In view of the great uncertainties and polarised views surrounding this issue and the significant impacts that attempts to ‘decarbonise’ Australia (and the globe) will have on every aspect of life, it is argued that the Government should at least check the scientific basis of the IPCC’s theory and the feasible alternatives, with a rigorous, comprehensive, open and independent Inquiry. This would be both wise and prudent and clearly in everyone’s best interest.

INTRODUCTION

When the peripheral issues are stripped away, the crux of the ‘climate change’¹ question is the IPCC theory that man’s emissions of carbon dioxide (CO₂) and the other “greenhouse gasses” collectively denominated as CO_{2-e}, are the primary cause of the current warming experienced on Earth, with a claimed greater than 90% certainty.

Everything else is dependant on the veracity of this key proposition.

THE IPCC WORKING GROUP 1 REPORTS

The IPCC Working Group 1 (WG1) Reports provide the scientific basis for their claims.

The Third WG1 Report contained three areas of justification:

1. A graph of 1000 years of claimed world temperature (Mann et-al). The infamous ‘Hockey Stick Graph’.
2. Vostok and other ice core data covering the last 650,000-year period.
3. General Circulation Models (GCM’s). Some 20 major GCM computer models from around the world, attempting to model global climate.

THE HOCKEY STICK GRAPH

The Hockey Stick Graph has been comprehensively discredited. Amongst other shortcoming the computer program used would produce a Hockey Stick type rise at the end of the graph when fed ‘white noise’, when it was tested by peer reviewers. It also attempted to eliminate the well-documented ‘Little Ice Age’ and the ‘Medieval Warming Period’ from the historic record.

As a result of this embarrassment it has been quietly removed by the IPCC from their 4th WG1 Report (2007). It is therefore surprising in 2009 to still find this graph in the Government’s section on the scientific justification of ‘Climate Change’.

THE VOSTOK ICE CORE DATA

Likewise the implication in these Reports that temperature has historically over the last 650,000 years moved in close relationship with levels of CO₂ in the atmosphere is disingenuous. Although not acknowledged in the 4th WG1 Report, the Vostok and other ice core data clearly show that there is an average 800-year lag time between temperature rise and the subsequent increase in CO₂ levels. This clearly indicates that

- (i) CO₂ was not the cause of the warming but,
- (ii) Resulted naturally from it (there is good science as to why this would occur), and
- (iii) That the peak levels CO₂ reached did not inhibit the subsequent coolings that always followed.

There is much evidence that warming has occurred and that CO₂ levels in the atmosphere have increased, but no empirical evidence to link CO₂ as the precipitating cause of the warming. There are other valid, evidence backed, plausible explanations.

¹ The term ‘climate change’ is used here to mean anthropogenic global warming (AGW) in the context that the phrase is now commonly employed.

GCM COMPUTER MODELS

As there is no other empirical evidence proffered in the IPCC WG1 Reports they (and the Australian Government) are therefore left to rely solely on computer models to justify their theory and proposed intervention.

No claims are made by the IPCC about the ability of these computerised mathematical representations of global climate to accurately predict future global climate, hence the production of a widely varying series of possible 'scenarios'. These scenarios have now come to be widely accepted as though they are fact.

Despite the improvements in the models over recent years, they are still unquestionably deficient in a number of basic areas and possibly hundreds or thousands of minor ones², making them an inappropriate tool for Government to base far reaching policy decisions on.

Climate models are 'uncertain' about the effect of clouds on temperature and entirely ignore the influence of the varying magnetic flux of the sun and its effect on incoming galactic cosmic rays, low level cloud cover and world climate, (Svensmark et-al 2008). Also grossly deficient is the substantial part played by the oceans, covering some 71% of the globe, on climate change (Gray. William M 2009).

Perhaps most telling however is the work of Dr Ferenc M. Miskolczi³, who when he attempted to verify the classical Eddington (1916) semi-infinite radiation balance equation used by all the current generation of GCM's, found it to be in serious error.

This has now been resolved and the new equation proves that the classic solution significantly overestimates the sensitivity of greenhouse forcing to optical depth perturbations (i.e. it seriously overestimates the warming effects of additional CO₂ in the atmosphere). It also demonstrates that the so-called 'tipping-point' claimed by Al Gore and others that may eventuate if temperatures rise beyond a certain point, would be impossible.

The computer models commonly state that warming caused by increases of CO₂ in the atmosphere, will result in a characteristic 'signature' of significantly increased warming in the tropical mid troposphere, that is quite distinct from other forcings. Repeated careful and accurate measurements of this zone have failed to show any such warming, indicating that CO₂ forcing is not occurring and therefore is not the principle cause of the global warming that has taken place.

And even Houghton⁴ says, "*The fact that the mean global temperature has increased since the late 19th century and that other trends have been observed does not necessarily mean that an anthropogenic effect on the climate has been identified. Climate has always varied on all time-scales, so the observed change may be natural*" (Chapter 1 of Houghton et al 2001)

² "There are something like 5 million parameters that have to go into a good (GCM) computer model..." Dr Sallie Baliunas. Harvard Smithsonian Center for Astrophysics.

³ IDOJARAS. Quarterly Journal of the Hungarian Meteorological Service. Vol.111, No.1, January-March 2007, pp. 1-40)

⁴ Houghton was the first Chairman of the IPCC

THE CONSENSUS OF SCIENTISTS

Claims are made that the IPCC findings are supported by a 'consensus' of scientists and scientific opinion.

This however is increasingly not the case as literally thousands of peer reviewed and published papers and many thousands of highly respected scientists, including some who contributed to the IPCC Reports, are now concerned that these findings lack an adequate or convincing scientific base⁵.

Despite the expenditure of over US\$50 billion to find evidence that man-induced greenhouse gasses are the primary cause of the current warming, not one piece of empirical evidence in support of this theory has been found. This is an extraordinary and most surprising fact. If any empirical evidence had been found it would be certain that we would have all heard about it by now.

Despite these claims and counter-claims however a consensus among scientists means little. History is replete with examples where a 'consensus' among scientist has subsequently proved to be wrong.

The basis of the scientific method is to propose a theory, open it to challenge and determine if the challenge falls within the ambit of the theory or if not, whether the theory has to be modified or abandoned.

Too often the response to challenges of the IPCC view have been met with derision, put-down, denigration or simply ignored, rather than test them against the theory. This is the antipathy of good science. It may also indicate a fear that the IPCC hypothesis may not be able to stand up to such rigorous scrutiny.

A COGENT ALTERNATIVE EXPLANATION

In great contrast to the dearth of evidence in respect of the role played by CO₂, there is a vast body of evidence, science and history indicating that the present warming is a natural event, part of the ongoing cycle of warmings and coolings that have always characterised climate on this planet.

This is not the place to deal with this issue in any depth, however it is obvious that the IPCC have underplayed the importance of the Sun in determining our weather.

THE SUN

There is a strong correlation between fluctuations in the magnetic strength of the Sun and climate on Earth. There is a poor correlation between the increase in CO₂ and world temperature fluctuations. Correlation does not prove causation, however a lack of correlation can show that the factor in question is not the dominant determinant.

Essentially all energy comes from the Sun (with the exception of a small amount released from the interior of the Earth).

⁵ Over 31,000 scientists have now signed a Petition challenging the IPCC hypothesis and supporting the accompanying background paper "Environmental Effects of Increased Atmospheric Carbon Dioxide" Robinson, Robinson & Soon. 2007. www.oism.org/pproject/GWReview_OISM300.pdf

In addition to the direct effects of total solar insolation (the term used by the IPCC to describe the small variations in solar radiation received on Earth) incorporated in the GCM's, the Sun varies significantly in magnetic activity.

When the Sun is magnetically active the Solar Wind (a continuous stream of charged particles ejected from the Sun's corona) is strengthened.

The Solar Wind spreads right throughout the solar system at just under the speed of light and protects the Earth from excessive Galactic Cosmic Rays (GCR's) (emitted from supernova events and the Sun).

When the Sun is relatively magnetically quiescent, the Solar Wind weakens and allows more GCR's to reach Earth.

When a cosmic ray hits our atmosphere it shatters into a shower of short-lived particles with only the heaviest particles, primarily muons, with enough mass/energy to reach the surface.

These particles form minute nuclei that can initiate the conversion of atmospheric water vapour (the major greenhouse gas) into the fog particles that form clouds.

Low-level clouds (< 3000 m) cover a significant part of the globe and reflect some 50% of the incoming short-wavelength rays from the sun out into space.

Initial data indicates a strong correlation between increasing cloud cover and cooler temperatures and vice-versa. It has been calculated that a sustained increase in low level cloud cover of as little as 6% or 7% would be sufficient to return the Earth to Ice Age conditions (a condition where the Earth spends the majority of its time).

We have just gone through a period of very intense magnetic activity, however sunspot cycle 24 (which we are now entering) appears to be considerably weaker. (Sunspots, intense magnetic storms, are a visible expression of solar magnetic activity).

None of the GCM,s incorporate this important factor into their models.

THE OCEANS

The role played by the oceans in climate change is also deficient in a number of respects in the GCM models.

Variations in the global ocean's Meridional Overturning Circulation (MOC) resulting from changes in the Atlantic Thermohaline Circulation (THC) and deep water Surrounding Antarctica Subsidence (SAS) can be a primary cause of climate change.⁶

In essence a weaker MOC for a number of years can lead, with a lag time of 5-10 years to a modest global warming. When the opposite occurs (MOC stronger than normal) there is more deepwater upwelling into the Southern Hemisphere oceans,

⁶ "Climate Change Driven by the Ocean not Human Activity" William S. Gray. Professor Emeritus, Dept of Atmospheric Science, Colorado State University. 2009

somewhat more global rainfall, and again after a lag of 5-10 years a gradual global cooling occurs.

The effect of the El Nino Southern Oscillation, the Indian Ocean Dipole, and their equivalents in the other major oceans and the Pacific Decadal Oscillation, are all poorly understood and cannot be predicted.

CONCLUSION

The Terms of Reference that the IPCC was established to investigate and report on, were specifically confined to the role of CO_{2-e} as the root cause of the current warming. As a result it has not investigated other possibilities.

The world has failed to warm over the last decade, despite rapidly escalating levels of CO₂. This fact alone should be cause to at least check the facts before implementing far reaching new policies designed to 'mitigate' climate change.

But the reasons are much broader than this and the consequences for both the Australian population and the Government from 'getting it wrong' are so great that it would be reckless to proceed without further concrete scientific justification.

In view of these great uncertainties and the polarised views surrounding this issue and the significant impacts that attempts to 'decarbonise' Australia (and the globe) will have on every aspect of life, it is argued that the Government should at least check the scientific basis of the IPCC's theory and the feasible alternatives, with a rigorous, comprehensive, open and independent Inquiry. This would be both wise and prudent and clearly in everyone's best interest.

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