



19 July 2010

Senator the Hon Kim Carr  
Minister for Innovation, Industry, Science and Research  
Parliament House  
CANBERRA ACT 2600

Dear Minister,

**Re: CSIRO/BoM "State of the Climate" Report Grossly Misleading**

Further to my letter of 15 July I write to raise another important issue with you regarding the "Response by CSIRO to the scientific issues raised by the Hon Ms Danna Vale MP in her letters of 15, 16 and 26 March 2010" (the Response) as it relates to my letter of 26 March 2010.

The joint CSIRO – Bureau of Meteorology Global Climate Model (GCM), and by extension all the major GCMs, are used to help determine the likely causes of past climate changes as well as to predict future climate changes.

My letter of 15 July 2010 dealt with serious issues of reliability, related primarily to the predictions regarding future climate changes made by the joint CSIRO/BOM GCM. My letter today deals with serious issues of probity, related to the way the joint CSIRO/BOM GCM has been configured to help determine the likelihood that most of the global warming in our recent past can be attributed to increases in greenhouse gas emissions.

The Government and all elected Representatives rely on advice from the CSIRO's climate scientists to frame climate related policies. These policies have already resulted in billions of dollars being spent on climate related initiatives, with many more billions to come. The CSIRO's climate scientists must therefore not only practice, but also display the highest level of probity in carrying out their work.

The past and the future are distinctly different. The future is unknown, but there are records of what actually happened in the past. In their Response the CSIRO's climate scientists demonstrated an apparent inability to make this crucial distinction. I refer you also to "Matter A" in my letter of 15 July 2010.

My letter of 26 March 2010 made the point that the keynote statement "There is greater than 90% certainty that increases in greenhouse gas emissions have caused most of the global warming since the mid-20<sup>th</sup> century." in the "State of the Climate" report appears to be grossly misleading.

"Question 1" in my letter of 26 March 2010 related to concerns regarding the way the joint CSIRO/BOM GCM was configured to replicate past climate changes, in relation to the attribution of most of the global warming in our recent past to increases in greenhouse gas emissions. In their Response (see discussion under their heading "Question 15") the CSIRO's climate scientists inexplicably referenced discussions under their heading "Question 10", which related to the use of the joint CSIRO/BOM GCM to predict future climate changes.

In their research paper {"How Much More Rain Will Global Warming Bring?" by Frank J. Wentz, Lucrezia Ricciardulli, Kyle Hilburn & Carl Mears (May 2007)} Wentz et al. note "Of significance is the fact that E, P and V all exhibit similar magnitudes for interannual variability". A perusal of the charts in Wentz et al. (Fig. 2) makes apparent the fact that for the real world water cycle during the recent past evaporation (E), precipitation (P) and atmospheric water vapour (V) not only all increased, but also all decreased by about the same percentage and this interannual relationship was proved repeatedly over the 20-year period of the study. Fig. 2 also shows that the major GCMs, in their purported replication of the actual water cycle during the recent past, severely constrained precipitation and hence evaporation to be only a small fraction (about a quarter) of what actually happened, notwithstanding that the timing and duration of the increases and decreases in virtual E & P were similar to those that occurred in the real world.

It is a travesty of science and grossly misleading for the CSIRO's climate scientists to rewrite the earth's recent climate history by pretending that over the recent past E & P increased and decreased by only a quarter of their known, tested and accepted increases and decreases. This, let's all pretend it didn't happen, rewriting of the earth's climate history is built into the joint CSIRO/BOM GCM, with the unfortunate consequence that the virtual water cycle provided positive feedback and amplified the apparent extent of the warming caused by actual increases in greenhouse gas emissions. We know from the empirical discovery made by Wentz et al. that over the recent past the real water cycle provided negative feedback and reduced the extent of warming caused by actual increases in greenhouse gas emissions.

As noted above, tested and accepted empirical data shows that in the real world E, P & V not only increased, but also decreased by about the same percentage and this interannual relationship was proved repeatedly over the 20-year period of the study.

It is one thing for the CSIRO's climate scientists to say that on the basis of an unproven hypothesis (see Hypothesis 4 in my letter of 15 July 2010) they refuse to use this empirical discovery to predict future climate changes. It is much more serious and a matter which calls into question their probity, for the CSIRO's climate scientists to knowingly rewrite a major part of the earth's recent climate history, no matter how deeply that falsehood is buried in the configuration of their GCM.

It is imperative that the CSIRO takes urgent steps to have the CSIRO's climate scientists reconfigure their GCM to that it does not falsely portray the known historical behaviour of the earth's water cycle over the recent past.

I am sure that as the responsible Minister you share my concerns regarding probity and will take a personal interest in seeing there is a speedy resolution to this matter.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Danna Vale', with a stylized flourish at the end.

**DANNA VALE MP**  
**FEDERAL MEMBER FOR HUGHES**

PS: After the next election is called further correspondence on this issue may be forwarded to me care of PO Box 443, Gymea, NSW, 2227.