To: GHG-Endangerment-Docket@epa.gov

Re: Docket ID No. EPA-HQ- OAR-2009-0171

From: John McLean

Climate Analyst and member of the Australian Climate Coalition

ISSUE SUMMARY

- 1. The IPCC is biased by its official mandate to only look at human-induced climate change.
- 2. The IPCC's fundamental claim of significant man-made warming was written by a clique of climate modelers, <u>not</u> by a collection of climate specialists with diverse expertise.
- 3. The IPCC has failed to provide high-quality evidence to support its claims but relies on a very selective interpretation of a correlation, implications of a high level of knowledge that are contradicted in its report, and the output of unproven climate models that embody numerous dubious assumptions and very likely fail to accurately represent all natural climate forces.
- 4. The IPCC's review process does not follow accepted procedures for a refereed peer-review despite what might be implied. (This is not the only instance of the IPCC stretching the meanings of words to their extreme!)
- 5. The IPCC gives a misleading impression of support for its principle claims when it says that 2500 expert scientist reviewers and about 1500 authors endorsed those findings. The explicit support from reviewers for the penultimate draft of the crucial chapter amounted to just 5 people and the support from IPCC authors cannot be said to amount to much more than the 50 authors of the relevant chapter.

The EPA Administrator must view the IPCC's claims with considerable skepticism. The IPCC's findings are flawed, biased and unproven. The implied level of "endorsement" by scientific participants in the IPCC–process is not supported by the data. The international standards of independent refereed peer review have not been met by the IPCC. Thus, EPA should not rely on the IPCC reports for its proposed Endangerment Finding and the Technical Support Document.

Specific Errors in the EF/TSD

Please find the following comments related to the issues raised in the Endangerment Technical Support Document related to:

(a) "the appropriateness to use the most recent IPCC reports, including the chapters focusing on North America, that could serve as an important source or as the primary basis for the Agency's issuance of "air quality criteria."

and ...

(b) "the adequacy of the available scientific literature [synthesis reports such as the Intergovernmental Panel on Climate Change's Fourth Assessment Report and various reports of the US Climate Change Science Program]

and the suggestion that ...

(c) The Endangerment Technical Support Document provides evidence that the U.S. and the rest of the world are experiencing effects from climate change now.

COMMENTS

1. Background on the IPCC Process

The charter of the Intergovernmental Panel on Climate Change (IPCC) is [1]

"... to assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation. IPCC reports should be neutral with respect to policy." [emphasis added]

This means that the IPCC is a single-interest organization, whose charter is to assess the information relevant to consideration of a risk of a human influence on climate. By necessity this assumes, and only focuses on, a possible human influence.

- If it were proven that there is no human influence or that the human influence was negligible then the justification for the IPCC's existence would disappear, its unique position of influence would disappear and, we can surmise, substantial funding for climate research that somehow supported the notion of a human influence would likewise disappear.
- The continued existence of the organization is therefore dependent on its own reports.

The IPCC has <u>no mandate</u> to consider any climate forces other than those that are the result of human activity, which means that the IPCC Fourth Assessment Report of 2007 (AR4) acted outside its charter when it attempted to dismiss propositions that natural climate forces were responsible for recent change.

The IPCC's Climate Assessment reports are comprised of multi-chapter contributions from each of three working groups, a Technical Summary (TS) and a Summary for Policy Makers (SPM), followed by a Synthesis report, aimed at policy-makers, which summarizes the SPMs from each working group. The table below shows the hierarchy of components and the relative review requirements.

IPCC "Report" Component	Independent Peer Review?	Approved by Scientists?
Synthesis SPM	NO	NO

Working Group SPM	NO	NO
Working Group Tech Sum	NO	Limited
WG main contribution	Not in conventional sense	YES (government appointees)

Table 1.

The contributions by each working group are developed as a "zero order draft" for internal use, a "first order draft" that is reviewed only by individuals, a "second order draft" that is reviewed by individuals and governments and a "final draft" that government appointed persons discuss and approve.

- It seems widely believed that the IPCC undertakes a vast amount of research and employs a huge number of scientists that all write, review and reach consensus on every word of its reports. This belief is incorrect because
 - (a) the IPCC relies on the findings of research by others,
 - (b) the task of writing is devolved into a multi-layer operation,
 - (c) reviewers comment only on areas of their expertise and only on certain drafts of documents, and
 - (d) The IPCC does not survey the opinions of authors or reviewers when it prepares the Summaries for Policy Makers

The major components of the Assessment Reports are the contributions by each working group (WG) and each contribution is like a standalone report, albeit with those from WG's II and III relying on the findings of WG I.

Given that the contributions from all 3 working groups for IPCC 4AR (2007) were developed in parallel the reliance on the findings of WG I present a challenging question - Were the findings of WG I pre-determined so that WG's II and III could proceed with their work or was the work of WGs II and III based on the findings of the previous IPCC report of 2001 as IPCC correspondence would seem to suggest?

The IPCC has failed to explain how the parallel development could take place when there is such dependence on the findings of one working group. Neither situation inspires confidence in the IPCC, nor does its sustained silence on the matter.

2. The Authorship of the IPCC assessment reports

It was mentioned above that each of the three working groups make a substantial contribution to the overall IPCC Assessment Report. Each contribution is comprised of several chapters with each chapter having Coordinating Lead Authors (CLAs), Lead Authors (LAs) and Contributing Authors (CAs).

The CLAs have authority across the entire chapter but the LAs and CAs will generally only deal with specific sections. The Contributing Authors are invited to submit material for consideration but there are no guarantees that their work will be incorporated in the final document.

The published text for any section of any chapter is therefore essentially the consensus of

probably fewer than 10 people - the "Chair" (i.e. head) of that Working Group, the CLAs and the relevant LA (or LAs), and an unspecified number of contributing authors.

• To imply or assume that all authors for any chapter of the IPCC agree with every word of that chapter is simply wrong.

So what is the role of the authors and how are they selected? Appendix A to the documented Principles Governing IPCC Work [2] says:

"4.2.1 At the request of Working Group / Task Force Bureau Co-Chairs through their respective Working Group / Task Force Bureau, and the IPCC Secretariat, governments, and participating organizations and the Working Group / Task Force Bureaux should identify appropriate experts for each area in the Report who can act as potential Coordinating Lead Authors, Lead Authors, Contributing Authors, expert reviewers or Review Editors. ...

"4.2.2 Coordinating Lead Authors and Lead Authors are selected by the relevant Working Group / Task Force Bureau, under general guidance and review provided by the Session of the Working Group ... from those experts cited in the lists provided by governments and participating organizations, and other experts as appropriate, known through their publications and works. The composition of the group of Coordinating Lead Authors and Lead Authors for a section or chapter of a Report shall reflect the need to aim for a range of views, expertise and geographical representation... The Coordinating Lead Authors and Lead Authors selected by the Working Group/Task Force Bureau may enlist other experts as Contributing Authors to assist with the work." [Emphasis added].

The document quoted above also describes the function of contributing authors –

"To prepare technical information in the form of text, graphs, or data for assimilation by the Lead Authors into the draft section. Comment: <u>Input from a wide range of contributors is a key element in the success of IPCC assessments</u>, and the names of all contributors will be acknowledged in the Reports. Contributions are sometimes solicited by Lead Authors but unprompted contributions are encouraged." [Emphasis added].

The report of the 21st IPCC session (Vienna, Austria, 3 and 6-7 November 2003) [3] says –

5.4 Regarding nominations and selection of lead authors and expert reviewers the Panel noted the need for openness and transparency, the need to aim for geographical balance, involvement of new authors and for expanding the range of disciplines involved in preparing the AR4. [Emphasis added].

The first extract above indicated that although governments, participating organizations and the Working Group / Task Force Bureau do indeed nominate potential contributing authors to any chapter, the final selection of authors is left to the Coordinating Lead authors and Lead Authors,

who are also free to make appointments directly.

• Although the IPCC procedures mention a desire for "a wide range of contributors" and representation from a variety of disciplines these same procedures allow Coordinating Lead Authors and Lead Authors to directly invite like-minded colleagues to be Contributing Authors, which inevitably can lead to cliques and the inclusion of very few viewpoints.

With the above in minds it's time to consider the crucial 9th chapter of the Working Group I contribution to the IPCC 4AR.

• The authors of WG I Chapter 9 were, in effect, expected to justify the position the IPCC had been required to adopt since its foundation. They were certainly entrusted with making decisions that would be vital to the IPCC's claims and quite possibly to its future. For the IPCC's role is to assess the risks of "human-induced climate change": if there were no evidence of risk, the IPCC would have no reason to continue in existence.

This chapter was the product of 53 authors but more than 40 were members of a clique whose members have co-authored papers with each other and, we can surmise, very possibly at times acted as peer-reviewers for each other's work. [4]

Of the 44 contributing authors, more than half have coauthored papers with the Lead Authors or Coordinating Lead Authors. The review editor of that chapter - who was also a Coordinating Lead Author for the corresponding chapter of the previous assessment report - contributed to 13 scientific papers cited in chapter 9 and had co-authored these papers with a total of 10 authors of chapter 9, including both coordinating lead authors and three of the seven lead authors.

How do we know that this situation existed? Because it comes from the list of cited papers for this chapter, where 213 of the cited 534 documents (39.9%) had at least one author who was also an author of chapter 9. (I have some reservation about a handful of these papers because authors might share a name but on the other hand I have not investigated whether names have changed so any errors are likely to be minor against the total.)

(In passing I note that under the Federal Information Quality Act EPA obligated by law to undertake a thorough analysis of ANY paper citations from IPCC reports and to rely on summaries of reports.)

Of the published papers cited in chapter 9:

- 94 had been authored by two or more of that chapter's authors
- one cited paper had six chapter authors
- five cited papers each had five chapter authors
- four chapter authors contributed to 10 cited papers, two of which were written entirely by authors of chapter 9
- 26 papers had three chapter authors, including 6 papers written entirely by chapter authors

- fifty of the cited papers listed 2 chapter authors each, and 10 of these papers were written entirely by chapter authors.

Under the IPCC's procedures, the coordinating lead authors and lead authors are free to select contributing authors beyond those nominated by governments. Appointing other members of this clique as contributing authors would ensure that a particular viewpoint prevailed. On the evidence presented here, this incestuous arrangement was very much in place among the authors of chapter 9, ensuring that neither the papers nor the opinions of the growing band of serious climatologists who doubt that humankind has an actually or potentially harmful influence on the Earth's climate are adequately represented in chapter 9. Hegerl, one of the coordinating lead authors of chapter 9, had co-authored cited papers with two lead author and eight contributing authors, as well as with Karoly, a review editor. "The other coordinating lead author, Zwiers, had co-authored cited papers with Hegerl, the same two lead authors as Hegerl, four contributing authors and with Karoly. Hegerl and Zwiers have also jointly co-authored papers. It is particularly regrettable that a review author should have had such close prior links with the co-coordinating lead authors of chapter 9.

Five of the seven lead authors of chapter 9 can be linked to contributing authors. Nicholls coauthored papers cited in chapter 9 with two contributing authors, Penner with four, Braconnot with five, Gillett with six and Stott with 14. In fact the two coordinating lead authors and seven lead authors in total co-authored papers with 23 of the 44 contributing authors of chapter 9. It is likely that further links would be discovered if the search net was widened to include all peerreviewed scientific journals.

Gabriele Hegerl, a Co-coordinating Lead Author of chapter 9, was from Duke University, USA, as were two contributing authors; and Francis Zwiers, the other Co-coordinating Lead Author, was from Environment Canada, as were two contributing authors (see Table 1).

Lead authors also probably picked their own. Pascale Brannacot was from the Laboratoire des Sciences du Climat et de l'Environnement in France, as was a contributing author. Joyce Penner was from the University of Michigan, USA, as were three contributing authors. Two of the listed contributing authors, Wang Minghuai and Xu Li, are PhD students of lead author Joyce Penner, having no discernable direct role.

Peter Stott of the Hadley Centre in the UK was in the company of no fewer than eight contributing authors from the same establishment and one more from the University of East Anglia, a close associate of the Hadley Centre. It is questionable whether a single establishment should have been permitted to exercise so much influence in what holds itself out to be a process involving the global scientific community.

In summary, the 53 authors of chapter 9 came from just 31 organizations. Putting it another way, 30 authors of that chapter – more than half – had at least one colleague from the same establishment. Many of these contributing authors appear to have been subordinates, either academically or professionally, to lead authors of this chapter.

Establishment	Total	Comments
		001111101111

Hadley Centre for Forecasting / University	10	2 lead authors, 8 contributing authors
of East Anglia, UK		
University of Michigan, USA	4	1 lead author, 3 contributing authors
Climate and Global Dynamics Division,	4	4 contributing authors
NCAR		
University of Oxford, UK	4	4 contributing authors
Environment Canada	3	1 coordinating lead author; 2
		contributing authors
Duke University, USA	3	1 coordinating lead author, 2
		contributing authors
NASA Langley Research Center	2	2 contributing authors
Laboratoire des Sciences du Climat et de	2	1 lead author; 1 contributing author
l'Environnement, France		

Table 12- Authors and establishments. A total of 32 of the 53 authors from just 8 establishments

The relationships between most of the authors of chapter 9 demonstrate a disturbingly tight network of scientists with common research interests and opinions. The contrast between this close-knit group and the IPCC's stated claim to represent a global diversity of views is remarkable and does not augur well for the impartiality or integrity of chapter 9's conclusions.

Wegman et al [5] identified a similar network of scientists in their notable critique of the now-discredited "hockey stick" 1000-year northern-hemisphere temperature graph by Mann et al. (1998, 1999, corrected 2004) that had featured six times, prominently, in full color and at full scale, in the IPCC's 2001 assessment report. Wegman et al. described a closely connected clique among paleoclimatologists:

"One of the interesting questions associated with the 'hockey stick controversy' are the relationships among the authors and consequently how confident one can be in the peer review process. In particular, if there is a tight relationship among the authors and there are not a large number of individuals engaged in a particular topic area, then one may suspect that the peer review process does not fully vet papers before they are published. Indeed, a common practice among associate editors for scholarly journals is to look in the list of references for a submitted paper to see who else is writing in a given area and thus who might legitimately be called on to provide knowledgeable peer review. Of course, if a given discipline area is small and the authors in the area are tightly coupled, then this process is likely to turn up very sympathetic referees. These referees may have co-authored other papers with a given author. They may believe they know that author's other writings well enough that errors can continue to propagate and indeed be reinforced."

[Emphasis added]

One wonders how many of the 53 authors of chapter 9 had also at times acted as anonymous peer-reviewers for papers by other authors of this chapter.

• Thus far we have established that most of the key authors of the IPCC's crucial chapter are members of a network of researchers who have coauthored papers with

each and probably acted as anonymous reviewers for each other's work.

• There is also an unhealthy atmosphere of the authors not exhibiting a wide range of views, as per the IPCC's documented requirements, but all too often the superior's to contributing authors occupied higher positions within in the hierarchy of the IPCC. In other instances several contributing authors were from the same establishment but in both cases we should wonder what pressure was placed on contributing authors and whether refusal to perform as required would have been a career-limiting move.

Hegerl and Zwiers work with and develop climate models, which are nothing more than computer programs. The Hadley Centre and University of East Anglia, suppliers of 10 of the 53 authors of chapter 9, are likewise deeply involved with climate modeling, as are Allen of the University of Oxford and probably his three Oxford colleagues who also contributed to chapter 9. The US NCAR, supplier of 3 authors, also specializes in modeling. It is very likely that many other chapter 9 authors and the institutes to which they are affiliated are in the same position.

It would be unrealistic to expect that those who work with climate models would question the capability and accuracy of such models in the best of circumstances. The very heavy bias towards modelers among the authorship of chapter 9 must have largely prevented any serious questions about the competence of climate models (however sophisticated) to truly represent the future evolution of a complex, non-linear, chaotic object such as the climate. Indeed, it has been known since Lorenz (1963) that the initial state of the climate can never be known to a sufficient precision to allow reliable projections of its future evolution beyond a few days or weeks.

These authors of chapter 9 say that their models prove that human activity is driving climate. As an Information Technology professional I can tell you that this is not correct because the software for the climate models has incorporated a human influence and must therefore have assumed the sensitivity factor for that influence. The human influence is not an output from the models but a pre-determined input to them, which of course proves nothing.

Even if the IPCC models exactly replicated observed temperatures - which they don't according to figures in chapter 8 of the IPCC - all that we could say is that the models would represent one possible scenario of an unknown range of possibilities.

• The findings of chapter 9 are very much the opinions of climate modelers rather than opinions - or better yet, solid evidence - drawn from a wider range of climatologists. This collective of climate modelers might have its own reasons for making such claims, including but not only the failure to accept that the models may be incomplete and inaccurate.

3. The Review of the IPCC 4AR

One of the key requirements of the Federal Information Quality Act is the independence of the review. The EPA must be aware of the many flaws in the IPCC process that invalidate its use for policymaking purposes.

The IPCC procedures state that expert reviewers in the relevant subject area examine the first and second drafts of each chapter of the contribution from all three Working Groups. The IPCC's expert reviewers have differing areas of expertise, which means that every reviewer does not examine every word of every chapter of every report. An average of 65 reviewers commented on each chapter of the second order draft (i.e. penultimate draft) of the Working Group I report, with the number for any specific chapter ranging from 32 to 100 [6].

• The IPCC review process does not involve a ''peer review'' in the manner used by scientific journals because the report authors are under no obligation to modify passages to text in accordance with requests from reviewers.

As we saw earlier, the role of the IPCC is "... to assess ... the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, ...". This means that the IPCC reports are not aimed at establishing a scientific truth so much as accurately summarizing the current state of understanding of the climate. For this reason reviewer's comments, apart from those dealing with mundane corrections to spelling, grammar and citation details, tend to focus on suggesting further references or on questioning the accuracy of the summaries or certain documents or of the conclusions being drawn.

Unlike normal peer-review processes the Coordinating Lead Authors and Lead Authors of any chapter are the textual "gatekeepers" and not required to modify their text according to reviewers' comments. All they are obliged to do is to make a written response to each review comment and while that response can be terse and inaccurate.

The reviewers have little opportunity for rejoinders or to argue their point because only a reviewer of both the first and second drafts of the IPCC's Fourth Assessment Report would have such an opportunity. The final draft of the report is entirely in the hands of government appointed reviewers and that means the individual reviewers who examined the first and second drafts cannot be assumed to concur with it.

Sometimes one reads or hears of a total of "2500 expert scientist reviewers" who supported the consensus. Perhaps we should invoke memories of President Clinton and ask the IPCC to define "supported".

Almost 1900 of these reviewers commented on the reports from Working Groups II and III, which assumed the findings of Working Group I to be correct and on that basis considered impacts, adaptation and mitigation rather than the fundamental question of a human influence. It is rather stretching the meanings of words to say that these reviewers supported the basic claim rather than simply accepted it.

The IPCC grossly exaggerates and/or fails to correct the perception that the reviewers endorsed every word of the reports. An average of 25% of reviewers' comments were rejected for each chapter of the second draft of the Working Group I report with a minimum rejection rate of 9.5% of reviewers' comments in one chapter and a maximum 58.1% for another. Of the remaining 75% many would be simple corrections to spelling, grammar and citations.

• The IPCC implies that the peer reviewers of its reports act in the same manner as anonymous peer reviewers for articles in scientific journals and that the reviewers of the 4AR endorsed the IPCC's findings. This is an utter fallacy because control of the document rests with the authors, who are not required to modify the document to comply with reviewers' comments, and dissent among the reviewers is abundantly evident.

Again we must turn to the crucial 9th chapter of the Working Group I report because it is only the reviewers of this chapter who either endorse or dispute the IPCC's claim.

In passing we should note that as part of the normal IPCC procedure the drafts of each chapter are sent to all authors so that they might review it. The IPCC fails to distinguish between author-reviewers, reviewers with other vested interests and reviewers that are likely impartial, so the review process for any chapter can be dominated by individuals with a vested interest. Almost all reviewers of chapter 9 had some form of vested interest in that chapter but very few explicitly endorsed it.

From the almost 300 individuals or governments who were given the opportunity to review the second order draft of the pivotal 9th chapter only 62 reviewers in all - 7 chapter authors, 8 government reviewers and 47 individuals – submitted written comments. Of those 62 just *five* expressed support for the chapter as a whole. [6]

• It is stretching credulity to claim that endorsement by 5 of 62 reviewers represents a consensus of any form, let alone an overwhelming one.

The only certain consensus in relation to the IPCC report is found in the plenaries of government representatives who reach agreement on whether the draft of the report is an accurate summary of knowledge at the present time, not whether the report contains irrefutable evidence of a human influence. We know little about the scientific expertise and possible personal biases of these representatives but we do know that most governments have signed and ratified the Kyoto Agreement, incorporated it into government policy, and directed climate research funding in accordance with previous IPCC reports, so a consensus that supports the views of governments is hardly any surprise.

4. The IPCC's "evidence" is weak

Surely the EPA requires evidence of a far higher quality than the IPCC presents.

The IPCC's claim is detailed in section 9.7 of the Working Group I contribution and rests on four pillars:

- (a) The world is warming and the temperature increase is widespread
- (b) The temperature increase cannot be explained by internal variability or heat moving from one climate component to another
- (c) The distribution of warming is not consistent with models
- (d) Climate models need to include an anthropogenic (i.e. "human") component in order for

the output to match the observed surface temperatures.

Item (a) might be true but considerable doubt remains about the accuracy of temperature datasets and we are not told anything of the period of time under consideration. Global average temperatures have risen and fallen at various times and throughout 2007 as the various parts of the IPCC 4AR were released temperatures almost constantly fell and have largely remained below the levels of 2002. (I am aware that NASA's GISS team seems to hold a different to opinion to other temperature datasets - e.g. Hadley Centre, UAH - but various members of the GISS team have shown themselves to be far from impartial and that puts the entire GISS dataset under a cloud.)

Item (b) should come with an introductory phrase writ very large, namely "To the best of our knowledge...". At various points in the 4AR and in greater detail in the Third Assessment Report (TAR) of 2001, the IPCC made it very clear that many climate forces are poorly understood so it is entirely contradictory to imply that item (b) can be stated with certainty.

Item (c) assumes that the models of distribution are accurate and complete. That position is contradicted by the ongoing disputes about the hypothesized mid-latitude Ferrel Cell Circulation. If scientists cannot agree on how heat is distributed at mid-latitudes then how can the models of distribution be claimed to be correct?

Item (d), the key to most IPCC claims, likewise assumes that the modeling of natural climate forces is 100% accurate - perhaps not a surprising claim when it was written by climate Why might the need for additional modeling inputs exist? One obvious answer is that models are inaccurate; it is as simple as that. We might also ask how it was determined that "human influences" needed to be added to models and the simple answer is that this is a retrospective conclusion because those influences were built into the computer software prior to its execution. In other words the input of a human influence was predetermined and not an output of models. Similar output would probably have been achieved if global wealth was factored in, or maybe total energy consumption because we know that probably influence local temperatures, or perhaps total urban population because this will add to the Urban Heat Island Effect.

- The IPCC's claims are predicated on the very obviously false assumption that all natural climate forces are so perfectly understood that they can be modeled with absolute precision. The claim that human activity must be responsible for the discrepancy between the output of models of natural climate forces and the observational data is ludicrous because there are many way to account for this difference.
- We must also wonder why it is that after 20 years of work this so-called evidence is the best that the IPCC can offer. Maybe the narrow focus of its charter is not where the answers lie after all.

5. Numerous Challenges to the IPCC's Credibility

In its ANPR deliberations the EPA should carefully examine the contents of web page

http://mclean.ch/climate/IPCC.htm, which contains links to more than 50 articles that seriously question the credibility and integrity of the IPCC's activities and claims.

A representative sample of these papers is as follows (Control-click on the titles to operate the links):

Recent Ignored Research Findings in Climate Science (by Climate Science: Roger Pielke Sr. Research Group News)

Papers on the effect of aerosols, the bias in temperature monitoring and why outgoing radiation is proportional to temperature raised to the power 4, not temperature itself have not been refuted but have all been ignored by the IPCC.

IPCC Review Editors' Comments Online (by Steve McIntyre, Climate Audit)

Steve McIntyre shows what a sham the IPCC review editing really is. Most of the WGI editors' subsequent obligatory reports to the IPCC were nothing more than a form letter, sent not to the mandated recipient in the IPCC hierarchy but direct to the Technical Support Units. In at least one case a review editor said that he had disposed of his working papers but such action is in breach of IPCC requirements.

Request to the IPCC (by Syun-Ichi Akasofu)

An open letter to the IPCC pointing out many problems with the communication of climate change issues and asking the IPCC to take a lead in clarifying the situation. You can take it as either tongue-in-cheek or an indirect exposure of many of the communication failings of the IPCC.

<u>Unsound Science by the IPCC</u> (by Vincent Gray, expert reviewer of all IPCC assessment reports)

"Despite persistent efforts, the Intergovernmental Panel on Climate Change (IPCC) has never succeeded in the task set to it by the Framework Convention on Climate Change (FCCC), of supplying sound scientific evidence for the belief that human emissions of greenhouse gases are harming the climate. The evidence that has been supplied is based on unsound scientific methods and mathematics. This paper is an attempt to summarize some of it."

Global Warming Audit (by Kesten Green and Scott Armstrong, publicpolicyforecasting.com) Green and Armstrong present the findings of their audit of the IPCC forecasts of global average temperature. They found the IPCC forecasts have no validity and conclude that there is no more reason to expect global warming over the next 90 years than there is to expect global cooling. It would therefore be foolish and extremely costly to base public policy on the IPCC forecasts."

Political Science (by Philip Stott, orig. pub WSJ)

"Unfortunately, the IPCC represents science by supercommittee, as rule 10 of its procedures states: 'In taking decisions, and approving, adopting and accepting reports, the Panel, its Working Groups and any Task Forces shall use all best endeavours to reach consensus.' I bet Galileo would have had a rough time with that."

EPA should examine each of these papers as well as others available via the above-mentioned

web page in order to understand the substantive issues with the IPCC report that it has apparently has embraced without question.

Summary

The IPCC is a high-profile single-focus organization whose existence depends on its own reports. In other words it has a vested interest in promoting claims that would guarantee its funding and justify its continued existence.

This alone would be reason enough to closely examine its procedures and claims but the involvement of governments further complicates matters. These governments not only fund the IPCC but apparently accept its claims without question and allocate funding for climate research on the basis of those findings then when the next IPCC Assessment Report draws on the findings of that government-sponsored research to support its hypothesis, the cycle continues.

• The IPCC's very structure reflects the stipulation in its founding document that it is to take the human influence on climate as a given.

The 2007 report of the science working group (WG I) either overlooks altogether or dismisses unanswered the growing body of evidence in the observed record and in the peer reviewed literature to the effect that "global warming" is not occurring at the rate previously predicted by the IPCC, and is most unlikely ever to do so. The other two working groups are by their very titles compelled to start from the assumption that "global warming" is occurring, that it is our entire fault, and that we can do something about it.

The key document of the IPCC Fourth Assessment Report is the Working Group I (WG I) Report "The Physical Science Basis". WG I Chapter 9, titled *Understanding and Attributing Climate Change*, concludes that human-induced warming of the climate system in the past half-century is widespread and detectable in every continent except Antarctica, affecting extremes of temperature, causing glaciers and sea ice to melt, altering rainfall patterns, and perhaps increasing the intensity of tropical cyclones. This chapter was the basis not only for the IPCC's general claims about manmade "global warming" but also for the contributions from the Working Group II Report "Impacts, Adaptation and Vulnerability" and the Working Group III Report "Mitigation of Climate Change".

One of the key requirements of the Federal Information Quality Act is the independence of the review. The EPA must be aware of the many flaws in the IPCC process that invalidate its use for policymaking purposes.

The EPA must recognize that the IPCC seeks to imply (or fails to correct false perceptions) that

- it is impartial when it is clearly not,
- its authors and reviewers have no vested interest when most do,
- its climate models are accurate when they are not,
- all reviewers support the IPCC's fundamental claims when very few explicitly do so,
- its authors have a wide range of opinions and experience when many work together or have

co-authored papers together, and

- all its authors support the critical claim when many merely reported on observations.

The evidence presented in the IPCC's 4AR is far too weak for this document to be regarded as a credible and authoritative source, including use by the EPA Administrator in justifying the Endangerment Finding.

References

- [1] "Principles governing IPCC Work" see http://www.ipcc.ch/pdf/ipcc-principles/ipcc-principles.pdf
- [2] "Procedures for the preparation, review, acceptance, adoption approval and publication of IPCC reports" (Appendix A to the Principles Governing IPCC Work), see http://www.ipcc.ch/pdf/ipcc-principles/ipcc-principles-appendix-a.pdf
- [3] "Report of the 21st session of the IPCC (Vienna, Austria, 3 and 6-7 November 2003)" see http://www.ipcc.ch/meetings/session21/final-report.pdf
- [4] "Prejudiced Authors, Prejudiced Findings" see http://scienceandpublicpolicy.org/images/stories/papers/originals/McLean_IPCC_bias.pdf
- [5] Wegman, E.J., D.W. Scott and Y.H. Said (2006), "Ad Hoc Committee Report on the 'Hockey Stick' Global Climate Reconstruction", available online at http://www.climateaudit.org/pdf/others/07142006_Wegman_Report.pdf
- [6] McLean, J (2007), "An Analysis of the Review of the IPCC 4AR WG I Report" see http://mclean.ch/climate/IPCC_review_updated _analysis.pdf