

To: GHG-Endangerment-Docket@epa.gov

From: Center for Science and Public Policy

Source:

Written testimony of Dr. Roger A. Pielke, Sr.
House Subcommittee on Energy and Air Quality
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Re: Docket ID No. EPA-HQ- OAR-2009-0171

Please find the following comments related to EPA's April 24, 2009 **Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act (EF)**.

These comments also address issues in the April 17, 2009 **Technical Support Document (TSD)** that includes many of the detailed references to science, data, and models used to justify comments in the Endangerment Finding.

Issue Summary

Substantial peer reviewed papers were ignored by the IPCC specifically because they conflict with the assessment that is presented in the IPCC WG1 Report, and the Lead Authors do not agree with that perspective.

A similar problem was identified with the CCSP process.

The lack of independence by contributors, especially review editors and lead authors, demonstrates a fatal flaw in meeting the Federal Information Quality Act requirements that EPA must comply with in the Endangerment Finding.

Specific Errors in the EF/TSD

EF.18894.1-2

A. Approach in Utilizing the Best Available Scientific Information

EPA has developed a technical support document (TSD) which synthesizes major findings from the best available scientific assessments that have gone through rigorous and transparent peer review. The TSD therefore relies most heavily on the major assessment reports of both the Intergovernmental Panel on Climate Change (IPCC) and the U.S. Climate Change Science Program (CCSP). EPA took this approach rather than conducting a new assessment of the scientific literature. The IPCC and CCSP assessments base their findings on the large body of many individual, peer reviewed studies in the literature, and then the IPCC and CCSP assessments themselves go through a transparent peer-review process. The TSD was in turn reviewed by a dozen federal government scientists, who have contributed significantly to the body of climate change literature, and indeed to our common understanding of this problem.

The information in the TSD has therefore been developed and prepared in a manner that is consistent with EPA's Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Disseminated by the Environmental Protection Agency.[17]

*[17] U.S. EPA (2002), EPA/260R-02-008
http://www.epa.gov/quality/informationguidelines/documents/EPA_InfoQualityGuidelines.pdf.*

The TSD has also been edited or updated in a number of places to reflect specific comments received on the July 2008 version, and to reflect comments from an additional round of review by the federal scientists following the incorporation of the more recent scientific findings.

Comments

Documentation of IPCC WG1 and CCSP Bias

The 2007 Intergovernmental Panel on Climate Change (IPCC) Reports have the following stated goals:

“A comprehensive and rigorous picture of the global present state of knowledge of climate change”

and

“The Intergovernmental Panel on Climate Change (IPCC) has been established by WMO and UNEP to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation.”

However, the IPCC WG 1 Chapter 3 report failed in this goal.

This comment illustrates this defect using the example of their assessment of the multi-decadal land near-surface temperature trend data, where peer reviewed papers that conflicted with the robustness of the surface air temperature trends are ignored.

To evaluate the IPCC’s claim to be comprehensive, we cross-compared IPCC WG1 references on near-surface air temperature trends with the peer-reviewed citations that have been given in *Climate Science*. We selected only papers that appeared before about May 2006 so they were readily available to the IPCC Lead authors.

The comparison follows where the bold faced citations are in the IPCC WG1 Report and remainder of the available papers were ignored:

I. ISSUES WITH THE ROBUSTNESS OF THE IPCC CONFIDENCE IN THE SURFACE TEMPERATURE RECORD

Chase, T.N., R.A. Pielke Sr., J.A. Knaff, T.G.F. Kittel, and J.L. Eastman, 2000: A comparison of regional trends in 1979-1997 depth-averaged tropospheric temperatures. *Int. J. Climatology*, 20, 503-518.

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Hansen, J., L. Nazarenko, R. Ruedy, Mki. Sato, J. Willis, A. Del Genio, D. Koch, A. Lacis, K. Lo, S. Menon, T. Novakov, Ju. Perlwitz, G. Russell, G.A. Schmidt, and N.Tausnev, 2005: Earth's energy imbalance: Confirmation and implications. *Science* 308, 1431-1435, doi:10.1126/science.1110252.

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Hansen, J., M. Sato, R. Ruedy, K. Lo, D.W. Lea, and M. Medina-Elizade, 2006: Global temperature change. *PNAS*, **103**, 14288 - 14293.

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Jones, P.D., and A. Moberg. 2003: Hemispheric and large-scale surface air temperature variations: An extensive revision and an update to 2001. *J. Climate* **16, 206-223.**

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Karl, T.R., S.J. Hassol, C.D. Miller, and W.L. Murray, Eds., 2006: Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences. A Report by the Climate Change Science Program and the Subcommittee on Global Change Research, Washington, DC.

Lim, Y.K., M. Cai, E. Kalnay, and L. Zhou, 2005: Observational evidence of sensitivity of surface climate changes to land types and urbanization. *Geophys. Res. Lett.*, Vol. 32, No. 22, L2271210.1029/2005GL024267.

Mahmood, R., S.A. Foster, and D. Logan, 2006: The GeoProfile metadata, exposure of instruments, and measurement bias in climatic record revisited. *Int. J. Climatology*, 26(8), 1091-1124.

Parker, D.E., 2004: Large-scale warming is not urban. *Nature*, 432, 290, doi:10.1038/432290a;

Peterson, T.C., 2003: Assessment of urban versus rural in situ surface temperatures in the contiguous United States: No difference found. *J. Climate*, 16, 2941–2959.

Peterson, T.C., 2006. Examination of potential biases in air temperature caused by poor station locations. *Bull. Amer. Meteor. Soc.*, 87, 1073-1089.

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Peterson, T.C., D.R. Easterling, T.R. Karl, P. Ya. Groisman, N. Nicholls, N. Plummer, S. Torok, I. Auer, R. Boehm, D. Gullett, L.

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- Vose, R.S., T.R. Karl, D.R. Easterling, C.N. Williams, and M.J. Menne, 2004: Impact of land-use change on climate. *Nature*, 427, 213-21.**
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Zhou, L., R.E. Dickinson , Y. Tian, J. Fang , Q. Li , R.K. Kaufmann, C.J. Tucker, and R.B. Myneni, 2004: Evidence for a significant urbanization effect on climate in China. *PNAS*, **101**, 9540-9544.

If the papers were neglected because they were redundant, this would be no problem. However, they are ignored specifically because they conflict with the assessment that is presented in the IPCC WG1 Report, and the Lead Authors do not agree with that perspective!

That is hardly honoring the IPCC commitment to provide
“A comprehensive and rigorous picture of the global present state of knowledge of climate change”.

Moreover, the conflict of interest that was identified in the CCSP Report “Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences” is perpetuated in the IPCC WG1 Chapter 3 Report [where the Editor of this CCSP Report, Tom Karl, is also Review Editor for the Chapter 3 of the 2007 IPCC WG1 Report].

These comments were made with respect to this CCSP Report

“The process for completing the CCSP Report excluded valid scientific perspectives under the charge of the Committee. The Editor of the Report systematically excluded a range of views on the issue of understanding and reconciling lower atmospheric temperature trends. The Executive Summary of the CCSP Report ignores critical scientific issues and makes unbalanced conclusions concerning our current understanding of temperature trends”?

“Future assessment Committees need to appoint members with a diversity of views and who do not have a significant conflict of interest with respect to their own work. Such Committees should be chaired by individuals committed to the presentation of a diversity of perspectives and unwilling to engage in strong-arm tactics to enforce a narrow perspective. Any such committee should be charged with summarizing all relevant literature, even if inconvenient, or which presents a view not held by certain members of the Committee.”

The IPCC WG1 Chapter 3 Report process made the same mistakes and failed to provide an objective assessment. Indeed the selection of papers to present in the IPCC (as well as how the work of others that was cited was

dismissed) had a clear conflict of interest as the following individuals cited their research prominently yet were also a Review Editor (Tom Karl), works for the Review Editor (Tom Peterson, Russ Vose, David Easterling), were Coordinating Lead Authors (Kevin Trenberth and Phil Jones), were Lead Authors (Dave Easterling and David Parker), or a Contributing Author (Russ Vose).

In fact, as stated above, the CCSP Report “Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences”, with its documented bias, was chaired by the same person as the Review Editor of the IPCC WG1 Chapter 3 Report (Tom Karl)! Regardless of his professional expertise, he is still overseeing an assessment which is evaluating his own research. There cannot be a clearer conflict of interest.

The IPCC WG1 Chapter 3 Report clearly cherry-picked information on the robustness of the land near-surface air temperature to bolster their advocacy of a particular perspective on the role of humans within the climate system. As a result, policymakers and the public have been given a false (or at best an incomplete) assessment of the multi-decadal global average near-surface air temperature trends.

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