U.S. House of Representatives
Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, DC 20515
May 29, 2014

Full Committee Hearing
"Examining the UN Intergovernmental Panel on Climate Change Process"

Questions Prepared for Consideration by Committee

I. *EPA's 2009 Endangerment Findings Embraced and Adopted Third & Fourth IPCC Assessments as if U.S Government Science*

1. Did not the EPA Administrator's GHG endangerment and cause or contribute findings assert that, "the scientific assessments of *the IPCC*, the USGCRP, and the NRC were "the best reference materials for determining the general state of knowledge on the scientific and technical issues before the agency in making an endangerment decision"? [1]

2. Did not the EPA Administrator's endangerment findings explicitly state that, "[t]hese assessments therefore *essentially represent the U.S. government's view of the state of knowledge on greenhouse gases and climate change. For example, with regard to government acceptance and approval of IPCC assessment reports*, the USGCRP Web site states that: *'When governments accept the IPCC reports and approve their Summary for Policymakers, they acknowledge the legitimacy of their scientific content.'[fn] It is the Administrator's view that such review and acceptance by the U.S. Government lends further support for placing primary weight on these major assessments*" (emphasis added)? [2]

3. Is it not true that, although OMB's Peer Review Bulletin "does not [generally] directly cover information supplied to the government by third parties (e.g., studies by private consultants, companies and private, non-profit organizations, or research institutions such as universities)? [3]

    a. Is it not true, however, that "if an agency plans to disseminate information supplied by a third party (e.g., using this information as the basis for an agency's factual determination that a particular behavior causes a disease), the requirements of the Bulletin apply, if the dissemination is 'influential'"? [4]

4. Is it not true that Sec. 5.3 of the EPA Guidelines implementing the U.S. Information Quality Act[5] provide that, "[f]or purposes of these Guidelines, EPA disseminates information to the public when EPA initiates or sponsors the distribution of information to the public"?[6]

a. Is it not true pursuant to said provision that, "EPA initiates a distribution of information if EPA distributes information prepared or submitted by an outside party in a manner that reasonably suggests that EPA endorses or agrees with it"?
b. Is it not true pursuant to said provision that, EPA initiates such a distribution of information "if EPA indicates in its distribution that the information supports or represents EPA's viewpoint"?
c. Is it not true pursuant to said provision that, EPA initiates such a distribution "if EPA in its distribution proposes to use or uses the information to formulate or support a regulation, guidance, policy, or other Agency decision or position"? [7]

5. Alternatively, is it not true that Sec. 5.8 of the EPA IQA Guidelines provide that, "If a particular distribution of information is not covered by these Guidelines, the Guidelines may still apply to a subsequent dissemination of the information in which EPA adopts, endorses, or uses the information to formulate or support a regulation, guidance, or other Agency decision or position"? [8]

6. Is it not true that the three IPCC assessments designated as "core reference documents" and disseminated within EPA's Technical Summary Document accompanying the EPA GHG Endangerment findings [9] qualify as "highly influential scientific assessments"[10] within the meaning of the Information Quality Act?

7. Did not EPA's Technical Summary Document state that, "[p]eer review and transparency are central to…IPCC['s]…report development process [, that the IPCC] assessment reports provide EPA with assurances that this material has been well vetted by both the climate change research community and by the U.S. government [and that]…use of these assessments complies with EPA's information quality guidelines, as this document relies on information that is objective, technically sound and vetted, and of high integrity"? [11]

8. Was not EPA legally required to ensure that all IPCC assessments the EPA Administrator embraced, effectively adopted as U.S. government science, and primarily relied upon as the basis for EPA's Endangerment Findings had been developed pursuant to peer review science processes that satisfied the strict standards of the U.S. Information Quality Act applicable to highly influential scientific assessments ("HISAs")?

II. *The Past Reliability of IPCC Third & Fourth Assessment Reports' Peer Review Processes*

1. Did not the findings of a 2010 United Nations ("UN") Secretary General and IPCC Chair-commissioned report prepared by the InterAcademy Council ("IAC")[12] reveal numerous flaws in the peer review processes and procedures surrounding the development of the IPCC AR4?

2. To what extent did the peer review process flaws identified in the IAC Report in the critical areas of peer review, reviewer independence/ conflict-of-interest, lead author selection, assessment scoping, and assessment communication transparency, require correction? [13]

3. Did not the IAC Report recommend that corrections be made to the IPCC's peer review processes to address the problems noted in Q.2? What specific corrections had been recommended? [14] Were such corrections actually undertaken? When and how?[15]

4. Is it not true that established IPCC processes for flagging, critically assessing and listing unpublished or non-peer-reviewed sources had often been ignored, leading to AR4 lead-author review errors?[16]

5. Is it not true that the IAC Report revealed that 16%, 41%, and 64% of the approximately 14,000 IPCC references that Working Groups ("WG") I, II and III, respectively, cited in AR3 consisted of non-peer-reviewed journal articles? Does this not suggest that half of the WG-II contribution to the IPCC AR3 had consisted of gray literature, and that most of the WG-III contribution to the IPCC AR3 had relied mostly on gray literature?[17]

6. Is it not true that two of the three editors of WG-III's AR4 report (Metz and Davidson) also had been lead-authors in WG III's AR3 Report? If yes, is not more likely than not that no significant change in the use of non-peer-reviewed sources had taken place in the AR4 Report?[18]

7. Is it not true that the IAC Report had found that the IPCC lacks institutional and scientific independence because it is an intergovernmental subsidiary panel of the World Meteorological Organization ("WMO") and the United Nations Environment Program ("UNEP"), is overseen by WMO and UNEP and must report to the UNEP, the WMO, the Secretariat of the UN Framework Convention on Climate Change, and the UN General Assembly?[19]

8. Is it not true that the IAC Report expressed concerns about the "lack of a conflict-of- interest and disclosure policy for IPCC leaders and Lead Authors", because the IPCC "does not have a conflict-of-interest or disclosure policy for its [own] senior leadership (i.e., IPCC Chair and Vice Chairs), Working Group Co-chairs and authors, or the staff of the Technical Support Units"? [20]

9. Is it not true that the IAC Report expressed concerns about the "lack of a conflict-of- interest and disclosure policy for IPCC leaders and Lead Authors" because, although "IPCC Secretariat…professional staff members…are employees of WMO and/or UNEP and are subject to their disclosure and ethics policies…WMO and UNEP have not established conflict-of- interest or disclosure policies for experts who serve on most WMO and UNEP assessment teams", strongly suggesting that IPCC senior leadership was not subject to any conflict-of-interest rules at all? [21]

10. Is it not true that the IAC Report concluded that IPCC peer review processes suffered from transparency failures, including a lack of formal author selection criteria which rendered the AR4 susceptible to political influence, as well as, a lack of enforceable guidelines preventing IPCC leaders and spokespersons from straying into policy advocacy in violation of the organization's mandate? [22]

11. Is it not true that four (4) of the twelve (12) members of the IAC Board-appointed IPCC Review Committee[23] had been affiliated with universities that had likely hosted or participated in DOC-NOAA-funded cooperative projects? [24]

12. Why shouldn't these IPCC process and procedure failures raise serious doubts about the quality of the IPCC assessments and the DOC-NOAA-generated USGCRP/CCSP assessments that reference and incorporate them, upon which the EPA Administrator's Final endangerment and cause or contribute Findings primarily rely?

13. Is it not true that, that a large number (at least forty-seven (47)) of DOC-NOAA scientists had served either as "Lead Authors", "Contributing Authors" or "Coordinating Lead Authors" for the Working Group I portion of the AR4? [25]

14. Is it not true that, that a comparatively large number (at least thirty-seven (37)) of DOC-NOAA scientists had 'peer reviewed' the final Working Group I portion of the IPCC AR4,[26] fifteen (15) of whom had apparently, in part, reviewed their own work (i.e., they served both as contributors to and reviewers of the WG I report)? [27]

15. Is it not true that, DOC-NOAA had previously provided eighteen (18) of the thirty (30) U.S Government climate scientists who been integrally involved in the 'peer review' of the second draft of the Working Group I contribution to the IPCC's Fourth Assessment Report ("AR4")? [28]

16. Is it true that, five (5) of the eight (8) listed editors of the WG I portion of the IPCC AR4 were DOC-NOAA scientists, two (2) of whom had already both contributed to and reviewed said report? [29]

17. Is it true that, a large number of other scientists (approximately fifty-nine (59) and forty-nine (49), respectively,) that had been affiliated with universities which had likely participated in DOC-NOAA-funded RISA, COCA, IRAP and Cooperative Institute programs had also contributed to and/or reviewed the WG I portion of the IPCC AR4? [30]

    a. Is it true that thirteen (13) of these scientists had previously served both as contributing authors and reviewers of this portion of the AR4 assessment? [31]

III. *Reliability of the Peer Review Processes Employed Surrounding Development of IPCC Fifth Assessment Report*

1. Is it true that approximately 100 U.S. government scientists representing six different federal agencies (DOC-NOAA, DOE, NSF-NCAR, NASA, DOI-USGS and Navy) had participated in the development of IPCC AR5?

2. Is it true that approximately 123 scientists affiliated with universities likely participating in DOC-NOAA-funded climate science research and cooperative programs had participated in the development of IPCC AR5?

3. How many of the same U.S. government scientists and scientists affiliated with universities likely participating in DOC-NOAA-funded climate science research and cooperative programs had participated in the development of the IPCC AR5 *and* the Third U.S. national climate assessment?

4. How many of the same U.S. government scientists and scientists affiliated with universities likely participating in DOC-NOAA-funded climate science research and cooperative programs had participated in the development of the IPCC AR5 *and* the development *and* the peer review of the Third U.S. national climate assessment?

5. How has the U.S. Government formally embraced IPCC AR5 and adopted its findings as its own, as reflected in the Third National Climate Assessment?

6. What specific different peer review processes had been employed surrounding the development of IPCC AR5 under its revised peer review processes and procedures to ensure against peer reviewer conflicts-of-interest (apparent as well as actual, financial as well as nonfinancial) and lack of independence/bias, the formation and maintenance of imbalanced peer review panels, the non-transparency of panel charges, instructions, findings, etc.?

7. What specific different peer review processes had been employed surrounding the development of IPCC AR5 under its revised peer review processes and procedures to ensure that the AR5 peer review plan and agenda are publicly available, that peer review reports, peer reviewer comments, and interagency U.S. Global Change Research Program and participating individual USGCRP federal agency (e.g., predominantly DOC-NOAA) responses to peer review comments are made publicly available and accessible, consistent with the strict requirements of the U.S. Information Quality Act applicable to highly influential scientific assessments ("HISAs")?

8. What specific different procedures had been employed surrounding the development of IPCC AR5 to ensure that stakeholder requests for correction or reconsideration of specific scientific information contained in AR5 had been adequately addressed in a separate administrative mechanism, consistent with the Information Quality Act?

ENDNOTES

[1] *See* United States Environmental Protection Agency, *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, s 74 FR 66496, 66511 (Dec. 15, 2009), available at: http://www.gpo.gov/fdsys/pkg/FR-2009-12-15/pdf/E9-29537.pdf.

[2] *Id*.

[3] *See* Office of Management and Budget, *Final Information Quality Bulletin for Peer Review* ("OMB Peer Review Bulletin" or OMB-PRB") (Dec. 16, 2004) at Preamble, p. 9, available at: http://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2005/m05-03.pdf.
[4] *Id*.
[5] "[T]he term "Information Quality Act" means Section 515 of Public Law 106-554 (Pub. L. No. 106-554, § 515, 114 Stat. 2763, 2763A-153-154 (2000))" *Id*., at Sec. I.4, *supra*.
[6] *See* U.S. Environmental Protection Agency, *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by EPA* (2002), at Sec. 5.3 pp. 15-16, available at: http://www.epa.gov/quality/informationguidelines/documents/EPA_InfoQualityGuidelines.pdf.
[7] *Id*.
[8] *Id*., at Sec. 5.5 p. 18.
[9] *See* United States Environmental Protection Agency, *Technical Support Document ("EPA-TSD") For Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, EPA–HQ–OAR–2009–0472–11292 (Dec. 7, 2009), at
[10] "[T] the term "scientific assessment" means an evaluation of a body of scientific or technical knowledge, which typically synthesizes multiple factual inputs, data, models, assumptions, and/or applies best professional judgment to bridge uncertainties in the available information. These assessments include, but are not limited to, state-of-science reports; technology assessments; weight-of-evidence analyses; meta-analyses; health, safety, or ecological risk assessments; toxicological characterizations of substances; integrated assessment models; hazard determinations; or exposure assessments". *See* OMB-PRB, *supra* at Sec. I.7. "A scientific assessment is considered 'highly influential' if the agency or the OIRA Administrator determines that the dissemination could have a potential impact of more than $500 million in any one year on either the public or private sector or that the dissemination is novel, controversial, or precedent-setting, or has significant interagency interest." *Id*., at Sec. III, p. 23.
[11] *See* EPA-TSD, *supra* at p. 5.
[12] *See* InterAcademy Council, *Climate Change Assessments Review of the Processes and Procedures of the IPCC* ("IAC-2010 Report") (10/1/10), available at: http://www.interacademycouncil.net/24026/26050.aspx; http://www.ipcc.ch/pdf/IAC_report/IAC%20Report.pdf.
[13] *See*, IAC-2010 Report, *supra* at iii, 59-65. The report found that, although "the IPCC has heightened public awareness of climate change, raised the level of scientific debate, and influenced the science agendas of many nations…*some fundamental changes to the process and the management structure are essentia*l" (emphasis added). *Id*., at 59.
[14] *Id*., at: Chap. 5, pp. 59-64. See also
[15] *See* United Nations Intergovernmental Panel on Climate Change, *Principles and Procedures, Appendix A- Procedures for the Preparation, Acceptance, Adoption, Approval and Publication of IPCC Reports*, Adopted at the Fifteenth Session (San Jose, 15-18 April 1999) **amended at the** Twentieth Session (Paris, 19-21 February 2003), Twenty-First Session (Vienna, 3 and 6-7 November 2003), Twenty-Ninth Session (Geneva, 31 August-4 September 2008), **Thirty-Third Session (Abu Dhabi, 10-13 May 2011), Thirty-Fourth Session (Kampala, 18-19 November 2011),Thirty-Fifth Session (Geneva, 6-9 June 2012) and the Thirty-Seventh Session (Batumi, 14-18 October 2013)**, available at: http://www.ipcc.ch/pdf/ipcc-principles/ipcc-principles-appendix-a-final.pdf.
[16] *See* IAC-2010 Report, *supra* at xiii-xiv, 16-17, Box 2.1, 22.
[17] Id., at p. 16, citing the findings of Bjurström, A., and M. Polk, *Physical and Economic Bias in Climate Change Research: A Scientometric Study of IPCC Third Assessment Report*, Climatic Change (2010), §3.2, available at: http://gaia.jhuapl.edu/sites/default/files/Bjurstrom_IPCC_bias.pdf. These authors estimate that AR4 reflects roughly similar rates of reliance upon non-peer-reviewed "gray" literature. *See* Roger Pielke Jr., Blog, *Gray Literature in the IPCC TAR, A Guest Post by Andreas Bjurström* (3/5/10) available at: http://rogerpielkejr.blogspot.com/2010/03/gray-literature-in-ipcc-tar-guest-post.html.
[18] *See* IPCC (2001), *Climate Change 2001: Mitigation, A Report of Working Group III of the Intergovernmental Panel on Climate Change* ("IPCC AR3 WG-III Report"), at §10.4.2.2, available at: http://www.ipcc.ch/ipccreports/tar/wg3/index.php?idp=437; IPCC (2007) *Climate Change 2007 - Mitigation of Climate Change, Contribution of Working Group III to the Fourth Assessment Report of the IPCC*, B. Metz, eds., Cambridge University Press ("IPCC AR4 WG-III Report"), available at: http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4_wg3_full_report.pdf.

[19] *See* IAC-2010 Report, *supra* at 44. Indeed, the WMO Secretary-General and UNEP Executive Director signed the Forewords to the AR3 and AR4 assessments. *See* IPCC (2001), *Climate Change 2001: The Scientific Basis, Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, Foreword, M. Noguer, et al., (Cambridge University Press), available at: http://www.grida.no/climate/ipcc_tar/wg1/pdf/WG1_TAR-FRONT.pdf; IPCC (2007), *Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, at Foreword (Solomon, S., et al., eds.), Cambridge University Press, available at: http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-frontmatter.pdf.
[20] *See* IAC-2010 Report, *supra* at pp. 52-53.
[21] *Id*., at p. 52.
[22] *Id*., at pp. 14-15, 54-55.
[23] "[T]he United Nations Secretary-General and the Chair of the Intergovernmental Panel on Climate Change (IPCC) [had asked]…the IAC…to establish an ad hoc review committee of experts from relevant fields to conduct the review and to present recommendations on possible revisions of IPCC processes and procedures for strengthening the capacity of IPCC to respond to future challenges and ensuring the ongoing quality of its reports." *Id*., at Foreword, p.3. *See also Id*., at "Committee to Review the Intergovernmental Panel on Climate Change", p. vi; "Appendix E - Committee biographies", at pp. 99-102.
[24] The following four (4) IAC IPCC Review Committee members had worked for organizations that likely participated in DOC-NOAA-funded Cooperative Institute programs: **Harold Shapiro, Princeton Univ.; Maureen Cropper, Univ. of Maryland; Syukuro Manabe, Princeton, Univ.; and Mario Molino, UC-Irvine & Scripps Institute**. *See* National Oceanic Atmospheric Administration, *Cooperative Institute Program Office Fact Sheet*, NOAA website, available at: ftp://ftp.oar.noaa.gov/lci/1pgFactSheets/CIFAS.pdf. "Cooperative Institutes are non-federal organizations supported by the National Oceanic and Atmospheric Administration (NOAA). Cooperative Institutes have outstanding research programs in one or more areas relevant to the NOAA mission. NOAA's Cooperative Institutes collaborate in a large portion of NOAA's research and play a vital role in increasing NOAA's research capacity and expertise." *Id*. As of 2012, there appears to have been eighteen (18) Cooperative Institutes managed by three NOAA lines offices: National Environmental Satellite, Data and Information Service (NESDIS), National Marine Fisheries Services (NMFS), and Oceanic and Atmospheric Research (OAR). *See* United States Department of Commerce, National Oceanic and Atmospheric Administration, *NOAA COOPERATIVE INSTITUTE PROFILES 6/6/2012*, NOAA website, available at: ftp://ftp.oar.noaa.gov/lci/Documents/ci-profiles.pdf.
[25] *See* Institute for Trade, Standards and Sustainable Development, *Freedom of Information Act Clarification*, Request No. DOC-NOAA 2014-000714 (May 5, 2014) at p. 17 and accompanying footnote, available at: http://nebula.wsimg.com/c25e625aa81981536c980ec0f3307791?AccessKeyId=39A2DC689E4CA87C906D&disposition=0&alloworigin=1.
[26] *Id*., and accompanying footnote.
[27] *Id*., and accompanying footnote.
[28] *Id*., and accompanying footnote; *See also* United States Department of Commerce, National Oceanic and Atmospheric Administration, *U.S. Government Review of the Second-Order Draft IPCC Working Group I Contribution to the Fourth Assessment Report (4AR) – "Climate Change 2007: The Physical Science Basis"* (June 2006), available at: http://www.noaa.gov/foia/noaa_useful_websites/US_Government_Review/WGI_USGreview_submitted_comments.pdf.
[29] *See* Institute for Trade, Standards and Sustainable Development, *Freedom of Information Act Clarification*, Request No. DOC-NOAA 2014-000714 (May 5, 2014), *supra* at p. 17 and accompanying footnote.
[30] *Id*., at p. 18 and accompanying footnotes.
[31] *Id*., and accompanying footnotes.