

Dear colleagues,

After some prolonged deliberation, I have decided to withdraw from participating in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). I am withdrawing because I have come to view the part of the IPCC to which my expertise is relevant as having become politicized. In addition, when I have raised my concerns to the IPCC leadership, their response was simply to dismiss my concerns.

With this open letter to the community, I wish to explain the basis for my decision and bring awareness to what I view as a problem in the IPCC process. The IPCC is a group of climate researchers from around the world that every few years summarize how climate is changing and how it may be altered in the future due to manmade global warming. I had served both as an author for the Observations chapter and a Reviewer for the 2nd Assessment Report in 1995 and the 3rd Assessment Report in 2001, primarily on the topic of tropical cyclones (hurricanes and typhoons). My work on hurricanes, and tropical cyclones more generally, has been widely cited by the IPCC. For the upcoming AR4, I was asked several weeks ago by the Observations chapter Lead Author---Dr. Kevin Trenberth---to provide the writeup for Atlantic hurricanes. As I had in the past, I agreed to assist the IPCC in what I thought was to be an important, and politically-neutral determination of what is happening with our climate.

Shortly after Dr. Trenberth requested that I draft the Atlantic hurricane section for the AR4's Observations chapter, Dr. Trenberth participated in a press conference organized by scientists at Harvard on the topic "Experts to warn global warming likely to continue spurring more outbreaks of intense hurricane activity" along with other media interviews on the topic. The result of this media interaction was widespread coverage that directly connected the very busy 2004 Atlantic hurricane season as being caused by anthropogenic greenhouse gas warming occurring today. Listening to and reading transcripts of this press conference and media interviews, it is apparent that Dr. Trenberth was being accurately quoted and summarized in such statements and was not being misrepresented in the media. These media sessions have potential to result in a widespread perception that global warming has made recent hurricane activity much more severe.

I found it a bit perplexing that the participants in the Harvard press conference had come to the conclusion that global warming was impacting hurricane activity today. To my knowledge, none of the participants in that press conference had performed any research on hurricane variability, nor were they reporting on any new work in the field. All previous and current research in the area of hurricane variability has shown no reliable, long-term trend up in the frequency or intensity of tropical cyclones, either in the Atlantic or any other basin. The IPCC assessments in 1995 and 2001 also concluded that there was no global warming signal found in the hurricane record.

Moreover, the evidence is quite strong and supported by the most recent credible studies that any impact in the future from global warming upon

hurricane will likely be quite small. The latest results from the Geophysical Fluid Dynamics Laboratory (Knutson and Tuleya, *Journal of Climate*, 2004) suggest that by around 2080, hurricanes may have winds and rainfall about 5% more intense than today. It has been proposed that even this tiny change may be an exaggeration as to what may happen by the end of the 21st Century (Michaels, Knappenberger, and Landsea, *Journal of Climate*, 2005, submitted).

It is beyond me why my colleagues would utilize the media to push an unsupported agenda that recent hurricane activity has been due to global warming. Given Dr. Trenberth's role as the IPCC's Lead Author responsible for preparing the text on hurricanes, his public statements so far outside of current scientific understanding led me to concern that it would be very difficult for the IPCC process to proceed objectively with regards to the assessment on hurricane activity. My view is that when people identify themselves as being associated with the IPCC and then make pronouncements far outside current scientific understandings that this will harm the credibility of climate change science and will in the longer term diminish our role in public policy.

My concerns go beyond the actions of Dr. Trenberth and his colleagues to how he and other IPCC officials responded to my concerns. I did caution Dr. Trenberth before the media event and provided him a summary of the current understanding within the hurricane research community. I was disappointed when the IPCC leadership dismissed my concerns when I brought up the misrepresentation of climate science while invoking the authority of the IPCC. Specifically, the IPCC leadership said that Dr. Trenberth was speaking as an individual even though he was introduced in the press conference as an IPCC lead author; I was told that that the media was exaggerating or misrepresenting his words, even though the audio from the press conference and interview tells a different story (available on the web directly); and that Dr. Trenberth was accurately reflecting conclusions from the TAR, even though it is quite clear that the TAR stated that there was no connection between global warming and hurricane activity. The IPCC leadership saw nothing to be concerned with in Dr. Trenberth's unfounded pronouncements to the media, despite his supposedly impartial important role that he must undertake as a Lead Author on the upcoming AR4.

It is certainly true that "individual scientists can do what they wish in their own rights", as one of the folks in the IPCC leadership suggested. Differing conclusions and robust debates are certainly crucial to progress in climate science. However, this case is not an honest scientific discussion conducted at a meeting of climate researchers. Instead, a scientist with an important role in the IPCC represented himself as a Lead Author for the IPCC has used that position to promulgate to the media and general public his own opinion that the busy 2004 hurricane season was caused by global warming, which is in direct opposition to research written in the field and is counter to conclusions in the TAR. This becomes problematic when I am then asked to provide the draft about observed hurricane activity variations for the AR4 with, ironically, Dr. Trenberth as the Lead Author for this chapter. Because of Dr. Trenberth's pronouncements,

the IPCC process on our assessment of these crucial extreme events in our climate system has been subverted and compromised, its neutrality lost. While no one can "tell" scientists what to say or not say (nor am I suggesting that), the IPCC did select Dr. Trenberth as a Lead Author and entrusted to him to carry out this duty in a non-biased, neutral point of view. When scientists hold press conferences and speak with the media, much care is needed not to reflect poorly upon the IPCC. It is of more than passing interest to note that Dr. Trenberth, while eager to share his views on global warming and hurricanes with the media, declined to do so at the Climate Variability and Change Conference in January where he made several presentations. Perhaps he was concerned that such speculation---though worthy in his mind of public pronouncements---would not stand up to the scrutiny of fellow climate scientists.

I personally cannot in good faith continue to contribute to a process that I view as both being motivated by pre-conceived agendas and being scientifically unsound. As the IPCC leadership has seen no wrong in Dr. Trenberth's actions and have retained him as a Lead Author for the AR4, I have decided to no longer participate in the IPCC AR4.

Sincerely,

Chris Landsea

17 January 2005