

Climate of distrust

Six months into President George W. Bush's second term of office, partisan politics continues to widen the gulf between researchers and the administration.

The story has become so familiar that new twists in the plot cease to outrage. Time after time, in agency after agency, political factors have prevented US science from serving its time-honoured role in informing government decisions.

In one of the latest examples, Congressman Joe Barton (Republican, Texas) has asked three climate researchers, along with the heads of the National Science Foundation and the Intergovernmental Panel on Climate Change (IPCC), for background information on certain palaeoclimate research. On the surface, such a request seems natural. The congressman heads the House of Representatives' Committee on Energy and Commerce, which deals with environmental matters, among other topics.

But dig a little deeper and you find Joe Barton is not known as a friend of the environment. His home town's newspaper, *The Dallas Morning News*, nicknamed him 'Smokey Joe' for his efforts to exempt cement plants in his district from stricter anti-smog rules. This spring he helped the House pass an energy bill that contains no measures at all to limit greenhouse-gas emissions.

Flaws and errors

As a congressman, Barton is well within his rights to request information from researchers funded by US taxpayers. His letters to the climate scientists are not a subpoena and do not legally require a response. But their tone leaves no doubt as to his agenda.

"Questions have been raised, according to a February 14, 2005 article in *The Wall Street Journal*," he writes, "about the significance of methodological flaws and data errors in your studies of the historical record of temperatures and climate change... We open this review because this dispute surrounding your studies bears directly on important questions about the federally funded work upon which climate studies rely and the quality and transparency of analyses used to support the IPCC assessment process."

The letters request information on the scientists' professional background, financial backing, accessibility of their data and computer codes, relationship to the IPCC, and more. The requests have their genesis in a 1998 *Nature* article (M. E. Mann *et al.* *Nature* 392, 779–787; 1998), which showed that temperatures in the Northern Hemisphere rose sharply in the twentieth century, in a graphical upswing dubbed the 'hockey stick'. Michael Mann of the University of Virginia, Raymond Bradley of the University of Massachusetts, and Malcolm Hughes of the University of Arizona have spent the past few years responding to queries about this work from Canadian researchers Steve McIntyre, who worked in the mining industry, and Ross McKittrick, an economist at the University of Guelph, Ontario.

Subsequent studies have supported the observation that unprecedented warming occurred in the 20th century, while multiple lines of evidence support the notion that anthropogenic influences are contributing to it. Science is, by its very nature, a process open to the

questioning and overthrowing of currently accepted ideas, and the detail of Mann and colleagues' work has itself been debated within the climate community. Barton, in contrast, has chosen to cherry-pick selected information on the hockey-stick work, using an article from *The Wall Street Journal* as his scientific guide.

Even President George Bush, in widely reported comments last weekend, now accepts that humans are contributing to climate change. But by requesting information on research that does not fit his world view, Barton seems determined to use his political influence to put pressure on the scientific process.

Questions remain over how this might affect scientists' contributions to the next IPCC report, due out in 2007 but being written now. Climate researchers will recall the case of Benjamin Santer, an IPCC contributor who took a beating from climate sceptics over allegedly altering the 1995 IPCC report to play up the anthropogenic influence on climate. Some wonder whether Mann, whose work played a prominent role in the 2001 report, may be facing pressure for similar reasons.

Rajendra Pachauri, chairman of the IPCC, may be correct that, overall, Barton's letters are not a threat to the scientific community or the integrity of the IPCC review process (see page 7), but there is no room for complacency. After all, other areas of US science have not been so lucky. Federal reports on climate research have been altered, in part by former oil and gas lobbyists, to play down human effects on climate. Officials at the Environmental Protection Agency have been busy removing key portions from reports or altering conclusions on the orders of political appointees. And a recent survey of National Oceanic and Atmospheric Administration scientists revealed that nearly a third felt they could not do their jobs properly in the face of interference from non-scientist administrators.

Roughed up

Although Jack Marburger, President Bush's science adviser and director of the White House Office of Science and Technology Policy, continues to defend the administration's record, some US congressmen have taken up the banner of science. Representative Henry Waxman (Democrat, California) has asked Barton to withdraw the letters and instead hold a hearing on climate change, perhaps inviting the letters' recipients as witnesses.

The politicization of science in the United States has deepened since last November's election. But the US research community cannot simply wait for things to improve in three and a half years' time. They must speak out on each contentious issue and ensure that the genuine voices of science are heard. ■

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