

Curing climate backlash

Effective action on climate requires better politics, not better science, explains **Daniel Sarewitz**.

A volatile mix of science and politics has ignited a backlash against climate science in the United States and United Kingdom. The exposure of e-mails from the University of East Anglia's Climatic Research Unit (CRU) in Norwich, UK, last November, and the subsequent discovery of errors and distortions in the 2007 report of the Intergovernmental Panel on Climate Change (IPCC), may have little bearing on the overall weight of scientific evidence about anthropogenic climate change. But they have triggered a media and blogging frenzy, re-energized political opposition to action on climate change and put climate scientists on the defensive (see *Nature* **463**, 730–732; 2010).

The problem? Science has been called on to do something beyond its purview: not just improve people's understanding of the world, but compel people to act in a particular way. For nearly twenty years, researchers, policy-makers and activists have claimed that climate science requires a global policy agenda of top-down, United-Nations-sponsored international agreements; targets and timetables for emissions reductions; and the creation of carbon markets. But this agenda was guaranteed to be politically divisive because it entails short-term political and economic costs in return for benefits that are long term and highly uncertain.

The sceptical conservative

In the United States, conservatives typically distrust international governance regimes and the United Nations in particular; they hate government programmes that demand major wealth transfers; and they are deeply sceptical of the government's ability to modify societal behaviour to achieve desired aims. The use of climate science to justify a policy regime characterized by these very attributes fuels a deep suspicion of the science. A key opposition strategy has thus been to portray deviation from scientific certainty and highly idealized notions of 'the scientific method' as evidence against climate change. In the wake of the CRU e-mails and IPCC errors, conservative political commentator Michael Barone wrote: "Some decades hence, I suspect, people will look back and wonder why so many government, corporate and media elites were taken in by propaganda that was based on such shoddy and dishonest evidence." (*Washington Examiner*, 3 February 2010).



But supporters of the climate policy regime have long advanced an equally naive and idealized version of how the vaunted scientific consensus on anthropogenic warming demanded action consistent with their ideological preferences. To keep political opposition at bay, they counted on science to deliver progressively greater certainty about the reality and consequences of climate change, an approach embodied in former US vice-president Al Gore's movie *An Inconvenient Truth*. With international negotiations making little progress in reducing greenhouse-gas emissions, climate rhetoric took on an increasingly insistent and hysterical tone, as when climate scientist James Hansen, invoking images of Nazi atrocities, wrote that "trains carrying coal to power plants are death trains" (*Guardian*, 15 February 2009).

Science carried out in the context of divisive politics cannot but be influenced by that politics, as the CRU e-mails so starkly showed. But the human, political, unpleasant side of science revealed by the e-mails is tough to reconcile with a science supposedly so certain that it demands radical, rapid and costly societal transformation. And when evidence emerged that the IPCC had adopted unsubstantiated data about rates of Himalayan glacier retreat, the problem signalled not just a failure in the organization's review process, but a failure of organizational culture. One can hardly imagine that equally bad data tending in the other direction — for example, saying that the glaciers were not retreating — would have made it into the report. To those who already distrust climate science because it is used to justify action that they deem ideologically repugnant, such revelations make it look as though the science is systematically, if not congenitally, biased in one direction.

The idea that a mounting weight of scientific evidence would gradually overwhelm ideological opposition to the climate policy regime is not just false but backwards. Science is much

more pliable and permissive than deeply held beliefs about how the world should work. Scientific understanding of the complex, coupled ocean–atmosphere–society system is always incomplete, and gives the competing sides plenty of support for their pre-existing political preferences — as well as plenty to hide behind in claiming that those preferences are supported by science. Science can decisively support policy only after fundamental political differences have been resolved.

Good enough science

The crucial point here is that no amount of reform of the IPCC, or rooting out of bad science — or of scientists behaving badly — will begin to correct the flaws in the dominant approach to climate policy. Rehabilitation of climate policy is a matter not of getting the science right, but of getting the politics right.

How might this happen? There is no magic formula, but a few general principles seem apparent. A successful climate policy regime will match short-term costs with the real potential of short-term gains. These gains can come from reducing vulnerabilities to climate impacts, and increasing security and wealth generation from energy-technology innovation. Both paths call on the government to do things that most people see as appropriate: to provide public goods and promote innovation. Both paths also allow climate change to be understood not as impending doom that requires deep sacrifice to ensure survival, but as an opportunity to continually improve society. Real-world examples, pursued independently of global or national climate-policy frameworks, range from New York City's climate-adaptation planning efforts to China's aggressive pursuit of advanced energy technologies and markets.

With the public legitimacy of climate science under assault, political progress in the United States may now depend on the willingness of thoughtful conservatives to chart a better way forward. But liberals and moderates must meanwhile abandon the claim that the science supports only their way of doing things. Imaginative politicians thus have a huge opportunity to demonstrate leadership. Given the poisoned political climate here, it is hard to be optimistic that they will be courageous enough to seize the day. If they are, however, one thing is certain: the imperfect science we already have will turn out to be plenty good enough to support action. ■

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