Leaked emails hacked from the servers of the University of East Anglia have re-energised climate sceptics. Because the roots of such scepticism lie in a polarised political climate, it needs to be countered by a change in discourse and not just a reiteration of facts, argues Ninad Bondre.

The media frenzy triggered by leaked emails from the University of East Anglia (UK) was further fuelled by the discovery of a few mistakes in the fourth assessment report of the Intergovernmental Panel on Climate Change (IPCC). These challenging a human role in climate change launched scathing attacks that were high on sarcasm and drama. The events began just before the climate conference in Copenhagen and continue in the run up to the debate on what could be a seminal climate bill on the floor of the United States Senate. The significance of the timing is difficult to miss. Many within the global-change community seem to be attributing this sequence of events to a failure of scientists to communicate climate science. There have been calls for climate scientists to engage with the media more directly, be more transparent and better communicate the uncertainties in their research. Others are exhorting the media to undertake investigative journalism of the sort that characterises the coverage of other issues.

Better communication would certainly help, but is the opposition of sceptics merely the result of paucity of facts or due to poor communication? Barring a few individuals (Bill McKibben on TomDispatch.com; Daniel Sarewitz, *Nature* 464: 28), few have called for a deeper understanding of how a virulent brand of climate scepticism has arisen and what social and political conditions have allowed it to thrive.

**Modern-day climate sceptics**

Scepticism about anthropogenic climate change is nothing new – in fact, the first sceptics were quite likely climate scientists themselves. After all, Earth’s climate is incredibly complex: to hold human actions – particularly the burning of fossil fuels – responsible for a changing climate requires strong scientific evidence. Such evidence now exists, as summarised by the Intergovernmental Panel on Climate Change (IPCC), for example. Although scientists do not comprehend fully the complexity of climate, the information at their disposal clearly indicates that humans have been key players in driving climate change over the past century or so. Of course, a minority of scientists maintains that the climate might respond to human-induced changes with a negative feedback, thereby stabilising climate. This group understands the facts but operates in a different part of the uncertainty envelope as compared to the majority of
climate scientists.
The sceptics who pounced on flaws in the IPCC’s fourth assessment report span the full spectrum of society, including scientists (sometimes from fields such as physics, engineering and meteorology), corporations and members of the public. Ostensibly some of them put much effort in scouring through publications and poring over graphs to point out inconsistencies, lacunae and flaws. One has even conducted a field campaign to uncover the urban heat-island effect on instrumental records of temperature. All of this would suggest a commitment to ensuring transparency and rigour, and their openness to be convinced by new evidence.

In reality, though, these sceptics do not seem to be swayed by facts put forth to counter their arguments. Neither the IPCC’s comprehensive assessments nor testimonies by respected scientists nor Al Gore’s blitz have led to a change of heart. This suggests that many sceptics are not really worried about uncovering whether the planet’s climate is changing as a result of human actions or natural variability. Their primary concern is to wage a relentless battle against those on the “other side”. This approach thrives in nations where polarisation has come to form an integral part of the polity, most notably the United States and the United Kingdom.

No wonder, then, that it is in these nations that the best-funded and most vociferous sceptics reside and operate.

In the polarised political climate of the US, for example, there are Republicans and Democrats, pro-life advocates and pro-choice advocates, and the gun lobby and gun-control pressure groups. Ultimately, though, these labels conform to one of two categories: liberalism and conservatism. Doing something about climate change has come to be seen as a liberal cause, perhaps because it may involve active government involvement and regulation, or perhaps because it is seen as against business. Therefore, as if by default, it must be opposed by conservatives. The liberals must then denounce this as just another way in which conservatives are undermining America. And on it goes.

A cursory look at media reports on climate change – be it mistakes in the IPCC assessments or the leaked emails – suggests that the tone of the debate in the US and the UK is strikingly combative. Readers’ comments on newspaper articles or on blogs are strongly polarised. What is remarkable is that not only are the details deemed contentious, the motivations of those who provide evidence for a human
role in modern climate change are deemed malicious. There is a case to be made for terming these individuals as “climate-change deniers” instead of sceptics, but that might very well end up entrenching the polarisation that needs to be countered.

All of this is not to say that challenges to established science do not arise in other parts of the world. France has its own share of geoscientists denying anthropogenic climate change. But their motivations do not seem to be overtly related to the “liberal versus conservative” battle. And it was in India that the first doubts regarding IPCC’s assessment of the melting of Himalayan glaciers were raised. India’s environment minister discussed the Indian take on this issue in a concise and well-researched statement made during a press conference in Copenhagen. Neither the minister nor the mainstream Indian media, however, took these doubts to fundamentally question the human role in climate change.

Because the ultimate source of the most persistent and obstinate climate scepticism lies in a polarised worldview, it is difficult to see how a relentless barrage of facts will, by itself, bring about a more constructive debate. As Daniel Sarewitz, an academic from the Consortium for Science, Policy and Outcomes at Arizona State University points out, “Science can decisively support policy only after fundamental political differences have been resolved.”

**A fresh approach**

If the facts themselves are not sufficient then the focus of the discussion needs to be fundamentally modified. The discussion about climate change should not be allowed to become just another pawn in the battle between liberals and conservatives. Neither should it revolve around the binary question of “Do you believe in global warming?” The media has an important responsibility in this regard: outlets, particularly in the US and the UK, need to shift away from the polarised narrative that they so favour. Much of the world is more than comfortable with shades of grey. Indeed, in an increasingly globalised world where people have multiple and fluid identities, it would be difficult to imagine how such a narrative could work for much longer.

It is all very well for the Nordic countries to adopt stern environmental standards, but a change in US policies is absolutely essential to propel global action on climate change. Is there any possibility of changing the tone of the discussion away from polarisation? How can the scientific community, American and global, stimulate an informed discussion?

One way of achieving this would be to focus on global change as a multipronged challenge, avoiding a singular focus on global warming.
Humans have modified and are modifying the planet in more ways than by warming the climate; many of these actions may directly or indirectly affect climate. The evidence base showing why people are calling for action to respond to those modifications may be less politically loaded and less amenable to attacks from sceptics. The economic costs of controlling vehicular pollution, for example, may be a source of debate between liberals and conservatives, but the need for doing so is not easy to trash. Similarly, the socioeconomic and biological impacts of ocean acidification may help bypass scepticism about global warming and coax relatively moderate policymakers to consider cutting carbon-dioxide emissions.

Many of the arguments against responding to climate change are economic – the costs of mitigation and the spectre of job losses provide much of the fodder for climate scepticism in the US. Climate scientists need to team up with economists and others to address such concerns and lay out the economic consequences of inaction. They also need to dispel the myth of the carbon-based economy being the cheapest alternative, for example, by calculating and highlighting the costs – monetary as well as geopolitical – of a reliance on oil. They need to sincerely engage policymakers from, and media outlets typically associated with, the “other” side to discuss how action on climate change could be supported without alienating the base. Although determining what will work is not easy, what will not work is crystal clear: a semblance of arrogance and elitism. As pointed out by the author Bill McKibben, climate sceptics in the US have quite skilfully tapped into a section that is angry with those who they perceive to be elites. This is the same group of people who feel, rightly or wrongly, that science threatens their religious beliefs. They do not want to be preached to by scientists but may well be willing to listen to the pastors in their local churches. If facts are not enough, a sermon from the right individuals might create a willingness to listen. The global-change research community should not shirk from establishing a dialogue with religious leaders and convincing them of the need for action.

It is still a minority view, but there is growing recognition that more scientific evidence and better communication are necessary, but not sufficient, to induce action on tackling anthropogenic climate change: a change in the prevalent political discourse is needed. This is an exceedingly difficult task, but one that needs to be attempted if the need for action is as pressing as the global scientific community says it is.

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