

Michael Mann: The Danger Of Climate Change Denial

By Climate Guest Blogger on Apr 23, 2012 at 3:15 pm

by Michael Mann

As a climate scientist, I have seen my integrity perniciously attacked, politicians have demanded I be fired from my job, and I've been subject to congressional and criminal investigations. I've even had death threats made against me. And why? Because I study climate science and some people don't like what my colleagues and I have discovered. Their attacks on scientists are part of a destructive public-relations campaign being waged in a cynical effort to discredit climate science.



My work first appeared on the world stage in the late 1990s with the publication of the third assessment report of the Intergovernmental Panel on Climate Change, which featured what is now popularly known as the hockey-stick graph. Using what we call proxy data – information gathered from records in nature, like tree rings, corals, and ice cores – my co-authors and I pieced together the puzzle of climate variability over the past 1,000 years. What we found was that the recent warming, which coincides with the burning of fossil fuels during the Industrial Revolution, sticks out like the blade of an upturned hockey stick.

By itself, this finding didn't indicate that humans were solely responsible for the warming, but it was a compelling demonstration that something unusual was happening and, by inference, that it was probably related to human activity. Over the last few decades, the evidence, based on work from thousands of studies, has become much more robust and conclusive.

Nevertheless, our graph depicting the anomalous warming trend became an icon in the climate-change debate. Since then, I've found myself a reluctant, and almost accidental, public figure in the larger discussion about human-caused climate change.

Being caught in the middle of this "debate" has given me an opportunity to talk about the stark reality and dimensions of the problem. As the staid scientific journal *Nature* put it, climate researchers are in a street fight with those who seek to discredit the accepted scientific evidence, and we must fight back against the disinformation that denies this real and present danger to the planet.

Make no mistake: Skepticism is fundamental to good science. Whenever a conclusion is drawn or a proposition is made, the demand that it stand up to scrutiny is the self-correcting machinery that drives us towards a better understanding of the way the world works. In this sense, every scientist should be a skeptic. Good science responds to good faith challenges, and to contradictory evidence that is presented, and climate-change science should be no different.

Unfortunately, many of the people who call themselves climate skeptics and have attacked my work and the work of my colleagues are not really skeptics at all, but climate contrarians or climate deniers. Their skepticism only runs one way – against studies that point to the reality of a changing climate. They dispute evidence with the flimsiest of arguments, which don't stand up to the least bit of scientific scrutiny. A [recent attack](#) on NASA's climate scientists by people, including some astronauts, with little to no expertise in climate science is a powerful case in point.

With the help of well-oiled politicians, ill-equipped and often complicit media outlets, and vested interests like the fossil-fuel industry, climate deniers have tried to portray the evidence for human-caused climate change as some house of cards – a hoax that's teetering on a single hockey-stick graph. In reality, the evidence for human-caused climate change is more like a vast puzzle, a few pieces of which come from paleoclimate data like what my colleagues and I studied in our hockey-stick paper.

The climate-change policy debate is often framed purely as a question of science. Science is a necessary

part of the debate, but the question of when, how, and if we adapt to climate change and reduce the emissions that drive it is also a necessary part of the debate, and must be informed by economics, politics, and ethics.

By digging up and burning fossil fuels, humans are releasing much of the carbon that had been buried in the earth over the eons into the atmosphere in the form of carbon dioxide and other gases. Those gases are acting like a heat-trapping blanket around the planet.

If we continue down this path, we will be leaving our children and grandchildren a different planet – one with more widespread drought and flooding, greater competition for diminishing water and food resources, and national-security challenges arising from that competition.

As a father of a six-year-old daughter, I believe we have an ethical responsibility to make sure that she doesn't look back and ask why we left her generation a fundamentally degraded planet relative to the one we started with.

There's a tendency for people to be so overwhelmed by the challenge and the threat of climate change that they go from concern to despair. They shouldn't. While some warming is already locked in, there's still time to turn the ship around. We can still limit our emissions in the decades to come in a way that prevents some of the most serious impacts of climate change from occurring.

The worst thing we can do is bury our heads in the sand and pretend that climate change doesn't exist. We can, and should, have the worthy debate regarding what to do about it – a discussion that is sorely needed – from Washington to Beijing and back again.

Michael E. Mann is a member of the Pennsylvania State University faculty, holding joint positions in the Departments of Meteorology and Geosciences and the Earth and Environmental Systems Institute (EESI). He shared the Nobel Peace Prize in 2007 with other scientists who participated in the Intergovernmental Panel on Climate Change. He recently published a book "[The Hockey Stick and the Climate Wars](#)" describing his experiences at the center of the climate change debate.