

I have been involved in climate change for nearly 30 years. In 1980, a few of us in the research organization of a large multinational energy corporation realized that the climate issue was likely to affect our future business environment. We subsequently started the only industrial research activity in the basic science of climate change. The move was justified by the fact that the best way to really understand a complex technical issue is to actually work in the area, interacting with other scientists. I have supervised climate scientists working in the area of climate change and have followed the area closely. Over the years our researchers have served as authors of key IPCC report chapters. I would like to share some perspectives with you.

I retired four years ago, and at the time of my retirement I was well convinced, as were most technically trained people, that the IPCC's case for Anthropogenic Global Warming (AGW) is very tight. However, upon taking the time to get into the details of the science, I was appalled at how flimsy the case really is. I was also appalled at the behavior of many of those who helped produce the IPCC reports and by many of those who promote it. In particular I am referring to the arrogance; the activities aimed at shutting down debate; the outright fabrications; the mindless defense of bogus science, and the politicization of the IPCC process and the science process itself.

At this point there is little doubt that the IPCC position is seriously flawed in its central position that humanity is responsible for most of the observed warming of the last third of the 20th century, and in its projections for effects in the 21st century. Here are five key reasons for this:

1. The recorded temperature rise is neither exceptional nor persistent. For example, the earth has not warmed since around 1997 and may in fact be in a cooling trend. Also, in particular, the Arctic and contiguous 48 states are at about the same temperature as they were in the 1930s. Also in particular the rate of global warming in the early 20th century was as great as the last third of the century, and no one seriously ascribes the early century increase to greenhouse gas emissions.
2. Predictions of climate models are demonstrably too high, indicating a significant overestimate of the climate sensitivity (the response of the earth to increases in the incident radiation caused by atmospheric greenhouse gases). This is because the models, upon which the IPCC relies for their future projections, err in their calculations of key feedback and driving forces in the climate system.
3. Natural effects have been and continue to be important contributors to variations in the earth's climate, especially solar variability and decadal and multidecadal ocean cycles
4. The recorded land-based temperature increase data are significantly exaggerated due to widespread errors in data gathering and inadequately corrected contamination by human activity.
5. The multitude of environmental and ecological effects blamed on climate change to date is either exaggerated or nonexistent. Examples are claims of more frequent and ferocious storms, accelerated melting of terrestrial icecaps, Mount Kilimanjaro's glacier, polar bear populations, and expansive mosquito-borne diseases. All of these and many others have been claimed and ascribed to global warming and by extension to human activity, and all are bogus or highly exaggerated.

I would be pleased to provide details on any of these five key reasons. Many others can do so as well.

As contrary evidence has accumulated, proponents of strong AGW have begun to display signs of cognitive dissonance. The famed social psychologist Leon Festinger, developer of the concept of cognitive dissonance, conducted early studies of the phenomenon. One study looked at people who bought bomb shelters during the cold war. It was found that such people tended to

exaggerate the threat of nuclear war, and nothing could dissuade them. Good news about relaxed tensions and peace initiatives was rejected. Such developments brought about cognitive dissonance, bizarrely almost as if they were invested in nuclear war. The psychological model is that their belief system became part of their identity, their self, and information at odds with that belief system became an attack on the self. This helps explain why such people can be resistant to information that would be judged positive on a rational basis. Festinger's book, *When Prophecy Fails*, tells of a group of doomsday believers who predicted the end of the world on a particular date. When that didn't happen, the believers became even more determined they were right. And they become even louder and proselytized even more aggressively after the disconfirmation. So we can expect ever more extreme, opaque, and strange defenses from proponents as evidence continues to mount. For example we are now told that even cooling fits in with global warming.

Having said all this, *it does not mean that there is no threat* or that we should not debate some kind of action to control atmospheric CO₂. It does mean that the case for immediate draconian measures that will have the effect of restricting world economic growth is poor. It does mean that the climate is unpredictable, even with modern tools, and this implies that continuing to load the atmosphere poses imponderable risks to terrestrial life. I believe that the way to a solution lies with new technology for both energy supply and for directly controlling net emissions. In this regard the role of governments is not to enact restrictive economic measures via market interventions, or to choose the winners in a technology race. Its proper role is to encourage the development and deployment of new technology through direct funding of R&D and through tax incentives for industries that research, develop, and deploy such technology.

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