



# The empire strikes back

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**Where are our political leaders in the climate science furore? The “Himalayan revelations” show how far sceptics will go to destroy our faith in science, but when will we respond?**

Was the global warming scare the world’s most stupendous hoax? Have the hoax-mongering scientists finally been exposed? If one were to go by the jubilant media, and regrettably, by the reactions of far too many political leaders and overly cautious scientists, the exposure is now complete. First there was the scandal of the leaked emails. Now there is the news that the Himalayan glaciers are not, in fact, retreating and will not therefore disappear by 2035. The first story was timed to appear just before the Copenhagen conference; the second, a windfall from faraway India, seems to have buried its bones.

The governments of the major developing countries are putting on a brave face. By late afternoon on 31 January thirty seven countries had signed on to the agreement that President Obama had cobbled together in Copenhagen. These included just about all the largest economies of the world.

But the emission reduction commitments are voluntary and cannot be enforced. For the signatories to meet them they must have the backing of their people. This is the umbilical chord that the “Himalayan revelations” has cut. For what cannot be ignored is that, coming one after the other, the two disclosures have dealt a massive blow to the credibility of the science that underlies the battle against global warming, and cast doubt upon the motives of the scientists who have developed it.

But how justified is the attack on the IPCC? One has only to look closely at the actual findings of the Indian government’s study, and the impeccable credentials of the Indian scientist, Syed Iqbal Hasnain, to see how endless repetition of selected statements pulled out of their context are being used by the climate sceptics to destroy the faith of the world in not just the science that underlies global warming but, ultimately, peoples’ belief in science itself.

What the Indian Ministry of Forests and Environment (MOEF) paper actually says is that the average retreat of glaciers, which was about five metres a year since the 1840s when records

began to be kept, accelerated “manifold” between the 1950s and 1990s. But the retreat slowed down after the mid-nineties until, in some of our biggest and best known glaciers such as Gangotri and Siachen, “it has practically come down to stand still during the period 2007-09”.

Please note the word “practically”, for V.K. Raina, the author of the MOEF report, has not said that the glaciers have stopped retreating altogether. In fact studies by him of several smaller glaciers in the same report show that they are still retreating. What is more, a detailed study of the glaciers of Nepal, published by the World Wildlife Fund in 2005, shows that these glaciers, most notably the great glacier below the Dhaulagiri range, are still retreating.

Raina has, therefore, debunked the idea that “most of the glaciers will be gone in 35 to 40 years.” But he has not said at any point that they have stopped retreating. With the exception of the Siachen glacier, which exhibits clear cyclical tendencies, he has not found a single glacier that has actually advanced, even after 1994. On the contrary, Raina’s study shows that while most glacier snouts have stopped retreating, glaciers have not stopped losing “mass”. This loss too has slowed down but remains substantial.

What could have caused the glacier snouts to have stopped retreating? Raina is too cautious – too good a scientist – to speculate, but since the climate sceptics feel no inhibitions on this score it is essential for some of the believers to do so too. One possibility that Raina does not explore is the effect of the deposit of dust and black carbon (collectively called aerosols) upon the snow and ice. Raina notes that an accumulation of up to 400 grammes per square meter sharply raises the rate of melting; between 400 and 600 grammes it has no further effect; but when the level exceeds 600 grammes, it acts as a shield against the sun, and slows down melting.

Anyone who has trekked in the Himalayas in summer and seen the brown and dark grey ends of the glacier ice knows that there are much thicker coatings of dust and carbon at the lower ends of glaciers. This could be the cause of the tendency Raina noticed in several glaciers of their narrowing in the middle to form two distinct parts. The slowdown in the retreat of the snout of glaciers could therefore be a *consequence* of the very rapid rise of population in the hills, and the desertification caused by overgrazing.

Let us now turn to the attacks on the IPCC. Syed Iqbal Hasnain, the source of the alarming quote on the Himalayas, is not an egotistical scientist hungry for his moment in the sun. He was the professor of glaciology in the School of Environmental Sciences, Jawaharlal Nehru University in Delhi and a fellow of the prestigious Indian Institute of Technology, Mumbai. Between 1995 and 1999 he chaired a working group on Himalayan Glaciology within the International Commission on Snow and Ice. He is the author of a book, “Himalayan Glaciers: Hydrology and Hydrochemistry” and at the moment is conducting a study of the accumulation of black carbon on snow at high altitudes in the Himalayas. Hasnain was speaking only five years after the retreat had reached its peak and only two to three years after the slow down began—far too soon to say that the trend had changed.

To conclude: Many, perhaps most but not all, Himalayan glaciers have stopped *retreating* but are still *shrinking*. Local influences may be responsible for the recent slow down. Hasnain's claim in 1999 was not meretricious. Nor was the IPCC's acceptance unjustified because in 2003-4, the year before it finalised its report, the slowing down would have been barely perceptible. Hasnain's credentials were impeccable, but the IPCC did not rely on his assertion in the *New Scientist* alone, but on innumerable studies that had shown a uniform trend, punctuated by local anomalies. One of the most respected had concluded that the volume of ice in 200 glaciers all over the world had shrunk by 6,000 to 8,000 sq. kms over the thirty years from 1961 and 1995.

Two questions remain unanswered in this debacle. First, why are the Indian media so keen to destroy Pachauri instead of defending him? Granted he has made a hash of defending both himself and the IPCC, but why is no one standing up for him? And second, why are governments all over the world singing mea culpa? Why is the British Energy and Climate Change Secretary, Ed Milliband, leading the band? Does he not know that attack is the best form of defence, even when your attack is weak and the defence is strong? Perhaps it is democracy and the imminence of an election – which Labour believes it may lose – that is to blame.

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