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February 4, 2010

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The Honorable Lisa Jackson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Jackson:

In response to our letters this past summer regarding your proposed endangerment finding, you advised us that, in making the finding, the Environmental Protection Agency (EPA) placed great weight upon the assessment literature of the United Nations Intergovernmental Panel on Climate Change (IPCC). Consistent with your statements, the technical support document for the endangerment finding, prepared to provide the scientific summaries upon which you based your decision, largely relied upon the IPCC's most recent 2007 assessments, including the IPCC's attribution of observed climate change to human emissions of greenhouse gases.

The EPA's reliance upon the IPCC's work has been criticized on the grounds that the agency did not follow its own internal guidelines and traditional science assessment practices as it sought to expedite its endangerment determination. The agency has defended its reliance on the IPCC assessments, stating that IPCC reports "undergo a rigorous and exacting standard of peer review" and that EPA could rely upon the quality of these reports as a substitute for its own internal analysis of the relevant science. EPA has stated further, in comments accompanying your final endangerment finding, that the agency has actively participated in the IPCC assessment process, particularly the so-called Working Group II report, and thus EPA has been assured of the rigor and transparency of the procedures implemented by the IPCC.

We write specifically concerning a recently publicized case that calls into question the quality, rigor, and transparency of IPCC assessments. A lead author for the IPCC's Working Group II report has reportedly admitted to publishing a completely unsubstantiated IPCC claim that Himalayan glaciers risk disappearing in 25 years at current rates of global warming (see attached). (Available evidence further suggests the estimate was off by at least 300 years.) This claim, drawn reportedly from the World Wildlife Fund environmental advocacy group, survived the IPCC's source

requirements and its peer review process, including presumably any EPA reviewers participating in the process. Multiple questions raised during the review process, according to attached news reports, were ignored by IPCC. Moreover, the author of this claim states he knew it did not rest on peer-reviewed literature, but that he and his co-authors kept it in the assessment because “we thought that if we can highlight it, it will impact policymakers and politicians and encourage them to take some concrete action.”

Despite your assurances, we believe this error raises questions about whether EPA’s due diligence and review of the IPCC assessments has been sufficiently rigorous. Aside from EPA’s own participation in the development and review of the Working Group II report, in its response comments on the endangerment finding, EPA pointed to the published IPCC guidelines and procedures to demonstrate the quality of the process. Yet, we see no evidence that EPA has examined whether and how the IPCC implements and adheres to these procedures.

Given the tremendous regulatory and economic impacts that flow from the endangerment finding, it is essential that the public and Congress have full and complete information about EPA’s assessment of the science associated with this finding. Accordingly, we would appreciate your responding to the following within two weeks from the date of this letter:

1. What did EPA do, and when, to evaluate the IPCC source requirements or peer-review procedures to determine if such requirements and procedures comply with OMB data quality guidelines or EPA’s own peer review guidelines?
 - a. What did EPA find in any such evaluation?
 - b. Please provide all documents relating to any such evaluation.
2. Explain how EPA evaluated and determined that IPCC considered full information and all scientific viewpoints relating to climate change.
 - a. Please provide all documents relating to this evaluation and determination.
3. Explain how EPA verified that IPCC actually implemented and followed its published policies and procedures regarding review and comments on its published reports?
 - a. Did EPA evaluate the IPCC peer review record?
 - b. Did EPA evaluate the credibility or quality of IPCC author responses to comments?
 - c. Please provide all documents relating to any such verification of IPCC implementation of its policies.
4. Did EPA consider the technical support document for the endangerment finding as a candidate for peer review, as required by EPA’s Peer Review Handbook?
 - a. If not, why not?
 - b. If so, please provide all documents relating to this consideration.

5. In recent years, the National Research Council has criticized EPA's implementation of its peer review procedures, noting that EPA should more strictly separate the management of the work product from the peer review of that work product to ensure greater independence of peer review from the control of program managers. (See *Strengthen Science at the U.S. Environmental Protection Agency*, NRC 2000.) Please identify who managed the peer review or review process for the technical support document for the endangerment finding and whether the individual(s) adhered to EPA peer review guidelines or the recommendations of the National Research Council.
 - a. Please explain the role of EPA's Office of Research and Development in the preparation of the technical support document for the endangerment finding, and oversight of the review process for this document.
6. Regarding the EPA's Action Development Process for developing the endangerment finding, please provide any preliminary analytic blueprint and detailed analytic blueprint prepared for or relating to the endangerment finding or its technical support document.
 - a. If no such documents exist, please explain why the documents were not prepared.
7. Did EPA contractors participate in the analysis of or preparation for the responses to public comments on the endangerment finding or evaluation of the quality, rigor, or transparency of the science assessments EPA relied upon?
 - a. If so, describe in detail the role of the contractors and their contribution to the responses to comments or related evaluation.
 - b. Please provide all documents providing guidance or direction to contractors regarding the preparation of responses to comments or related evaluation.


If the EPA withholds any documents or information in response to this letter, please provide a Vaughn Index or log of the withheld items. The index should list the applicable question number, a description of the withheld item (including date of the item), the nature of the privilege or legal basis for the withholding, and a legal citation for the withholding claim.

Should you have any questions, please contact Peter Spencer of the Minority Committee staff at (202) 225-3641.

Sincerely,



Joe Barton
Ranking Member



Greg Walden
Ranking Member
Subcommittee on Oversight and Investigations

Letter to the Honorable Lisa Jackson
Page 4

Attachments

cc: The Honorable Henry A. Waxman
Chairman

The Honorable Bart Stupak
Chairman
Subcommittee on Oversight and Investigations

From The Sunday Times

January 17, 2010

World misled over Himalayan glacier meltdown



(Simon Fraser/Science Photo Library)

The west Himalayan range includes 15,000 glaciers

Jonathan Leake and Chris Hastings

A WARNING that climate change will melt most of the Himalayan glaciers by 2035 is likely to be retracted after a series of scientific blunders by the United Nations body that issued it.

Two years ago the Intergovernmental Panel on Climate Change (IPCC) issued a benchmark report that was claimed to incorporate the latest and most detailed research into the impact of global warming. A central claim was the world's glaciers were melting so fast that those in the Himalayas could vanish by 2035.

In the past few days the scientists behind the warning have admitted that it was based on a news story in the New Scientist, a popular science journal, published eight years before the IPCC's 2007 report.

It has also emerged that the New Scientist report was itself based on a short telephone interview with Syed Hasnain, a little-known Indian scientist then based at Jawaharlal Nehru University in Delhi.

Hasnain has since admitted that the claim was "speculation" and was not supported by any formal research. If confirmed it would be one of the most serious failures yet seen in climate research. The IPCC was set up precisely to ensure that world leaders had the best possible scientific advice on climate change.

Professor Murari Lal, who oversaw the chapter on glaciers in the IPCC report, said he would recommend that the claim about glaciers be dropped: "If Hasnain says officially that he never asserted this, or that it is a wrong presumption, than I will recommend that the assertion about Himalayan glaciers be removed from future IPCC assessments."

The IPCC's reliance on Hasnain's 1999 interview has been highlighted by Fred Pearce, the journalist who carried out the original interview for the New Scientist. Pearce said he rang Hasnain in India in 1999 after spotting his claims in an Indian magazine. Pearce said: "Hasnain told me then that he was bringing a report containing those numbers to Britain. The report had not been peer reviewed or formally published in a scientific journal and it had no formal status so I reported his work on that basis.

"Since then I have obtained a copy and it does not say what Hasnain said. In other words it does not mention 2035 as a date by which any Himalayan glaciers will melt. However, he did make clear that his comments related only to part of the Himalayan glaciers. not the whole massif."

The New Scientist report was apparently forgotten until 2005 when WWF cited it in a report called An Overview of Glaciers, Glacier Retreat, and Subsequent Impacts in Nepal, India and China. The report credited Hasnain's 1999 interview with the New Scientist. But it was a campaigning report rather than an academic paper so it was not subjected to any formal scientific review. Despite this it rapidly became a key source for the IPCC when Lal and his colleagues came to write the section on the Himalayas.

When finally published, the IPCC report did give its source as the WWF study but went further, suggesting the likelihood of the glaciers melting was "very high". The IPCC defines this as having a probability of greater than 90%.

The report read: "Glaciers in the Himalaya are receding faster than in any other part of the world and, if the present rate continues, the likelihood of them disappearing by the year 2035 and perhaps sooner is very high if the Earth keeps warming at the current rate."

However, glaciologists find such figures inherently ludicrous, pointing out that most Himalayan glaciers are hundreds of feet thick and could not melt fast enough to vanish by 2035 unless there was a huge global temperature rise. The maximum rate of decline in thickness seen in glaciers at the moment is 2-3 feet a year and most are far lower.

Professor Julian Dowdeswell, director of the Scott Polar Research Institute at Cambridge University, said: "Even a small glacier such as the Dokriani glacier is up to 120 metres [394ft] thick. A big one would be several hundred metres thick and tens of kilometres long. The average is 300 metres thick so to melt one even at 5 metres a year would take 60 years. That is a lot faster than anything we are seeing now so the idea of losing it all by 2035 is unrealistically high."

Some scientists have questioned how the IPCC could have allowed such a mistake into print. Perhaps the most likely reason was lack of expertise. Lal himself admits he knows little about glaciers. "I am not an expert on glaciers and I have not visited the region so I have to rely on credible published research. The comments in the WWF report were made by a respected Indian scientist and it was reasonable to assume he knew what he was talking about," he said.

Rajendra Pachauri, the IPCC chairman, has previously dismissed criticism of the Himalayas claim as "voodoo science".

Last week the IPCC refused to comment so it has yet to explain how someone who admits to little expertise on glaciers was overseeing such a report. Perhaps its one consolation is that the blunder was spotted by climate scientists who quickly made it public.

The lead role in that process was played by Graham Cogley, a geographer from Trent University in Ontario, Canada, who had long been unhappy with the IPCC's finding.

He traced the IPCC claim back to the New Scientist and then contacted Pearce. Pearce then re-interviewed Hasnain, who confirmed that his 1999 comments had been "speculative", and published the update in the New Scientist.

Cogley said: "The reality, that the glaciers are wasting away, is bad enough. But they are not wasting away at the rate suggested by this speculative remark and the IPCC report. The problem is that nobody who studied this material bothered chasing the trail back to the original point when the claim first arose. It is ultimately a trail that leads back to a magazine article and that is not the sort of thing you want to end up in an IPCC report."

Pearce said the IPCC's reliance on the WWF was "immensely lazy" and the organisation need to explain itself or back up its prediction with another scientific source. Hasnain could not be reached for comment.

The revelation is the latest crack to appear in the scientific consensus over climate change. It follows the so-called climate-gate scandal, where British scientists apparently tried to prevent other researchers from accessing key data. Last week another row broke out when the Met Office criticised suggestions that sea levels were likely to rise 1.9m by 2100, suggesting much lower increases were likely.

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Glacier scientist: I knew data hadn't been verified

By [David Rose](#)

Last updated at 12:54 AM on 24th January 2010

The scientist behind the bogus claim in a Nobel Prize-winning UN report that Himalayan glaciers will have melted by 2035 last night admitted it was included purely to put political pressure on world leaders.

Dr Murari Lal also said he was well aware the statement, in the 2007 report by the Intergovernmental Panel on Climate Change (IPCC), did not rest on peer-reviewed scientific research.

In an interview with The Mail on Sunday, Dr Lal, the co-ordinating lead author of the report's chapter on Asia, said: 'It related to several countries in this region and their water sources. We thought that if we can highlight it, it will impact policy-makers and politicians and encourage them to take some concrete action.

'It had importance for the region, so we thought we should put it in.'



Chilling error: The Intergovernmental Panel on Climate Change wrongly asserted that glaciers in the Himalayas would melt by 2035

Dr Lal's admission will only add to the mounting furore over the melting glaciers assertion, which the IPCC was last week forced to withdraw because it has no scientific foundation.

According to the IPCC's statement of principles, its role is 'to assess on a comprehensive, objective, open and transparent basis, scientific, technical and socio-economic information – IPCC reports should be neutral with respect to policy'.

The claim that Himalayan glaciers are set to disappear by 2035 rests on two 1999 magazine interviews with glaciologist Syed Hasnain, which were then recycled without any further investigation in a 2005 report by the environmental campaign group WWF.

It was this report that Dr Lal and his team cited as their source.

The WWF article also contained a basic error in its arithmetic. A claim that one glacier was retreating at the alarming rate of 134 metres a year should in fact have said 23 metres – the authors had divided the total loss measured over 121 years by 21, not 121.

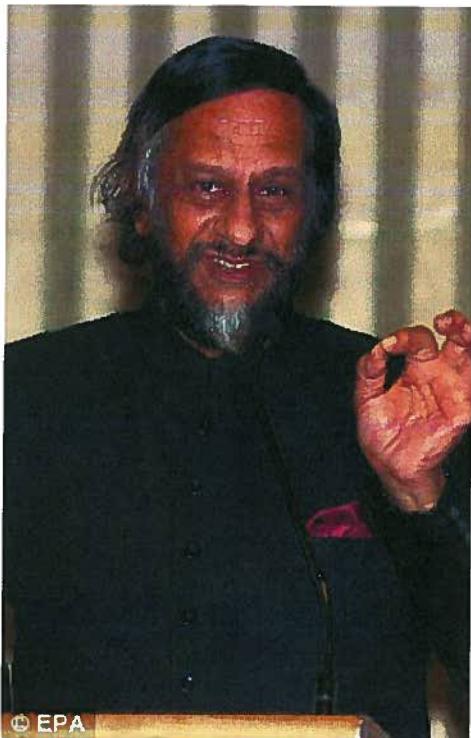
Last Friday, the WWF website posted a humiliating statement recognising the claim as 'unsound', and saying it 'regrets any confusion caused'.

Dr Lal said: 'We knew the WWF report with the 2035 date was "grey literature" [material not published in a peer-reviewed journal]. But it was never picked up by any of the authors in our working group, nor by any of the more than 500 external reviewers, by the governments to which it was sent, or by the final IPCC review editors.'

In fact, the 2035 melting date seems to have been plucked from thin air.

Professor Graham Cogley, a glacier expert at Trent University in Canada, who began to raise doubts in scientific circles last year, said the claim multiplies the rate at which glaciers have been seen to melt by a factor of about 25.

'My educated guess is that there will be somewhat less ice in 2035 than there is now,' he said.



Forced to apologise: Chairman of the IPCC Raj Pachauri

'But there is no way the glaciers will be close to disappearing. It doesn't seem to me that exaggerating the problem's seriousness is going to help solve it.'

One of the problems bedevilling Himalayan glacier research is a lack of reliable data. But an authoritative report published last November by the Indian government said: 'Himalayan glaciers have not in any way exhibited, especially in recent years, an abnormal annual retreat.'

When this report was issued, Raj Pachauri, the IPCC chairman, denounced it as 'voodoo science'.

Having been forced to apologise over the 2035 claim, Dr Pachauri blamed Dr Lal, saying his team had failed to apply IPCC procedures.

It was an accusation rebutted angrily by Dr Lal. 'We as authors followed them to the letter,' he said. 'Had we received information that undermined the claim, we would have included it.'

However, an analysis of those 500-plus formal review comments, to be published tomorrow by the Global Warming Policy Foundation (GWPF), the new body founded by former Chancellor Nigel Lawson, suggests that when reviewers did raise issues that called the claim into question, Dr Lal and his colleagues simply ignored them.

For example, Hayley Fowler of Newcastle University, suggested that their draft did not mention that Himalayan glaciers in the Karakoram range are growing rapidly, citing a paper published in the influential journal Nature.

In their response, the IPCC authors said, bizarrely, that they were 'unable to get hold of the suggested references', but would 'consider' this in their final version. They failed to do so.

The Japanese government commented that the draft did not clarify what it meant by stating that the likelihood of the glaciers disappearing by 2035 was 'very high'. 'What is the confidence level?' it asked.

The authors' response said 'appropriate revisions and editing made'. But the final version was identical to their draft.

Last week, Professor Georg Kaser, a glacier expert from Austria, who was lead author of a different chapter in the IPCC report, said when he became aware of the 2035 claim a few months before the report was published, he wrote to Dr Lal, urging him to withdraw it as patently untrue.

Dr Lal claimed he never received this letter. 'He didn't contact me or any of the other authors of the chapter,' he said.

The damage to the IPCC's reputation, already tarnished by last year's 'Warmergate' leaked email scandal, is likely to be considerable.

Benny Peiser, the GWPF's director, said the affair suggested the IPCC review process was 'skewed by a bias towards alarmist assessments'.

Environmentalist Alton Byers said the panel's credibility had been damaged. 'They've done sloppy work,' he said. 'We need better research on the ground, not unreliable predictions derived from computer models.'

Last night, Dr Pachauri defended the IPCC, saying it was wrong to generalise based on a single mistake. 'Our procedure is robust,' he added.

Glaciers and the IPCC

Off-base camp

Jan 21st 2010

From The Economist print edition

A mistaken claim about glaciers raises questions about the UN's climate panel

THE idea that the Himalaya could lose its glaciers by 2035—glaciers which feed rivers across South and East Asia—is a dramatic and apocalyptic one. After the Intergovernmental Panel on Climate Change (IPCC) said such an outcome was very likely in the assessment of the state of climate science that it made in 2007, onlookers (including this newspaper) repeated the claim with alarm. In fact, there is no reason to believe it to be true. This is good news (within limits) for Indian farmers—and bad news for the IPCC.

The IPCC, like ancient Gaul, is divided into three parts. Working Group I looks at the physical science of climate change. Working Group II is concerned with impacts, vulnerability and adaptation. Working Group III deals with mitigation. The claims about Himalayan glaciers come from a short "case study" in a chapter on Asia in WG-II's report from 2007. Like all of the IPCC's work, this was meant to be an expert assessment of relevant research, resting mostly on peer-reviewed sources but also, at times, on the "grey literature"—reports by governments and other organisations that are not commercially or academically published.

The WG-II case study cites a grey report by the WWF, an environmental group, as the source of the date 2035. The WWF in turn cites a study presented in 1999 to the International Commission on Snow and Ice (ICSI) by Syed Hasnain, chair of ICSI's working group on Himalayan glaciers.

But the passage about 2035 that the WWF report quotes comes not from that ICSI report (which was unpublished) but from an article that appeared around the same time in *Down to Earth*, an Indian magazine. This article was based in part on an interview with Dr Hasnain, who was also quoted by *New Scientist* as saying it was possible the glaciers would be gone in 40 years. The article in *Down to Earth* claims that the area covered by glaciers would drop from 500,000km² to 100,000km² by 2035, a claim found in the IPCC report but not in the WWF report. This suggests the *Down to Earth* article was itself a source for the IPCC, though Murari Lal, a retired

Corbis



Still there

Indian academic, now a consultant, who was one of the four co-ordinating lead authors of the chapter, says this was not the case.

There are two further problems with the area figure. One is that the research in question was looking at all the world's glaciers, not just the Himalaya's. The other is that the research was looking at the prospects for 2350, not 2035.

Georg Kaser, a glaciologist at the University of Innsbruck, explains that a timescale of centuries, not decades, is far more plausible for the Himalaya. Politics and logistics make a comprehensive study of Himalayan glaciers difficult, but if those individual glaciers which have been studied recently are representative, then the glaciers are retreating. This retreat, however, is likely to take a long time. To melt a glacier at an altitude above 6,000 metres, where many of the Himalayan glaciers are found, requires a lot more warming than can be expected by 2035—a point made forcefully in a letter to *Science* by Dr Kaser and others, published this week. Jeff Kargel of the University of Arizona, one of its authors, stresses that its criticism is aimed at this specific claim, not at the IPCC in general, and should not be seen as undermining the panel's conclusions.

On January 20th the IPCC released a statement reiterating its overall conclusion on water from seasonal snow packs and glaciers in a warming world: that it is likely to be scarcer and available at different times. The statement also says that in the case study on the Himalaya's glaciers "the clear and well-established standards of evidence, required by the IPCC procedures, were not applied properly." Christopher Field of the Carnegie Institution's Department of Global Ecology, who is now the co-chair of WG-II, says the fact that the review process failed to catch the problem needs to be looked into.

That a review process which included 40,000 comments did not catch the error proves that size is not everything—especially since the error was quite catchable. Dr Kaser read the chapter after it was reviewed but before it was published. As a glaciologist—he was an author of the relevant chapter in the WG-I report, a much more thorough take on the subject which makes no grandiose claims about the Himalaya—he found the passage absurd, and alerted the IPCC. Problems he had with a passage on glaciers in WG-II's chapter on Africa were subsequently addressed. Those in the chapter on Asia were not.

This poses two questions. One is why Dr Kaser, or some other glaciologist, did not see the chapter earlier on. Like Gaul's three parts, the IPCC's working groups, rooted in different disciplines, have different tribal structures; they do not communicate as well as they should. Dr Field says he is determined to try to do something about this in the process leading up to the next set of assessments in 2013.

The other question is why, when alerted by Dr Kaser, the IPCC did nothing. When open criticism began last year, it was airily dismissed by Rajendra Pachauri, who chairs the IPCC and runs an institute in India where Dr Hasnain now works on glaciology. If he had not heard the claims were wrong by that stage, he should have done. This mixture of sloppiness, lack of communication and high-handedness gives the IPCC's critics a lot to work with.

Meanwhile, the future of water resources in the places served by the glaciers remains unclear. Glaciers in monsoonal climates, unlike high-latitude glaciers, gain

mass from precipitation during the same warm season in which they lose mass from melting, which makes their behaviour complex. And there are other water-related questions to be addressed, including possible changes to the monsoons and massive depletion of groundwater. There is an urgent need to study these things, and to synthesise the results in a way that can be relied on.