# The Week That Was (January 23, 2010) Brought to you by SEPP (www.SEPP.org)

#### **Quote of the Week**

"Science is the great antidote to the poison of enthusiasm and superstition." Adam Smith

#### **THIS WEEK:**

This week we witnessed a further expansion of Climategate. The Sunday Times reported how a 1999 telephone call with a reporter in which one person speculated that the Himalayan Glaciers will melt by 2035 resulted in an article in *New Scientist*, which was picked up in a publicity brochure by the World Wildlife Fund. This, in turn, became the scientific basis for the UN Intergovernmental Panel on Climate Change (IPCC) to declare in its 2007 Assessment Report that it is likely (up to a 90% probability) that the Himalayan Glaciers will disappear by 2035.

Glacier experts have stated the claim to be wrong and that it represents ignorance of the physical science. The glacier experts have been ignored just as those who declare that the IPCC report demonstrates ignorance of the physical evidence of past warming and cooling periods. Of course, in general, US media glosses over the significance of this great misrepresentation of physical science. The media also ignores the extensive, recent research on the Himalayan Glaciers produced by glacial expert V.K. Riana. [Professor Cliff Ollier kindly provided SEPP a review of the research which he wrote for the Australian Government. Excerpts are given below.]

The disappearance of measuring stations in calculating global surface temperatures continues. According to reports, the Canadian government operates 1,400 stations, with more than 100 above the Arctic Circle. Yet, as brought out last week in the John Coleman television special [see TWTW Jan 16, 2010] the number of stations used in the database for calculating global surface temperatures shrank – from 600 to 35, with only one above the Arctic Circle.

After the mysterious disappearance of cold climate Russian stations, without explanation, and the Climategate emails, the irregularities in the science behind IPCC pronouncements are compounding. We should not be surprised that those pushing for an international agreement for controlling carbon dioxide emissions are experiencing difficulty reaching such an agreement.

#### SEPP SCIENCE EDITORIAL #4-2010( Jan 23, 2010)

By S. Fred Singer, President, Science and Environmental Policy Project

[Note: This is the sixth of a series of mini-editorials on the "junk science" influencing the global warming issue. Other topics will include the UN Environmental Program, and some individuals heavily involved in these matters.]

#### Junkscience: Climategate Distortion of Temperature Data

We discuss here in some detail the way in which warming trends were introduced into the IPCC Report -when in fact they did not exist or were extremely small. We focus on the period 1979 to 1997. There was cooling up to 1976; in 1998 there was a super-El-Nino and no subsequent warming. Our discussion is in three parts: (1) a 'bottoms-up' approach; (2) the 'top-down' approach; and next week I shall discuss (3) the treatment of sea surface temperatures (SST).

#### (1) Bottoms-Up Distortion of Temperature Data

The Climate Research Unit of the University of East Anglia (CRU-UEA), under the direction of Dr. Philip Jones, collected data from weather stations from around the world. These are almost all land-based stations, showing a high concentration in the United States and Western Europe and a lower concentration elsewhere -- with many parts of the globe hardly covered by reliable stations.

There are a variety of problems with such data, and the investigators were aware of most of them. Many stations produce useless data, either because of inadequate maintenance, or because of their location. Anthony Watts (in his WUWT blog) has shown that even stations in the USA were badly placed and subject to local warming influences that were not adequately corrected.

The surface of the earth is then divided into grid boxes, usually five degrees by five degrees. When there are several stations in a grid box, the investigators would choose those they considered most reliable – which in many cases meant urban stations, or stations at airports, that are well maintained. However, because of their location, they generally are subject to 'urban heat-island' (UHI) effects, a local warming that increases with population and urban growth over time and suggests a temperature trend of a global nature. The investigators tried various ways to eliminate such local UHI trends, but were not very successful.

The problem was greatly exacerbated by the closing of over half the world's weather stations between 1970 and 2000 (see NIPCC Summary, Fig 12 – which in most cases removed rural stations but also stations from higher latitudes and altitudes that tended to show a lower warming trend or no warming trend at all. It should be obvious therefore that this drastic change in the sampling population would introduce a fictitious warming trend which is an artifact of the change. E. Michael Smith and Joseph D'Aleo have documented in some detail how such artificial temperature trends could be produced even when there was no global trend. [See

http://www.americanthinker.com/2010/01/climategate\_cru\_was\_but\_the\_ti.html ]

#### (2) The Top-Down (TD) Approach

In many ways, the 'Top-Down' (TD) approach to derive the Global Mean Surface Temperature (GMST) is to be preferred over 'bottom-up' (deriving GMST by collecting data from weather stations and sea surface readings). The TD approach relies primarily on the data from weather satellites, the only truly global measuring system, using a single microwave sounding (MSU) instrument and therefore independent of the vagaries of individual weather stations and their thermometers.

There are of course certain disadvantages: The MSU cannot measure temperatures at different levels of the atmosphere but derives instead a 'weighted mean ' of the vertical temperature profile; the times of observation are fixed by the orbit of the satellite; a change of satellite, and MSU instrument, requires an overlap in operating time to permit a recalibration. Nevertheless, by comparing different view angles, one can change the weight factors and obtain a temperature value for 'Lower Troposphere.' The University of Alabama, Huntsville (UAH) group has shown good agreement of UAH results with those of radiosondes from weather balloons.

As early as 1997, I noticed a disparity between temperature trends of satellites and surface trends, esp. in the tropics. (See Fig 9 in *Hot Talk, Cold Science*, 1997) The troposphere trends (between 1979 and 1995) were close to zero or even slightly negative, while surface trends showed a warming of about 0.05 deg per decade. This disparity is just the reverse of what one would expect from GH models [see IPCC-SAR] – namely a positive (warming) troposphere trend up to twice as large as the surface trend.

In addition, I noticed that the proxy data to which I had access showed no surface warming (tree-ring data of Jacoby et al (Fig 16 in *HTCS*) and ice core data of Dahl-Jensen et al]. I tried very hard to obtain more

proxy data but was not successful. For example, I noticed that Michael Mann's infamous hockeystick graph did not extend beyond 1979 and suspected that his proxy temperatures diverged from the instrumented surface results. Yet when I wrote to Mann about post-1980 proxy data, I received only a brusque negative reply. Thanks to 'Climategate' we now know, what I had then suspected, i.e., that Mann and Jones were engaged in a scheme to "hide the decline [in post-1979 proxy temperatures]"

To sum up: Both the satellite results and the proxy data tell us that the claimed rise of surface temperature between 1979 and 1997, shown by IPCC, is probably much smaller or even non-existent.

**ARTICLES:** [For the numbered articles below please see the attached pdf.]

#### 1. Interviews with Fred Singer

William Westmiller of the LA Public Policy Examiner did a series of three interviews with Fred Singer. The final one is "Climate Change 101: Does the IPCC have it all wrong? <u>http://www.examiner.com/x-33398-Public-Policy-Examiner~y2009m12d31-Climate-Change-101-Does-the-IPCC-have-it-all-wrong</u>

#### 2. World misled over Himalayan glacier meltdown

By Jonathan Leake and Chris Hastings, Sunday Times, Jan 17, 2010 [H/t Keith Hudson] http://www.timesonline.co.uk/tol/news/environment/article6991177.ece

#### **3. Himalayan Glaciers – Behavior and Climate Change**

# Himalayan Glaciers – A State-of-Art Review of Glacial Studies, Glacial Retreat and Climate Change, V.K. Raina, November 2009

Reviewed by Professor Cliff Ollier, School of Earth and Environment, University of West Australia for the Australian Government Provided to SEPP by Professor Ollier

#### 4. UN Bases Climate-change Forecast on Decade-old Speculation

By Rebecca Terrell, New American, Jan 19, 2010 http://www.thenewamerican.com/index.php/tech-mainmenu-30/environment/2783-un-bases-climatechange-data-on-decade-old-speculation

#### 5. UN climate chief admits mistake on Himalayan glaciers warming

By Jeremy Page, Times Online, Jan 21, 2010 [H/t Thomas Burch] http://www.timesonline.co.uk/tol/news/environment/article6994774.ece

**6.** The mystery of the missing thermometers. Why did the number of Canadian weather stations used in the global database shrink from 600 to 35 – only one above the Arctic Circle? Environment Canada states the government operates 1,400 stations with more than 100 above the Arctic Circle.

Scientists using selective temperature data, skeptics say

By Richard Foot, The National Post, Jan 20, 2010 [H/t Steve Malloy, Junkscience] <u>http://www.nationalpost.com/news/story.html?id=2465231</u>

7. An appeal to reason and decency in discussing the differences between alarmists and skeptics: The True Impact of Climategate and Glaciergate The Scientific Alliance, Jan 22, 2010 [H/t Laurie Henrikson]

http://www.gaia-technology.com/sa/newsletters/newsletters.cfm

8. On Global Warming, Let's Not Rush Into Panic Measures

Lord Donoughue, House of Lords, Jan 14, 2010

### **NEWS YOU CAN USE:**

## The IPCC's Abominable Snowmen

Investor's Business Daily, Jan 20, 2010 http://www.investors.com/NewsAndAnalysis/Article.aspx?id=518615

In dismissing the IPCC's errors on the Himalayan glaciers, Yvo de Boer, head of the UN Framework Convention on Climate Change, wrote in an email: "What is happening now is comparable with the Titanic sinking more slowly than expected."

[SEPP Comment Could this Titanic be the IPCC?]

#### UN Climate report hurt by errors on glaciers

Associated Press, CBS News, Jan 21, 2010 [H/t Charles Schafer] http://www.cbc.ca/technology/story/2010/01/21/tech-un-climate-glacier.html

"However, the lead author of the relevant IPCC chapter, Murari Lal, rejected the notion that the IPCC had screwed up. 'The IPCC authors did exactly what was expected from them,' he said." "Never were truer words spoken. The IPCC's task has always been not objectively to examine science but to make the case for man-made climate change by any means available." **IPCC meltdown: Now the question is whether Rajendra Pachauri should resign** By Peter Foster, Financial Post, Jan 19, 2010 [H/t Bill Edelstein] http://tinyurl.com/yeps4ac

#### A US ClimateGate?

IBD Editorials, Jan 22, 2010 http://www.investors.com/NewsAndAnalysis/Article.aspx?id=518890

For the New York Times gloss-over of the significance of the failed procedures used in the IPCC and exaggeration of glacial melting please see the below. Oddly the article ignores the rigorous study recently completed by V.K. Raina.

**U.N. Panel's Glacier Warning Is Criticized as Exaggerated.** By Elisabeth Rosenthal, NYT, Jan 18, 2010 http://www.nytimes.com/2010/01/19/science/earth/19climate.html?ref=science

### **Stimulating Fraud**

IBD Editorials, Jan 19, 2010 http://www.investors.com/NewsAndAnalysis/Article.aspx?id=518486

For a summary of Climategate as at applies to the US please see the article referenced below. From one of the famous emails by Tom Wigley: "Please keep this in confidence. I do not want it to get back to Singer or any of the Douglass et al. co-authors."

Climategate: The Truth Hurts When It Hits You in the Head Dexter Wright, American Thinker, Jan 18, 2010 http://www.americanthinker.com/2010/01/climategate\_the\_truth\_hurts\_wh.html

#### Emissions targets set for delay

By Roger Harrabin, Environmental analyst, BBC New, Jan 20, 2010 http://news.bbc.co.uk/2/hi/science/nature/8471450.stm The January 13, 2010 issue of Science magazine contained an article claiming 2009 was the hottest year on record in the Southern Hemisphere. This claim is contested by Roger Pielke, Sr. and by satellite evidence provided by John Christy.

# Reality Check On Science Magazine's Claim That 2009 Was the Hottest Year on Record in Southern Hemisphere

By Roger Pielke, Sr., Climate Science, Jan 20, 2010 http://pielkeclimatesci.wordpress.com/2010/01/20/reality-check-on-science-magazines-claim-that-2009was-the-hottest-year-on-record-in-southern-hemisphere/

For an overview of the issues that are developing as the US EPA proceeds with its tremendous power grab by declaring a scientific determination that carbon dioxide is harmful to human health please see:

# The Mass. v. EPA regulatory cascade: If EPA does not poach legislative power, what will it cost?

By Marlo Lewis, OpenMarket.org, Jan 21, 2010 http://www.openmarket.org/2010/01/21/the-mass-v-epa-regulatory-cascade-if-epa-does-not-poachlegislative-power-what-will-it-cost/

Last week's TWTW referred to articles addressing issues regarding wind power in Germany – does it result in reduction of carbon dioxide emissions? In this four part series, Kent Hawkins develops a simple calculator (model) to estimate if carbon dioxide emissions are reduced, assuming wind power replaces power generated by either Open Cycle Gas Turbines (OCGT) or Combined Cycle Gas Turbines (CCGT) that are the most apparent candidates to provide fast back-up to wind power when the wind disappears. (For the US and many countries increased hydroelectric as a back-up is not an option either due to physical limitations or political limitations.)

Part IV is referenced but the series is best read in order from Part I to Part IV.

**Wind Integration: Incremental Emissions from Back-Up Generation Cycling (Part IV** – Further Reflections)

By Kent Hawkins, Master Resource org, Dec 16, 2009 http://www.masterresource.org/2009/12/wind-integration-incremental-emissions-from-back-upgeneration-cycling-part-iv-further-reflections/

### White House Needs New Look At Energy

By Michael Economides, IBD Jan, 20, 2010 http://www.investors.com/NewsAndAnalysis/Article.aspx?id=518743

### **BELOW THE BOTTOM LINE**

According to this study, reaching the 20 percent threshold for wind by 2024 in the eastern electric grid for the United States would require 225,000 megawatts of wind generation capacity in the region, about a 10-fold increase from current levels. This implies there are 22,000 megawatts of wind generation in the eastern grid. The calculations likely assume the Great Plains are part of the eastern grid. A major issue not mentioned is the crossing the Appalachian Mountains with transmission lines that most likely will be bitterly fought.

#### U.S. says wind could power 20 percent of eastern grid

Report from Energy Department's National Renewable Energy Laboratory [H/t Marty Mangiino] By Tom Doggett, Reuters Business & Financial News, Jan 20, 2010 http://www.reuters.com/article/idUSTRE60J37V20100120

#### Get ready for seven-foot sea level rise as climate change melts ice sheets.

The IPCC's 2007 report missed out the melting of the Greenland and West Antarctic ice sheets which would be the key drivers in dramatic sea level rises. From <u>Yale Environment 360</u>, part of the <u>Guardian</u> <u>Environment Network</u> [H/t Icecap]

By Rob Young and Orrin Pilkey, Yale Environment 360, Guardian.UK <u>http://www.guardian.co.uk/environment/2010/jan/15/sea-level-climate-change</u> [**SEPP Comment**: When the product you are selling is failing in the market, sell harder.]

### ARTICLES

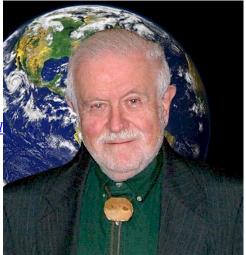
#### **1. Interviews with Fred Singer**

William Westmiller of the LA Public Policy Examiner did a series of three interviews with Fred Singer. The final one is "Climate Change 101: Does the IPCC have it all wrong? <u>http://www.examiner.com/x-33398-Public-Policy-Examiner~y2009m12d31-Climate-Change-101-Does-the-IPCC-have-it-all-wrong</u>

#### **Examiner Interview: Part 3**

**S. Fred Singer** is an American atmospheric physicist, Professor Emeritus of environmental sciences at the University of Virginia, specializing in planetary science, global warming, ozone depletion, and other global environmental issues. He was a Special Advisor on space developments to President Eisenhower and the first Director of the National Weather Satellite Service Center. He is President of the non-profit <u>Science & Environmental</u> <u>Policy Project</u>, author of <u>Hot Talk Cold Science: Global</u> <u>Warming's Unfinished Debate</u>, <u>Unstoppable Global</u> <u>Warming</u> (NY Times Bestseller), and editor of <u>Nature,</u> <u>Not Human Activity, Rules the Climate</u>.

**Examiner:** Does the International Panel on Climate Change [IPCC] have it all wrong?



**Singer:** The Panel was established by members of the United Nations with an assortment of political objectives in mind. Hundreds of scientists are doing commendable research and they have contributed to many of the Working Group reports, but they don't participate in writing the final "Summary for Policymakers" that gets all the attention of media and national leaders. The IPCC procedure actually requires the Working Group reports to conform with the political conclusions of the Summary, written and negotiated by a group of U.N. politicians.

No doubt, there are some scientists who want to collect large government grants for studying climate. The recent release of emails from the East Anglia University's Climate Research Unit suggests that some of them want to provide their employers with an unjustified political consensus that serves their purposes.

Thousands of competent scientists who have scrutinized the IPCC reports agree that many of the conclusions are unsupported by the scientific evidence. Many IPCC reviewers have publicly rejected the Summary's conclusions. In my opinion, every good scientist is a skeptic. Humans don't dictate facts to nature. As our knowledge of global climate improves, we may discover that all of the popular assumptions are wrong.

Examiner: How did the anthropogenic theory get started and why has it been so popular?

**Singer:** There have always been people who recognized that pollution was a problem and adopted the perspective that the natural environment needed to be protected from human abuse. If I were to speculate, I suppose the Wicca religion created the seeds in Europe. Native American traditions and fables had an influence in the United States. But that's sociology, not science.

In the scientific community, the idea of human causation was probably started by David Keeling in 1958, when he observed that CO2 increases he was measuring at the South Pole seemed to match the increase in the combustion of fossil fuels during recent decades. Keeling devoted most of his life to measuring atmospheric CO2 and founded the modern research facility at Mauna Loa, Hawaii. His speculation wasn't improper and his surmise was certainly worthy of investigation, but many scientists adopted the proposition of anthropogenic causation as a matter of faith.

I don't like to speculate about people's motives, but there are many reasons that scientists, politicians, and businessmen latched on to the anthropogenic theory. For scientists, it was an interesting idea and may have been related to their field of study, usually meteorology. Twenty years ago, there were no "climate scientists", nor any PhD in "Climatology", so it was an enticing field, open for exploration.

The idea that humans might be responsible for a potentially damaging warming trend certainly appealed to politicians, particularly those with a strong "environmental" record and reputation. It was a chance to "save the world" and be a hero. I won't even mention the name of one politician who has made it a career.

Finally, when governments began adopting policies that embraced the anthropogenic theory, money started flowing. Businessmen saw an opportunity for profit and took advantage of financial incentives and government subsidies. The tempting promise of huge profits probably encouraged a transition from legitimate pollution control investments to energy opportunities. The speculative "sustainable" technology required equipment and servicing; the new "climate modeling" required huge supercomputers and programmers; and the proposed "carbon markets" needed traders, speculators, and investors. Beyond all that, businesses want to develop a good image and are anxious to be associated with popular trends. So, "BP" no longer stands for "British Petroleum", it means "Beyond Petroleum".

All of those trends feed back into the faith-driven scientists, who are expected to maintain the appearance of a consensus, suppress skepticism, and ensure that the published facts conform to the objectives of business and politics. It's the ultimate in bio-feedback loops.

**Examiner:** Whether you're right or wrong, do you think the Kyoto Protocol or energy taxes have any merit?

**Singer:** Let's assume that I'm stupid and crazy? If fossil fuel combustion were a problem, there is a vast array of scientific mitigation measures that could be effective. There is also plenty of speculation about relatively simple, but global-scale, interventions that might impede warming. I would be very reluctant to assume responsibility for a project that might very well move the globe, more quickly than nature otherwise would, into the next Ice Age. I suppose, if I were a crazed fanatic I would encourage people to burn as much fossil fuel as possible to forestall eventual global cooling. I wouldn't expect anyone to follow that advice, but it might make me a famous ... or infamous ... celebrity. But then, of course, higher

levels of CO2 would benefit agriculture and save the lives of millions around the world, especially children, who now suffer from malnutrition

Kyoto is a strange blend of superficial government promises and artificial market incentives. It hasn't worked, even for the limited purposes and goals it had set for itself, primarily because of the absence of any enforcement measures. I would be the last person to propose some global government that actually had the power to impose strict limits on energy use or emissions worldwide. That's a huge amount of power, which would surely result in a huge amount of international corruption.

There are several energy tax schemes that have been proposed by warming advocates. They're taking the popular approach, politically: there are very few politicians who don't salivate at the thought of some new method of imposing taxes that they can spend. Saving the world from some despicable horror sells well; persuading people ... or forcing other people ... to make financial sacrifices for the "common good". I'm a scientist, not a politician, so my sole interest is in finding the truth. That requires evidence, based on data and verifiable facts. I don't think I could stomach the process of writing laws to force people to conform with my own sentiments, passions, and beliefs. To each his own.

Examiner: You've devoted a lot of time and energy to this debate. Are you optimistic or pessimistic?

**Singer:** I am really quite optimistic. I am sure that sound science must -- and will -- win out in the long run and convince not only scientists but also the public and politicians that climate change is almost all natural, and that a modest warming, should it occur, is good for humanity overall. The revelations of "ClimateGate" will be very helpful here and show how a gang of determined climatologists was able to con almost everyone by cooking the data and stifling any scientific criticism from 'skeptics.'

Of course, 'long run' may mean many more years -- during which the alarmists will try to impose policies that produce great economic hardships for no good reason. I fear especially those who have learned to game the system and are using global warming scares to enrich themselves at our expense. I won't mention names but you know who they are: Utopians who believe that global governance will lead to a better world; Luddites who oppose technological advance and economic growth; international bureaucrats and profiteers who want power and money. If they ever gain the upper hand, the world may have a difficult time recovering.

I hope I can be around when we can look back on past decades and say: "How could this climate insanity have fooled so many smart people?"

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#### 2. World misled over Himalayan glacier meltdown

By Jonathan Leake and Chris Hastings, Sunday Times, Jan 17, 2010 [H/t Keith Hudson] http://www.timesonline.co.uk/tol/news/environment/article6991177.ece

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 reinterviewed 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 concensus over climate change. It follows the so-called climate-gate scandal, where British scientists apparently tried to prevent other researchers from accessing key date. 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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#### **3. Himalayan Glaciers – Behavior and Climate Change**

# Himalayan Glaciers – A State-of-Art Review of Glacial Studies, Glacial Retreat and Climate Change, V.K. Raina, November 2009

Reviewed by Professor Cliff Ollier, School of Earth and Environment, University of West Australia for the Australian Government

Provided to SEPP by Professor Ollier

This book is a Discussion Paper issued by the Ministry of Environment and Forests, Government of India. Dr. Raina is an ex-Deputy Director of the Geological Survey of India, he spent many years studying the glaciers of the Himalayas, and has now produced a splendid over-view of the situation. He describes the history in investigation, details of glaciological studies, conclusions drawn from the studies, and finally a review of Global Warming and Glacier Retreat.

Here I shall refer to the main facts presented, and the basic conclusions, but put the emphasis on the last section, climate change, because the publication has already aroused vitriolic reactions from some quarters.

Himalayan glaciers show variable behaviour over the past hundred years. Most have retreated, some have stayed almost static, and some have a record of advance and retreat. This parallels the rest of the world, where most glaciers have been retreating since the end of the last glacial period. Many have shown alternating periods of advance and retreat.

Many people nowadays attribute the glacial retreat to anthropogenic global warming (AGW). But how can we tell when AGW started to affect the issue, or could all the changes we see be entirely natural, as they have to be for the pre-nineteenth century changes? Since glaciers have been retreating for thousands of years, why should the retreat of the past hundred years be attributed to a special cause? Can we find within the observed evidence some tests for deciding between natural and anthropogenic causes?

I believe that Dr Raina has provided the evidence, and interpreted it correctly.

Before getting into details, I shall explain the principles of glacier behaviour (which are also described in the book), so that the reader can understand the significance of the observations summarised later.

#### The Glacier Budget - why do glaciers advance or retreat

In general glaciers grow, flow and melt continuously with a budget of gains and losses. Snow falls on high ground, compacts, and becomes solid ice. More precipitation of snow forms another layer on the top, so the ice grows thicker by the addition of new layers at the surface. When the ice is thick enough it starts to flow under the force of gravity. A mountain glacier flows mainly downhill, but can flow uphill in places, as in the rotational flow that creates cup-shaped cirques. The flow of ice is generally slow, as expressed in the common metaphor "glacially slow", but the rate is variable. Some glaciers "surge", meaning they have short periods of accelerated flow. Flow rate depends on stress and so on thickness of the ice, and a relatively small increase in thickness results in a large increase in flow rate.

When the ice reaches a lower altitude where temperature is higher it starts to melt and evaporate. (Evaporation and melting together are called ablation, but for simplicity I shall use 'melting' from now on). If growth and melting balance, the glacier appears to be 'stationary'. If precipitation exceeds melting the glacier grows and advances. If melting exceeds precipitation the glacier recedes. The position of the snout is the simplest indicator of where the balance lies, but does not indicate the cause.

Flow is mainly by a process called creep, essentially the movement of atoms from one crystal to another. Only the lower part of the glacier can flow plastically: the upper ice is brittle and cracks to form crevasses in the rigid ice carried along on the plastic lower ice.

Himalayan glaciers present yet another distinctive problem. Some mountain glaciers start from icecaps that flow at the edges, so there is continuous flow from the snow-collecting area to the glacier snout. In the Himalayas relief is great and the peaks are so sharp that snow falling on the peaks reaches the glaciers in the valleys via avalanches. So the growth of a glacier depends not just on the precipitation but on the frequency of avalanches. It could happen that increased temperature in the mountains caused increased avalanching, thickening the glaciers and cause *increased* flow of the glacier.

#### The Himalayan Glaciers

Raina divides the history of research into Himalayan glaciers into three phases. In the early phase from first exploration to 1957 there was the accumulation of much topographic detail. From 1957 to 1970 a more holistic approach was taken, ice thicknesses were observed, and understanding of glaciers improved. After 1970 a Hydrological Programme dominated the work on glaciers, which included measurements of glacier thickness, calculation of ice volumes for each basin, and mass balance assessment. It was found

that the major factor for the retreat of glaciers is the relatively less snow precipitation during the winter, rather than enhanced melting in the summer. The glacier mass balance shows an inverse relation with monsoon precipitation.

There are thousands of glaciers in the Himalayas, and glaciers within the Himalayan region display different behaviour.

The main evidence for glacial retreat or advance is the changing position of the snout of glaciers. This is an easy and convenient thing to observe (though in the Himalayas it is harder than in most parts of the world), but as explained earlier the position of the snout depends on many factors and not just temperature.

Raina provides descriptions of large glaciers such as Siachen glacier (74 km long and the second longest outside Polar regions), and Gangotri, ( the largest in the central Himalayas and regarded as the source of Ganges) down to small ones just a few kilometres long.

The most fascinating accounts are of the growth and retreat of the different glaciers. Here is a sample: Gangotri was retreating at 20 m per year up to 2000, but then slowed, and since September 2007 has been at a standstill.

Siachen glacier advanced 700 m between 1862 and 1909 and retreated 400 m between 1929 and 1958, since when retreat has been very small. The snout has retreated just 8-10 m since 1995.

Other contrasts are that Sonapani glacier retreated 500 m in the last 100 yr, whereas Kangriz glacier shows virtually no retreat.

The small (2km) Machoi Glacier has a continuous record of snout observations since 1875, and shows no major retreat in the last 50 years.

Bhagirath glacier retreated 320 m between 1962 and 2005 (7.4 m/y), but only 1.5 m in 2006.

In the early phase of Himalayan exploration glaciers were in general retreat, but even then Mirapin and Hassanabad advanced rapidly.

In Kumaon three glaciers retreated, including Pindari (425 m in 57 years), but Poting glacier was stationary.

Three surging glaciers of Kumdan behaved differently during 1958: Aktash and Chong Kumdan were advancing, but Kichik Kumdan was retreating.

Chong Kumdan glacier has three limbs:

The southern limb advanced 1.25 km up to 1990 and then retreated by 0.75 km up to 2006.

The northern limb, from 1993 to 2007, "is continuously surging ahead and has advanced by about 2.5 km. (16.7 m/y)"

The central limb retreated between 1997 and 2001, after which it surged. Between 1990 and 2007 the central limb advanced 1.75 km.

Kichik Kumdan glacier has two limbs.

The northern limb retreated 0.53 km between 1990 and 1997, then advanced up to 2004, and then retreated again by 0.6km.

The southern limb initially retreated up to 1992, advanced until 2005, and then retreated again in 2006 and 2007.

#### Glaciers further back in time

Modern dating methods allow determination of the age of ice itself and of associated landforms. The Gangotri glacier once flowed for another 47 km beyond its present snout, to the town of Jahla. This extension has been dated to 58,000 years ago, which is well beyond the start of any possible anthropogenic global warming. Similarly Durung Drung glacier extended 15 km farther downstream 21,000 years ago. Dating of ice close to the snout of the small Gara glacier showed the ice was 250-300 years old. It has taken 300 years for ice in the accumulation zone to reach the snout 2.5 km distant. Fluctuations of the snout of the Gara glacier reflect the weather or climatic conditions of 300 years ago, not the temperature of today: the position of the snout today is a summary of events over the past 300 years. Raina postulates that many glaciers are responding to natural warming that occurred during the Mediaeval Warm period of the  $11^{\text{th}}$  century.

In the same way fluctuations of the big glaciers, Gangotri or Siachen, may be a response to the climate of 6000 years ago or 15000 years ago respectively.

#### Comparison with glaciers in the rest of the world

One of the weaknesses in this book in my opinion is the fairly brief comparison of Himalayan glaciers with those elsewhere in the world. Dr Raina seems to accept the general, oversimplified IPCC view of universal global warming and glacial retreat everywhere, but this is not so. Advance and retreat of glaciers is a world wide event, but local exceptions are common. In the European Alps glaciers advanced in the 1750, 1820 and 1850 and about 1885 to 90. Since then the Alpine glaciers have generally retreated, with more rapid retreat in the 1930s and 1990s (dates that do not correlate with any notable periods of CO2 accumulation). The Himalayan glaciers do not match the Alpine record, probably because global temperature is not the main control.

There is plenty evidence that the icecaps of Greenland and Antarctica are in fact growing rather than shrinking. The ice on Mount Kilimanjaro is retreating not because of warming but because of decreasing precipitation.

Some glaciers are extending, like the Hubbard Glacier in Alaska, although other glaciers in its vicinity are in retreat. The Hubbard Glacier is a popular place for visitors to observe the almost continuous break-up of the ice front, often making icebergs the size of a multi-story building, yet the glacier has advanced since it was first observed in 1895, and now threatens to close a fiord and the livelihood of local residents. The Hubbard Glacier is advancing, like the advancing glaciers of the Himalayas, because increased precipitation makes the glacier thicker.

In brief, there is plenty of evidence around the world to support Dr Raina's conclusions.

#### **Raina's Main Conclusions**

Since the earliest recordings there has been general retreat, but retreat slowed down in the nineties and has come to a standstill in the case of many glaciers including the Siachen, Gangotri, Machoi, Darung Drung, Zemu, Bhagirath Kharak and Satopanth.

Sometimes there is no similarity between the movements in two branches of the same compound glacier.

"Ultimately the movements [of glaciers] are due to climate and snowfall in particular, but the factors are so varied that the snout movements appear to be peculiar to each particular glacier."

Snow precipitation is the dominant factor in glacier advance or retreat.

"A glacier... does not respond to the immediate climatic changes, for if it be so then all glaciers within the same climatic zone should have been advancing or retreating at the same time."

I believe that these conclusions are correct, and congratulate Dr. Raina on providing conclusive evidence that the behaviour of Himalayan glaciers, or even their modern changes, cannot be attributed to the single cause. He has demonstrated that the ruling theory that anthropogenic global warming controls Himalayan glaciers is untenable.

#### Problems for advocates of Anthropogenic Global Warming

With thousands of years of natural advance and retreat, what is the evidence that the latest general retreat of glaciers is caused by a new factor, anthropogenic global warming? But the AGW alarmists go further, and use their alleged behaviour of glaciers as proof of future impending doom unless we reduce carbonbearing greenhouse gases. The IPCC's 2007 Working Group II report asserted that Himalayan glaciers "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". Such claims are unsupported, unscientific and wrong.

Surely it is up to the AGW proponents to offer proof for their special case theory. If the AGW camp wish to assert that glacier retreat is due to global warming, they need to demonstrate how such warming affects the glacier budget.

When is it supposed that AGW set in, and how can it be demonstrated?

Dr Raina's data suggest that the position of a glacier snout results from several factors. What is evidence to deny this and show that the position of the glacier snouts is controlled by global warming, and anthropogenically induced warming at that?

Dr Raina has shown that at the same time (including the present) some glaciers retreat, some advance, some stay in the same position, and some fluctuate rather rapidly. Why the difference? Raina writes "A glacier ... does not necessarily respond to the immediate climatic changes, for if it be so than all glaciers within the same climatic zone should have been advancing or retreating at the same time." How can we explain the diverse behaviour of glaciers by temperature and greenhouse gases? Do the AGW proponents suppose different amounts of climate warming for some and not others? Do they imply different amounts of CO2 production in different areas? This seems impossible because contrasting glacier behaviour is often in immediately adjacent areas.

Raina describes a gradient of increasing melting from NW (Kashmir) to SE (Sikkim). The AGW explanation is presumably increasing heating in the same direction, and perhaps an accompanying increase in anthropogenic CO2. In this sparsely inhabited and industrialised area this seems most improbable, and it is up to the AGW camp to provide a hypothesis to explain the trend and provide the evidence for their hypothesis.

The fallacy of a single cause is a well-known failure of scientific thinking, yet the idea that AGW controls the future of the planet, let alone the behaviour of glaciers, is constantly pushed upon us. All the evidence suggests that there are many factors affecting glaciers. To paraphrase Raina, "It is unlikely that the snout movement of any glacier can be claimed to be the result of a single factor, namely today's temperature".

Raina writes "But to postulate that a glacier can warn of the climate changes likely to take place in future is a big question mark". I would suggest it is totally illogical.

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#### 4. UN Bases Climate-change Forecast on Decade-old Speculation

By Rebecca Terrell, New American, Jan 19, 2010 http://www.thenewamerican.com/index.php/tech-mainmenu-30/environment/2783-un-bases-climatechange-data-on-decade-old-speculation

The world of climate change is heating up with news that forecasts contained in the United Nation's 2007 climate report were based on misquoted speculation by an Indian glaciologist from an interview published nearly a decade earlier.

The Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) claimed that global warming would cause the massive Himalayan glaciers to shrink to extinction by 2035. As reported by <u>*The Australian*</u>, the IPCC cited campaign literature published by the World Wildlife Fund (WWF) in making the claim, even exaggerating that report to pin a high likelihood on the prediction.

The WWF gleaned its information from a 1999 article published in the journal *New Scientist*. The author, Fred Pearce, had quoted Indian scientist Syed Hasnain who was at the time chairman of the working group on Himalayan glaciology for the International Commission on Snow and Ice. Hasnain told Pearce he had data about a portion of the Himalayan glaciers he feared were at risk. Pearce told *The Australian* he eventually obtained a copy of Hasnain's report, but it contained no specific date by which any melting was forecast to occur, nor had it been peer-reviewed or published in a scientific journal.

Hasnain now works for the head of the IPCC, Rajendra Pachauri, as head of the glaciology team for TERI, an energy research institute headquartered in India. Last week TERI announced plans to collaborate with the University of Iceland and the Carnegie Corporation of New York to study "the effects of climate change on the Himalaya and the manifold consequences that follow for the possibilities of water management and food production on the plains below." In its <u>press release</u>, TERI bemoaned the fate of Himalayan glaciers: "According to *predictions of scientific merit* [emphasis added] they may indeed melt away in several decades." The <u>EU Referendum</u> reports that TERI received hundreds of thousands of dollars toward this research from the Carnegie Corporation.

Not surprisingly, Pachauri downplayed the importance of the revelation about AR4's source of glacier information, though <u>*The Times of India*</u> quoted an apologetic Pachauri acknowledging that the IPCC's reputation will suffer. "We have to see that its gold-plated standard is maintain," he reassured *The Times*.

Though TERI can rest easy knowing its Carnegie money is secure, this latest revelation is especially embarrassing for the IPCC, which <u>brags it uses</u> only the latest, peer-reviewed research in writing its regularly published assessment reports. The next, Fifth Assessment Report (AR5), is due for release in 2013. *The Australian* quoted the IPCC climatologist who had charge of the Himalayan glaciers chapter in AR4, Murari Lal, "If Hasnain says officially that he never asserted this, or that it is a wrong presumption, then I will recommend that the assertion about Himalayan glaciers be removed from future IPCC assessments." He also admitted having little knowledge of glaciers.

Other scientists scoff at the idea of a catastrophic Himalayan glacier melt of such massive ice formations. As reported by *The Australian*, Cambridge University's director of the Scott Polar Research Institute, Julian Dowdeswell, explained, "A small glacier such as the Donkriani glacier is up to 120m thick. A big one would be several hundred metres thick and tens of kilometres long. The average is 300m thick so to melt one at 5m a year would take 60 years."

Other officials are enraged at the revelation of IPCC's deceitful tactics. *The Times of India* quoted environment minister Jairam Ramesh complaining that "due diligence had not been followed by the Nobel peace prize winning body." Ramesh feels vindicated since the IPCC has ignored his challenges to

AR4. Though he admits dramatic changes in recent years to Himalayan glaciers, he said the "IPCC's alarmist position ... was not based on an iota of scientific evidence."

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**5. UN climate chief admits mistake on Himalayan glaciers warming** By Jeremy Page, Times Online, Jan 21, 2010 [H/t Thomas Burch] http://www.timesonline.co.uk/tol/news/environment/article6994774.ece

The UN's top climate change body has issued an unprecedented apology over its flawed prediction that Himalayan glaciers were likely to disappear by 2035.

The Intergovernmental Panel on Climate Change (IPCC) said yesterday that the prediction in its landmark 2007 report was "poorly substantiated" and resulted from a lapse in standards. "In drafting the paragraph in question the clear and well-established standards of evidence, required by the IPCC procedures, were not applied properly," the panel said. "The chair, vice-chair and co-chairs of the IPCC regret the poor application of IPCC procedures in this instance."

The stunning admission is certain to embolden critics of the panel, already under fire over a separate scandal involving hacked e-mails last year.

The 2007 report, which won the panel the Nobel Peace Prize, said that the probability of Himalayan glaciers "disappearing by the year 2035 and perhaps sooner is very high". It caused shock in Asia, where about two billion people depend on meltwater from Himalayan glaciers for their fresh water supplies during the dry seasons.

It emerged last week that the prediction was based not on a consensus among climate change experts but on a media interview with a single Indian glaciologist in 1999. That scientist, Syed Hasnain, has now told The Times that he never made such a specific forecast in his interview with the New Scientist magazine.

"I have not made any prediction on date as I am not an astrologer but I did say they were shrinking fast," he said. "I have never written 2035 in any of my research papers or reports." Professor Hasnain works for The Energy and Resources Institute (TERI) in Delhi, which is headed by Rajendra Pachauri, head of the climate change panel.

Dr Pachauri has defended the panel's work, while trying to distance himself from Professor Hasnain by saying that the latter was not working at the institute in 1999: "We slipped up on one number, I don't think it takes anything away from the overwhelming scientific evidence of what's happening with the climate of this Earth."

Professor Hasnain confirmed that he had given an interview to Fred Pearce, of New Scientist, when he was still working for Jawaharlal Nehru University in 1999. "I said that small glaciers in the eastern and central Himalaya are declining at an alarming rate and in the next 40-50 years they may lose substantial mass," he said. "That means they will shrink in area and mass. To which the journalist has assigned a date and reported it in his own way." Mr Pearce was not immediately available for comment.

Despite the controversy, the IPCC said that it stood by its overall conclusions about glacier loss this century in big mountain ranges including the Himalayas. "This conclusion is robust, appropriate, and entirely consistent with the underlying science and the broader IPCC assessment," it said.

The scandal threatens to undermine the panel's credibility as it begins the marathon process of drafting its Fifth Assessment Reports, which are due out in 2013-14. Georg Kaser, a leading Austrian glaciologist

who contributed to the 2007 report, described the glacier mistake as huge and said that he had warned colleagues about it months before publication.

The error is also now being exploited by climate sceptics, many of whom are convinced that stolen e-mail exchanges last year revealed a conspiracy to exaggerate the evidence supporting global warming.

Jairam Ramesh, the Indian Environment Minister, said on Tuesday the scandal vindicated his position that there was no proof that Himalayan glaciers were melting abnormally fast. "The IPCC claim that glaciers will vanish by 2035 was not based on an iota of scientific evidence," he said.

Monitoring Himalayan glaciers is extremely difficult because most of them lie in some of the most inhospitable terrain in the word at an altitude of more than 5,000 metres (16,000ft).

Most studies until now have therefore been based necessarily on a mixture of outdated and incomplete data, satellite imagery, photography, and anecdotal evidence.

Last year, however, TERI launched a project to install high-tech sensors on three glaciers which it will use as benchmarks to assess the situation across the Himalayas.

Professor Hasnain, who is running the project, said that he would soon be presenting a report on the status of Himalayan glaciers, based on research works by Indian and international scientists published in different peer reviewed journals across the world.

He hopes that these studies will help to produce more incontrovertible evidence that the Himalayan glaciers are under threat. In the short term, however, it seems they will do little to convince climate change sceptics, or to repair the image of the IPCC.

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**6.** The mystery of the missing thermometers. Why did the number of Canadian weather stations used in the global database shrink from 600 to 35 – only one above the Arctic Circle? Environment Canada states the government operates 1,400 stations with more than 100 above the Arctic Circle.

#### Scientists using selective temperature data, skeptics say

By Richard Foot, The National Post, Jan 20, 2010 [H/t Steve Malloy, Junkscience] http://www.nationalpost.com/news/story.html?id=2465231

Call it the mystery of the missing thermometers.

Two months after "climategate" cast doubt on some of the science behind global warming, new questions are being raised about the reliability of a key temperature database, used by the United Nations and climate change scientists as proof of recent planetary warming.

Two American researchers allege that U.S. government scientists have skewed global temperature trends by ignoring readings from thousands of local weather stations around the world, particularly those in colder altitudes and more northerly latitudes, such as Canada.

In the 1970s, nearly 600 Canadian weather stations fed surface temperature readings into a global database assembled by the U.S. National Oceanic and Atmospheric Administration (NOAA). Today, NOAA only collects data from 35 stations across Canada.

Worse, only one station -- at Eureka on Ellesmere Island -- is now used by NOAA as a temperature gauge for all Canadian territory above the Arctic Circle.

The Canadian government, meanwhile, operates 1,400 surface weather stations across the country, and more than 100 above the Arctic Circle, according to Environment Canada.

Yet as American researchers Joseph D'Aleo, a meteorologist, and E. Michael Smith, a computer programmer, point out in a study published on the website of the Science and Public Policy Institute, NOAA uses "just one thermometer [for measuring] everything north of latitude 65 degrees."

Both the authors, and the institute, are well-known in climate-change circles for their skepticism about the threat of global warming.

Mr. D'Aleo and Mr. Smith say NOAA and another U.S. agency, the NASA Goddard Institute for Space Studies (GISS) have not only reduced the total number of Canadian weather stations in the database, but have "cherry picked" the ones that remain by choosing sites in relatively warmer places, including more southerly locations, or sites closer to airports, cities or the sea -- which has a warming effect on winter weather.

Over the past two decades, they say, "the percentage of [Canadian] stations in the lower elevations tripled and those at higher elevations, above 300 feet, were reduced in half."

Using the agency's own figures, Smith shows that in 1991, almost a quarter of NOAA's Canadian temperature data came from stations in the high Arctic. The same region contributes only 3% of the Canadian data today.

Mr. D'Aleo and Mr. Smith say NOAA and GISS also ignore data from numerous weather stations in other parts of the world, including Russia, the U.S. and China.

They say NOAA collects no temperature data at all from Bolivia -- a high-altitude, landlocked country -but instead "interpolates" or assigns temperature values for that country based on data from "nearby" temperature stations located at lower elevations in Peru, or in the Amazon basin.

The result, they say, is a warmer-than-truthful global temperature record.

"NOAA . . . systematically eliminated 75% of the world's stations with a clear bias towards removing higher latitude, high altitude and rural locations, all of which had a tendency to be cooler," the authors say. "The thermometers in a sense, marched towards the tropics, the sea, and to airport tarmacs."

The NOAA database forms the basis of the influential climate modelling work, and the dire, periodic warnings on climate change, issued by James Hanson, the director of the GISS in New York.

Neither agency responded to a request for comment Wednesday from Canwest News Service. However Hanson did issue a public statement on the matter earlier this week.

"NASA has not been involved in any manipulation of climate data used in the annual GISS global temperature analysis," he said. "The agency is confident of the quality of this data and stands by previous scientifically-based conclusions regarding global temperatures."

In addition to the allegations against NOAA and GISS, climate scientists are also dealing with the embarrassment this week of the false glacier-melt warning contained in the 2007 report of the UN Panel on Climate Change. That report said Himalayan glaciers are likely to disappear within three decades if current rates of melting continue.

This week, however, the panel admitted there is no scientific evidence to support such a claim.

The revelations come only two months after the "climategate" scandal, in which the leak or theft of thousands of e-mails -- private discussions between scientists in the U.S. and Britain -- showed that a group of influential climatologists tried for years to manipulate global warming data, rig the scientific peer-review process and keep their methods secret from other, contrary-minded researchers.

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7. An appeal to reason and decency in discussing the differences between alarmists and skeptics: **The True Impact of Climategate and Glaciergate** The Scientific Alliance, Jan 22, 2010 [H/t Laurie Henrikson] http://www.gaia-technology.com/sa/newsletters/newsletters.cfm

After such an intense focus on climate change late last year, I had made a private vow to keep off the topic in early 2010 and instead address other interesting and important issues. But in light of the truly extraordinary recent events, a further comment is simply irresistible.

'Climategate' – the furore over the implications of the leaked emails from the Norwich-based Climate Research Unit – has been interpreted by some sceptics as proof that the whole issue is simply a scam. Their judgement has been reinforced by a second scandal which, inevitably, some have labelled 'glaciergate' (a prize should go to the first person to find a snappy alternative to this label: Nixon resigned over 35 years ago!). The IPCC's Fourth Assessment Report, published in 2007, included a reference to the likely disappearance of Himalayan glaciers by 2035, which turned out to be based on an unsubstantiated statement in a WWF report, which itself may or may not have been quoting a simple typographical error: 2035 instead of 2350.

Rajendra Pachauri, current chairman of the IPCC, had last year criticised a state-of-the-art review issued by the Indian government as 'voodoo science' because it offered a more nuanced view of the varied behaviour of glaciers in the Himalayas and concluded that their retreat in recent years had not been abnormal. The recent disclosure could not be dismissed so lightly, but it was noticeable that Pachauri left it to his deputy, Jean-Pascal van Ypersele, to admit that a mistake had been made. In a (possibly vain) attempt at damage limitation, he is quoted by the BBC as saying 'I don't see how one mistake in a 3,000page report can damage the credibility of the overall report. Some people will attempt to use it to damage the credibility of the IPCC; but if we can uncover it, and explain it and change it, it should strengthen the IPCC's credibility, showing that we are ready to learn from our mistakes.'

Perhaps unsurprisingly, many sceptics have gleefully put the boot into Pachauri (who is also being criticised for his opulent lifestyle and various alleged conflicts of interest) and, indeed, the entire climate change industry. Since these are the same people who have been the subject of numerous personal attacks on their credibility – including repeated allegations that they are merely paid lackeys of 'Big Oil' – the opportunity to turn the tables will have been irresistible to some.

Having been disparagingly referred to as 'village idiots' and 'flat earthers' by senior figures in the scientific establishment, the temptation must have been strong. But it should have been resisted. The various revelations should be treated rationally and cautiously and not simply used as a blunt weapon to discredit opponents. Climate change science and appropriate policy responses remain crucial issues, and ultimate decisions should be made on the basis of a calm assessment of the facts rather than simply siding with whoever has captured the headlines.

In reality, these two disclosures do not change the situation on climate change, even though they do pose questions about the objectivity of some key people. The enhanced greenhouse effect remains a plausible

but unproven hypothesis, with a significant number of question marks hanging over it. The most important question is not whether carbon dioxide warms the earth, but by how much. Cool heads should prevail and reasonable people on both sides of the argument must respect the honestly-held views of those they disagree with if there is to be any meeting of minds. The situation is no different from any human conflict; one side may overcome the other by force of arms, but diplomacy is needed to build a lasting peace.

Anyone attending events on climate change will be aware of their partisan nature. Go to a mainstream conference and a good proportion of the participants will assume that anyone who does not go along with the received wisdom of the IPCC is at best foolish or deranged and at worst an evil right-winger who will do anything for money. Attend one of the smaller number of events organised by sceptics and the position is reversed, except that evil right-wingers become evil left-wingers.

Of course, things are not quite as black and white as this. But, as with any caricature, the views of opponents can have some elements of truth. There are some radical people on both sides of the argument who simply will not admit that anything they say could be wrong. And there are clearly many researchers and others whose income is directly linked to the work they do and so implicitly to the views they (apparently) hold. As for politics, there is also a tendency for academics and environmentalists to hold left of centre views, while sceptics are often (but not always) further to the right.

These are broad generalisations, but we ignore them at our peril. The conclusions people come to on climate change are shaped by their general world view. Many people are very ready to believe that our species' impact on the planet is largely negative, and it is a short step then to seeing climate change as 'obviously' anthropogenic. From the other end of the spectrum, it is all to easy to see those wedded to this hypothesis as part of a conspiracy designed to promote world government and global socialism, to protect the environment at the expense of the individual.

But we should try to put our prejudices aside and look at some of the areas of scientific uncertainty which need to be the subject of objective research rather than cursory dismissal. The IPCC's leaders should realise that arrogance, obfuscation and contempt for justified critics play into the hands of the very people they appear to despise. A little humility and a willingness to take criticisms seriously would greatly strengthen their position.

It all comes down to avoiding double standards. People from both sides of the argument should realise that, in Oscar Wilde's words, the truth is rarely pure and never simple. Finding a relatively small error in a publication or film does not automatically discredit everything else in it. But neither can errors simply be glossed over or ignored. Neither side has the truth, the whole truth and nothing but the truth.

So, in conclusion, here are two issues which deserve proper consideration by mainstream scientists rather than the normal brusque dismissal:

• The lower troposphere temperature record, although normally said to be 'consistent with' the greenhouse hypothesis, is actually only so to the extent that error bars overlap. Its support for the hypothesis is rather weak, and yet it is a crucial part of the jigsaw. This issue needs to be resolved.

• The effect of changes in the Sun's behaviour on weather patterns – whether via radiance changes, variation of the magnetic field, shielding from cosmic rays or other mechanisms – is usually dismissed as too small to be the primary driver of observed changes. But there is good historical correlation between solar cycles (eg, the number of sunspots) and observed long-term weather patterns, at least regionally. Given the accepted low level of understanding of clouds and atmospheric aerosols, solar influences surely merit proper investigation.

Acknowledging the validity of these points and working to resolve them in an open-minded way would be a major step in the right direction. Treating opponents with respect would be another.

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#### 8. On Global Warming, Let's Not Rush Into Panic Measures

Lord Donoughue, House of Lords, Jan 14, 2010 http://www.thegwpf.org/copenhagen-diary/419-lord-donoughue-on-global-warming-lets-not-rush-into-panic-measures.html

**House of Lords, 14 January 2010**: My Lords, I also thank the noble Lord, Lord Stone, for the opportunity to discuss the Copenhagen conference. Personally, I am not sure whether its failure was a disaster for the future of the planet or a fortunate rescue from dangerous commitments. Time will tell. I want to focus today on global warming, which is allegedly occurring on an unprecedented scale and is allegedly caused by man-made carbon emissions - the majority view is certainly that way.

First, I should declare that I have no training in physical science, although I have in social science from I was when an academic at the LSE, and I am aware of the use and misuse of statistics. I should also emphasise that I believe it is of prime importance to protect our planet from pollution of its earth, skies and oceans. I am also convinced that climate change is, indeed, taking place; it always has. There is nothing new there, although the volatility may now be much greater. However, climate change may not be the same as unprecedented global warming, although there is of course a link.

I am not yet convinced that such warming is, in fact, occurring on an unprecedented and catastrophic scale-although I am aware of the weight of scientific opinion being that way-nor has it, to me, been convincingly forecast to continue in a devastatingly upward curve as the global warming alarmists claim. I am neither a "flat earther" nor a so-called denier-a nasty word, being linked with Nazis denying the Holocaust. The facts of the Holocaust are tragically well established. However, the facts of onward global warming seem less secure. I am not a neo-Nazi but a questioner. It is about those facts of global warming that I wish to ask a few brief questions.

First, on the state of global warming science, would the Government and the preachers of global warming orthodoxy please stop asserting that the scientific evidence is decisively settled and that virtually all scientists support the warming orthodoxy? The science is not yet settled, and some questions are unsettled; nor are all scientists unanimous in support of the orthodoxy or its theology. Five hundred scientists, for instance, gathered recently at a conference in Washington to express their dissent. Their views can be found massively on the internet, although no British media and especially not the BBC reported the conference. Their dissenting views should be addressed, not suppressed.

Secondly, concerning the conclusions of the scientific evidence, specifically, is the global warming of the late 20th century demonstrably different and more threatening than the natural cycles of earlier times? The 300-year long medieval warming period was as hot, or hotter, than our recent experience. Grapes grew on Hadrian's Wall and the Vikings cultivated the green fields of the then green Greenland. Is the recent warming significantly different and sure to rise continuously and catastrophically? Related to this question, what has actually happened in the first decade of the 21st century, when the Met Office constantly forecast mild winters and barbecue summers, which did not materialise, and we currently have the worst winter in at least 30 years? That may be a blip-and I suspect that it is-but it raises questions.

Even more worrying questions have been raised about the integrity of some statistical sources for future global warming forecasts. The University of East Anglia's climatic unit, a major source of the world's global warming forecasts, has been exposed in practices which may not display the best values of objective science. Why did it perform a trick-its description-to,

"hide the decline in recent temperature"?

It admits using "adjustments" to data, but one man's adjustments can be another's manipulation. It is particularly worrying that it strove to resist freedom of information requests and so have prevented scrutiny of its data.

In relation to the media coverage of this important issue, the BBC should follow its charter and cover global warming impartially, not as a cheerleader for the alarmist side. It is counterproductive and provokes, like manipulation of statistics, the kind of public scepticism which the noble Lord, Lord Giddens, fears. As for the Met Office, it should go back to objective science and try to get its forecasts right and cease blatant campaigning for one side. I note that it has just inevitably forecast that 2010 will be a very hot year-noble Lords should stock up on their long-johns and fur boots.

Why should we be wary of forecasts? One reason is that meteorology is clearly a very difficult science and the data are inevitably imperfect, but there are two other reasons. First, for too many this issue has become more a question of faith than of science. I am wary of zealots. Secondly, the forecasting black boxes are unreliable. We should remember the banks forecasting that their toxic debt had no risk. As a former Minister of Agriculture I recall that the black boxes forecasted thousands of human dead from CJD.

In conclusion, this debate should not be between those who allegedly nobly wish to save the planet by radical decarbonisation and the selfish deniers who do not care for the future of the world. We must continue seeking practical ways to cleanse our environment. Above all, we must seek for objective science to establish what is happening to our ever-changing climate. I hope that we will not rush into panic measures that fatally damage our western economy. We must make sure that we get the scientific facts right and that our policy responses are ones of proportionate adaptation.

**Editor's note**: Bernard Donoughue (Labour) was Senior Policy Adviser to the Prime Ministers Harold Wilson and James Callaghan (1974-79). He is a member of the *Board of Trustees of the Global Warming Policy Foundation*.