Parhelion
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'Climate-Gate' : a storm in a teacup.

The 'Climate-Gate' incident over apparently underhand emails from leading climate scientists, followed by revelations of errors in the authoritative Intergovernmental Panel on Climate Change reports (IPCC), raised questions about the validity of manmade climate change. Followed by a cold winter, contrary to Met Office probabilities, there is widespread confusion among non-scientists. So what is the reality? Can insurers now ignore climate change?

The facts in Climate Gate

Hacked emails from the prestigious Climatic Research Unit (CRU) at East Anglia were alleged to show attempts to conceal data, manipulate findings to maintain the theory of manmade climate change fraudulently, and suppress alternative views. The Head of CRU, Professor Phil Jones has stood down while three separate reviews of this incident proceed. The first, by a parliamentary committee (HOCSAT) has now reported.[1]

HOCSAT concluded that in regard to dishonesty, there is no case to answer. Phrases like 'trick' and 'hide the decline' were taken out of context, and are not evidence of fraud. However, HOCSAT did conclude that CRU should have been more willing to disclose its data.

In relation to suppressing contrary findings, HOCSAT found that CRU had simply challenged the quality of the work. In one case the publisher, *Climate Research* admitted that major conclusions of the paper *"cannot be concluded convincingly from the evidence provided,"* and three of the editorial board resigned in protest over its publication[2].

While not examining the quality of CRU's scientific research, HOCSAT noted that ' the results from CRU agree with those drawn from other international data sets; in other words, the analyses have been repeated and the conclusions have been verified.' That means that the scientific base for climate change is not threatened by 'Climate-Gate'. In fact the alleged data manipulation applies to a tiny fraction of the climatic data ever handled by CRU.

IPCC reports summarise multitudinous published scientific papers. There were two notable errors in the 2007report, one relating to the rate of melting of Himalayan glaciers, and the other to the flood risk of the Netherlands. Neither of these related to the science of climate change, and neither of these errors appeared in the crucial Executive Summary Report. The errors were regrettable, but not significant, and the IPCC has promised to tighten its procedures.

The facts on Climate Change

While insurers in Europe may feel that last winter was bitter, NASA recorded the global situation as the second warmest winter in scientific records – remember the missing snow in the Winter Olympics? - and March 2010 continued this trend. One should not judge climate change by isolated events however. Figure 1 shows that the global temperature, when averaged in 10-year blocks, has been marching steadily upwards. This is confirmed by a host of other data trends e.g. worldwide loss of snow and ice and rising sea levels. Some sceptics have argued that the Sun caused recent Global Warming. To the contrary! The observed changes in solar activity in recent decades would have led to a slight cooling of the Earth.

[1] 'The disclosure of climate data from the Climatic Research Unit at the University of East Anglia.' Eighth Report of Session 2009–10 House of Commons Science and Technology (HOCSAT) Committee. HC387-1 31 March 2010
[2] Pew Center on Climate Change, 'The emails from the University of East Anglia's Climatic Research Unit ' December 2009

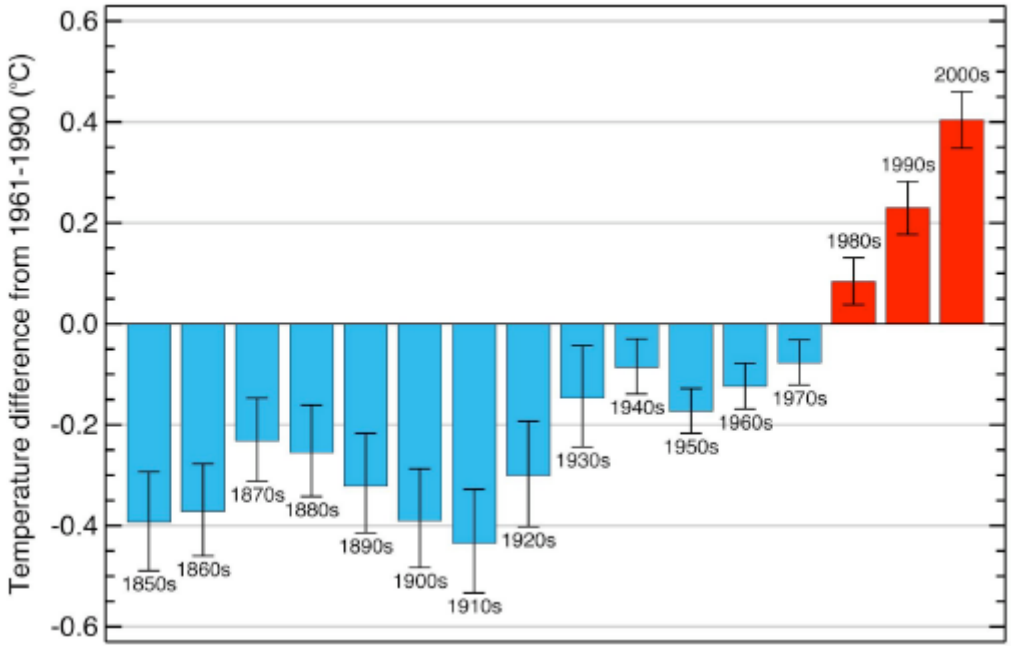

Figure 1 Global temperature relative to the average 1961-90.
Source Met Office (vertical bars are confidence intervals)

From an insurer's viewpoint, what matters is not the average, but the extremes. Analysis of UK temperature data, the longest data series anywhere, shows that historical patterns are shifting rapidly. The historical 100-year event now has a return period of 150 months. By mid-century, scientists expect the old 100 year-event to recur once every 3 years!

The data for other variables like rainfall and wind speed are less robust, and predictions are not so clear cut at a regional level. However, the recent record rainfall events in the UK are consistent with scientific predictions. It also seems very likely that extreme tropical storms will become more frequent and more intense.

For insurers, this means that risks are incorrectly rated, exposures are too high, claims-handling capacity is too low, and credit ratings are too generous[3]. Of course, climate change is not the only risk factor. For example, seasonal factors like El Nino can have a major influence on hurricanes, the standard of workmanship and maintenance can make all the difference between catastrophic damage and 'nil claim' to a building, and a well-designed contingency plan can alleviate business interruption.

Understanding the risks (and opportunities)

Both ABI and Lloyd's have an active programme of work on climate change. The CII has published three substantial reports, the latest in 2009. Forty insurance companies have now joined up to ClimateWise, an initiative which is committed to best practice for insurers on climate change. Other insurers are members of the United Nations Environment Programme Finance Initiative, which publishes business-oriented reports on a broad range of sustainability issues. The Lighthill Risk Network issues a daily newsletter on key risks for insurers.

The UK Government has an extensive agenda on adapting to climate change. The Adaptation SubCommittee (ASC) is overseeing the Climate Change Risk Assessment (CCRA), scheduled for January 2012, examining the risks and opportunities to different regions and sectors, with the associated costs and benefit. ABI is on the

[3] "Coping with Climate Change: Risks and Opportunities for Insurers" Chartered Insurance Institute, 2009

steering board. The *infrastructure project* has delivered its first report on how to make the *energy*, *telecommunications*, *transport* and *water* sectors more resilient to climatic impacts.[4] Among its key points were the need to guard against 'cascade failure', where the failure of one service such as water, endangers others, and the necessity of regularly updating information about the intensity of climatic risks. IPCC reports are useful references, though they soon become dated. There will be a special report on extreme events in 2011.

Finally, if a fresh piece of contradictory evidence appears on climate change, check out what realclimate.org or climate.org say, or email them for a comment.

About the author

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[4] Adapting Energy, Transport and Water Infrastructure to the Long-term Impacts of Climate Change. RMP/5456, URS Corp Ltd January 2010