

Climate change: man-made or natural?

In December 2005 in Montreal the world's governments effectively adopted the Kyoto protocol on reducing greenhouse gases to limit global warming.

Robert Freer assesses a recent book by Australian meteorologist William Kininmonth, who argues we can have little effect on climate change.

Swimming against the tide is always a courageous thing to do, especially when there are both political and scientific pressures behind the tide.

A recent book by William Kininmonth¹ sets out to challenge the accepted belief that the perceived change in the earth's climate is a direct consequence of mankind's activities on the earth, especially farming and the burning of fossil fuels, which produce the so-called 'greenhouse gases'. The word 'anthropogenic' has been created to describe these activities.

The accepted belief carries the corollary that by changing our activities to reduce the emissions of greenhouse gases we can change, or at least influence, the climate and stabilise the rise in temperature or even restore it to what we consider to be normal. This idea has now become political orthodoxy and, as most recently witnessed at the UN Climate Change Conference in Montreal in December 2005, governments are devoting considerable time and public funds to trying to achieve this objective.

Evidence is circumstantial

It is a measurable fact that the average surface temperature of the earth has been rising unsteadily over the past century and today is about 0.8 °C higher than the most recent low point in 1910. The concentration of carbon dioxide in the atmosphere has also been measured, but over a shorter period of time, and is also rising. Today it is

about 380 ppm whereas the prehistoric levels estimated from the analysis of ice cores are in the range 210 to 280 ppm.

There is therefore circumstantial evidence that the two observations are linked, and on this basis scientists are building computer models to make predictions about the future climate based on the assumed future concentration of greenhouse gases. One of the most worrying predictions being made is that there will be a consequential rise in the worldwide sea level which may drown low-lying coastal land and cities.

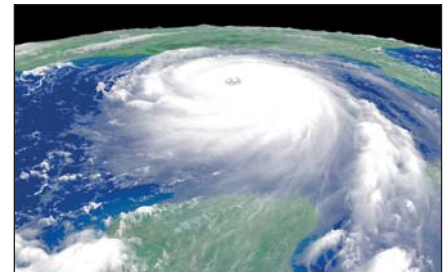
Kininmonth seeks to question whether climate change is linked to human activity or whether it is, as the title of his book suggests, a natural hazard. He has had a long career in meteorological science and policy and was for 12 years the head of Australia's National Climate Centre. He has represented Australia at conferences and committees of the World Meteorological Organisation and the UN.

Climate models inadequate

In his book Kininmonth explains why he thinks the climate model being used by the UN's Intergovernmental Panel on Climate Change is inadequate as a foundation for future planning. He believes the predictions of anthropogenic global warming have extended beyond sound theory and evidence.

For example, past temperature readings go back only to the mid nineteenth century and with varying accuracy. Before that it is necessary to use proxies for temperature such as tree rings, ocean sediments and ice cores, which are themselves of variable quality. They nevertheless indicate we appear to be living in the interval between two ice ages, and a turbulent climate appears to be a more normal condition than a settled one.

Kininmonth reminds us that the notion of a threat of man-made global warming only originated 20 years ago at an international meeting of scientists convened by the UN at Villach in Austria in October 1985. The Intergovernmental Panel on Climate Change



Hurricane Katrina hit the US coast in August 2005 and caused more damage than any previous storm – but can massive climatic events such as this really be influenced by man (courtesy NOAA)?

(IPCC) was subsequently set up and first reported in 1990. A UN committee prepared a Framework Convention on Climate Change for the Earth summit at Rio de Janeiro in 1992 and at the next meeting in Kyoto in 1997 a protocol was agreed to try to control the emissions of greenhouse gases. This was effectively adopted at Montreal in 2005.

Kininmonth considers 'the one-dimensional energy budget model of the climate system used by IPCC to explain its concept of radiative forcing is inadequate' and 'an unrealistic model of the climate system because it portrays the earth as if it were flat and motionless with no pole to equator temperature gradients'. As the earth is a sphere, he says net energy flow of the climate system needs to be considered in three dimensions.

A need to refocus

But climate-change-modelling inadequacies aside, Kininmonth concludes climate is naturally variable and that focusing on anthropological greenhouse warming is 'self delusion on a grand scale'.

There is of course no excuse for not using all our fuels efficiently and cleanly to reduce the emissions of greenhouse gases, but this book raises the question whether we should be trying to control the climate by reducing man-made emissions or whether we should be preparing to deal with the consequences of a natural event.

Reference

1. KININMONTH W. *Climate Change: A Natural Hazard*. Multi-Science Publishing, Brentwood, 2004.

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