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Global Warming: Extreme Weather or Extreme Prejudice?

by Christopher Lingle

Extreme weather is making headlines. Record summer temperatures in Europe and a large number of heat-related deaths in India joined news about severe flooding in Bangladesh, China, and Sri Lanka. And an unusual number of tornados in the United States have been reported.

For its part the UN World Meteorological Organization (WMO) suggests that global warming is linked to these events. It also declared that extremes in weather and climate are setting new records and the number of such extreme events has been rising. (The Bush administration plans to spend $103 million to study global climate change.)

But these reports raise many questions. As the director of the WMO admitted, the results reflect the fact that monitoring and communication of weather conditions are better than ever before. It turns out that the only certainty is that reporting of extremes is more common, even if the extremes are not.

As it is, little attention is paid to the fact that some of the vulnerability to extreme weather arises from changing human population patterns. Over the years, foreign aid and emergency disaster relief encouraged the building of slums or suburban housing in flood plains. Similarly, air conditioning allows more people to live comfortably in areas subject to hurricanes and cyclones.

In its report, the WMO notes that global averages for land and sea surface temperatures in May are the second highest since records began in 1880. However, temperatures in the upper atmosphere were not reported. This is no slight oversight. For global warming to be truly global, atmospheric temperatures would also have to be rising. But there is no evidence that air temperatures have risen to match the reports of rising ground temperatures.

Consider the fact that surface temperatures have been increasingly recorded in urban areas or airports that have much more concrete and asphalt than they had even a few decades back. All other things constant, it would be surprising if temperatures taken in such "hot spots" did not increase.

Such alternative explanations tend to be ignored. And so it has become an article of faith that burning fossil fuels increases greenhouse gases (GHG) that lock in heat and cause global warming.

Contrary to conventional wisdom, scientific understanding of climate change remains quite unsettled. In particular, it is not clear that observed global warming

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trends are significant or relevant to the long-term survival of life on earth. Nor is it clear that attempts to reduce greenhouse gases will offset other factors that influence climate. Indeed, there is a strong correlation between sunspot activity and temperature variations.

In all events, GHGs are not the only possible source of warming trends and not necessarily the most important. Weather and climate patterns depend on influences from oceans and other water systems, the variability of solar radiation, volcanic aerosols, and greenhouse gas emissions, as well as clouds and water vapor, just to name a few.

The UN Intergovernmental Panel on Climate Change (IPCC) considers at least 12 conditions that could change climate. Of these, only greenhouse gases have come under the close scrutiny of the scientific community. Uncertainty over the influence of the other conditions means that they could worsen the warming trend or reduce it or cancel it out completely.

A report released by the United Nations identified a two-mile-thick "Asian Brown Cloud" that is blamed partly on greenhouse gases. However, an examination of the effects of this enormous blanket of haze found that it counteracts global warming by shading land areas that it covers. So, it turns out that sometimes GHGs can induce cooling.

This is not the only beneficial property of GHGs. It is also overlooked that CO_2, one of the most infamous carbon-based GHGs, is actually plant food that is converted into oxygen.

Certain Harm, Uncertain Benefits

Meanwhile, most economic analyses indicate that mandating reductions in greenhouse gases will cause significant harm of which we can be certain, in exchange for uncertain benefits. Our incomplete understanding of the climate system raises questions over the effectiveness of local or regional responses to perceptions about global climate change.

Since global climate history reveals wide fluctuations over the earth's life, it is important to choose an appropriate time frame for reference to allow for reasonable comparisons. Most climate models used by the IPCC cover the last 1,000 years of climate variation. However, most of the data are estimates because surface temperature data have been recorded for only about 150 years. And weather balloon readings have been collected for 30 years, while satellite readings span less than 20 years.

It turns out that greenhouse politics suffers from a tendency to exaggerate. Environmental activists use worst-case scenarios that reflect their own biases to raise funds to support their causes. Politicians have a vested interest in citizens' believing in catastrophic scenarios that make it easier to levy new taxes, since guilt or uncertain risks make them more willing to surrender more of their income.

While the perceptions of the general public are influenced by these biases, rising incomes also lead to increased demand for higher environmental quality. Politicians and bureaucrats have tended to respond by imposing stricter environmental regulations, with violations receiving ever wider media coverage. In turn, there has been a misperception that environmental quality is worsening when it may actually be improving or perhaps remaining unchanged.

Even if global temperatures are rising, we do not really understand why. Neither do we know if nor how soon the worst-case scenarios might occur. Even their ultimate consequences remain uncertain. □