

Climate 'weirdness' demands attention

[Register Guard](#) ^ | 2/25/08 | Bob Doppelt

Although Lane County has mostly been spared, this winter has been especially brutal in many places.

China is experiencing its worst winter in more than 100 years. Record snow and freezing weather has caused more than \$15 billion in damage to homes, businesses and farm production. Hundreds of thousands of travelers were stranded in southern China before their lunar new year, which is many people's only opportunity to take a holiday.

In the United States, a powerful storm hit the mid-South this month, killing more than 50 people and injuring many others in the deadliest tornado outbreak in decades. Tornadoes normally kill an average of 70 people in the United States all year, and we haven't even entered the tornado season yet.

Almost exactly a year after what was billed as the worst storm of the decade, the Pacific Northwest suffered another devastating storm in December 2007. With winds up to 120 mph followed by, in some places, 6 inches of rain, massive flooding swamped the Oregon and Washington coasts. More than 100,000 households were without power. Interstate 5 between Portland and Seattle was closed for four days.

Whopping storms like this are only supposed to happen every 100 years. How could they occur back to back? What's going on here?

The Intergovernmental Panel on Climate Change said in its final 2007 report that the frequency of devastating storms will increase dramatically due to global warming. Recent patterns seem to affirm this prediction.

If the IPCC is right, we can expect increased weather variability here in Lane County and across the world. In fact, one author recently said that the term "climate change" does not correctly describe the shifts brought

about by global warming. “Climate weirdness” is a much more accurate term. We can expect more unpredictable extreme weather as the Earth warms.

Let’s take a moment to examine the IPCC’s predictions. Could the IPCC be biased? Does it have a political agenda?

The World Meteorological Organization and the United Nations Environment Programme established the Nobel Prize-winning IPCC in 1988. It includes more than 2,500 scientific expert reviewers, more than 800 contributing authors, and more than 450 lead authors from 130 countries. It’s hard to imagine how people from 130 different cultures and political systems could agree on anything, let alone on scientific issues of such importance. Yet the IPCC’s assessments are just that — consensus-based conclusions.

The IPCC review process generally has three stages. First, expert reviews of existing literature are completed. Then, government representatives and other experts from each participating country review the documents. Finally, the governments involved review the summaries developed by the IPCC for policymakers.

The result is that the IPCC assessments are by far the most thoroughly reviewed scientific documents in history. So when the IPCC says that we can expect more extreme weather volatility, it should not be taken lightly.

What will this mean for Oregon and Lane County?

Most governments plan for the future by looking at how the past unfolded. However, climate weirdness is creating never before seen conditions. The past will not provide us with blueprints for current and future management. This reality should be incorporated into all future policy development and planning.

Take water management, for example. The concept that streams operate

within a relatively stable set of flow parameters has for decades been the foundation of water management practices. However, the volatility that global warming is creating, such as big annual or decade long swings from drought to heavy precipitation, requires new forms of management.

Few utilities in Oregon seem to understand that big changes are afoot. Last year my program at the University of Oregon surveyed 35 municipal water suppliers in Oregon to determine if they were assessing the potential impacts of global warming on their systems. Only five, including the Eugene Water & Electric Board, were doing so.

EWEB has initiated a study of climate impacts on the McKenzie River to determine the effects of long periods of drought, reduced snowpack and increased weather volatility on the utility's water and electrical supplies.

Climate weirdness also will affect business. I recently called 10 prominent local firms that trade internationally to ask if they were incorporating climate risks into their business plans. Not one had made global warming a strategic issue. In contrast, a well-known Portland company I have been working with is formally incorporating the risks posed by global warming into its business plan. Substantial cost savings and other risk reduction benefits have resulted.

Managing in the face of increasing climate weirdness will require a whole new suite of strategies. Local businesses and government organizations will benefit from taking this issue seriously.

HHHH

Bob Doppelt, director of resource innovations and the Climate Leadership Initiative at the University of Oregon, is writing a series of columns on climate change for The Register-Guard.