

Climate Change: Setting the Record Straight

Contributed by Michael Poremba and Jan Lundberg
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Editor's note: Climate-change deniers and those not familiar with climate science are spreading confusion lately, or they are getting extra confused. For this to happen there's a germ of truth, with assistance from minor management mistakes in academia. Basic truth is now under fire, ignoring that global carbon dioxide emissions from fossil fuels in 2008 were nearly 40% higher than those in 1990. The following report by Michael Poremba, long-time San Francisco peak-oil and climate-change activist, clarifies the climate change picture that is unchanged. Then I comment on technofix-bound climate scientists and Al Gore's latest book. - JL

With the revelations that key climate change emails were disclosed to be promoting a definite-climate-change public message, with the Hadley Climate Centre taking a hit, and raw climate data used in conclusions having been trashed, there has been fodder for activists and lobbyists opposing meaningful cuts in greenhouse gas emissions. And it all happens to come right before the Copenhagen climate change conference.

The flap is like a hypothetical outrage by lovers of plastic, that the Northern Pacific Garbage Patch might not really be as huge as previously guestimated -- even though it is growing as petroleum refineries keep on changing the composition of the oceans (just as they alter the atmosphere).

The latest damaging headline in "Climategate" was on November 29, 2009, "Climate change data dumped":

Scientists at the University of East Anglia (UEA) have admitted throwing away much of the raw temperature data on which their predictions of global warming are based... academics are not able to check basic calculations said to show a long-term rise in temperature over the past 150 years... The data were gathered from weather stations around the world and then adjusted to take account of variables in the way they were collected. The revised figures were kept, but the originals stored on paper and magnetic tape were dumped to save space when the CRU moved to a new building.

The admission follows the leaking of a thousand private emails sent and received by Professor Phil Jones, the Climate Research Unit's (CRU's) director. In them he discusses thwarting climate skeptics seeking access to such data.

- The Sunday Times (UK)

The Wall Street Journal previously reported that climate change skeptics could now smell "blood in the water": "Some of the old emails from scientists made public apparently make references to things like "hid[ing] the decline," referring to global temperature series and different ways to slice and dice climate data."

It is precisely this idea of the "decline" which needs to be understood. And, we must constantly remind ourselves that misunderstandings and distortions are always at hand, if made at all possible to construe or misconstrue.

The increased warming has not dissipated; no reversal has happened. But the increase seemed to slow in recent years. This needs to be put into context:

As the CO2 content of the atmosphere is still increasing, one would expect the capacity to store heat to increase. Therefore the temperature would continue to go up. But there are variables in the system. The global average temperatures happen to have stabilized in the short term, but there aren't decreases that would return us to 1970s' levels. Climate scientists always have to smooth out the year-by-year saw-tooth data, so the jury's still out on what happened in the last few years. In any case, the world is not cooling down or offsetting recent decades' warming. If temperatures had decreased, that would be dramatic -- but it didn't happen.

So the climate-change denialists don't have anywhere to hang their hat on this issue. Leveling off of global temperature data is actually in line with computer models. Stabilizing of average-temperature data was and is anticipated until about 2011 or 2013, after which sharp rises are to occur, according to studies.

Let us further clarify the years-worth of personal messages hacked from the e-mail account of a UK climatologist. The messages revealed some gory details of how science gets done and the human side of professional academic work. But there is no evidence contradicting the scientific consensus around climate change:

- Our average atmosphere temperature as well as average ocean temperatures have risen dramatically in a short amount of time.
- The temperature changes are primarily due to human activities; namely release of heat-trapping gases into the atmosphere and changes in land use.
- Natural climate forcings such as variability in solar activity are overshadowed by the effects produced by human activity.
- Without dramatic changes in human activity, we are likely to see greater than 4 degrees (C) of warming in global average temperatures by the end of this century.
- Temperature increases in excess of 2 degrees (C) on average will likely result in the passing of tipping points in the natural balance of our global climate.
- Adaptation to the effects of climate change will be necessary.
- Large-scale changes in human activity are needed to minimize climate effects.
- To safely avoid 2 degrees warming, global emissions of CO2 must peak between 2015 and 2020*, then decline rapidly from the peak.
- In addition to CO2, we must also reduce the other two major contributors to warming, methane and black carbon.

For a good introduction to climate change, try Elizabeth Kolbert's book "Field Notes from a Catastrophe". It's both informative and accessible. (Aside: Kolbert is currently working on a follow-up book, covering the sixth great extinction of species that we're currently undergoing.)

Here in the U.S. much confusion has been generated in the public's understanding of climate change. Our relatively clear "scientific" understanding has been clouded by an effective disinformation campaign in the mass media. The disinformation campaign is largely funded by companies (and individuals) most at risk from changes in policy around climate change (Big Oil and King Coal).

Pseudo controversy is put to rest by the new book by a top representation of climate scientists associated with the IPCC: The Copenhagen Diagnosis, 2009: Updating the World on the Latest Climate Science, November 2009 -- in effect, an interim Intergovernmental Panel on Climate Change (IPCC) update:

Has global warming recently slowed down or paused?

No. There is no indication in the data of a slowdown or pause in the human-caused climatic warming trend. The observed

global temperature changes are entirely consistent with the climatic warming trend of ~ 0.2 °C per decade predicted by IPCC, plus superimposed short-term variability (see Figure 4). The latter has always been – and will always be – present in the climate system. Most of these short-term variations are due to internal oscillations like El Niño – Southern Oscillation, solar variability (predominantly the 11-year Schwabe cycle) and volcanic eruptions (which, like Pinatubo in 1991, can cause a cooling lasting a few years).

If one looks at periods of ten years or shorter, such short-term variations can more than outweigh the anthropogenic global warming trend. For example, El Niño events typically come with global-mean temperature changes of up to 0.2 °C over a few years, and the solar cycle with warming or cooling of 0.1 °C over five years (Lean and Rind 2008). However, neither El Niño, nor solar activity or volcanic eruptions make a significant contribution to longer-term climate trends. For good reason the IPCC has chosen 25 years as the shortest trend line they show in the global temperature records, and over this time period the observed trend agrees very well with the expected anthropogenic warming.

Nevertheless global cooling has not occurred even over the past ten years, contrary to claims promoted by lobby groups and picked up in some media.

*Now back to the suppressed controversies

Commentary by Jan Lundberg

There's a problem with the climate scientists, not just government and corporations. The new above-cited IPCC-interim report warns

"Delay in action risks irreversible damage" -- a major conclusion as a bullet point.

But just above it, it promotes delay or assumes it is hard-wired:

"If global warming is to be limited to a maximum of 2 °C above pre-industrial values, global emissions need to peak between 2015 and 2020 (emphasis added) and then decline rapidly." Why the scientists' big concern? These three basics serve to undermine assumptions about waiting for peak:

O Global carbon dioxide emissions from fossil fuels in 2008 were nearly 40% higher than those in 1990, with a three-fold acceleration over the past 18 years.

O Global CO₂ emissions from fossil fuel burning are tracking near the highest scenarios considered so far by the IPCC.

O Every year this century (2001-2008) has been among the top 10 warmest years since

instrumental records began, despite solar irradiance being relatively weak over the past few years.

The second point gave rise to frightening headlines saying that the 6-Centigrade warming point was on track. Even at 4C, only a tiny fraction of humanity is expected to survive. So why should there be a delay in peaking emissions?

It's as if someone is in dire need of swimming across a raging river, but he will not let go of his bag of gold (or TV set, or refrigerator, or computer, what have you) in order to save his own life. Modernity is thought to count as much as life itself; hence the primacy of the technofix mindset.

Read the new report, with a critical eye for technofix bias: The Copenhagen Diagnosis, 2009: Updating the World on the Latest Climate Science November 2009. Available in paperback and online PDF.

The study's 26 contributing authors include Stephen Schneider, a top climate scientist for decades. Access it at Copenhagen Diagnosis

Al Gore's Corporate State Technofix

Believing that the consumer economy can be greened without abandoning overpopulation and rampant industrialism is the technofix faith. Some grassroots activists who believe in localism buy into it too. But Al Gore takes the cake when he believes, unlike Albert Einstein, that the people who caused a present problem can be the ones to solve it with the same thinking. Gore's most recent book Our Choice

"reflects the experience of someone who knows that it is lawmakers and business leaders who can implement the 'laws and policies we really need, including getting a global climate treaty.'"

- Newsweek, The Evolution Of An Eco-Prophet: Al Gore's views on climate change are advancing as rapidly as the phenomenon itself. By Sharon Begley, Oct. 31, 2009

This is a dangerous view, because it denies the power the grassroots has to implement the change needed (unplugging the global warming lifestyle). For anyone who really has concern over the climate to trust government and corporations -- the corporate state -- to deal with the threat of climate disaster, there is either a cognitive dissonance or corruption. When someone can be an "eco-prophet" about a crisis, while holding a dangerously useless solution that gets the lion share of attention, this label ought to be "half eco-prophet" only.

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Latest news: warming of Antarctica has been delayed by ozone hole, but not for long. Climate-change skeptics take a hit:

Antarctic shielded by ozone hole - scientists
By Fiona Harvey, Financial Times of London,
Nov. 30, 2009

Copenhagen Diagnosis
website

The Sunday Times: Climate change data dumped

Wall Street Journal: "Hacked: Sensitive Documents Lifted from Hadley Climate Center", Nov. 20, 2009

More from The Sunday Times: The great climate change science scandal

EU figurehead says climate change a myth

For better understanding around the story of the hacked e-mails, see discussion at Realclimate.org:

The CRU hack

The CRU hack: Context

Copenhagen Is Supposed to Fail. DIY! by Jan Lundberg, Oct. 20, 2009

World on course for catastrophic 6° rise, reveal scientists (that's centigrade, man.)

For an excellent introduction to the disinformation campaign still going strong here in the U.S., see "Climate Cover-up: The Crusade to Deny Global Warming". This book is also very accessible, providing excellent well-documented examples and scores of references with additional evidence of the climate cover-up.

Exposing well-funded climate-change denialism:

Newsweek's "Global Warming:
The Truth About Denial"

Take the Pledge for Climate Protection!