

Warming 'pause' gives thought for scientists, sceptics

September 24 2013, by Richard Ingham, Anthony Lucas



Remains of dead trees, due to rising sea levels, are pictured on May 7, 2013, on the beach in northern Senegal.

A slowdown in warming that has provided fuel for climate sceptics is one of the thorniest issues in a report to be issued by UN experts on Friday.

Over the past 15 years, the world's average surface temperature rose far

slower than many [climate models](#) have predicted.

According to projections, [global warming](#) should go in lockstep with the ever-rising curve of heat-trapping [carbon emissions](#).

But in recent years, warming has lagged. So, where has the missing heat gone?

For climate [sceptics](#), the answer is clear. Either the computer models used to project temperature rise are flawed, or man-made global warming is just a green scam, they say.

The report of the Intergovernmental Panel on Climate Change (IPCC) will confirm warming has recently slowed.

The document, being debated line-by-line in Stockholm, is the first volume of a vast trilogy that will be released by the Nobel-winning group over the coming months, and only its fifth overview in a quarter of a century.

Over the past 50 years, the mean global temperature rise was 0.12 degrees Celsius (0.2 degrees Fahrenheit) per decade, slowing to an average 0.05 C (0.09 F) per decade over the past 15 years.

Half of the [slowdown](#) could be attributed to [volcanic eruptions](#), whose particles reflect sunlight, and a bigger-than expected drop in heat from the Sun's changing activity cycle, said a summary of the report.

The other half is attributed to a "cooling contribution from internal variability".

Laurent Terray with the French computer modelling agency Cerfacs said the term is used to explain a shift in the way heat is distributed between

land, sea and air.

Still unclear is what causes the variation or determines its duration.

"We know that this kind of episode, of a decadal length or thereabouts, can occur once or twice a century," said Terray.



Swedish Environment Minister Lena Ek, Thomas Stocker and Dahe Qin of the IPCC in Stockholm, Sweden, September 23, 2013.

"If it (the present one) continues for two more decades, we may start to think that the computer models are underestimating internal variability."

New research by Britain's Met Office suggests the "missing" heat, or some of it, is being transferred from the ocean surface to the deeps.

Temperatures at depths below 3,000 metres (10,000 feet) have been rising since the 1990s, implying a source of heat-trapping today will contribute to warming tomorrow.

Governments, which have the right to vet and amend the summary but not the main text on which it is based, are looking with concern at the brief section on the warming pause.

This reflects jitters after the IPCC's last big report in 2007 was shown to contain several background errors, denting the agency's credibility.

The panel's main conclusions were not affected but the mistakes were a windfall for sceptics.

Together with the 2008 financial crisis and the disastrous 2009 Copenhagen UN climate summit, this almost sent global warming into political limbo.

In comments of the IPCC summary draft, China, India and Norway want to know why the section dealing with the warming pause fails to refer to the role of the deep ocean.

Others complain the text is dangerous gobbledegook.

"This is an example of providing a bunch of numbers, then leave them up in the air without a concrete conclusion," says an angry US objection seen by AFP.

"(...) [T]he way it is written, it may set itself up for misleading conclusions."



A massive ash clouds rise from the crater of the Mount Sinabung volcano during a fresh eruption on September 17, 2013.

Some countries take the opposite line.

Hungary says an anomaly that has lasted 15 years—a blink of an eye on the geological timescale—is too short and laden with unknowns to even rate a mention.

The controversy touches on the sensitive issue of scientific uncertainty.

To scientists, admitting to uncertainty is not merely honest but entirely legitimate—something to be acknowledged and debated, to be rejected or overcome.

But admitting to uncertainty is often misunderstood by the outside world and, says Andreas Levermann of the Potsdam Institute for Climate

Impact Research (PIK) near Berlin, exploited by sceptics.

"They can't stop physical reality, but they are slowing down" tougher action on carbon emissions, he said in a phone interview.

Alden Meyer, with the US environment group the Union of Concerned Scientists (UCS), urged the IPCC draft to spell out what is known about the warming pause.

"Otherwise, the denialists will claim that the IPCC's silence on this issue shows that global warming isn't as serious as scientists thought," he said in an email.

"The recent slowdown in temperature increases isn't unprecedented, and should be seen as a 'speed bump' on the way to a warmer world."

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