

Climate panel: Warming 'extremely likely' man-made (Update 3)

September 27 2013, by Karl Ritter



In this Dec. 16, 2009 file photo, steam and smoke rises from a coal power station in Gelsenkirchen, Germany. Scientists are more confident than ever that pumping carbon dioxide into the air by burning fossil fuels is warming the planet. By how much is something governments and scientists meeting in Stockholm will try to pin down with as much precision as possible Friday Sept. 27, 2013 in a seminal report on global warming. (AP Photo/Martin Meissner, File)

Scientists now believe it's "extremely likely" that human activity is the

dominant cause of global warming, a long-term trend that is clear despite a recent plateau in the temperatures, an international climate panel said Friday.

The Intergovernmental Panel on Climate Change used its strongest language yet in a report on the causes of climate change, prompting calls for global action to control emissions of CO₂ and other greenhouse gases.

"If this isn't an alarm bell, then I don't know what one is. If ever there were an issue that demanded greater cooperation, partnership, and committed diplomacy, this is it," said U.S. Secretary of State John Kerry.

The IPCC, which has 195 member countries, adopted the report Friday after all-night talks at a meeting in Stockholm.

In its previous assessment, in 2007, the U.N.-sponsored panel said it was "very likely" that global warming was due to human activity, particularly the CO₂ emissions resulting from the burning of coal, oil and gas.

The change means that scientists have moved from being 90 percent sure to 95 percent—about the same degree of certainty they have that smoking kills.

"At 90 percent it means there is a 10 percent probability that it's not entirely correct," said Chris Field, Carnegie Institution scientist who is a leader in the IPCC but wasn't involved in the report released Friday. "And now that's 5 percent. So it's a doubling of our confidence. That's actually a consequential change in our level of understanding."

One of the most controversial subjects in the report was how to deal with what appears to be a slowdown in warming if you look at temperature

data for the past 15 years. Climate skeptics say this "hiatus" casts doubt on the scientific consensus on climate change, even though the past decade was the warmest on record.

Many governments had objections over how the issue was treated in earlier drafts and some had called for it to be deleted altogether.

In the end, the IPCC made only a brief mention of the issue in the summary for policymakers, stressing that short-term records are sensitive to natural variability and don't in general reflect long-term trends.



Rajendra Pachauri, the head of the U.N. Intergovernmental Panel on Climate Change (IPCC), during the presentation of the U.N. IPCC climate report, in Stockholm, Friday Sep. 27, 2013. Scientists can now say with extreme confidence that human activity is the dominant cause of the global warming

observed since the 1950s, a new report by an international scientific group said Friday. Calling man-made warming "extremely likely," the Intergovernmental Panel on Climate Change used the strongest words yet on the issue as it adopted its assessment on the state of the climate system. (AP Photo/ TT News Agency, Bertil Enevag Ericson)

"An old rule says that climate-relevant trends should not be calculated for periods less than around 30 years," said Thomas Stocker, co-chair of the group that wrote the report.

Many scientists say the temperature data reflect random climate fluctuations and an unusually hot year, 1998, picked as a starting point for charting temperatures. Another leading hypothesis is that heat is settling temporarily in the oceans, but that wasn't included in the summary.

Stocker said there wasn't enough literature on "this emerging question."

The IPCC said the evidence of climate change has grown thanks to more and better observations, a clearer understanding of the climate system and improved models to analyze the impact of rising temperatures.

"Our assessment of the science finds that the atmosphere and ocean have warmed, the amount of snow and ice has diminished, the global mean sea level has risen and the concentrations of greenhouse gases have increased," said Qin Dahe, the other co-chair of the working group.

The full 2,000-page report isn't going to be released until Monday, but the summary for policymakers with the key findings was published Friday. It contained few surprises as many of the findings had been leaked in advance.

As expected, the IPCC raised its projections of the rise in sea levels to 10-32 inches (26-82 centimeters) by the end of the century. The previous report predicted a rise of 7-23 inches (18-59 centimeters).

But it did acknowledge that the climate may be less sensitive to CO₂ emissions than was stated in 2007. Back then, the IPCC said that a doubling of CO₂ concentrations in the atmosphere would likely result in 2-4.5 C (3.6-8.1 F) degrees of warming. This time it restored the lower end of that range to what it was in previous reports, 1.5 C (2.7 F).



French Michel Jarraud, left, Secretary-General of World Meteorological Organization, WMO, and Rajendra Pachauri, the head of the U.N. Intergovernmental Panel on Climate Change (IPCC), during the presentation of the U.N. IPCC climate report, in Stockholm, Friday Sept. 27, 2013. Scientists can now say with extreme confidence that human activity is the dominant cause of the global warming observed since the 1950s, a new report by an international scientific group said Friday. Calling man-made warming "extremely likely," the Intergovernmental Panel on Climate Change used the strongest words yet on the issue as it adopted its assessment on the state of the climate system. (AP Photo/

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The IPCC assessments are important because they form the scientific basis of U.N. negotiations on a new climate deal. Governments are supposed to finish that agreement in 2015, but it's unclear whether they will commit to the emissions cuts that scientists say will be necessary to keep the temperature below a limit at which the worst effects of climate change can be avoided.

Using four scenarios with different emissions controls, the report projected that global average temperatures would rise by 0.3 to 4.8 degrees C this century. That's 0.5-8.6 F.

Only the lowest scenario, which was based on major cuts in CO₂ emissions and is considered unlikely, came in below limit that countries have set as their target in the climate talks to avoid the worst impacts of warming. That limit is a warming of 2 degrees C (3.6 F) compared with before the industrial revolution in the 18th century.

At this point, emissions keep rising mainly due to rapid growth in China and other emerging economies. But those nations say rich countries should take the lead on emissions cuts because they've pumped carbon into the atmosphere for longer.



Media representatives follow the U.N. IPCC climate report presentation, in Stockholm, Friday Sept. 27, 2013. Scientists can now say with extreme confidence that human activity is the dominant cause of the global warming observed since the 1950s, a new report by an international scientific group said Friday. Calling man-made warming "extremely likely," the Intergovernmental Panel on Climate Change used the strongest words yet on the issue as it adopted its assessment on the state of the climate system. (AP Photo/ TT News Agency, Bertil Enevag Ericson)

Climate activists said the report should spur governments to action.

"There are few surprises in this report but the increase in the confidence around many observations just validates what we are seeing happening around us," said Samantha Smith, of the World Wildlife Fund.

The report adopted Friday deals with the physical science of climate change. Next year, the IPCC will adopt reports on the impacts of global

warming, strategies to fight it and a synthesis of all three reports.

More information: [Key findings of IPCC report on climate change](#)

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Citation: Climate panel: Warming 'extremely likely' man-made (Update 3) (2013, September 27)
retrieved 5 May 2024 from
<https://phys.org/news/2013-09-climate-panel-extremely-man-made.html>

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