

U.N. climate change group releases strongest statement yet linking humans to rising temperatures

Stephanie Paige Ogburn, Environment & Energy Publishing, 9-27-13

Scientists announced they are more certain than ever before that humans are the main cause of global warming.

This morning in Stockholm, the U.N. Intergovernmental Panel on Climate Change (IPCC) reported that it is 95 percent certain of humans' role in recent warming. That's about as certain as scientists are that smoking cigarettes is deadly.

"Human influence on the climate system is clear," said Thomas Stocker, the co-chairman of Working Group 1, which evaluates the physical science behind climate change, in a press conference announcing the group's summary for policymakers.

The summary for policymakers is a 36-page document that highlights the findings from Working Group 1's much larger assessment of climate science, a draft of which will be released early next week.

In their previous report from 2007, the scientists had a 90 percent confidence that humans were behind recent warming. In 1995, when the first assessment report was released, confidence was at 50 percent.

The increase in confidence has spurred calls to action on curbing greenhouse gas emissions.

'Another wakeup call'

"This is yet another wakeup call: Those who deny the science or choose excuses over action are playing with fire," said Secretary of State John Kerry in a statement following the summary's release.

Prior to the release of the summary, there had been questions on how its authors would address topics of current interest in the world of climate science. These include the recent hiatus in land temperature warming over the past 15 years and some published studies with high estimates of future sea-level rise.

The summary acknowledged, but also seemed to dismiss, the pause in land temperature warming, saying that such short time periods are subject to the vagaries of natural variability.

"Ten to 15 years, you can't read that much into it," said Venkatachalam Ramaswamy, a co-author of the summary and director of the National Oceanic and Atmospheric Administration's Geophysical Fluid Dynamics Laboratory. "It's difficult and perhaps even dangerous to infer a lot from just a 12- to 14-year record."

At the same time, Co-chairman Stocker acknowledged that the reasons behind the slowdown in surface warming are an "emerging" scientific topic of interest to researchers in the climate community.

Sea-level rise will accelerate

The scientific body also increased its confidence in a human contribution to sea-level rise and said the rate of rise will continue to grow. Since 1993, sea levels have been rising at a rate of about 3 millimeters a year.

"As the ocean warms and glaciers and ice sheets reduce, global mean sea level will continue to rise, but at a faster rate than we have experienced over the past 40 years," said Qin Dahe, the other co-chairman of Working Group 1.

The group's sea-level rise projections for the end of this century ranged from 0.26 meter (0.85 foot) to 0.98 meter (3.2 feet), depending on how much carbon dioxide humans continue to emit.

This is still lower than some published estimates, notably those by the German researcher Stefan Rahmsdorf, who has argued that global climate models underestimate future sea-level rise.

The report authors also downshifted the lower limit on how much the globe might warm. The 2007 report listed a range from 2 to 4.5 degrees Celsius (3.6 to 8.1 degrees Fahrenheit). This report has a range of 1.5 to 4.5 degrees.

At the conference, the scientists generally shied away from recommendations as to how to reduce warming, but IPCC Chairman Rajendra Pachauri did say putting a price on carbon is perhaps the most effective way to achieve the needed emissions reductions.

"It is only through the market we could get a large enough and rapid enough response," Pachauri said.