New Analysis Brings Dire Forecast Of 6.3-Degree Temperature Increase

By Juliet Eilperin, Washington Post, Friday, September 25, 2009

http://www.washingtonpost.com/wp-dyn/content/article/2009/09/24/AR2009092402602.html

Climate researchers now predict the planet will warm by 6.3 degrees Fahrenheit by the end of the century even if the world's leaders fulfill their most ambitious climate pledges, a much faster and broader scale of change than forecast just two years ago, according to a report released Thursday by the United Nations Environment Program (http://www.unep.org/compendium2009/).

The new overview of global warming research, aimed at marshaling political support for a new international climate pact by the end of the year, highlights the extent to which recent scientific assessments have outstripped the predictions issued by the Nobel Prize-winning U.N. Intergovernmental Panel on Climate Change in 2007.

Robert Corell, who chairs the Climate Action Initiative and reviewed the UNEP report's scientific findings, said the significant global temperature rise is likely to occur even if industrialized and developed countries enact every climate policy they have proposed at this point. The increase is nearly double what scientists and world policymakers have identified as the upper limit of warming the world can afford in order to avert catastrophic climate change.

"We don't want to go there," said Corell, who collaborated with climate researchers at the Vermont-based Sustainability Institute, Massachusetts-based Ventana Systems and the Massachusetts Institute of Technology to do the analysis. The team has revised its estimates since the U.N. report went to press and has posted the most recent figures at (http://climateinteractive.org/state-of-the-global-deal). The group took the upper-range targets of nearly 200 nations' climate policies -- including U.S. cuts that would reduce domestic emissions 73 percent from 2005 levels by 2050, along with the European Union's pledge to reduce its emissions 80 percent from 1990 levels by 2050 -- and found that even under that optimistic scenario, the average global temperature is likely to warm by 6.3 degrees.

World leaders at the July Group of 20 summit in L'Aquila, Italy, pledged in a joint statement that they would adopt policies to prevent global temperature from climbing more than 2 degrees Celsius, or 3.6 degrees Fahrenheit: "We recognize the broad scientific view that the increase in global average temperature above pre-industrial levels ought not to exceed two degrees C." Corell, who has shared these findings with the Obama administration as well as climate policymakers in China, noted that global carbon emissions are still rising. "It's accelerating," he said. "We're not going in the right direction."

Warming Trend Researchers say global temperature is likely to rise more than six degrees by the end of the century even if every country enacts all climate legislation it has promised to enact to date. Temperature increases, in degrees Fahrenheit 10 Degrees the average 8.13 global temperature is likely to increase if all countries continue as they are now likely to increase if all countries enact the policies they have promised. 6.29 2000 1900 1950 2050 2100 Source: Sustainability Institute The Washington Post

Achim Steiner, UNEP's executive director, told reporters at the National Press Club on Thursday that the report aims to update the IPCC's 2007 findings to reflect both new physical evidence and a more sophisticated understanding of how Earth systems work. "With every day that passes, the underlying trends that science has provided is . . . of such a dramatic nature that shying away from a major agreement in Copenhagen will probably be unforgivable if you look back in history at this moment," Steiner said. He noted that since 2000 alone, the average rate of melting at 30 glaciers in nine mountain ranges has doubled compared with the rate during the previous two decades. "These are not things that are in dispute in terms of data," he said. "They are actually physically measurable."

Other findings include the fact that sea level might rise by as much as six feet by 2100 instead of 1.5 feet, as the IPCC had projected, and the Arctic may experience a sea-ice summer by 2030, rather than by the end of the century. While the administration is pressing this week for an end to fossil-fuel subsidies as part of the current G-20 summit in Pittsburgh -- and Treasury Secretary Timothy F. Geithner told reporters Thursday that world leaders appear open to such a proposal -- activists such as 350.org director Bill McKibben said politicians worldwide are not taking aggressive enough steps to address climate change.

"Here's where we are: The political system is not producing at the moment a result which has anything to do with what the science is telling us," said McKibben, whose group aims to reduce the concentration of carbon dioxide in the atmosphere to 350 parts per million, well below the 450 ppm target that leaders of the Group of 20 major nations have embraced.

Rep. Edward J. Markey (D-Mass.), co-sponsor of the House-passed climate bill that researchers included as part of their new temperature analysis, said, "As sobering as this report is, it is not the worst-case scenario. That would be if the world does nothing and allows heat-trapping pollution to continue to spew unchecked into the atmosphere."

Michael MacCracken, one of the scientific reviewers for the IPCC and a contributor to the UNEP report, said that if developed nations cut their emissions by half and the developing countries continued on their current path, or vice versa, the world would still experience a temperature increase of about 2 degrees Fahrenheit by 2050. "We face a situation where basically everybody has to do everything they can," MacCracken said.