

New Report on Global Warming

Contributed by ANDREW C. REVKIN
 Thursday, 05 April 2007
 Last Updated Sunday, 26 October 2008

For the first time in nearly two decades of reviewing research on global warming, the main international group studying climate change has found that heat-trapping emissions from industry and other activities are already influencing weather patterns and ecology in ways both harmful and beneficial.

But the group, the Intergovernmental Panel on Climate Change, said the long-term outlook, should temperatures rise 3 to 5 more degrees fahrenheit, was mainly for damaging and costly effects, ranging from the likely extinction of perhaps a fourth of the world's species to eventual inundation of coasts and islands inhabited by hundreds of millions of people.

April 6, 2007 Emissions Already Affecting Climate, Report Finds By ANDREW C. REVKIN

For the first time in nearly two decades of reviewing research on global warming, the main international group studying climate change has found that heat-trapping emissions from industry and other activities are already influencing weather patterns and ecology in ways both harmful and beneficial.

But the group, the Intergovernmental Panel on Climate Change, said the long-term outlook, should temperatures rise 3 to 5 more degrees fahrenheit, was mainly for damaging and costly effects, ranging from the likely extinction of perhaps a fourth of the world's species to eventual inundation of coasts and islands inhabited by hundreds of millions of people.

Particularly at risk, it said, are communities and ecosystems on the crowded shores of southern Asia and small islands, as well as ecosystems in places seeing the biggest climate changes, including the Arctic, coral reefs, and dry areas around the tropics.

The report, written by hundreds of scientists and reviewed by outside experts and government officials, warned that change is essential because decades of rising temperatures and seas are already inevitable due to the buildup of carbon dioxide and other long-lived greenhouse gases in the atmosphere.

But it said that efforts to reduce emissions could reduce, delay or avoid some harmful outcomes.

Final details were completed by hundreds of scientists in Brussels early today and approved by officials from more than 100 countries. The report, focusing on measured and projected impacts of warming and possible responses, was scheduled to be posted on the Web this morning at www.ipcc.ch.

Some authors said the report removed any doubt about the urgency of acting to curb emissions of greenhouse gases.

"The warnings are clear about the scale of the projected changes to the planet," said Bill Hare, an author of the impacts report and visiting scientist at the Potsdam Institute for Climate Impact Research in Potsdam, Germany. "Essentially there's going to be a mass extinction within the next 100 years unless climate change is limited," added Dr. Hare, who previously worked for the environmental group Greenpeace.

"These impacts have been known for many years, and are now seen with greater clarity in this report," he said. "That clarity is perhaps the last warning we're going to get before we actually have to report in the next IPCC review that we're seeing the disaster unfolding."

James L. Connaughton, the chairman of the White House Council on Environmental Quality, said some of the findings in the report, particularly the prospect of intensifying coastal damage from rising seas, were "of great concern," but noted the panel also foresaw benefits to agriculture in temperate regions.

Overall, he said, the analysis reinforced the importance of industrialized countries working to help developing countries cut their vulnerability to climate shocks by fostering their economic growth.

One of the most dramatic shifts in prospects laid out in the report is a projected overheating and parching of southern Europe, particularly in summer, and blossoming of northern regions.

"In Southern Europe, climate change is very likely to have negative impacts by increasing risk to health due to more frequent heat waves, reducing water availability and hydropower, endangering crop production, and increasing the frequency of wildfires," the report said.

“In Northern Europe, climate change is likely to bring benefits in the form of reduced exposure to cold periods, increased crop yields, increased forest and Atlantic waters productivity, and augmented hydropower potential.”

But it emphasized that outside impacts would mainly imperil communities in Africa, the crowded river deltas of southern Asia, and low islands.

It also found that if investments are made to adapt to climate and coastal changes, some disruption and damage could be held at bay.

In one section, for example, the report projects the number of people who would be flooded out of homes by rising seas by 2080 under various scenarios for warming. A midrange warming of 3.5 degrees by then could affect some 60 million additional people a year worldwide without adaptation efforts, but if investments in sea walls and other actions limiting flooding continued at the current pace, the number would drop to a few million a year.

The panel, created in 1988 and run under the auspices of the United Nations, has sometimes endured criticism for allowing governments to shape the summaries of its periodic reviews of climate science, which fill thousands of pages of reports.

But it remains, by many accounts, the closest thing to a barometer for tracking the level of scientific understanding of the causes and consequences of global warming.

The report released today on measured and projected impacts of warming follows the main science review released in February, which for the first time concluded with 90 percent confidence that emissions of carbon dioxide and other greenhouse gases were the main force warming the world since 1950.

Next month, the panel is to release a report on options for limiting emissions of greenhouse gases and late in the year it is to publish a final synthesis report.

Copyright 2007 The New York Times Company