

Carbon Dioxide Emissions Dwarf Worst-Case Forecasts

By Katy Human The Denver Post

Emissions of carbon dioxide — a key greenhouse gas — have soared in the past six years, dwarfing worst-case predictions, new analysis reports. The observed increases exceeded forecasts by United Nations scientists, said Thomas Conway, a researcher at the National Oceanic and Atmospheric Administration in Boulder.

Conway is a co-author of the analysis appearing in today's Proceedings of the National Academy of Sciences. "It's disturbing," said Vicki Arroyo, director of policy analysis for the Pew Center on Global Climate Change in Arlington, VA. "If what they're picking up on continues, then we're in for some big climate changes faster than we thought," Arroyo said.

In their paper, Conway and co authors from around the world show that carbon dioxide emissions increased 3.3 percent per year from 2000 to 2006, compared with just 1.3 percent annual growth in the 1990s. The U.N. projected a worst case emissions growth rate of 2.4 percent, Conway said.

Earlier this month, former Vice President Al Gore and the United Nations' Intergovernmental Panel on Climate Change, in IPCC, won the Nobel Peace Prize for calling attention to climate change. IPCC has predicted that climate change will eventually lead to rising seas, droughts and heat waves in parts of the world, more intense rainfall in others, and the disappearance of glaciers and coral reefs.

The researchers attributed the change in part to fast-growing economies in countries - such as China and India. "The increase in the rate of emissions from the United States is not that great — how could we possibly consume more than we already do?" Conway said.

The new analysis also documents a troubling turnabout in the world's emissions intensity — a measurement of efficiency, or greenhouse emissions per unit of production. While energy intensity decreased after 1970, Conway said, "it's slightly increasing again"

Conway said "the results should not surprise those who have been tracking the world's carbon footprints. "In a way, what's surprising is that the carbon dioxide growth rate stayed steady for so long," Conway said.

Until recently, much of the excess carbon dioxide humans pumped into the atmosphere, primarily by burning fossil fuels, was sucked back down by growing forests and by the oceans, Conway said. Now, changes in the oceans — and years of drought around the world — appear to have limited the planet's carbon-absorbing capacity, the new study said. "There's even less reason to think we have time to fiddle around," said Richard Houghton, a biogeochemist at the Woods Hole Research Center in Falmouth, Mass., and a co-author of the new paper.

"We've done a lot since 1990, all in the wrong direction," he said. On Monday, the global Inter-Academy Council, which includes the U.S. National Academy of Sciences, also released a report saying the world economy must move to sustainable forms of energy and more efficient fossil fuel technologies, such as coal gasification. That report was commissioned by the governments of Brazil and China

