

# CO<sub>2</sub> emissions continue significant climb

November 24 2009

---

The annual rate of increase in carbon dioxide emissions from fossil fuels has more than tripled in this decade, compared to the 1990s, reports an international consortium of scientists, who paint a bleak picture of the Earth's future unless "CO<sub>2</sub> emissions [are] drastically reduced."

These CO<sub>2</sub> emissions increased at a rate of 3.4% per year from 2000 to 2008, in contrast to 1% each year in the previous decade, scientists from the Global Carbon Project report in the current issue of *Nature Geoscience*. The team comprises some 30 researchers from around the world, including Scott C. Doney, senior scientist at the Woods Hole Oceanographic Institution (WHOI) and Richard A. Houghton, senior scientist and acting director of the Woods Hole Research Center (WHRC).

Since 2000, the scientists documented an overall increase of 29% in global CO<sub>2</sub> emissions. They attributed the rise to increasing production and trade of manufactured products, particularly from emerging economies, the gradual shift from oil to coal and the planet's waning capacity to absorb CO<sub>2</sub>.

Doney led a team that developed ocean-model simulations for estimating the historical variations in air-sea CO<sub>2</sub> fluxes.

"Over the last decade, CO<sub>2</sub> emissions have continued to climb despite efforts to control emissions," Doney said. "Preliminary evidence suggests that the land and ocean may be becoming less effective at removing CO<sub>2</sub> from the atmosphere, which could accelerate future

[climate change.](#)"

A key element of the report, according to Doney, was the work of Houghton, acting director of WHRC. "He developed the estimates of carbon emissions from deforestation, a major source of human-driven carbon emissions," Doney said.

"Although the emissions of CO<sub>2</sub> from deforestation accounted for only about 15% of total CO<sub>2</sub> emissions over the period 2000-2008, reducing deforestation is one of the activities that could contribute significantly to stabilizing the concentration of CO<sub>2</sub> in the atmosphere," Houghton said. Negotiations at COP-15 in Copenhagen next month will take up this issue in earnest.

Source: Woods Hole Oceanographic Institution

Citation: CO<sub>2</sub> emissions continue significant climb (2009, November 24) retrieved 19 April 2024 from <https://phys.org/news/2009-11-co2-emissions-significant-climb.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--