

Greenhouse gas levels in atmosphere hit new high, UN reports

September 9 2014



The Eiffel Tower is seen through a haze of pollution, in Paris, on December 12, 2013

Surging levels of carbon dioxide sent greenhouse gases in the atmosphere to a new record in 2013, while oceans, which absorb the emissions, have become more acidic than ever, the UN said on Tuesday.

"We know without any doubt that our climate is changing and our

weather is becoming more extreme due to human activities such as the burning of [fossil fuels](#)," said Michel Jarraud, the head of the World Meteorological Organization (WMO) that released a report on the issue on Tuesday.

"We must reverse this trend by cutting emissions of CO₂ and other [greenhouse gases](#) across the board," Jarraud said in a statement.

"We are running out of time," he warned.

Concentrations of [carbon dioxide](#) (CO₂), methane and nitrous oxide all broke fresh records in 2013, said the report.

Global concentrations of CO₂, the main culprit in [global warming](#), soared to 396 parts per million last year, or 142 percent of pre-industrial levels—defined as before 1750.

That marked a hike of 2.9 parts per million between 2012 and 2013 alone—the largest annual increase in 30 years, according to the Greenhouse Gas Bulletin.

The report also showed that so-called radiative forcing, or the warming effect on our climate attributed to greenhouse gases like CO₂, increased 34 percent from 1990 to 2013.

A quarter of emissions are absorbed by the oceans, while another quarter are sucked into the biosphere, naturally limiting rates of warming gases in the atmosphere.



The Forbidden City in Beijing is shrouded in heavy air pollution on December 7, 2013

But CO₂ remains in the atmosphere for hundreds of years and in the oceans for even longer.

The gases stored in the oceans also have "far-reaching impacts," WMO warned, since more CO₂ in the water leads to increased acidity, altering the [ocean](#) ecosystem.

Every day, the world's oceans absorb some four kilos (8.8 pounds) of CO₂ per person each day, WMO said, calling current ocean acidification levels "unprecedented at least over the last 300 million years."



Smoke rises from chimneys of a factory in Haubourdin, northern France, on October 31, 2013

And things will only get worse, Jarraud said.

"Past, present and future CO₂ emissions will have a cumulative impact on both global warming and ocean acidification," he said, adding that "the laws of physics are non-negotiable."

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Citation: Greenhouse gas levels in atmosphere hit new high, UN reports (2014, September 9) retrieved 18 April 2024 from <https://phys.org/news/2014-09-greenhouse-gas-atmosphere-high.html>

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