

# Earth's carbon dioxide levels continue to soar, at highest point in 800,000 years

[Doyle Rice](#), USA TODAY Published 2:26 p.m. ET May 4, 2018 | Updated 9:40 a.m. ET May 5, 2018



*A United Nations agency says the amount of carbon dioxide in the atmosphere shot up to its highest level in 800,000 years.*



*(Photo: Getty Images)*

Carbon dioxide — the gas scientists say is most responsible for global warming — reached its highest level in recorded history last month, at 410 parts per million.

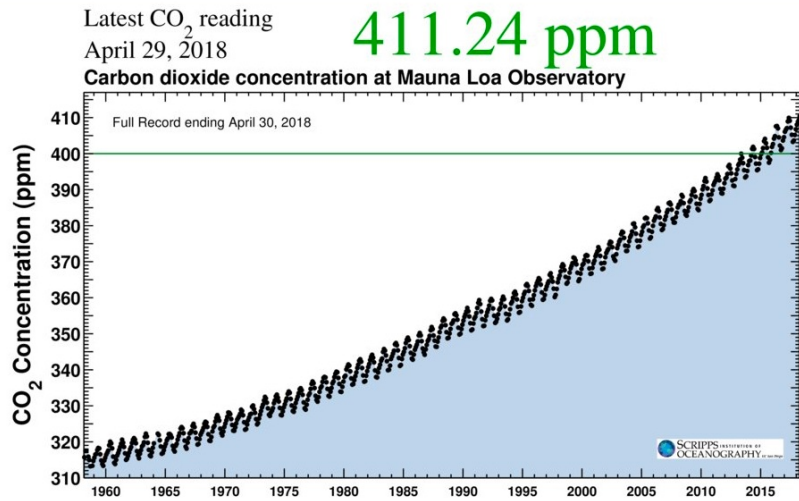
This amount is highest in at least the past 800,000 years, according to the [Scripps Institute of Oceanography](#). Prior to the onset of the Industrial Revolution, carbon dioxide levels had fluctuated over the millennia but had never exceeded 300 parts per million.

“We keep burning fossil fuels. Carbon dioxide keeps building up in the air,” said Scripps scientist Ralph Keeling, who maintains the longest continuous record of atmospheric carbon dioxide on Earth. “It’s essentially as simple as that.”

[Ralph Keeling](#) and his late father Charles David Keeling have kept carbon dioxide (CO<sub>2</sub>) measurements at the [Mauna Loa Observatory](#) in Hawaii since 1958.

The average concentration of carbon dioxide in the atmosphere was 410.31 parts per million (ppm) for the month of April, according to the Keeling Curve measurement series.

This marks the first time in the history of the Mauna Loa record that a monthly average has exceeded 410 parts per million. It's also a 30% increase in carbon dioxide concentration in the global atmosphere since the Keeling Curve began in 1958.



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CO<sub>2</sub> levels were around 280 parts per million prior to the Industrial Revolution in the late 1800s, when large amounts of greenhouse gases began to be released by burning fossil fuels.

The burning of the oil, gas and coal for energy releases greenhouse gases such as carbon dioxide and methane. These gases have caused the Earth's temperature to rise over the past century to levels that cannot be explained by natural variability.

Carbon dioxide is invisible, odorless and colorless, yet it's responsible for 63% of the warming attributable to all greenhouse gases, according to NOAA's Earth System Research Laboratory in Boulder, Colo.

Levels of carbon dioxide go up and down each year, reaching their highest levels in May and then going back down in the fall as plants absorb the gas.

"As a scientist, what concerns me the most is not that we have passed yet another round-number threshold but what this continued rise actually means: that we are continuing full speed ahead with an unprecedented experiment with our planet, the only home we have," [Katharine Hayhoe](#), a climate scientist at Texas Tech University, tweeted Thursday.

Carbon dioxide is called a greenhouse gas for its ability to trap solar radiation and keep it confined to the atmosphere. It is the most prevalent among all greenhouse gases produced by human activities, attributed to the burning of fossil fuels.

The increase in gases such as carbon dioxide, methane and nitrous oxide is fueling climate change and making "the planet more dangerous and inhospitable for future generations," the World Meteorological Organization has said.

Increasing amounts of carbon dioxide and other gases are enhancing the planet's natural "greenhouse effect."