

## NASA Warns About High CO2 Levels That Are Greening The Planet

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The National Aeronautics and Atmospheric Administration warned atmospheric levels of carbon dioxide reached new levels during March, levels the space agency says are a harbinger of dangerous global warming.

"Passing the 400 mark reminds me that we are on an inexorable march to 450 ppm and much higher levels," <u>said</u> Michael Gunson, the head of NASA's global change and energy program. "The world is quickening the rate of accumulation of CO2, and has shown no signs of slowing this down. It should be a psychological tripwire for everyone."

But while NASA is warning about the warming effects of carbon dioxide, other scientists — <u>including</u> renowned physicist Freeman Dyson — are touting a huge benefit to increased CO2 levels: it's making the Earth greener.

It's been <u>well documented</u> by scientists that increased levels of carbon dioxide are actually causing vegetation and plant life to grow in even the world's most arid regions. That's because carbon dioxide is plant food — the more CO2, the less water plants need to grow. CO2 is labelled a greenhouse gas for more reasons than atmospheric warming.

"Well documented evidence shows that concurrently with the increased CO2 levels, extensive, large, and continuing increase in biomass is taking place globally — reducing deserts, turning grasslands to savannas, savannas to forests, and expanding existing forests," according to a 2014 study by the libertarian Cato Institute.

The Cato study is not the only one to find that plant life has been thriving with more carbon dioxide in the atmosphere. A 2013 by <u>Australia's Commonwealth Scientific and Industrial</u> <u>Research Organisation</u> found that "CO2 fertilisation correlated with an 11 per cent increase in foliage cover from 1982-2010 across parts of the arid areas studied in Australia, North America, the Middle East and Africa."

Australian scientists found that plants in arid regions already use water more judiciously than in other areas, and that rising CO2 levels drives them to use scarce water resources more efficiently as well.

"I like carbon dioxide, it's very good for plants. We know sort of the non-climate effects of carbon dioxide are good — they're very strong," Princeton physicist Dyson, now 91 years old, told IEEE Spectrum in a recent interview. "It's good for the vegetation, it's good for the natural vegetation as well as for the farms."

"Essentially carbon dioxide is vital for food production, it's vital for wildlife," Dyson argued. "Carbon dioxide is a substitute for water, so if you have less carbon dioxide plants need more water to survive, so it produces deserts."

A 2014 <u>study</u> by U.S. researchers found a "substantial increase in water-use efficiency in temperate and boreal forests of the Northern Hemisphere over the past two decades."

"The observed increase in forest water-use efficiency is larger than that predicted by existing theory and 13 terrestrial biosphere models," the study found. "The increase is associated with trends of increasing ecosystem-level photosynthesis and net carbon uptake, and decreasing evapotranspiration."

But even with the tremendous benefits to plant life, NASA warns CO2 levels have risen 24 percent since the agency began monitoring them back in 1958. Scientists argues keeping CO2 levels below 450 parts per million is essential to stemming global warming of more than two degrees Celsius.

NASA's warning comes as countries are preparing for a major United Nations climate summit in Paris in December. Delegates are expected to hash out a new global climate treaty at the summit.