

Climate Models Fail Again, Didn't Predict CO2 Would Green The Western US

Michael Bastasch

April 25, 2016

A new study just gave people another reason to be skeptical of climate models relied upon by scientists to predict the future impacts of global warming.

Climate models have long predicted man-made global warming would cause the western U.S. to become more arid and brown, but that's not what happened. A new study examining three decades worth of satellite data found the western U.S. — indeed, the world in general — is greening because of increased carbon dioxide emissions.

It's another prediction failure from climate models, according to Chip Knappenberger, a scientist at the libertarian Cato Institute. Knappenberger pointed out on Twitter that climate models predicting "browning" in the western U.S. were dead wrong.

Knappenberger cited the recent study, published in the journal Nature by a huge team of 32 scientists from 24 countries, which found that "a persistent and widespread increase of growing season integrated [greening] over 25% to 50% of the global vegetated area" with less than "4% of the globe shows [browning]."

Most of this global greening was attributed to carbon dioxide "fertilization effects," which refers to the idea that increased concentrations of atmospheric CO2 from human activities will stimulate plant growth. Some of the increases in vegetation were attributed to "nitrogen deposition(9%), climate change (8%) and land cover change (LCC) (4%)," according to the study.

"CO2 fertilization effects explain most of the greening trends in the tropics, whereas climate change resulted in greening of the high latitudes and the Tibetan Plateau," reads the study.

When it came to the southwestern U.S. in particular, scientists behind the Nature study noted it was one of the main regions with "inconsistencies between observations and models."

"In these regions, [the climate model mean] suggests that LAI has strongly decreased for the period 1982 to 2009, whereas observation suggests little decreasing or even slightly increasing trends," scientists wrote in their supplement to the study.

Scientists realized browning occurred in the models because they may be “over-sensitive to trends in precipitation as soil water holding capacities maybe under-estimated in models,” and because “deep rooting, ecosystem composition changes (e.g. shrubification) are not modeled, which is consistent with previous studies.” .