

New Study Casts Doubt On A Key Metric For Predicting Global Warming

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New research suggests scientists may be wrong about a key measurement for projecting man-made global warming.

Meteorologist Anthony Watts and amateur scientist Willis Eschenbach released new research suggesting “global climate sensitivity to increased carbon dioxide, and the potential feedback mechanism of increased water vapor in Earth’s atmosphere, is actually far less than postulated by the IPCC.”

Watts and Eschenbach used satellite data to quantify the increased feedback from water vapor in the atmosphere. They found forcing water vapor since 1988 was greater than “all the other IPCC-listed forcing since 1750.”

That’s not all. The increase in downwelling radiation from water vapor since 1988 comes in addition to the climate forcings listed by the Intergovernmental Panel on Climate Change (IPCC) and little change in global average temperature in the last 15 to 20 years.

All of which “calls into question the applicability of the concept of ‘climate sensitivity,’” Watts and Eschenbach wrote, targeting the key input for climate models projecting future warming. Watts and Eschenbach are presenting new findings at the American Geophysical Union’s meeting in San Francisco Wednesday.

“This study was entirely serendipitous, the result came about from pure curiosity, nothing else,” Watts told The Daily Caller News Foundation.

“I’m hopeful others will download the data and code we provided, so that they can replicate the work, because replication is the best indicator of a ground truth in science,” he said.

Water vapor is the most abundant greenhouse gas in the atmosphere, but the IPCC says the overall amount of it in the atmosphere has little impact on the long-term warming trend. The IPCC lists water vapor as a “fundamental agent of climate change” because of how it amplifies warming from other greenhouse gases, like CO₂.

But what’s that got to do with “climate sensitivity” — a measure of how much warming would occur from a doubling of atmospheric CO₂ concentrations?

Water vapor is supposed to amplify global warming caused by increasing man-made CO2 emissions, but global temperatures haven't really risen that much.

The IPCC estimates climate sensitivity ranges from 1.5 to 4.5 degrees Celsius, but most climate models peg it around 3 degrees Celsius. That may be too high.

Watts is not the first to suggest climate sensitivity may be lower than IPCC estimates. Several studies have been published over the years suggesting less warming is in store for humanity as emissions rise.

One of the most significant works was published last year by scientists at Germany's Max Planck Institute for Meteorology, which found that man-made aerosols had a much smaller cooling effect on the atmosphere during the 20th Century than was previously thought.

The study didn't delve into the question of climate sensitivity itself, but scientists were quick to point out the implication. The study's author actually challenged this implication.

"Going forward we should expect less warming from future greenhouse gas emissions than climate models are projecting," climate scientists Pat Michaels and Chip Knappenberger with the libertarian Cato Institute, wrote of the study, noting it could be a "death blow" to global warming hysteria.

Independent climate researcher Nick Lewis incorporated the Max Planck findings into his own data about how warming people could expect from doubling atmospheric greenhouse gas concentrations.

Lewis found the upper bound estimate of climate sensitivity is from 4.5 degrees to 1.8 degrees Celsius. A huge drop.

Basically, Lewis found that a doubling atmospheric concentrations of CO2 from around 400 parts per million today to 800 ppm in the future would only cause a 1.8 degrees Celsius of warming.