

Study: Oceans help to stem global warming

By: Michael Bastasch – April 8, 2013

New research shows that oceans have been helping to mitigate global warming for more than a decade.

Researchers in France and Spain said that the oceans started absorbing more warmth from the air around 2000, which would explain the slowdown in global warming over the past decade.

“Most of this excess energy was absorbed in the top 700 meters (2,300 ft) of the ocean at the onset of the warming pause, 65 percent of it in the tropical Pacific and Atlantic oceans,” wrote the European researchers in *Nature Climate Change*.

However, this may be only temporary, and global warming could accelerate if the heat trapped by the ocean is released.

“If it is only related to natural variability then the rate of warming will increase soon,” Virginie Guemas of the Catalan Institute of Climate Sciences, lead author of the study, told Reuters.

Caroline Katsman of the Royal Netherlands Meteorological Institute, who did not partake in the study, said ocean-trapped heat could be released back into the atmosphere during events like “El Nino” and “La Nina” that occur in the Pacific Ocean.

The World Bank Group reported that the world could warm by as much as four degrees Celsius by 2100, which would cause extreme weather events, severe droughts, and major floods.

However, other research suggests this may be overblown. Norwegian researchers found that global temperatures may rise only 1.9 degrees Celsius — much less than the 3 degrees Celsius by 2050 predicted by the United Nations climate change department.

Furthermore, climate change estimates have been being revised downwards since the the United Nations Intergovernmental Panel on Climate Change found that global temperatures may rise 3 degrees Celsius by 2050 if carbon dioxide levels doubled.

Patrick Michaels, director of the Center for the Study of Science at the libertarian Cato Institute, wrote that climate studies have lowered their global warming forecasts since the IPCC’s 2007 estimate because the sensitivity of temperature to CO2 emissions has been overestimated.

“Richard Lindzen gives a range of 0.6 to 1.0 C (*Asia-Pacific Journal of Atmospheric Sciences*, 2011); Andreas Schmittner, 1.4 to 2.8 C (*Science*, 2011); James Annan, using two techniques, 1.2 to 3.6 C and 1.3 to 4.2 C (*Climatic Change*, 2011); J.H. van Hateren, 1.5 to 2.5 C (*Climate Dynamics*, 2012); Michael Ring, 1.5 to 2.0 C (*Atmospheric and Climate Sciences*, 2012); and Julia Hargreaves, including cooling from dust, 0.2 to 4.0 C and 0.8 to 3.6 C (*Geophysical Research Letters*, 2012),” Michaels wrote earlier this year.

According to the World Meteorological Organization, 2012 was the ninth warmest year on record and 2010 was the warmest on record.