

UN weather agency: 2014 on track for hottest year

December 3 2014, byKarl Ritter



Strong waves hit the coast off the French Indian Ocean island of La Réunion in June. Meteorologists have voiced alarm at the high temperatures of much of the ocean surface

With temperature data showing 2014 currently tied for the hottest year on record, the U.N. weather agency on Wednesday rejected claims that global warming has paused.

The World Meteorological Organization said the global average

temperature in January-October was 0.57 Celsius (1.03 Fahrenheit) above average, the same as in record hot year 2010.

The ocean temperature set a new record in the nine-month period, while land temperatures were the fourth or fifth highest since record-keeping began in the 19th century, the WMO said in a report released at U.N. climate talks in Lima and at its headquarters in Geneva.

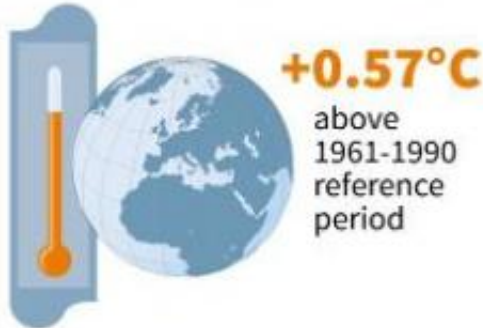
"The provisional information for 2014 means that 14 of the 15 warmest years on record have all occurred in the 21st century," WMO Secretary-General Michel Jarraud said in a statement. "There is no standstill in global warming."

Climate skeptics point to a perceived hiatus in the temperature rise since 1998, an exceptionally hot year, to support their claims that man-made warming is not a big problem. Most climate scientists reject that idea. Michael Oppenheimer of Princeton University said the long-term warming trend is combined with natural variations that tend to be cyclical, with a period of lower-than-average warming followed by a period of rapid warming.

"Whether such a period is about to begin, we cannot say but the warm 2014 is a reminder that the warming never stopped and the long term trend is up, up, up," Oppenheimer said.

2013-14: climate change records

Highest air temperature
(air over land and sea)



**Most greenhouse gases
in the atmosphere**

Increase since
pre-industrial
levels



Carbon dioxide
+142%



Nitrous oxide
+121%

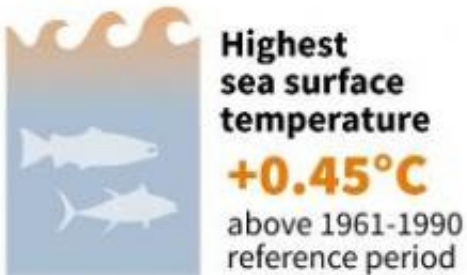


Methane
+253%

**Shrinking
Arctic sea ice**



6th
lowest
ever
ice
cover



Source: IPCC

AFP

Graphic showing the rise in air temperature over land and sea since 1950

Parts of the planet were cooler than average, including large areas of the U.S., Canada and central Russia. But most of the world experienced temperatures above average, with heat waves in South Africa, Australia and Argentina in January and in large parts of South America in October, according to the WMO assessment, which was based on two global data sets from the U.S. and one from Europe.

Ocean temperatures were particularly high in the northern hemisphere from June to October.

"Around 93 percent of the excess energy trapped in the atmosphere by

greenhouse gases from fossil fuels and other human activities ends up in the oceans. Therefore, the heat content of the oceans is key to understanding the climate system," the WMO said.

While scientists are now 95 percent certain that the temperature rise since the middle of the 20th century is mostly man-made, they can't say with the same confidence how the warming affects different parts of the climate system, including the frequency of tropical storms or hurricanes.

By Nov. 13 there had been 72 tropical storms, well below the average of 89.

Arctic sea ice shrunk to the sixth lowest level on record in September, while Antarctic sea ice grew to a record extent for the third straight year.

The concentration in the atmosphere of carbon dioxide, a key greenhouse gas, rose to a new high of 396 parts per million last year, the WMO said, 42 percent above the level before the industrial revolution, when people started burning fossil fuels for energy.

Figures for 2014 were not yet ready.

In Lima, delegates from more than 190 countries are trying to lay the groundwork for a global emissions pact that's planned to be adopted next year. Divisions between rich and poor countries have slowed the negotiations over the years, but a U.S.-China emissions deal last month has injected new hope into the talks.

U.N. climate chief Christiana Figueres said temperature data added urgency to the talks, but noted that you don't have to be a scientist to realize that the climate is changing.

"Every single one of us can just look out the window, open the door and

see the effects of climate change," she said. "Because there is not one country that is exempt."

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