

# 2015 set to be hottest year on record: UN (Update)

November 25 2015, by Nina Larson

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The World Meteorological Organization issued the warning ahead of the climate change talks in Paris

The year 2015 is shaping up to be the hottest on record, the UN's weather agency said Wednesday, a week ahead of a crucial climate change summit in Paris.

"2015 is likely to be the hottest year on record, with ocean surface temperatures at the highest level since measurements began," said

Michel Jarraud, head of the World Meteorological Organization.

"This is all bad news for the planet," he added in a statement.

The WMO said data from the first 10 months of the year suggested temperatures over land and sea would tick in at their highest level ever measured this year, after already reaching record highs in 2014.

The UN agency said the preliminary data showed the global average surface temperature has reached "the symbolic and significant milestone" of 1.0 degree Celsius (1.8 degree Fahrenheit) above mid-19th century levels.

Global surface temperatures this year are also about 0.73 degrees Celsius above the 1961-1990 average of 14 degrees Celsius, WMO said.

## **'We have a choice'**

The UN agency usually waits to have data stretching over a full year before drawing any conclusions, but said it wanted to release its preliminary findings "to inform negotiators at the UN Climate Change Conference in Paris."

More than 145 world leaders are set to gather in the French capital Monday to launch the 12-day conference aimed at securing a rescue pact for the global climate aimed at capping global warming at two degrees Celsius (3.6 degrees Fahrenheit) above the pre-industrial era.



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"Greenhouse gas emissions, which are causing climate change, can be controlled," Jarraud said.

"We have the knowledge and the tools to act. We have a choice," he said. "Future generations will not."

Sea-surface temperatures hit new records last year, and WMO said Wednesday they were "likely to equal or surpass that record in 2015."

Since oceans have been absorbing more than 90 percent of the energy accumulated in the climate system from human emissions of greenhouse gases, temperatures at greater depths are also rising, as are sea levels, the

agency said

In the first nine months of 2015, global ocean heat content through both the upper 700 metres and 2,000 metres of the oceans hit record highs, it said.

Sea levels in the first half of the year meanwhile appeared to be "the highest since satellite observations became available in 1993."

## **Hottest five-year period**



Oceans absorb more than 90 percent of the energy accumulated in the climate system from human emissions of greenhouse gases

China had its warmest January-to-October period on record, Africa is experiencing its second warmest year on record, while temperatures have

also soared in western North America, large parts of South America, Africa and southern and eastern Eurasia.

Severe heatwaves have hit India and Pakistan, as well as Europe, North Africa and the Middle East.

The soaring temperatures this year appear to be part of a trend, with WMO indicating that the years 2011-2015 marked the hottest five-year period ever measured.

The past five years have been 0.57 degrees Celsius (1.01 degrees Fahrenheit) above the 1961-90 average, it said, referring to preliminary data up to the end of September, WMO said, explaining that its five-year analysis provides a better indication of how the climate is changing over time than its annual reports.

The five-year period had seen numerous extreme weather events that were influenced by climate change, WMO said, adding that the warming climate had increased the probability of heat waves by a factor of 10 or more in some cases.

The pending heat records come after concentrations of carbon dioxide and other greenhouse gases in the atmosphere hit record highs in 2014, prompting WMO earlier this month to warn that climate change was moving the world into "uncharted territory."

Wednesday's report also comes as El Nino, a natural phenomenon that sparks global climate extremes, is at its strongest in more than 15 years and still gaining strength.

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