PAST SEVEN YEARS WARMEST ON RECORD: WORLD METEOROLOGICAL ORGANISATION

Relevant for: Environment | Topic: Environmental Degradation - GHGs, Ozone Depletion and Climate Change

The past seven years were the warmest on record, and 2021 did not see record-breaking temperatures because of a La Niña event at the start and end of the year, according to a report by the World Meteorological Organisation (WMO) on Wednesday.

La Nina is a cooling of surface temperatures in the Central Pacific. While this had a temporary cooling effect, it did not reverse the overall trend of rising temperatures. The average global temperature in 2021 was about 1.11 (\pm 0.13) °C above the pre-industrial level.

The report comes even as north, central and western India reel under an onslaught of premonsoon heat waves, with temperatures in March breaching century-old records.

Four key climate change indicators — greenhouse gas concentrations, sea level rise, ocean heat and ocean acidification — set new records in 2021, according to the report. Extreme weather led to economic damage worth hundreds of billions of dollars and triggered shocks for food, water security and displacement that worsened in 2022.

"Renewables are the only path to real energy security, stable power prices and sustainable employment opportunities. If we act together, the renewable energy transformation can be the peace project of the 21st century," said Antonio Guterres, Secretary-General of the United Nations. The world must act in this decade to prevent ever worsening climate impacts and to keep temperature increase to below 1.5°C above pre-industrial levels, he said.

"It is just a matter of time before we see another warmest year on record," said WMO Secretary-General Prof. Petteri Taalas. "Our climate is changing before our eyes. The heat trapped by human-induced greenhouse gases will warm the planet for many generations to come. Sea level rise, ocean heat and acidification will continue for hundreds of years, unless means to remove carbon from the atmosphere are invented. Some glaciers have reached the point of no return and this will have long-term repercussions in a world in which more than 2 billion people already experience water stress."

The WMO report added that ocean surface temperatures were at a record high. The upper 2000m depth of the ocean continued to warm in 2021 and would continue to do so in the future — a change which is irreversible on centennial to millennial time scales. The scientific consensus was that ocean warming rates have shown a particularly strong increase in the past two decades and this warmth was penetrating to ever deeper levels.

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