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# Climate change impacts grip globe in 2024

NEWS

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Climate change impacts gripped the globe in 2024, with cascading impacts from mountain peaks to ocean depths and on communities, economies and the environment.



WMO

The year 2024 is set to be the warmest on record, capping a decade of unprecedented heat fuelled by human activities, according to the World Meteorological Organization (WMO). Greenhouse gas levels continue to grow to record observed highs, locking in even more heat for the future.



“Today I can officially report that we have just endured a decade of deadly heat. The top ten hottest years on record have happened in the last ten years, including 2024,” said UN Secretary-General António Guterres in his New Year message.

“This is climate breakdown — in real time. We must exit this road to ruin — and we have no time to lose. In 2025, countries must put the world on a safer path by dramatically slashing emissions, and supporting the transition to a renewable future,” he said.

WMO will publish the consolidated global temperature figure for 2024 in January and its full State of the Global Climate 2024 report in March 2025.

“In my first year as WMO Secretary-General, I have issued repeated Red Alerts about the state of the climate,” said WMO Secretary-General Celeste Saulo. “WMO marks its 75th anniversary in 2025 and our message will be that if we want a safer planet, we must act now. It’s our responsibility. It’s a common responsibility, a global responsibility,” she said.

“Every fraction of a degree of warming matters, and increases climate extremes, impacts and risks. Temperatures are only part of the picture. Climate change plays out before our eyes on an almost daily basis in the form of increased occurrence and impact of extreme weather events,” she said.



“This year we saw record-breaking rainfall and flooding events and terrible loss of life in so many countries, causing heartbreak to communities on every continent. Tropical cyclones caused a terrible human and economic toll, most recently in the French overseas department of Mayotte in the Indian Ocean. Intense heat scorched dozens of countries, with temperatures topping 50 °C on a number of occasions. Wildfires wreaked devastation,” she said.

The increasingly extreme weather underlines the urgency of the [Early Warnings for All initiative](#), which along with supporting climate service development and delivery, is a key part of WMO’s activities to support climate adaptation. On the climate mitigation front, WMO is rolling out the [Global Greenhouse Gas Watch initiative](#), and supporting the United Nations Framework Convention on Climate Change (UNFCCC) and COP.

In 2025, there will be a strong focus on the cryosphere - the frozen parts of the Earth including sea ice, ice sheets, frozen ground – as it is the [International Year of Glaciers’ Preservation](#), facilitated by UNESCO and WMO.



Throughout 2024, a series of reports from the WMO community highlighted the rapid pace of climate change and its far-reaching impacts on every aspect of sustainable development.

Climate change intensified 26 of the 29 weather events studied by World Weather Attribution that killed at least 3700 people and displaced millions, according to a new report from World Weather Attribution and Climate Central.

The report said that climate change added 41 days of dangerous heat in 2024, harming human health and ecosystems, according to the report entitled [When Risks Become Reality: Extreme Weather In 2024](#).

As global temperatures rise and extreme heat events become more frequent and severe, there is a growing need for enhanced international cooperation to address extreme heat risks. A targeted group of experts representing 15 international organizations, 12 countries, and several leading academic and NGO partners convened at WMO headquarters from 17-19 December to advance a coordinated framework for tackling the growing threat of extreme heat. This is in response to the UN Secretary-General's Call to Action on extreme heat.

It is one of many initiatives by the WMO community to safeguard public health through improved climate services and early warnings. As it marks its 75th anniversary in 2025, WMO will continue to coordinate worldwide efforts to observe and monitor the state of the climate, support international efforts to mitigate and adapt to climate change.

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