WMO Updates

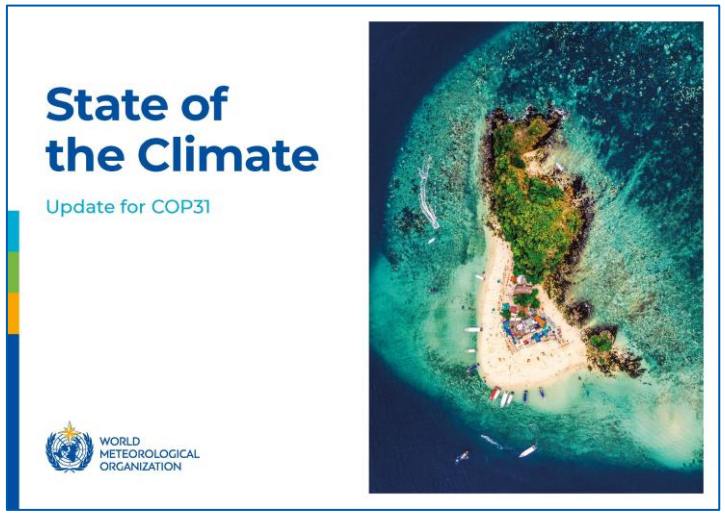
COP31

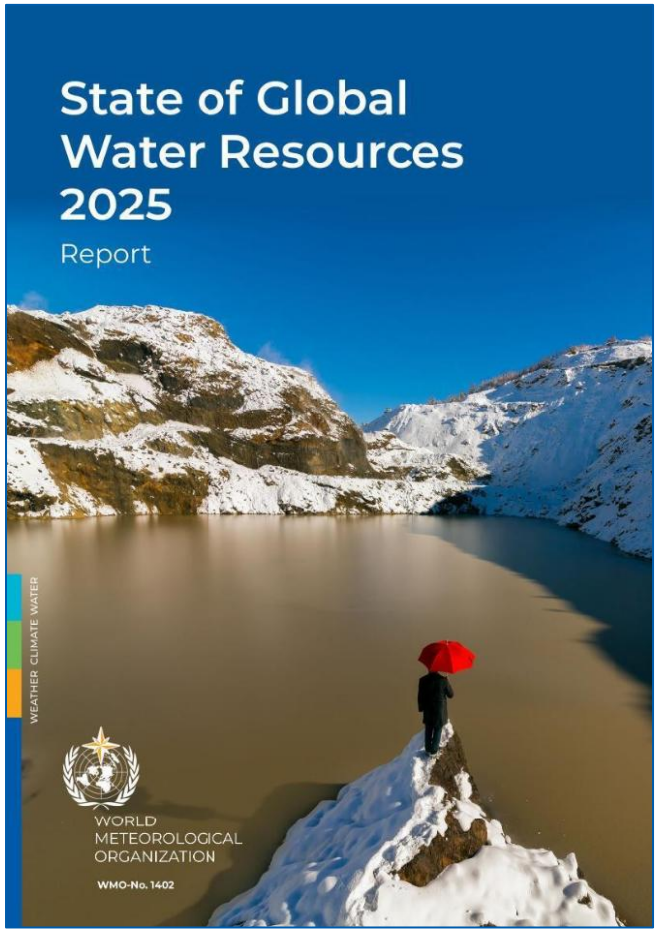
Earth Information Day

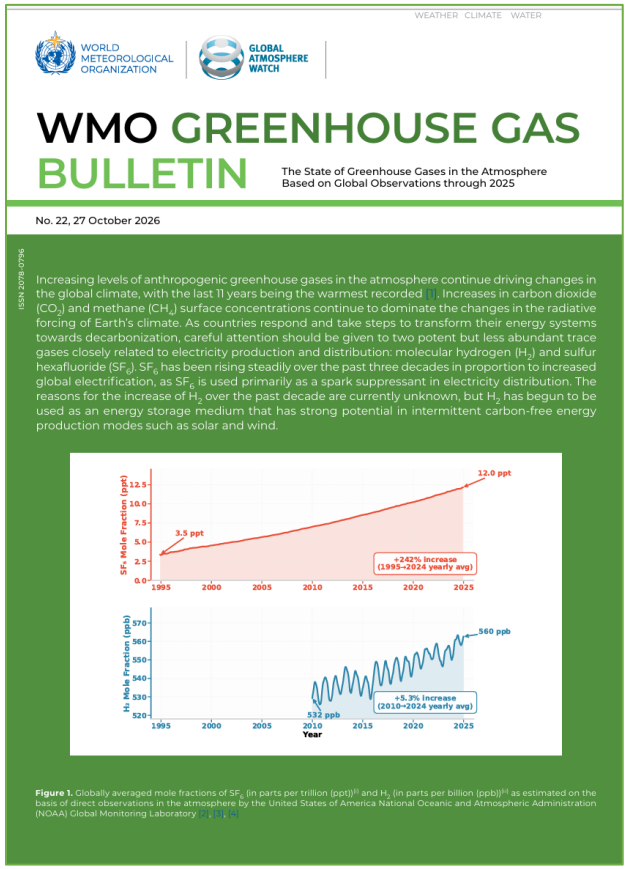


WORLD METEOROLOGICAL ORGANIZATION

A narrative built on a wealth of data, information & reports





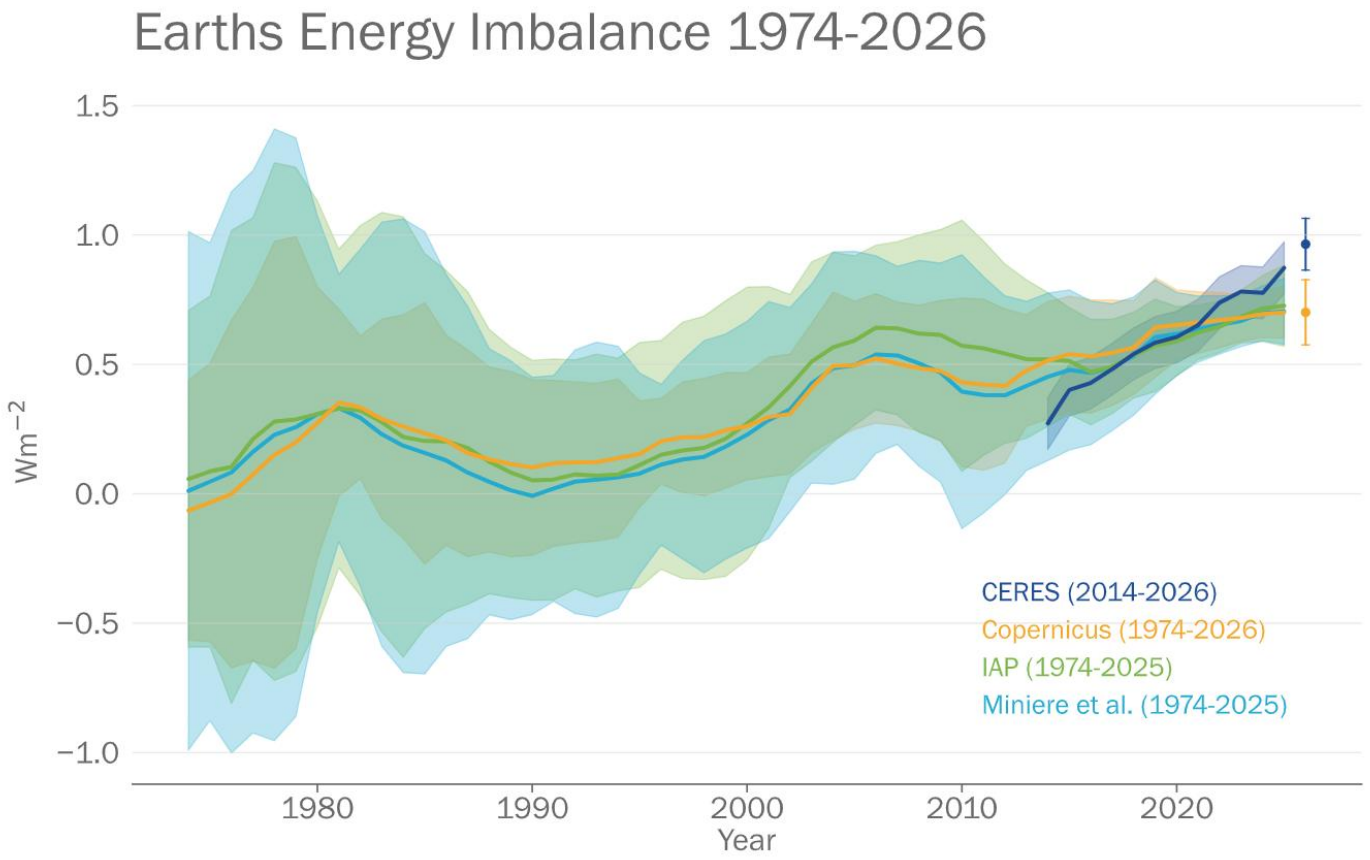


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The Earth system is accumulating heat at an increasing rate

A record high was observed in 2025 and preliminary 2026 values show continued warming

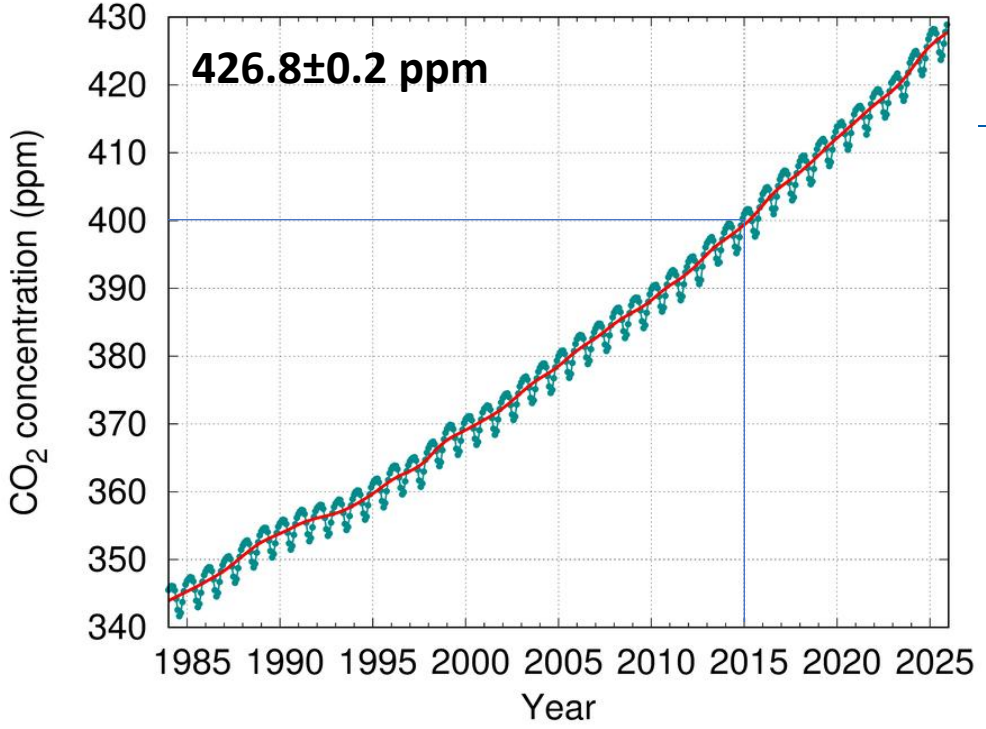




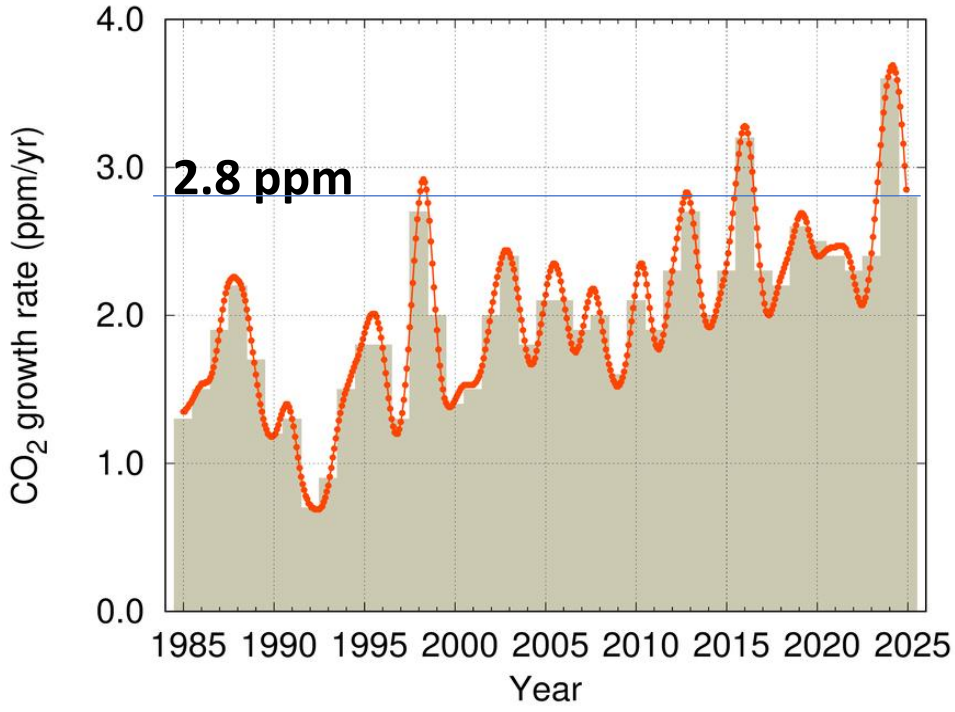
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Greenhouse gas concentrations reached record observed levels in 2025

The globally averaged CO_2 concentration in 2025 was 426.8 ± 0.2 ppm, an increase of 53% above pre-industrial level.

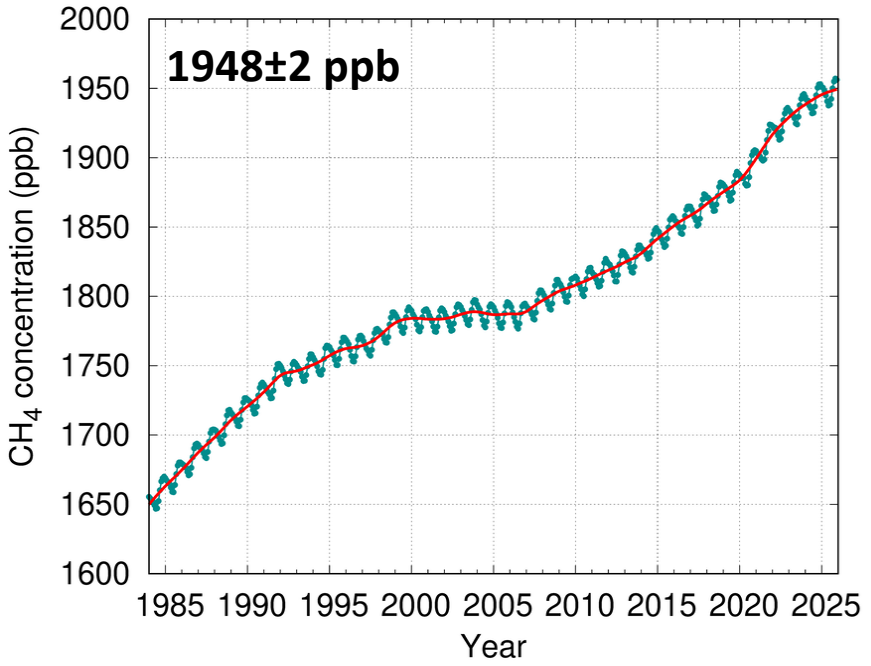


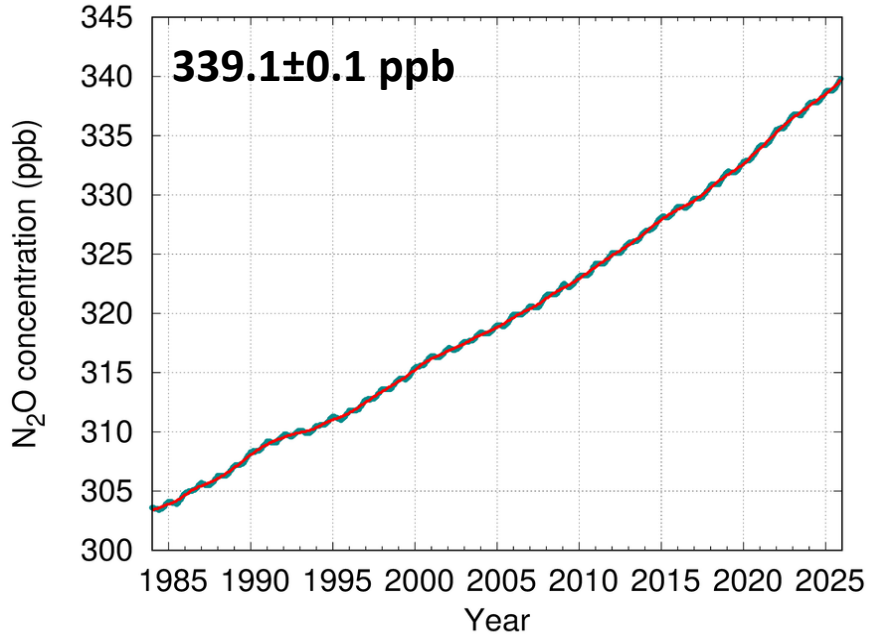
Land carbon sink in 2025 has not fully recovered after the **2023/2024 El Niño.**



Greenhouse gas concentrations reached record observed levels in 2025

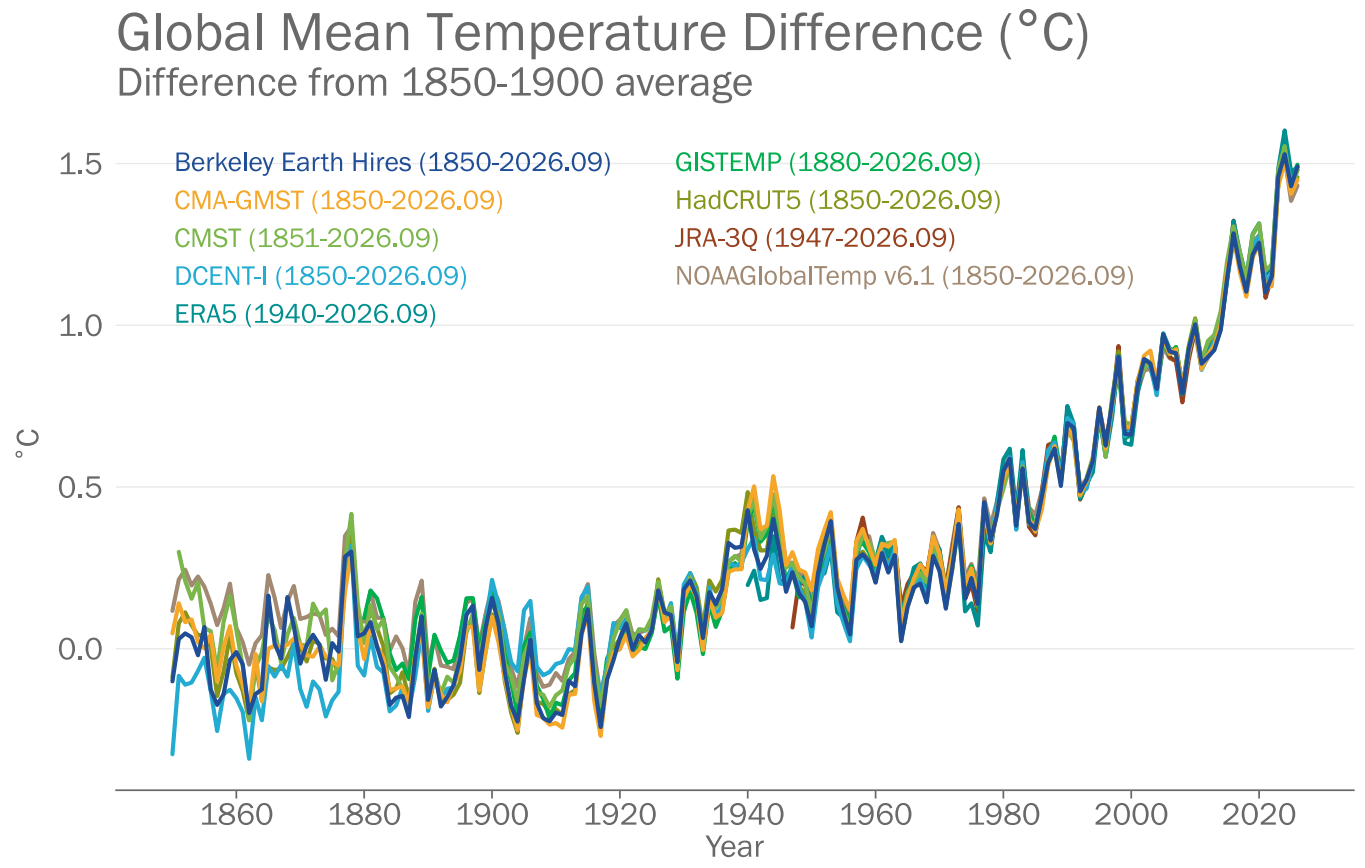
CH_4 and N_2O concentrations increased to 1 948 ± 2 ppb and 339.1 ± 0.1 ppb, respectively in 2025.





January–September 2026 was 1.47 °C ± 0.13 °C above the pre-industrial average

2026 is on track to be among the four warmest years on record.



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The ocean absorbs approximately 90% of the excess energy in the climate system (IPCC, 2021).

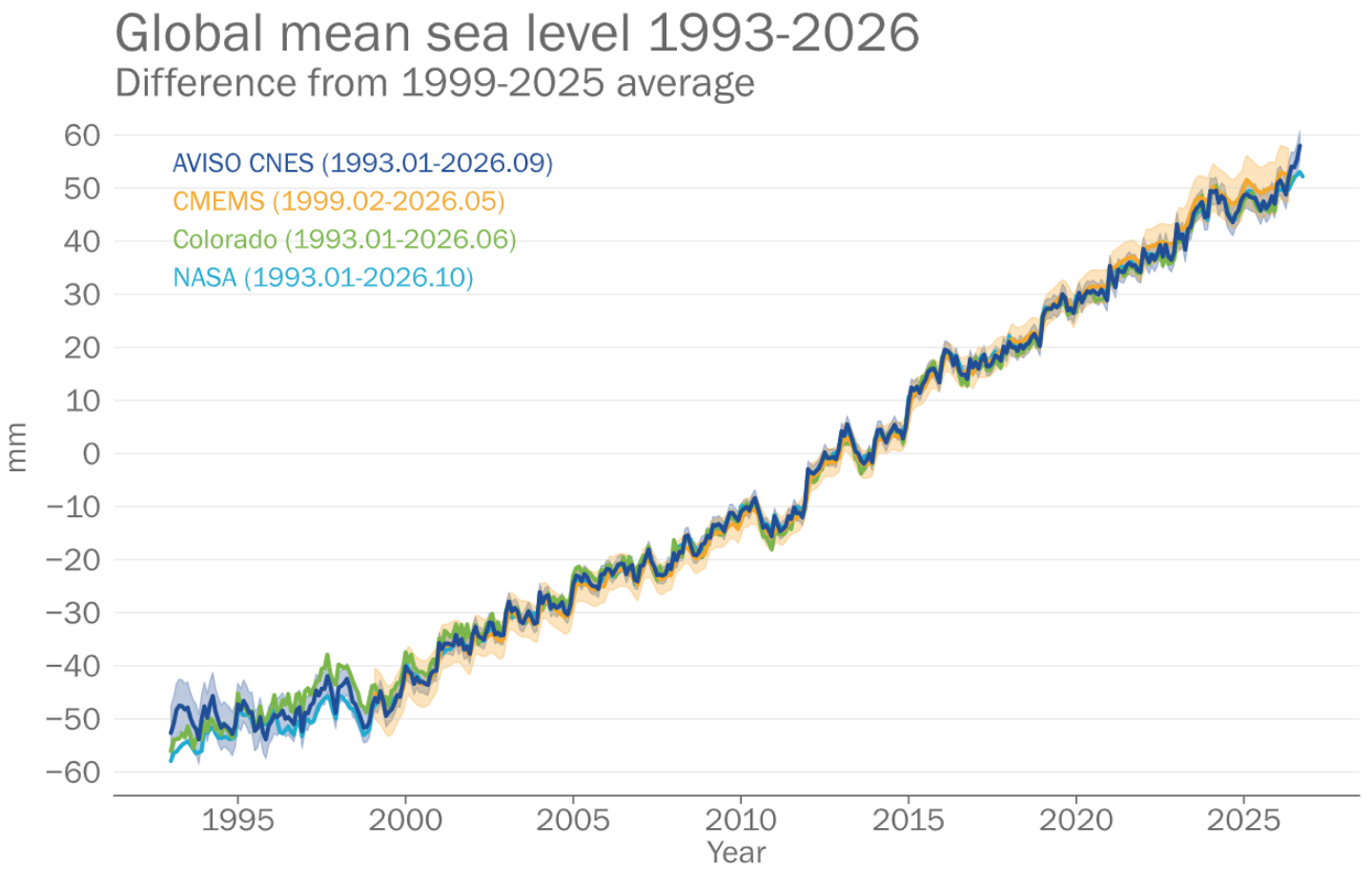
Over 3 billion people depend on marine and coastal resources for their livelihoods (UN, 2017).

Nearly 11% of the global population live on low-lying coasts directly exposed to coastal hazards (IPCC, 2021).

Global mean sea level reached a record high in 2026

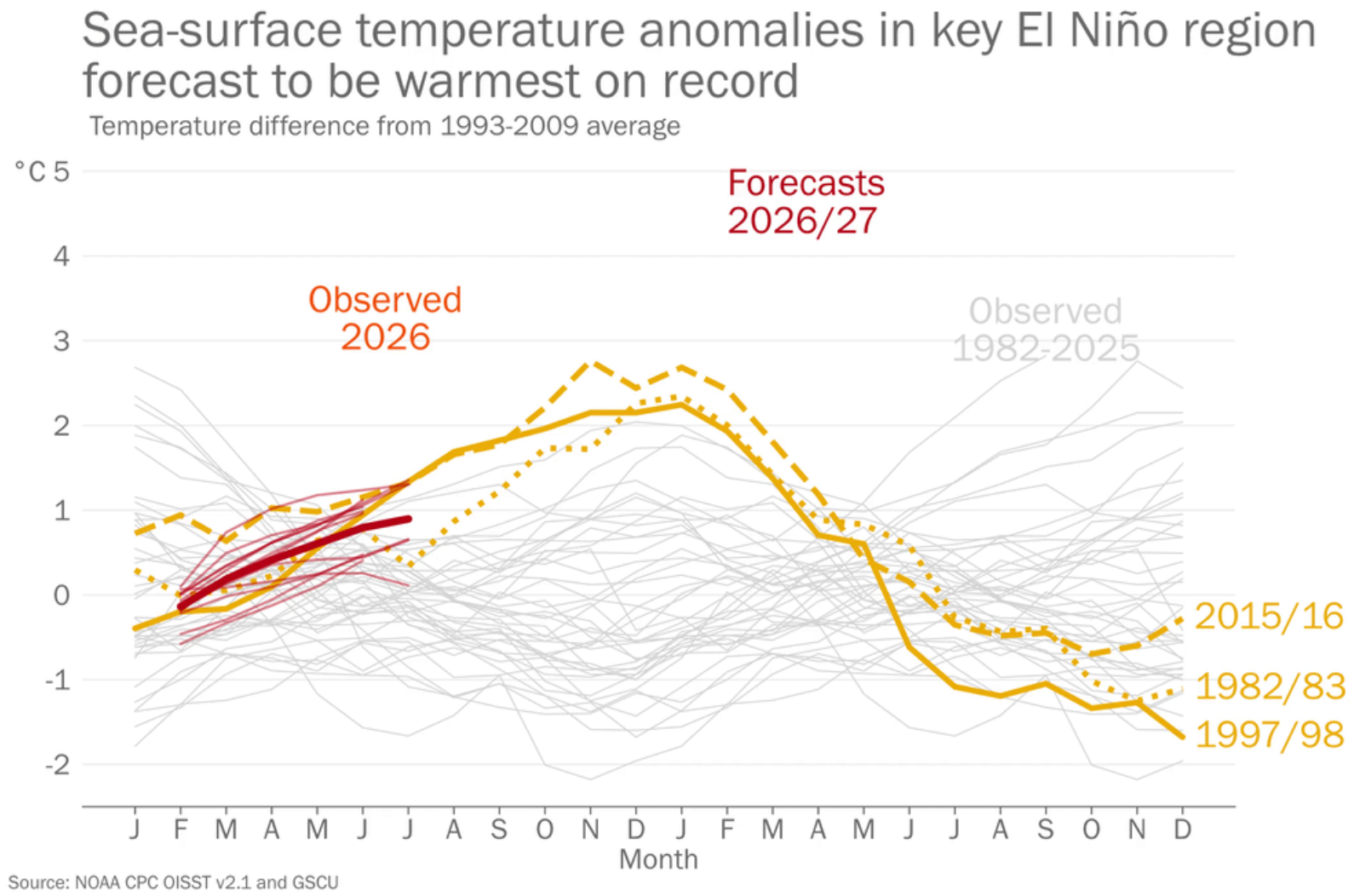
Highlighting the combination of long-term rise and El Niño - related shifts in rainfall.





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A strong El Niño developed rapidly in 2026 and is nearly certain to persist into early 2027

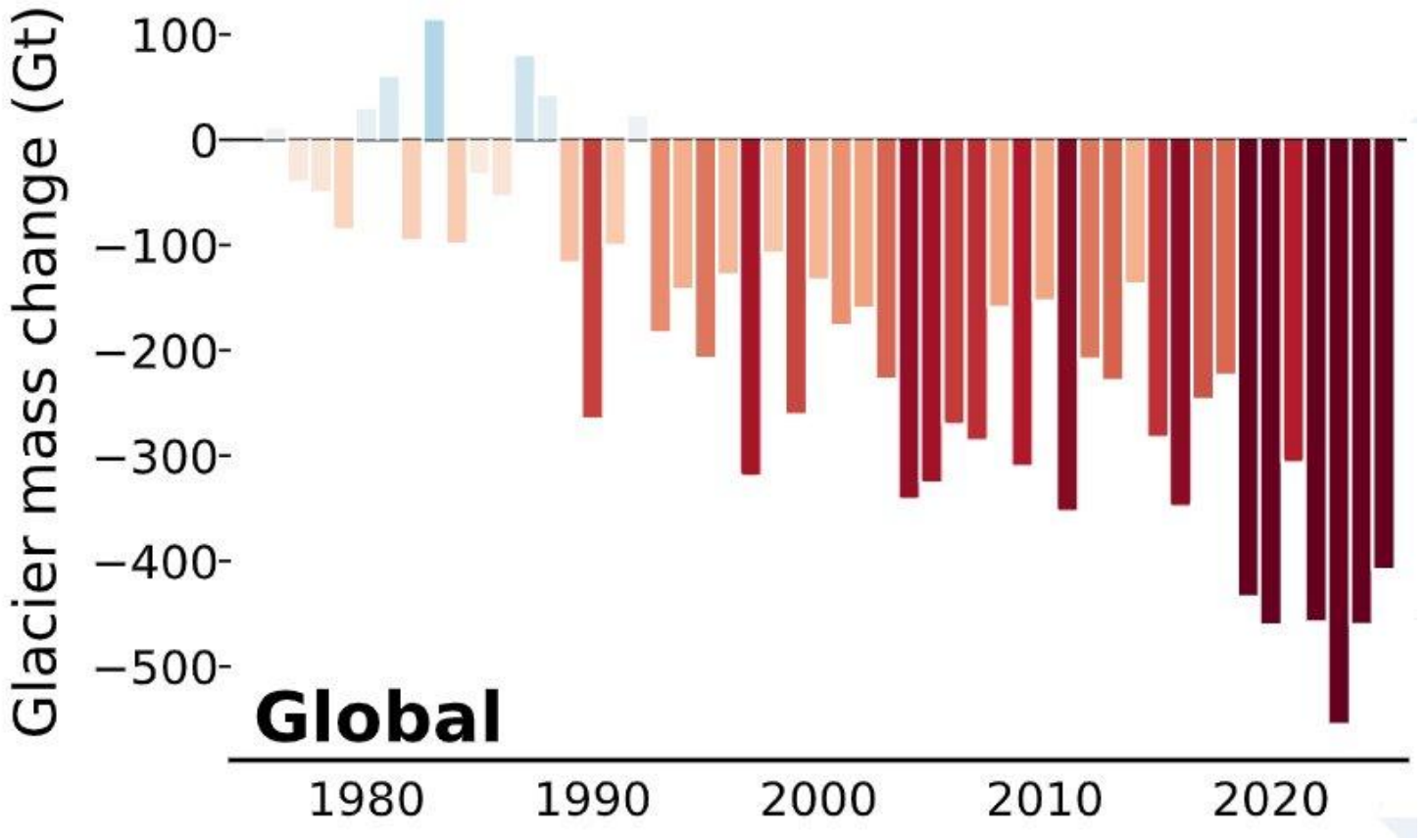


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Glaciers lost more than 400 gigatonnes of ice in 2025

This is equivalent to approximately
1 mm of sea-level rise



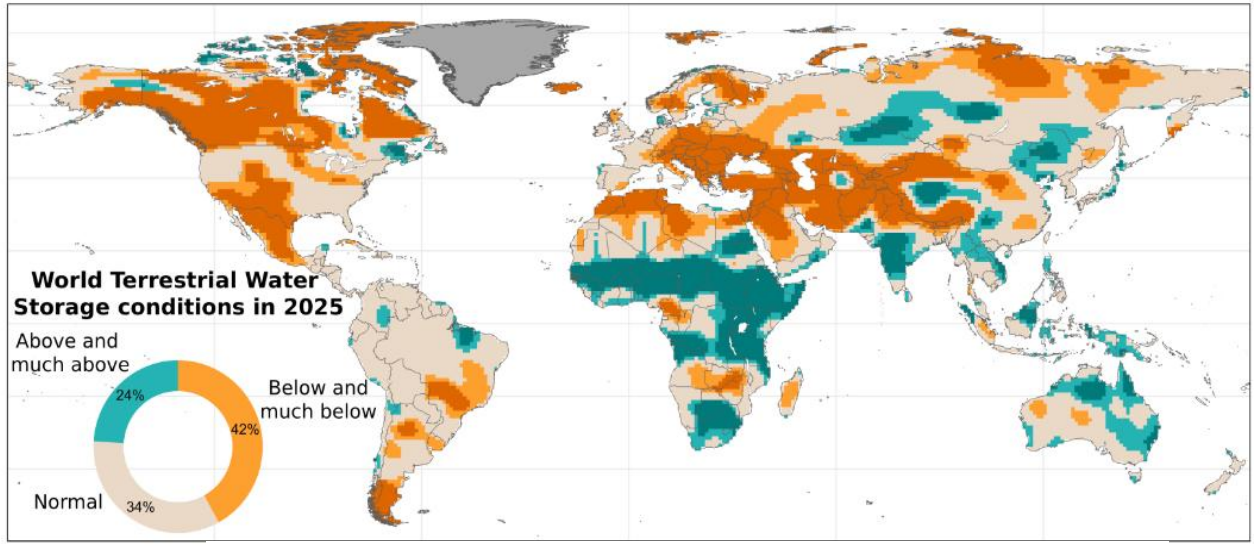


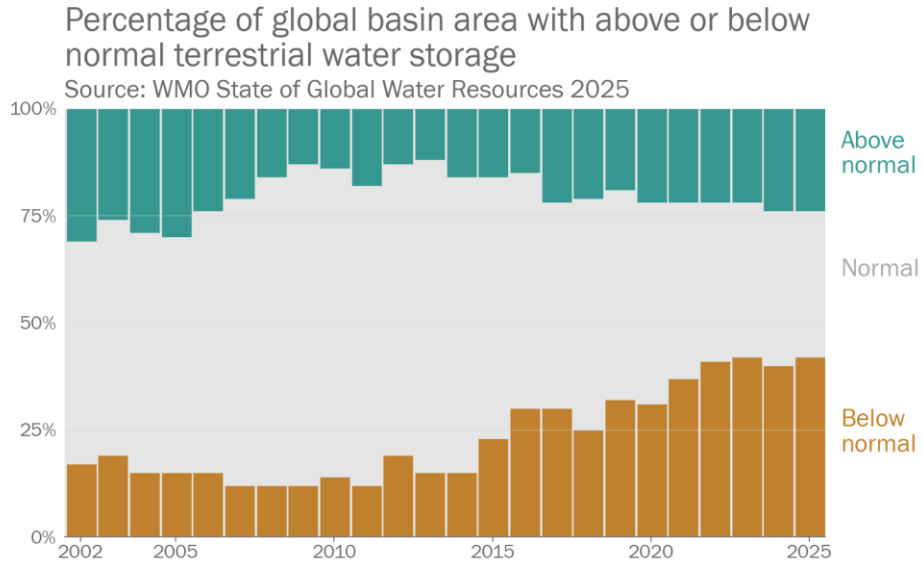
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Water stored on land has declined globally since 2014.

In 2025, 42% of the assessed global area had below-normal terrestrial water storage, compared to the long-term average of 25%.





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Extreme weather and climate-related events

Heat events
Land & ocean

Drought events

Flood events

Cold events

Tropical Cyclones
& other event types

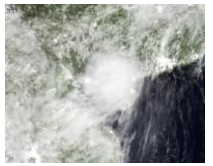


European heatwaves, drought & wildfires
May–August

Himalayan glacier collapse & flood 26 August



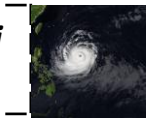
Severe Tropical Storm Maysak
July





North American cold & snow
January–February

Typhoon *Bavi*
June–July





Indian monsoon rainfall deficit
June–September

Western Mediterranean floods & windstorms
January–February



Tropical Cyclone *Gezani* February



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Weather and climate extremes are putting **health and food security under pressure,** and El Niño is adding to risks in vulnerable regions.

WMO works with WHO and FAO to connect climate information with sectoral expertise, helping translate forecasts and warnings into practical action.



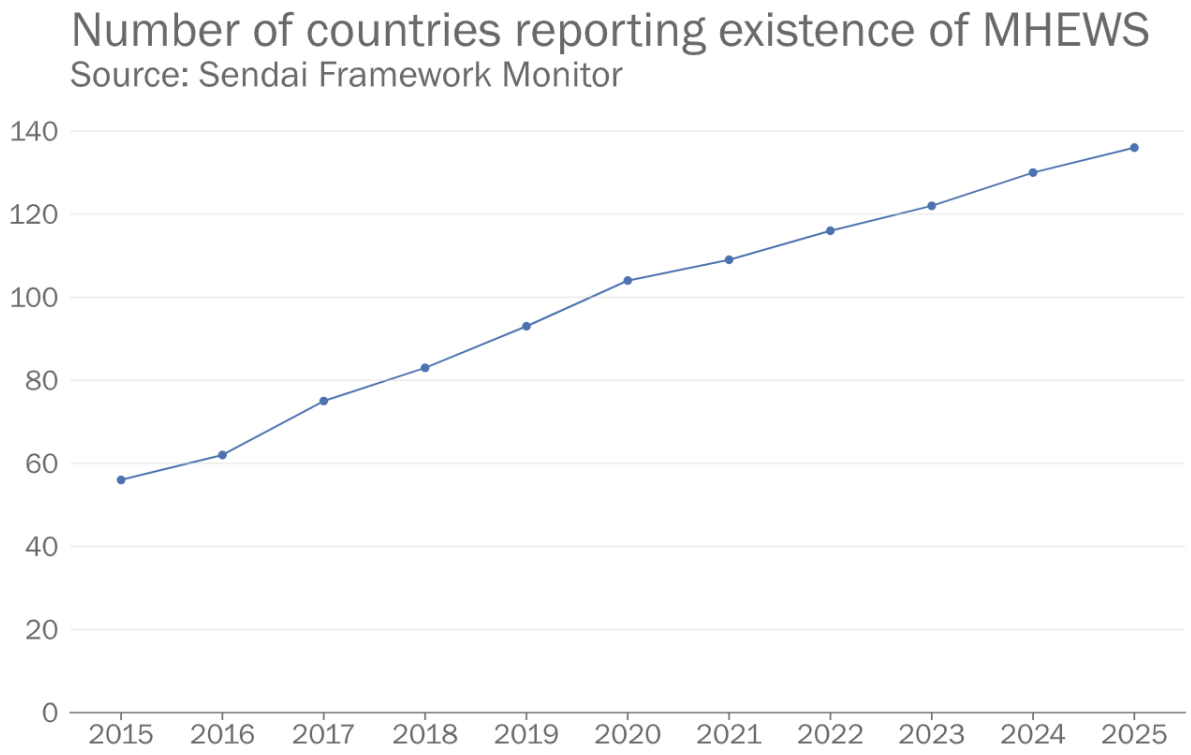


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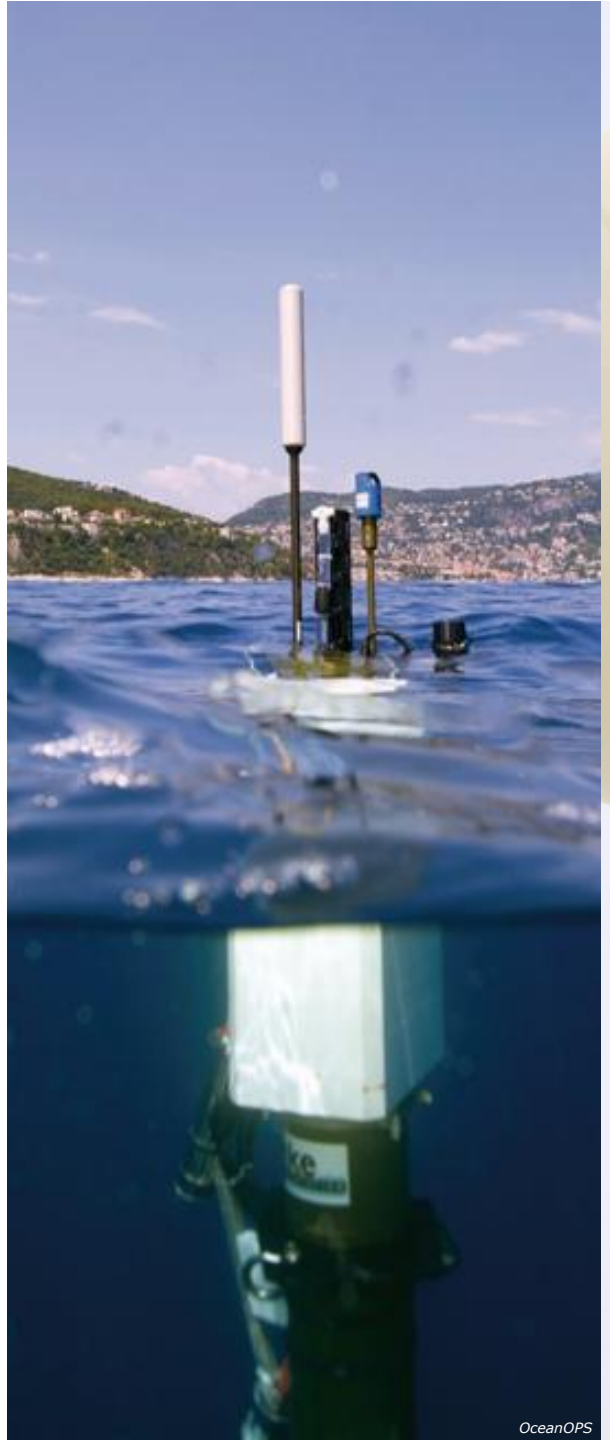


Early warnings are expanding

Coverage has improved with observations, data exchange and forecasting, but important gaps remain.



Systematic observations underpin early warnings, climate services and the State of the Climate


OceanOPS


C. Rohleder CC BY-SA

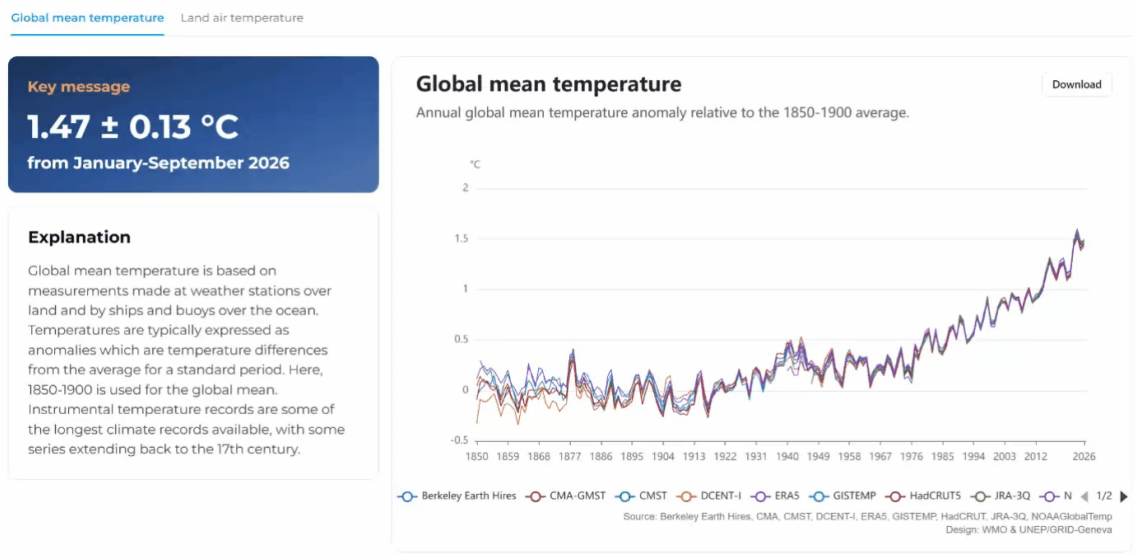

ESA / INPE

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Launching:

State of the Climate Data Hub

Interactive graphs & downloadable datasets

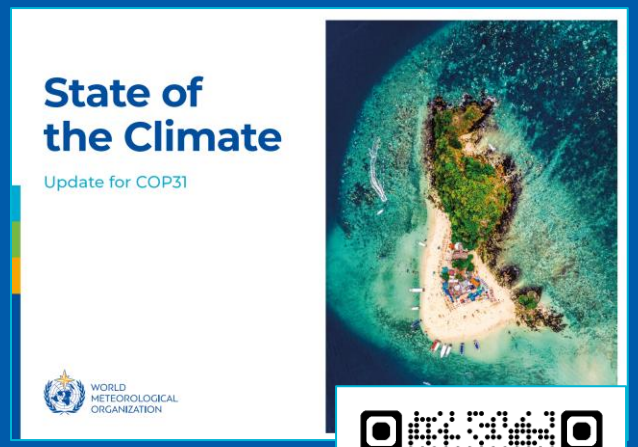


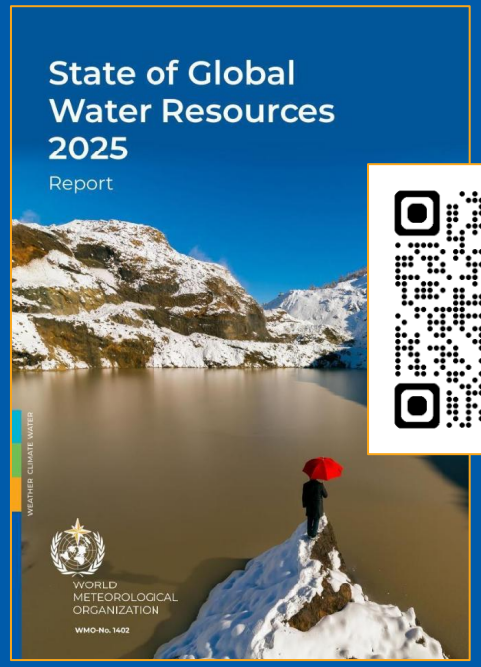
Interactive map layers can be combined

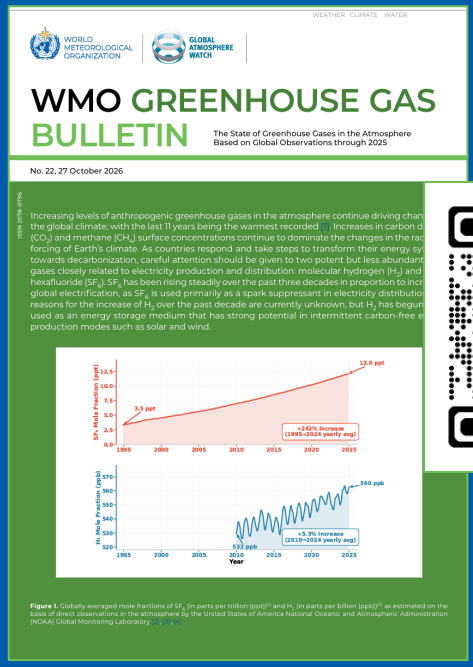


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Thank you.







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