

State of Global Water Resources 2024 Report

The following 2 pages are extracts from the State of Global Water Resources 2024 Report that best link to what you study as part of your A-Level geography course. The full report can be read here:

https://library.wmo.int/viewer/69629/download?file=WMO-1380-2025_en.pdf&type=pdf&navigator=1

Executive Summary

Hydrological conditions and significant events of 2024

Climatic conditions

- The year 2024 was the hottest in the 175-year observational record, with the annual mean surface temperature reaching 1.55 °C (± 0.13 °C) above the pre-industrial baseline (1850–1900).
- Early 2024 was dominated by pronounced El Niño conditions, which contributed to droughts in northern South America and southern Africa.
- The Amazon basin was hit by a severe drought: intensifying during April–June, it reached its peak in July–September, before easing partially in October–December.

River Discharge

- In 2024, deviations of river discharge from normal conditions occurred in approximately 60% of the global catchment area.
- In the past six years only about one-third of the global catchment area was under normal discharge conditions when compared to the 1991–2020 average.
- Major basins such as the Danube, Ganges, Godavari and Indus experienced above- to much-above-normal conditions.

Glaciers

- The year 2024 was the third consecutive year in which widespread ice loss was recorded across all glaciated regions, with 450 Gt lost – equivalent to 1.2 mm of sea-level rise.
- Record mass loss occurred in Scandinavia, Svalbard and North Asia, while some regions, such as the Canadian Arctic and Greenland periphery, saw more moderate losses.

Significant events

- European, African and Asian regions were the most heavily hit by unprecedented or notable extreme events.
- Most such events were a result of excess water (that is, flash floods, heavy rainfalls or associated landslides).
- Africa was hard hit: Africa’s tropical zone experienced unusually heavy rainfall in 2024 compared to historical norms, resulting in more than 2 500 fatalities, 4 million people displaced and significant loss of infrastructure.
- Europe experienced its most extensive flooding since 2013, with one-third of its river networks exceeding “high” flood thresholds, and Asia and the Pacific were hit by record-breaking rainfall and tropical cyclones, resulting in over 1 000 deaths.
- Brazil experienced simultaneous extremes, with catastrophic flooding in the south of the country taking 183 lives and continuation of the 2023 drought in the Amazon basin, affecting 59% of the country’s territory.

River Discharge Graph

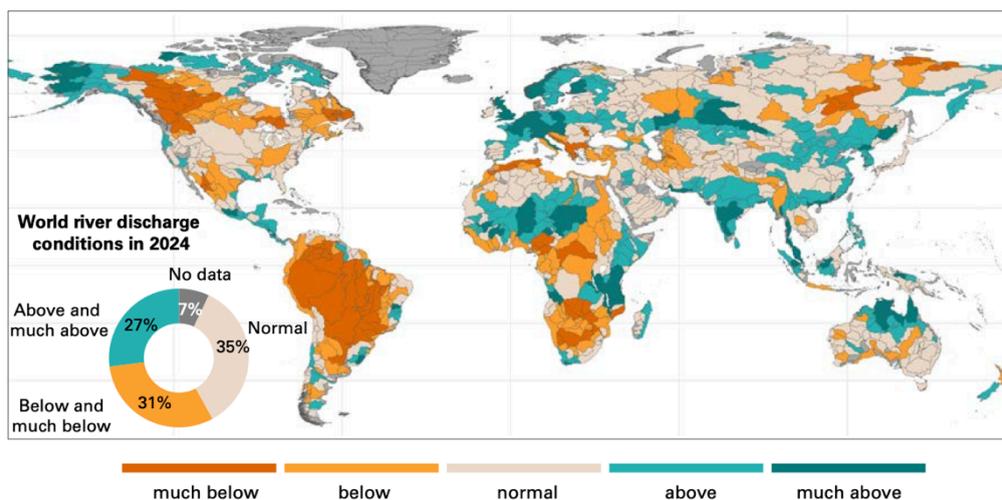


Figure 7. Mean river discharge in 2024 expressed as anomalies compared with the 1991–2020 reference period (for basins larger than 10 000 km²). The results presented here are derived from the modelled river discharge data obtained from an ensemble of 12 GHMS simulations (see [Methods](#) in the annex). Inset (bottom left) shows the percentage distribution of the modelled catchment area under the given conditions. Dark grey areas indicate no modelling data. The results were validated against hydrological observations wherever available (see [Figure A7](#) in the annex).

Note: The boundaries and names shown and the designations used do not imply official endorsement or acceptance by WMO or the United Nations.

Flood Events of 2024 Map

