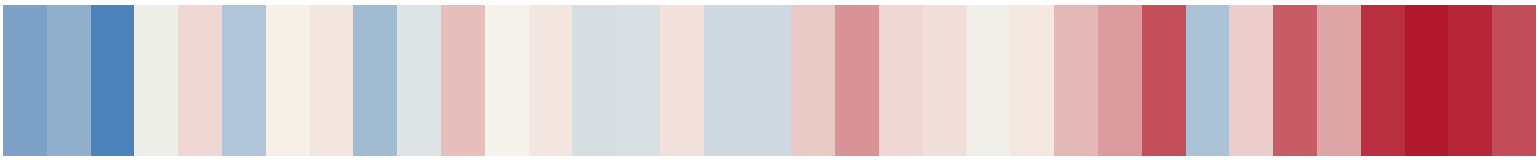
Morocco Climate and Economy Observatory
Climate risk, economy and financial stability

ANNUAL CLIMATE REVIEW

Morocco's climate in 2025

Temperature, rainfall, drought and heat



Temperature stripes: mean annual anomaly of national temperature relative to 1991–2020, from 1991 to 2025 (blue: colder; red: warmer). Source: Open-Meteo (ERA5 reanalysis), Observatory calculations.

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Year covered
2025

Online
observatoire-climat-maroc.pages.dev

Data
Open-Meteo (ERA5 reanalysis), Copernicus Climate Pulse; Observatory composite indices.

Document produced automatically from the data published by the Observatory. Independent research website, with no official status.
Regional values are computed at each regional capital; the national value is the unweighted mean of the 12 points.

Key points

- **Temperature.** In 2025, the national temperature anomaly reaches +1.12 °C relative to the 1991–2020 normal, ranking 4 among the warmest of 35 years. 10 of 12 months were warmer than normal; the largest anomaly was in June (+2.5 °C). Over the last ten years, the mean anomaly is +0.82 °C.
- **Heat.** Each region recorded on average 65 very hot days, against 36 over 1991–2020 (rank 6 among the highest totals since 1991). The highest maximum temperature of the year was 47.2 °C, at the capital of the Laayoune-Sakia El Hamra region on 9 August.
- **Rainfall.** Annual rainfall was 131 % of the 1991–2020 normal; 4 of 12 regions stayed below their normal. Values range from 55 % (Guelmim-Oued Noun) to 175 % (Casablanca-Settat).
- **Drought.** In December 2025, the national SPEI-12, which sums up the water balance over twelve months, stands at 0.38 (normal); 1 regions are in severe or extreme drought over twelve months.
- **Indices.** The climate risk index (CRI) stands at 100.0 and the financial stress index (FSI) at 50.0 in 2025, on a 0 to 100 scale.

1 Temperature

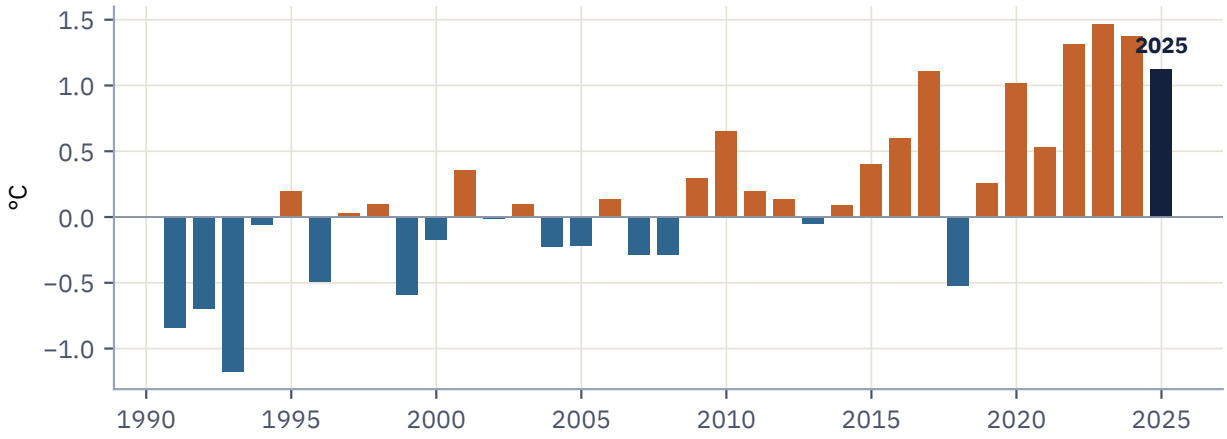


Figure 1: Annual anomaly of national temperature relative to 1991–2020, 1991–2025; 2025 is shown in dark blue.

Source: Open-Meteo (ERA5 reanalysis), Observatory calculations. Mean of the twelve monthly anomalies.

Relative to its own normal, the warmest region is Marrakesh-Safi (+3.06 °C).

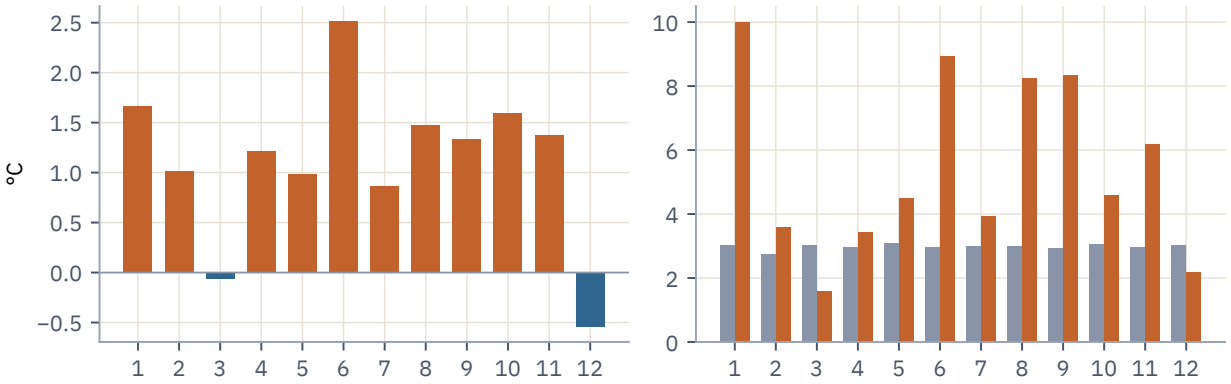


Figure 2: Left: monthly temperature anomaly in 2025 (°C, months 1 to 12). Right: very hot days per month in 2025 (orange) and 1991–2020 mean (grey).
A very hot day is a day when the maximum temperature exceeds the 90th percentile of the same month over 1991–2020.

2 Rainfall and drought

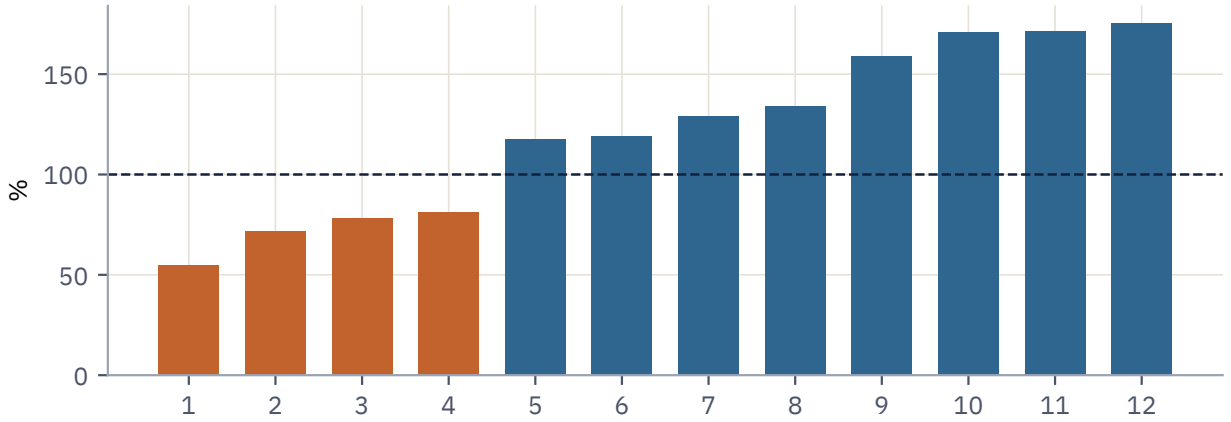


Figure 3: Annual rainfall in 2025 as a percentage of the 1991–2020 mean, by region (numbers refer to the table below); orange: below normal; blue: above.
Source: Open-Meteo (ERA5 reanalysis), daily series at each regional capital.

Table 1: Regional summary for 2025, sorted by temperature anomaly.

No.	Region	Anomaly (°C)	Rain (% normal)	Hot days	SPEI-12 Dec.
8	Marrakesh-Safi	+3.06	134	92	0.11
4	Oriental	+2.65	81	103	−2.13
7	Beni Mellal-Khenifra	+1.92	129	99	0.14
6	Fez-Meknes	+1.65	119	84	0.24
1	Guelmim-Oued Noun	+1.06	55	65	−0.86
9	Tanger-Tetouan-Al Hoceima	+0.95	159	92	1.38
2	Laayoune-Sakia El Hamra	+0.80	72	55	0.53
11	Rabat-Sale-Kenitra	+0.48	171	35	1.72
12	Casablanca-Settat	+0.47	175	33	1.82
10	Draa-Tafilalet	+0.42	171	38	1.23
3	Souss-Massa	+0.01	78	40	−0.13
5	Dakhla-Oued Ed-Dahab	−0.05	117	49	0.47

Hot days: very hot days in the year. SPEI-12: water balance (rainfall minus evapotranspiration) over twelve months; severe drought below −1.5, extreme below −2.

3 Morocco in the global context

In 2025, the temperature anomaly reaches +1.11 °C in Morocco, +1.46 °C around the Mediterranean and +0.59 °C on global average, relative to 1991–2020 and from the same source (ERA5 reanalysis). The global average includes the oceans, which warm more slowly than land.

4 Method and sources

- Temperature, rainfall and evapotranspiration: Open-Meteo historical archive based on the ERA5 reanalysis, at the capital of each of the 12 regions.
- Annual anomaly: mean of monthly anomalies relative to the 1991–2020 monthly normal; national rainfall: mean total of the 12 points relative to their 1991–2020 mean.
- SPEI: accumulated water balance, fitted month by month with a log-logistic distribution (Vicente-Serrano et al., 2010).
- Global context: Copernicus Climate Pulse (C3S/ECMWF) and twelve Mediterranean cities (Open-Meteo, ERA5).
- All figures are computed automatically; series and detailed method are online, on the Methodology page.