**MINISTRY OF ECOLOGY
AND NATURAL RESOURCES OF
THE REPUBLIC OF KAZAKHSTAN**

**Republican State
Enterprise «KAZHYDROMET»**

SEASONAL BULLETIN

ANOMALIES OF AVERAGE AIR TEMPERATURE AND ATMOSPHERIC PRECIPITATION ACROSS THE TERRITORY OF KAZAKHSTAN

FOR THE SPRING SEASON OF 2026

The bulletin is designed to promptly inform government agencies, industry organizations, the scientific community, and other interested parties about current climatic conditions in Kazakhstan.

RELEVANT

- In spring 2026, the average monthly air temperature was **2,42 °C above the climate norm**
- Precipitation precipitation **was –9,8 mm below the climatological norm**

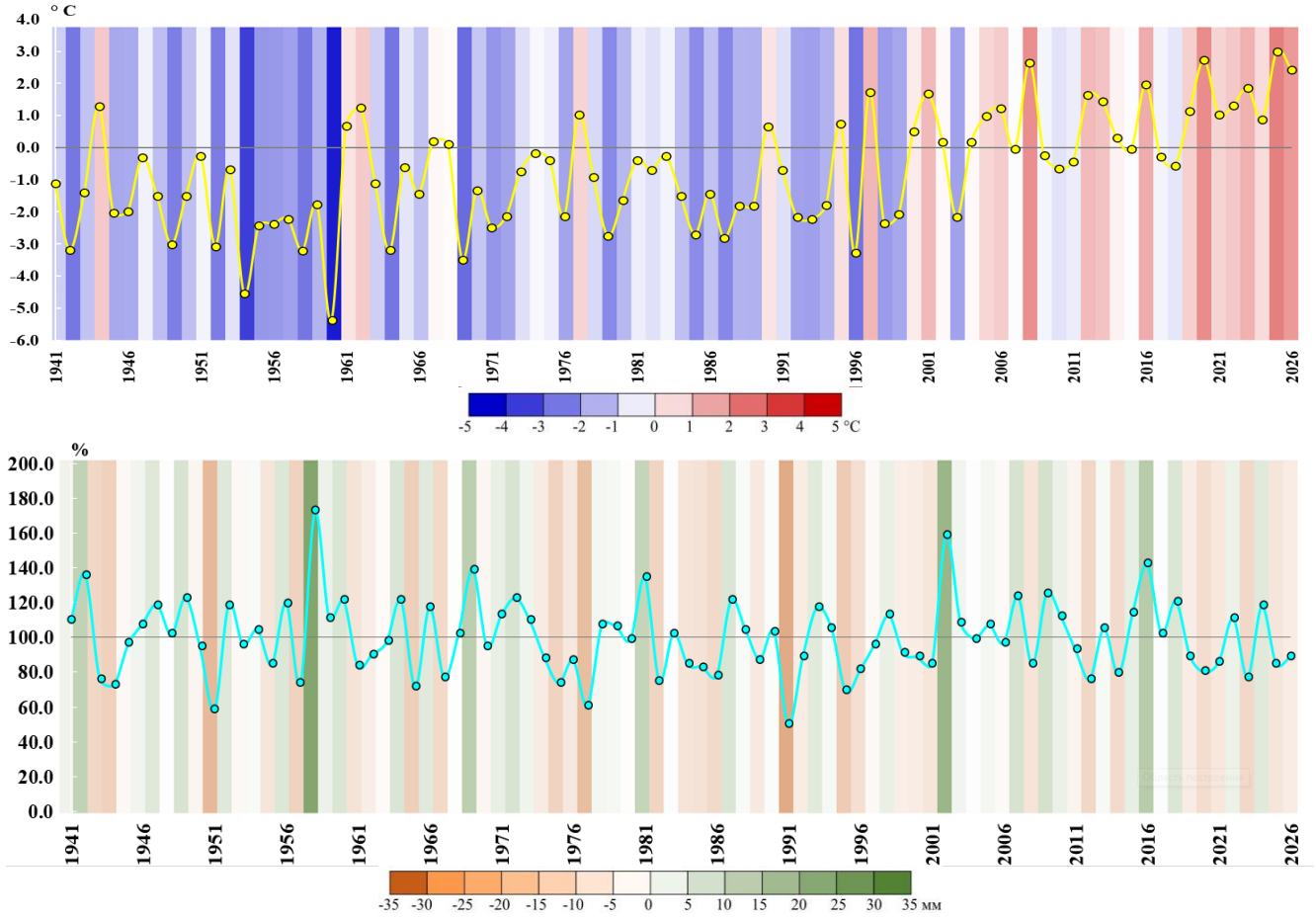

Figure 1 – Time series of air temperature anomalies (a) (°C) and precipitation anomalies (b) (%) spring season, averaged across Kazakhstan for the period 1941–2026.
The anomalies are calculated relative to the 1991–2020 reference period

AIR TEMPERATURE

In the spring of 2026, positive air temperature anomalies were observed across the entire territory of Kazakhstan (Fig. 1a). The average air temperature for the spring season exceeded the climatic norm by 2.42°C. Similar positive deviations from the norm were also recorded in previous years, particularly in 2008 and 2025. The warmest spring season over the entire observation period remains 2025, when the average air temperature anomaly reached 3.01°C.

The highest positive air temperature anomalies were observed in the western and northwestern regions of Kazakhstan. The maximum positive deviation from the climatic norm reached +4.4°C and was recorded at the Shalkar meteorological station in the Aktobe Region.

A total of 82 meteorological stations were classified under the “extremely warm” category, located in the Aktobe, Kostanay, North Kazakhstan, and Akmola regions, as well as across most parts of the country, with the exception of the eastern region. The non-exceedance probability ranged from 95 to 100 % (Fig. 2).

Meteorological stations located in the southeastern and eastern regions of Kazakhstan, as well as in the Pavlodar and West Kazakhstan regions and locally in certain districts of other regions, were classified under the “warm” category, with a non-exceedance probability of 75–95 %.

The thermal regime close to the climatic norm was observed at the Akzhar meteorological station (East Kazakhstan region), as well as at the Aktau and Tushchibek stations (Mangystau region). No negative air temperature anomalies were recorded in Kazakhstan during the spring period. In the spring season of 2026, in April, absolute maximum air temperature records were updated at nine meteorological stations across the entire observation period.

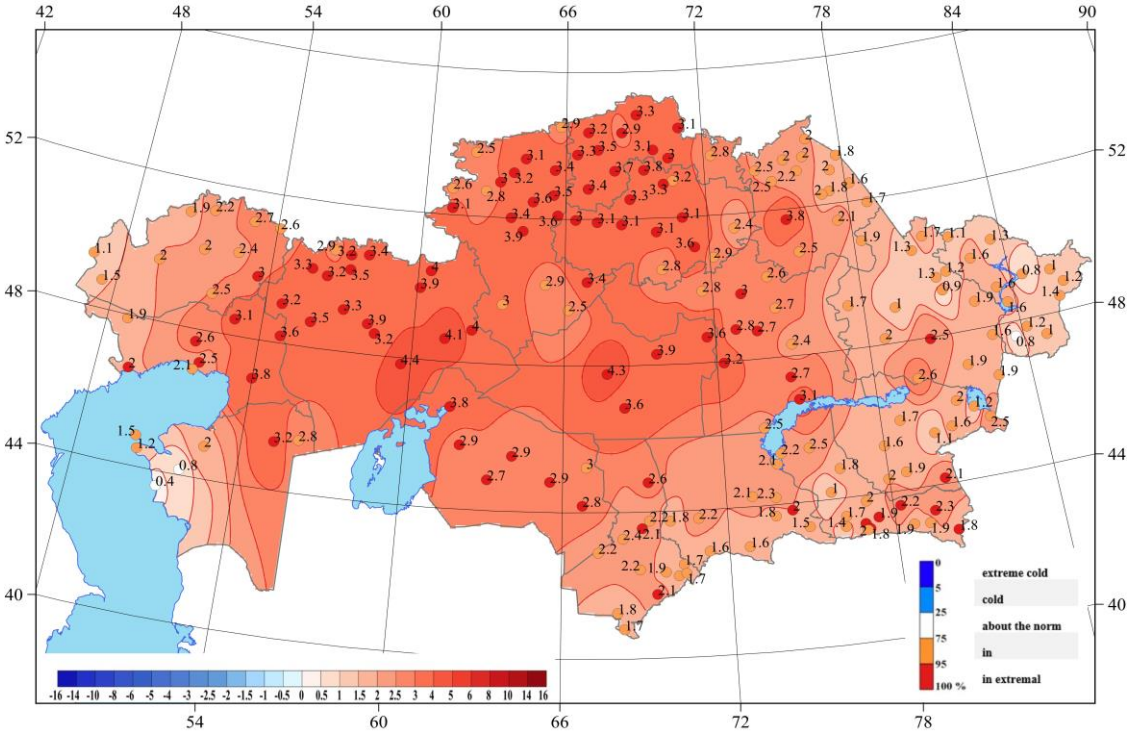

Figure 2 – Spatial distribution of anomalies of mean monthly air temperature (°C), (relatively to the norms for the period 1991–2020 years) and distribution of probabilities of non-exceedance of air temperature in spring season 2026 year, the period 1941–2026 years

ATMOSPHERIC PRECIPITATION

In the spring of 2026, the amount of precipitation was 9.8 mm below the climatic norm. Analysis of the time series of precipitation anomalies for the spring season indicates an alternation of dry and wet periods, while a persistent precipitation deficit has been observed over the past two years.

Spring 2026 was characterized by an uneven spatial distribution of precipitation across the territory of Kazakhstan (Fig. 1b). Precipitation amounts exceeding 120% of the climatic norm were observed in the western regions of the country, in the northern and southern parts of Kostanay Region, in the northern part of Akmola Region, as well as locally in southern regions.

Maximum precipitation totals exceeding 160% of the climatic norm were recorded in some areas of five regions of Kazakhstan — Atyrau, Mangystau, Aktobe, Akmola, and Zhambyl (Fig. 3). At the Kos-Istek meteorological station (Aktobe Region), moisture conditions were classified as extremely wet, corresponding to the 5% extreme percentile.

Precipitation deficits were observed in the Karaganda and East Kazakhstan regions, in the eastern part of Akmola Region, in the southern part of Pavlodar Region, as well as in the Ulytau and Zhetysu regions.

Local zones of precipitation deficit were also recorded in the northwestern, northern, southern, and southeastern parts of the country.

Precipitation amounts corresponding to the “extremely dry” category (non-exceedance probability of 0–5%) were recorded at the Zhanaarka meteorological station (Ulytau Region), Korday (Zhambyl Region), Zhalanashkol (Zhetysu Region), and Samarka (East Kazakhstan Region).

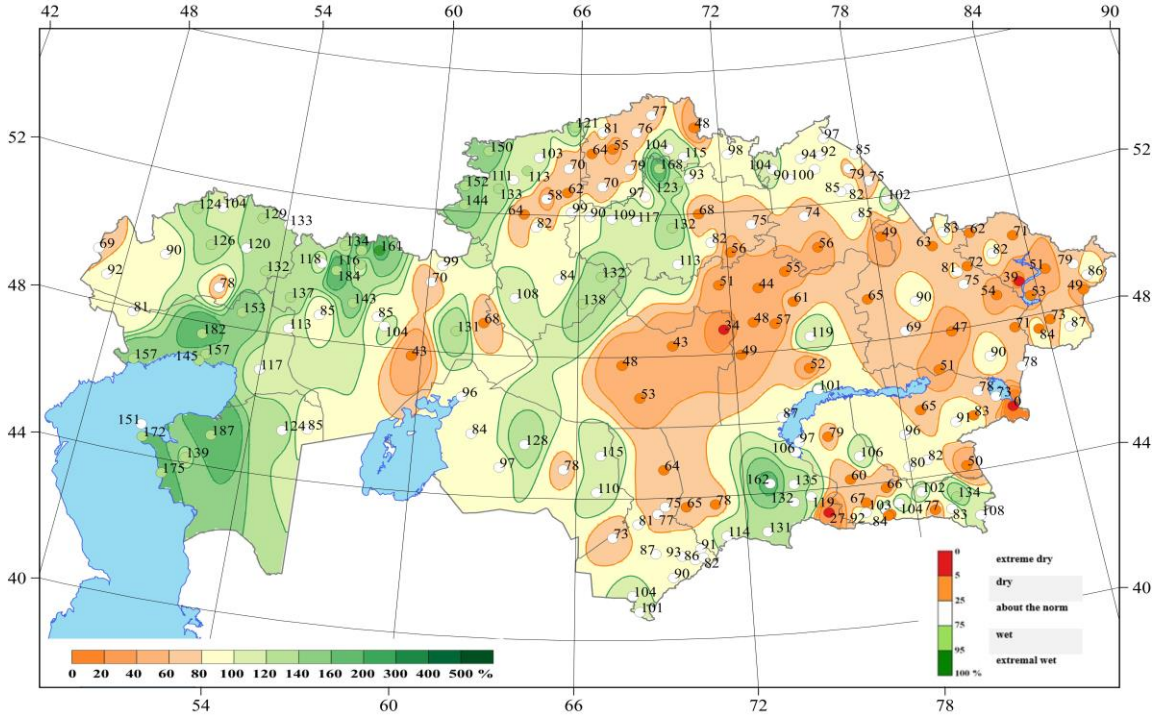

Figure 3 – Spatial distribution of atmospheric precipitation (as % of the norm, for the period 1991–2020) and the probability of non-exceedance of precipitation in spring season 2026 (period 1941–2026 years)

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