FORTNIGHTLY DROUGHT WATCH BULLETIN

(1st to 15th June, 2025)

Pakistan Meteorological Department

National Drought Monitoring Centre

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1. Rainfall Analysis during First Fortnight of June, 2025

During the period from June 1 to 15, 2025, light to moderate rainfall was recorded in various parts of the country. Substantial rainfall occurred in the northern region of the country. Figure 1 illustrates the spatial distribution of rainfall across the country for this period, while Table 1 provides the quantitative measurements from the top 10 stations, obtained from meteorological observatories.

Rainfall Table					
S. No	**Station**	**Rainfall (mm)**	**S. No**	**Station**	**Rainfall (mm)**
1.	SAIDU SHARIF	40.2	6.	MUZAFFARABAD AIRPORT	24.3
2.	MALAMJABBA	38.0	7.	MUZAFARABAD CITY	20.7
3.	RAWALAKOT	32.1	8.	CHERAT	18.8
4.	SAHIWAL	29.0	9.	KALAM	17.1
5.	KAKUL	29.0	10.	ATTOCK	17.0

Table 1: Chief amounts of rainfall (mm)

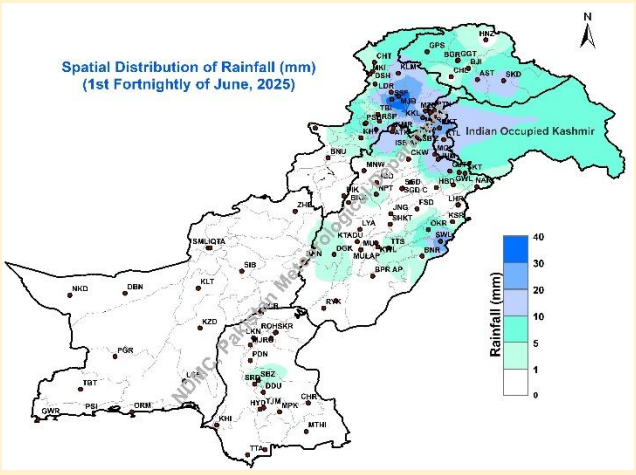

Figure 1: Spatial distribution of rainfall (mm)

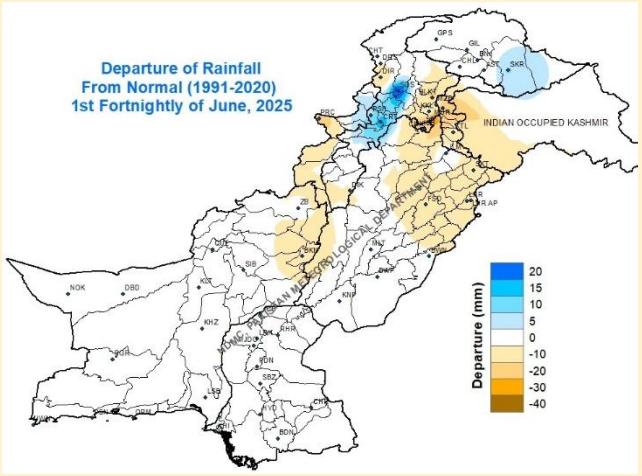

Figure 2: Departure of rainfall (mm)

2. Departure of Rainfall during First Fortnight of June, 2025

Figure 2 illustrates the deviation of observed precipitation from the 30-year climatological average (1991–2020) across Pakistan during the first half of June 2025. Positive anomalies were recorded in central KPK and Skardu, while northern and central Punjab, southern KPK, northeastern Baluchistan and AJK received below-normal rainfall. The remaining parts of the country experienced near-normal dry conditions, consistent with the established climatological patterns for this period.

Figure 3 illustrates the average rainfall distribution during the first half of June, based on data from 1991 to 2020. During this period, most of the central and southern regions of the country, including parts of Gilgit-Baltistan, typically receive between 0 and 30 mm of rainfall. However, areas such as Kashmir, upper Khyber Pakhtunkhwa, the Potohar region, and Parachinar receive higher average rainfall, ranging from 31 to 60 mm.

Figure 4 shows the fortnightly climatological temperature distribution. The warmest regions include Sindh, eastern Baluchistan, and most of the plains of Punjab. The mountainous regions of the country experienced milder conditions during this period. Mean temperatures across the country ranged from 18°C to 38°C.

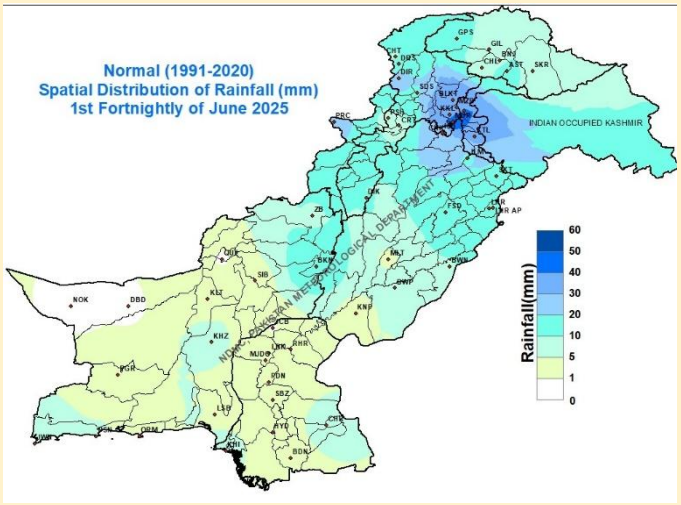

Figure 3: Normal distribution of rainfall (mm)

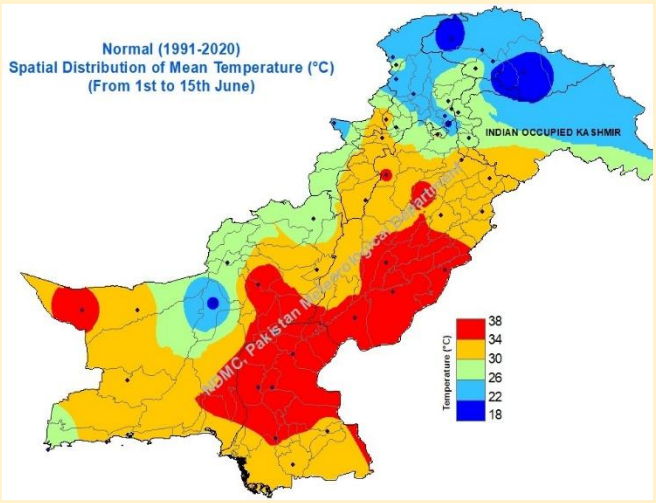

Figure 4: Normal distribution of Temperature (°C)

3. Mean Temperature Analysis during the First Fortnight of June, 2025

Figure 5 presents the spatial distribution of mean surface air temperatures (°C) across Pakistan during the first half of June 2025. The lowest average temperatures were recorded in the northern mountainous regions, including upper Khyber Pakhtunkhwa, Kashmir, and Gilgit-Baltistan, where high-altitude topography and residual snow cover contributed to cooler conditions. Central areas of the country experienced moderate temperatures, reflecting transitional climatic zones. Conversely, elevated temperatures were observed in the southern regions, particularly in western Baluchistan, Punjab, and Sindh. These areas are characterized by arid to semi-arid climates, which—combined with early seasonal warming—resulted in higher temperature readings.

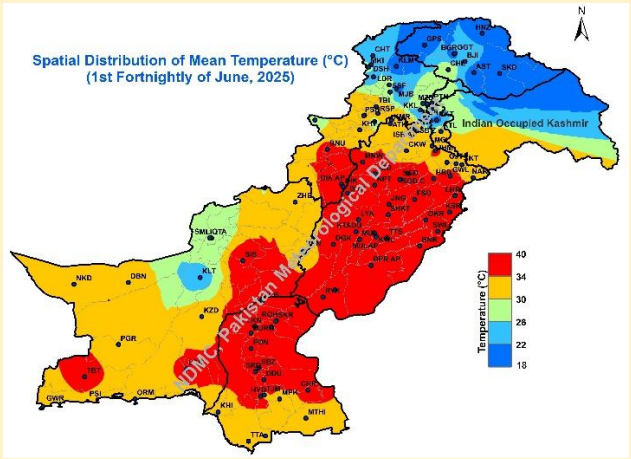

Figure 5: Spatial distribution of the Mean Temperature(°C)

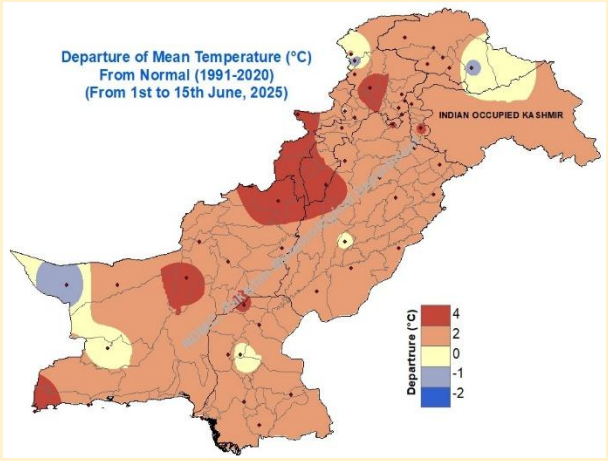

Figure 6: Departure of Mean Temperature (°C) from the Normal (1991-2020)

4. Departure of Temperature during the First Fortnight of June, 2025

Figure 6 illustrates the spatial distribution of mean temperature anomalies (°C) across Pakistan during the first half of June 2025, relative to the 1991–2020 climatological baseline. The analysis reveals that the country experienced widespread positive temperature anomalies, with average temperatures ranging from −2°C to 4°C relative to the long-term normal.

5. Maximum Length of Consecutive Dry Days (CCD)

The length of dry spells is measured by Consecutive Dry Days (CDD), defined as periods receiving less than one millimeter of rainfall. Figure 7 illustrates the spatial distribution of CDD across various regions. Turbat recorded the highest number of consecutive dry days at 313, while western Baluchistan and coastal areas experienced between 120 and 260 consecutive dry days, indicating increased water demand in these region.

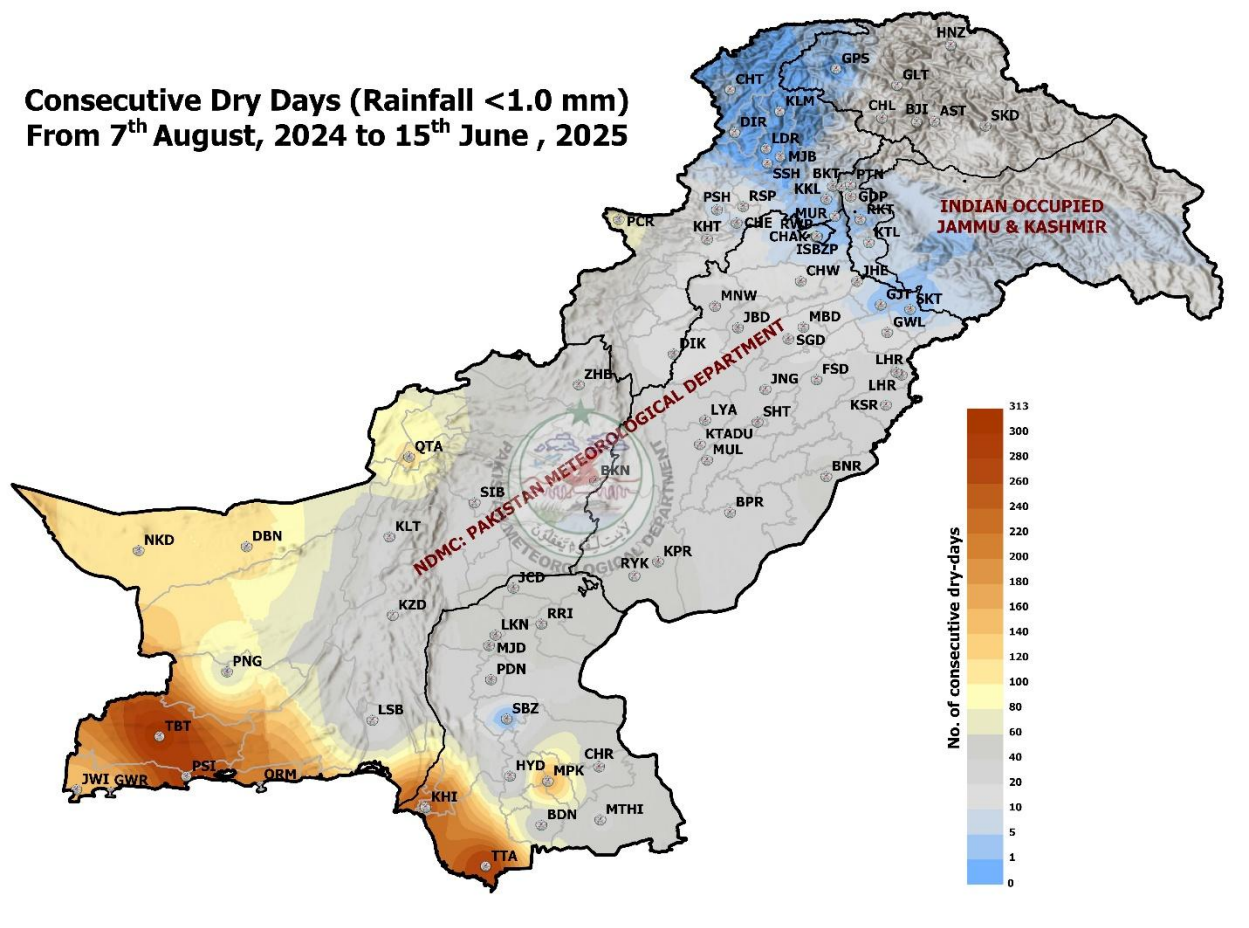

Figure 7: Spatial Distribution of Dry Days Spell

6. Water availability

During the first fortnight, water levels at the Mangla reservoir began to rise slightly, while the Tarbela reservoir declined slightly. The water levels at these major reservoirs stand at 1,450 feet and 1,167 feet, respectively. The decline at Tarbela is attributed to reduced water inflow from glacial melt and precipitation in the upper catchment areas.

In contrast, water levels in the smaller reservoirs—Rawal, Khanpur, and Simly—have also declined slightly. This reduction is attributed to climatic variability in the region prior to the monsoon season.

7. Weather Forecast

Forecasts suggest a slight tendency toward below-normal rainfall in northern Khyber Pakhtunkhwa, Gilgit-Baltistan, and Kashmir during 16–30 June 2025, while central to southern Pakistan—including southern Punjab, Sindh, and Balochistan—is expected to receive near-normal to slightly above-normal rainfall, particularly as the pre-monsoon and southwest monsoon spells strengthen in late June. Nationwide, mean temperatures are projected to remain above normal, with the greatest departures over Kashmir, Gilgit-Baltistan, and northern Khyber Pakhtunkhwa, as lingering heatwave conditions prevail until the monsoon rains offer intermittent relief.

8. Drought Situation Summary

During the period from June 1 to 15, 2025, light to moderate rainfall was recorded in various parts of the country. Substantial rainfall occurred in the northern region of Pakistan.

During the same interval, mean surface air temperatures across the country ranged from 18°C to 40°C. The analysis reveals that Pakistan experienced widespread positive temperature anomalies, with average temperatures ranging from −2°C to 4°C relative to the long-term normal. These elevated temperatures have exacerbated drought conditions, intensifying soil moisture deficits and water stress.

During the first fortnight, water levels at the Mangla reservoir began to rise slightly, while the Tarbela reservoir declined slightly. The water levels at these major reservoirs currently stand at 1,450 feet and 1,167 feet, respectively.

Water levels in the smaller reservoirs—Rawal, Khanpur, and Simly—have also declined slightly. This reduction is attributed to climatic variability in the region prior to the onset of the monsoon season.

Forecasts predict near-normal to slightly above-normal rainfall across the central to southern parts of the country. In contrast, the northern regions—including northern Khyber Pakhtunkhwa, Gilgit-Baltistan, and adjoining areas of Kashmir—are likely to experience normal to slightly below-normal rainfall.

Residents and businesses are advised to implement water conservation measures, such as using water storage options and repairing leaks. As responsible citizens, using water-efficient appliances and scheduling lawn and garden watering during early morning or late evening hours to minimize evaporation is highly recommended.

Furthermore, all relevant stakeholders in the affected regions should stay updated with weather advisories and adjust disaster risk reduction plans accordingly to mitigate the impacts of the prevailing climatic conditions.