



Outlook for Aug 2025

1. Current Meteorological Conditions

Above-normal rainfall was observed across most parts of the country during July 2025. The monsoon onset occurred in the last week of June, with the first spell of the season extending into July and bringing widespread rains to the northern and eastern regions. Subsequently, around four additional rainfall spells of light to heavy intensity occurred, including a few isolated episodes of very heavy rainfall that triggered severe urban and flash flooding, particularly in the northern and eastern areas. Temperatures during the month remained near normal to slightly below normal across much of the country; however, Gilgit-Baltistan experienced above-normal temperatures.

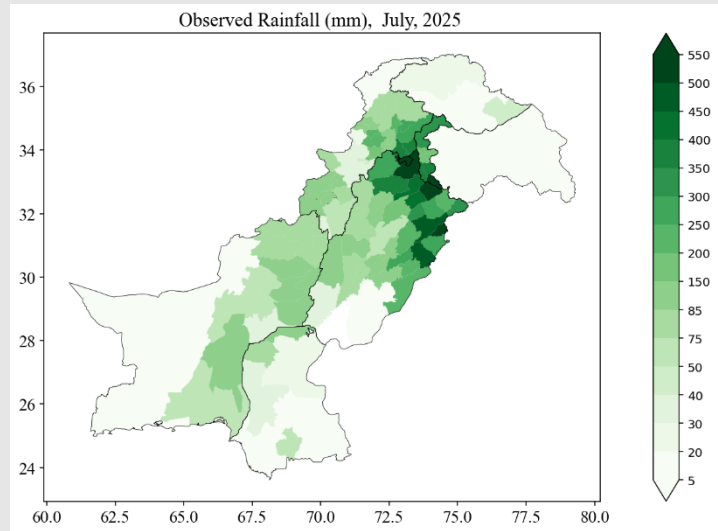


Figure 1: Observed rainfall (mm), July 2025

Table 1: Average / Anomaly of July 2025 rainfall and temperature

Region	Total Rainfall (mm)	Normal Rainfall (mm)	Rainfall Departure (%)	Mean Temp (°C)	Anomaly (°C)
Pakistan	126.3	93.0	36.6	30.5	-0.02
AJK	339.3	268.9	26.2	28.4	-0.5
Balochistan	32.7	25.0	35.1	31.6	0.4
Gilgit-Baltistan	24.8	17.1	44.9	27.6	1.7
Khyber Pakhtunkhwa	123.0	116.2	4.5	28.7	0.01
Punjab	272.7	168.1	62.1	30.5	-0.9
Sindh	42.31	42.6	-0.7	33.4	-0.1

2. Monthly Rainfall Outlook:

The monthly and seasonal outlook is derived from the outputs of eight global seasonal prediction models with optimal skill. The output of the selected models is used to generate operational outlooks for monthly and seasonal rainfall and temperature using the Multi-Model Ensemble (MME) technique. The currently neutral phase of the El Niño–Southern Oscillation (ENSO) is expected to transition into a negative phase towards the end of the month. Meanwhile, the Indian Ocean Dipole (IOD) has already shifted to a negative phase and is likely to remain negative throughout the month of August. Based on this analysis, overall, a tendency for **near-normal* to above normal** rainfall is anticipated across the country with maximum departure over northeastern Punjab and southeastern Sindh during the forecast month (Figure 2, 3).

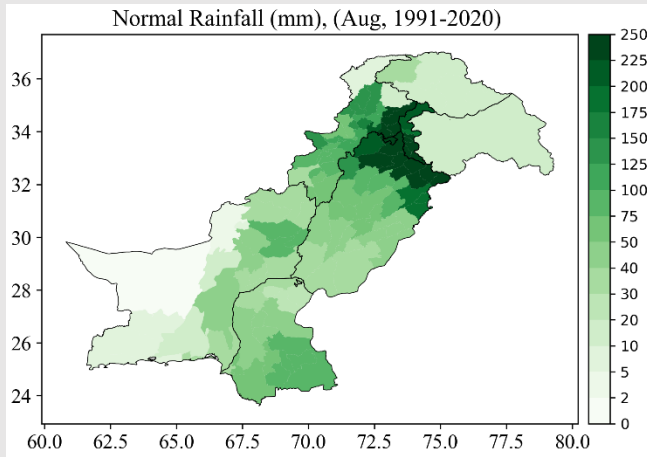


Figure 2: Normal (1991-2020) rainfall for Aug

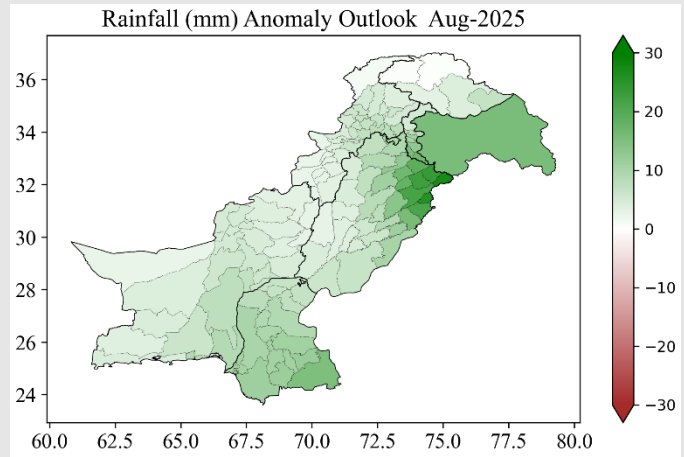


Figure 3: Monthly rainfall anomaly for Aug 2025

The probabilistic rainfall outlook reflects a consensus among all models used in the ensemble. The tercile probability forecast (Figure 4) indicates that most ensemble members predict the likelihood of near-normal to above normal rainfall in most parts of the country. Northeastern Punjab, Kashmir, northern Khyber Pakhtunkhwa, Gilgit-Baltistan, southeastern Sindh and parts of Balochistan are likely to receive above normal rainfall. Rest of the country is likely to receive nearly normal rainfall during August 2025.

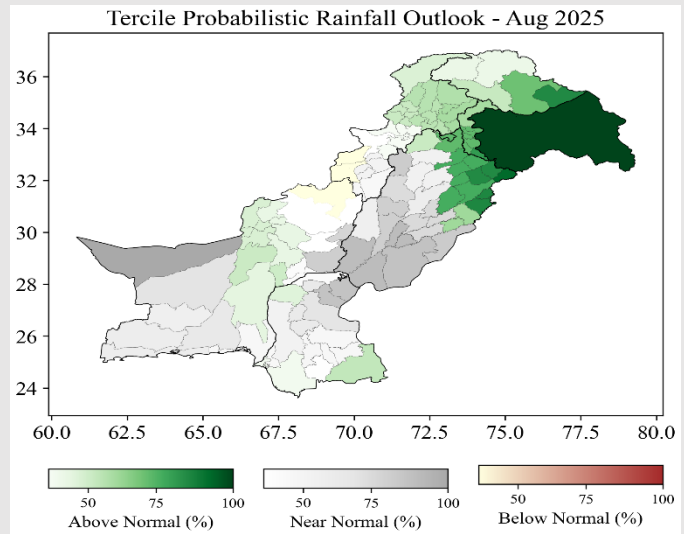


Figure 4: Probabilistic rainfall outlook for Aug 2025

* Normal = 30-years average climatology

3. Monthly Temperature Outlook:

Mean temperatures are expected to remain **above normal*** over mountainous regions in the northern and western parts of the country whereas, the plain areas of eastern Punjab and eastern Sindh, which remain under the influence of Monsoon rains are expected to experience near normal to slightly below normal temperature during August 2025 (Figure 5, 6).

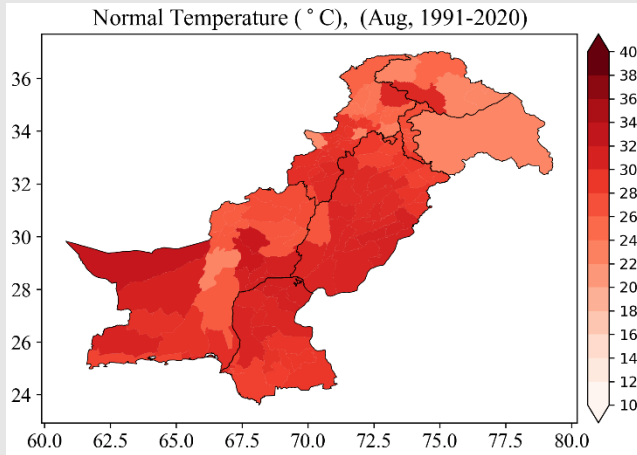


Figure 5: Normal (1991 - 2020) temperature for Aug

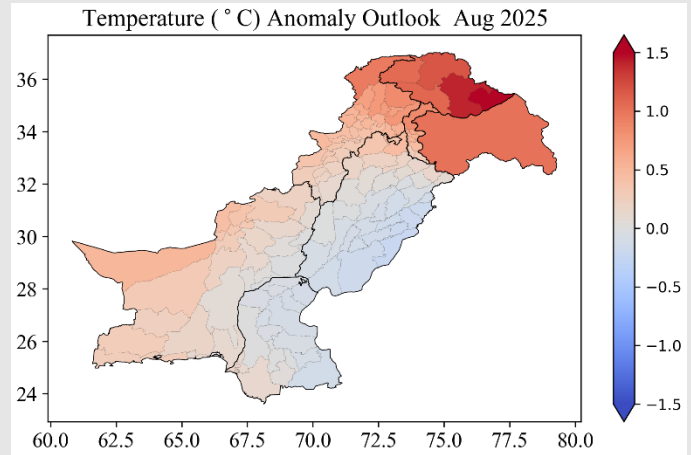


Figure 6: Monthly temperature anomaly outlook for Aug 2025

The tercile probabilistic temperature outlook (Figure 7) indicates that the majority of the models agree on the above-normal temperatures across the mountainous regions in the northern and western parts of the country with maximum likelihood over northern Khyber Pakhtunkhwa, Gilgit-Baltistan and adjoining parts of Kashmir. Near-normal temperatures are expected in the plains of the eastern region during the forecast month.

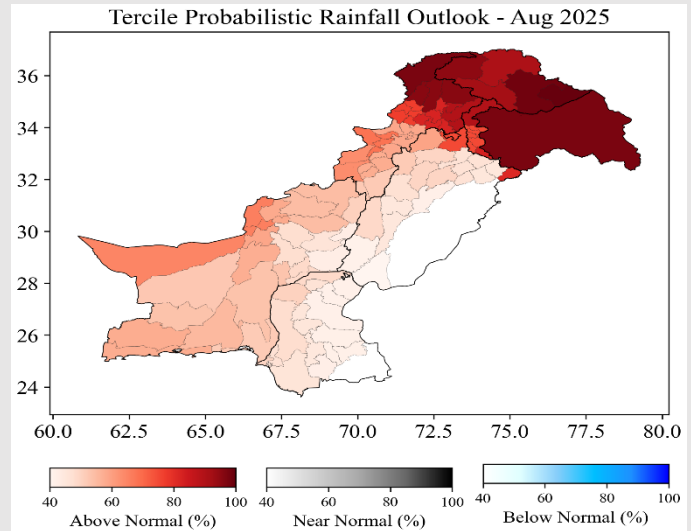


Figure 7: Probabilistic temperature outlook for Aug 2025

4. Impacts:

- Isolated and localized extreme rainfall events can trigger:
 - Flash flooding in mountainous areas of Punjab, Azad Jammu and Kashmir, and Khyber Pakhtunkhwa.
 - Urban flooding with chances of inundation in big metropolitan areas of Punjab and Sindh.
 - Hill torrents in Southern Punjab, and Balochistan.
- Rainfall will also replenish water reservoirs and groundwater resources.
- Above normal temperatures in mountainous areas of Upper Khyber Pakhtunkhwa, Gilgit-Baltistan, and Kashmir may accelerate ice/glaciers melt, increasing inflow in Upper Indus and Kabul Rivers, along with chances of Glacial Lake Outburst Floods (GLOFs).
- Intermittent hot and dry conditions between rainfall spells may lead to heat stress in the country's plains.
- Occasional strong winds, dust storm, and hailstorm may affect the seasonal crops and public property.
- Dengue outbreak due to stagnant water is likely in inundated areas.

Note: The seasonal outlook is updated monthly in the first week of the month. The forecast reliability varies with location, time of year, and global ocean/atmospheric conditions. It provides general trends using probabilities rather than precise predictions and compares expected conditions to historical averages. For better decision-making, it should be used alongside short-term forecasts and other climate data.