



Outlook for December 2025

1. Current Meteorological Conditions

Overall below normal rainfall was observed across Pakistan during November 2025. A light rainfall spell in the first week of November primarily affected northern regions as well as a few of the southeastern parts of Sindh (Figure 1). Rest of the country mostly remained dry throughout the month. Meanwhile, temperature remained nearly normal to slightly below normal over most parts of the country with maximum negative anomaly over Azad Jammu and Kashmir (Table 1).

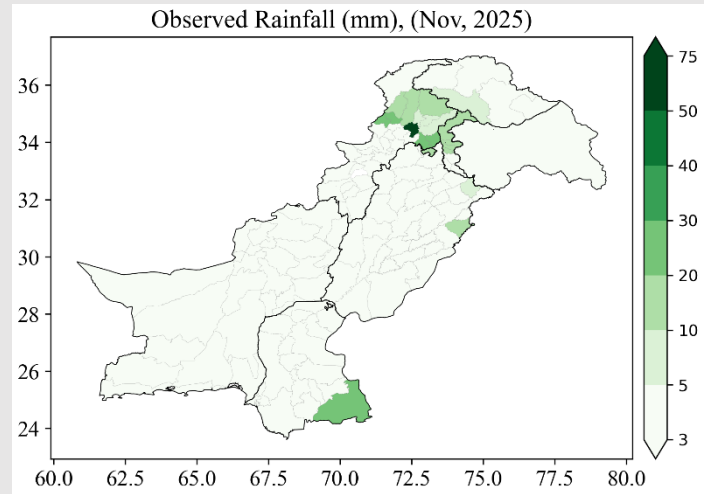


Figure 1: Observed rainfall (mm), November 2025

Table 1: Summary of November 2025 Observed Rainfall and Temperature

Region	Total Rainfall (mm)	Normal* Rainfall (mm)	Rainfall Departure (%)	Mean Temp (°C)	Anomaly (°C)
Pakistan	3.1	11.9	-73.9	17.3	-0.2
AJK	10.6	37.9	-72.0	15.4	-0.5
Balochistan	0.0	4.4	-100.0	17.9	-0.3
Gilgit-Baltistan	5.1	8.2	-37.8	9.1	-0.2
Khyber Pakhtunkhwa	8.8	27.5	-68.0	14.6	0.1
Punjab	1.3	9.1	-85.7	18.3	-0.4
Sindh	0.0	1.9	-100.0	22.9	-0.2

* Normal Period (1991 – 2020)

2. Monthly Rainfall Outlook:

The Multi-Model Ensemble (MME) based monthly outlook is derived from the outputs of nine 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. The state of the global earth system suggests that, the El Niño–Southern Oscillation (ENSO), currently in the negative phase, is projected to transition to a neutral state by the end of the forecast month. Meanwhile, the Indian Ocean Dipole (IOD) is in a neutral phase and is expected to persist in the same phase during forecast month. Based on this analysis, a general tendency for **below-normal*** rainfall is anticipated across most parts of the country during December 2025, with the largest negative departures expected over northern Punjab, much of Khyber Pakhtunkhwa, Kashmir, and Gilgit-Baltistan (Figure 2, 3).

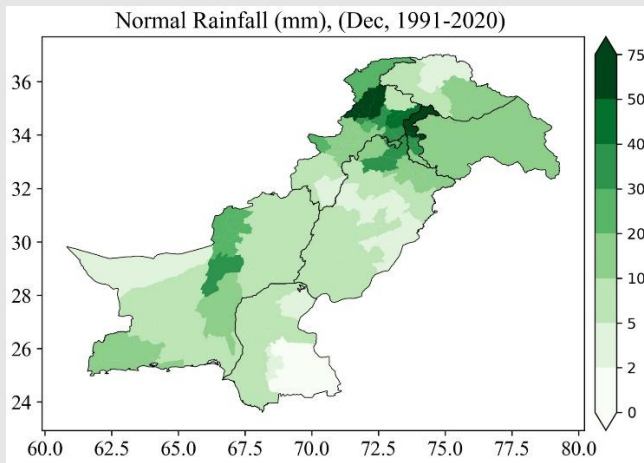


Figure 2: Normal (1991-2020) rainfall for December 2025

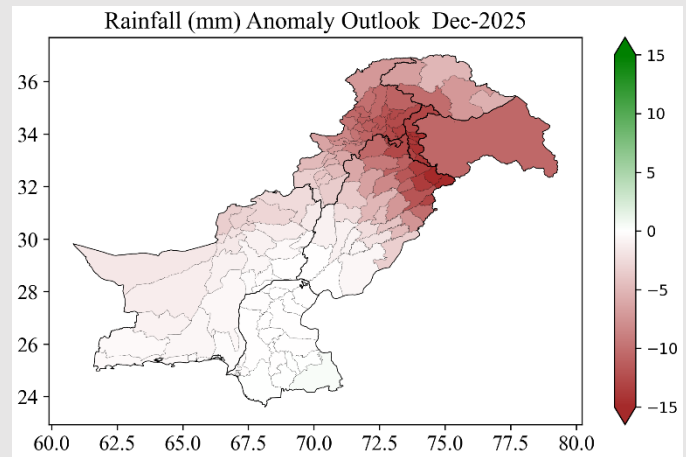


Figure 3: Monthly rainfall anomaly for December 2025

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 below normal rainfall in northern parts of the country, including Khyber Pakhtunkhwa, Kashmir, Gilgit-Baltistan, northern Balochistan and northern Punjab. Whereas, southern Punjab, Sindh and its adjoining areas of Balochistan are likely to receive near normal rainfall during December 2025. However, the normal rain in December is very low in these areas (Figure 2).

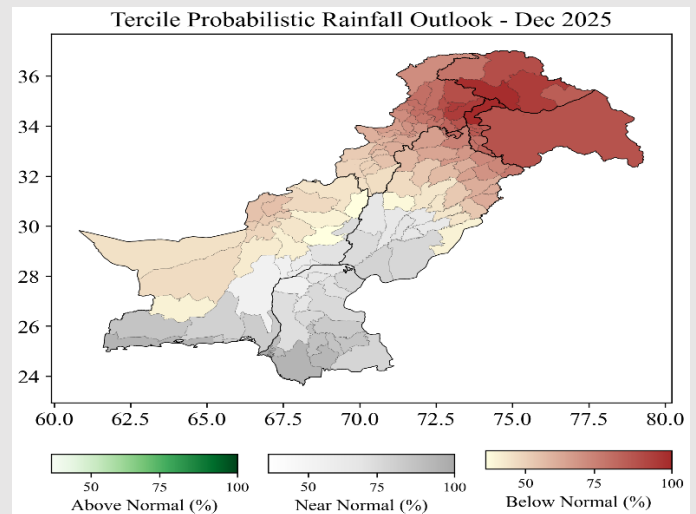


Figure 4: Probabilistic rainfall outlook for December 2025

* Normal = 30-years average climatology

3. Monthly Temperature Outlook:

Mean temperatures are expected to remain **above normal*** nationwide, with maximum departure over Gilgit-Baltistan, Kashmir and few areas in northern Khyber Pakhtunkhwa in December 2025 (Figure 5, 6).

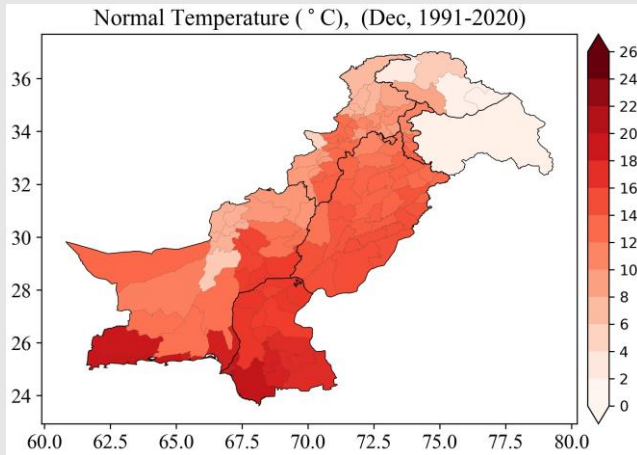


Figure 5: Normal (1991-2020) temperature for December 2025

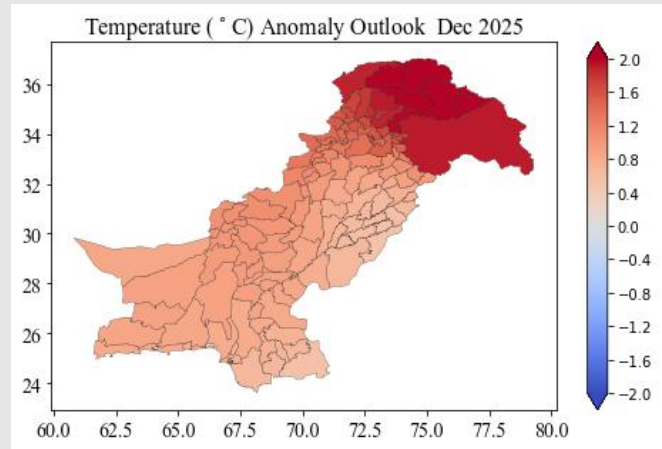


Figure 6: Monthly temperature anomaly outlook for December 2025

The tercile probabilistic temperature outlook (Figure 7) indicates that the most of the models agree on the above-normal temperatures across most of the country, with the highest likelihood in northern regions, including Gilgit-Baltistan, Kashmir, northern Khyber Pakhtunkhwa and the coastal belt of Balochistan.

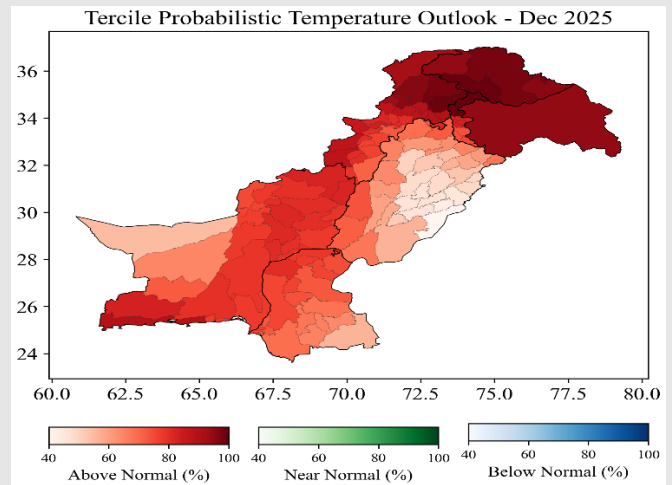


Figure 7: Probabilistic temperature outlook for December 2025

4. Impacts:

- Below-normal rainfall may reduce water availability for irrigation in rain-fed agricultural areas, potentially affecting germination and early growth of Rabi crops.
- Slightly warmer-than-normal temperatures may extend the dengue season, particularly in areas where mosquito breeding is more prevalent, such as Punjab, Sindh, and Balochistan. Health authorities may need to remain vigilant for vector control efforts.
- The below-normal rainfall may affect reservoir replenishment levels, particularly in areas that rely on December rainfall for early water storage. Water management authorities should monitor reservoir levels and prepare for potential shortages if dry conditions persist.
- A decline in air quality may result in smog formation in the plains of the country, posing health risks for sensitive groups, particularly children and the elderly. This can exacerbate respiratory illnesses, affecting those with asthma or other chronic lung conditions.
- The rainfall deficit and cool nights are expected to promote fog formation, especially in central and eastern Punjab, the adjoining areas of KP and upper Sindh. Reduced visibility due to fog could disrupt highway travel and cause delays at major roadways and airports, particularly during late nights early mornings.

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 issued by PMD.