FORTNIGHTLY DROUGHT BULLETIN

(1st to 15th December, 2025)

National Drought Monitoring and Early Warning Centre

Pakistan Meteorological Department, Pitras Bokhari Road, Post Box No. 1214,
Sector H-8/2, Islamabad, Pakistan

URL: https://ndmc.pmd.gov.pk/new/

Rainfall Distribution and Anomalies:

From 1 to 15 December 2025, no rainfall was recorded at any station apart from some traces in Parachinar, Drosh and Kalam. Figure 1 illustrates the spatial distribution of rainfall, based on data from meteorological observatories.

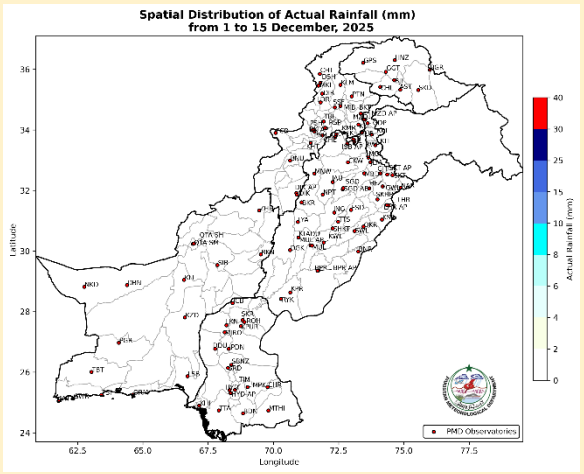

Figure 1: Spatial Distribution of Rainfall (mm)

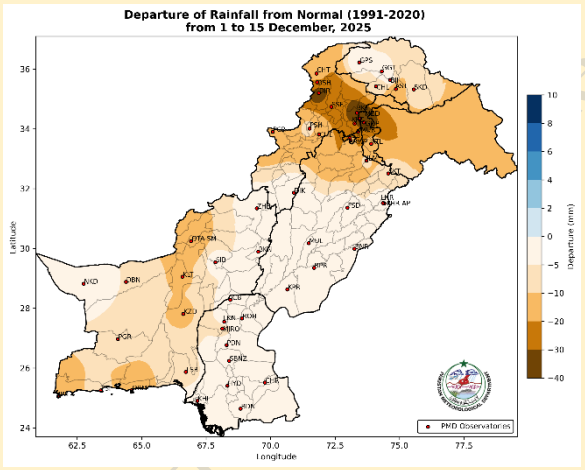

Figure 2: Departure of Rainfall (mm)

Figure 2 illustrates the spatial deviation of rainfall from the 1991-2020 climatological average during the first half of December 2025. Substantial negative rainfall anomalies of up to -40 mm were observed in the upper regions of the country. Additionally, the rest of the country experienced negative anomalies of up to -10 mm during the same period.

Mean Temperature Distribution and Anomalies:

Figure 3 presents the fortnightly deviation of mean temperature from the climatic normal (1991-2020), indicating values ranging from -7°C to 9°C. During this period, most parts of the country experienced temperatures close to the long-term average (-1°C to 1°C). However, notable positive temperature anomalies were recorded in western parts of the country, while negative anomalies were observed in Islamabad, Jhelum, Kohat and Jiwani.

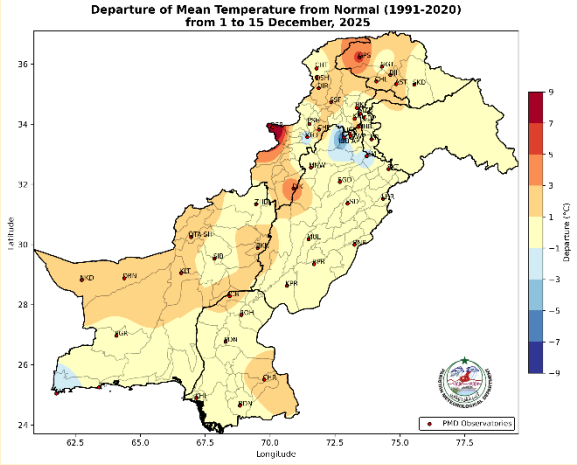

Figure 3: Departure of Mean Temperature(°C)

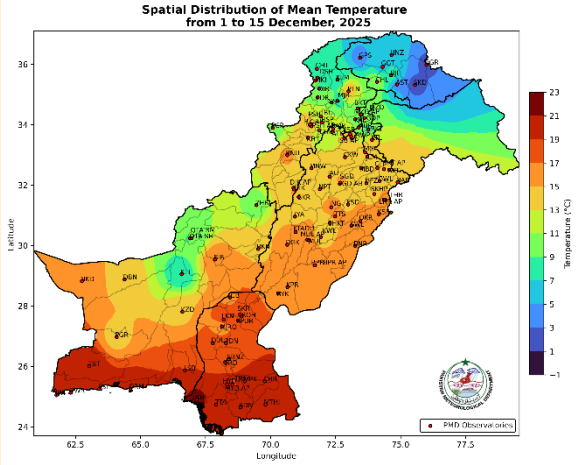

Figure 4: Spatial Distribution of Mean Temperature(°C)

Figure 4 illustrates the spatial distribution of mean temperatures across the region during this period, ranging between 1°C and 23°C. The lowest average temperatures were observed in the upper parts of the country, reflecting cooler conditions at higher elevations. In contrast, moderate temperatures prevailed across central parts of the country. The highest temperatures, reaching up to 23°C, were recorded in southern Sindh and Balochistan, resulting in variable mean temperature patterns across the region.

Climate Normals: Temperature and Rainfall

Figure 5 presents the long-term average rainfall distribution for 1-15 December, based on 30-year climatological normal (1991-2020). Most of the upper regions, including Balochistan, typically receive average rainfall of 8 mm to 40 mm, during this period. In contrast, the southern regions, including south Punjab and southern Sindh, generally remain predominantly dry.

Figure 6 depicts the spatial distribution of mean temperature during the first fortnight of December, based on the climatological period (1991-2020). Mean temperatures range between -1°C and 23°C across the country. The lowest temperatures are observed in the mountainous regions, where values range between -1°C and 9°C, whereas the central and southern regions experience higher mean temperatures, typically between 13°C and 23°C.

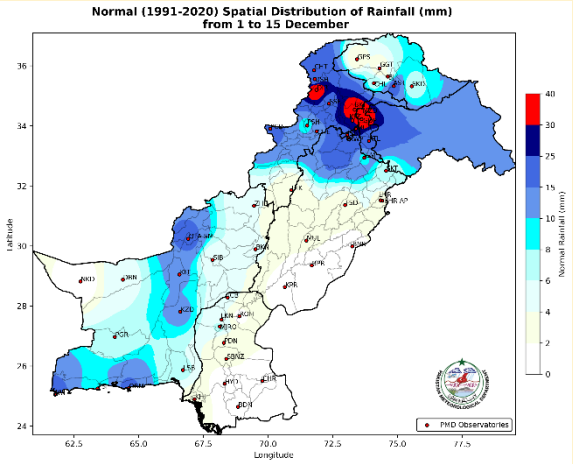

Figure 5: Normal Distribution of Rainfall(mm)

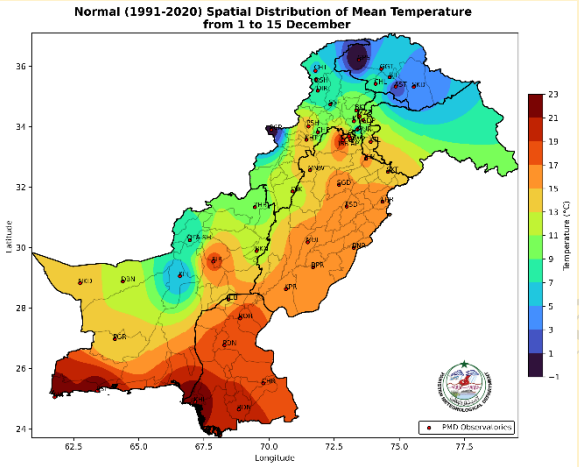

Figure 6: Normal Distribution of Mean Temperature(°C)

Maximum Length of Consecutive Dry Days (CDD)

Consecutive Dry Days (CDD), defined as periods with daily rainfall below 1 mm, show notable variations across the country (Figure 7). The maximum CDD duration was recorded in western Balochistan (220-329 days), reflecting extreme aridity and prolonged drought conditions in the area. In contrast, the northern parts of the country recorded CDD up to 80 days, while the southern region experienced higher CDD frequencies (80-100 days), which may exacerbate water scarcity in the coming days.

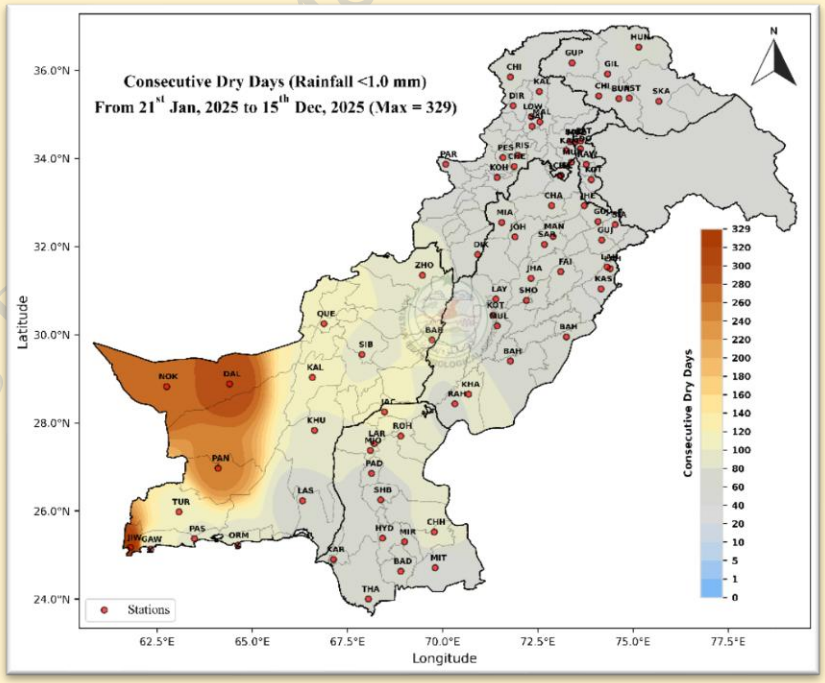

Figure 7: Spatial Distribution of Dry Days Spell

Reservoir Water Level Dynamics in Early December, 2025

During the first fortnight of December 2025, water levels major and minor reservoirs across the region began to decrease due to the limited rainfall received during this period. The Tarbela and Mangla reservoirs slightly declined, reaching levels of around 1,490 and 1,206 feet, respectively. Similarly, smaller reservoirs (such as Rawal, Khanpur, and Simly) also experienced declines in their water levels, primarily due to reduced precipitation in the upstream catchment.

Weather Forecast for the Second Half of December

Mainly cold weather is expected to prevail across most parts of the country. Conditions will remain partly cloudy to dry, with very cold nights and mornings in hilly areas. Light rain and snowfall over mountainous regions may occur at times during the period. Fog and smog, including dense patches in some areas, are likely to persist over the plains, particularly during night and morning hours. However, a western disturbance is likely to influence western and upper parts of the country later this month.

Summary

During the first half of December 2025, the country experienced predominantly dry conditions, with only trace rainfall reported at a few northern stations. As a result, negative rainfall anomalies were observed across the country, with larger deficits in the upper regions, indicating a notably dry start to the winter season. Mean temperatures remained mostly close to the long-term average, though positive anomalies were observed in western parts of the country, while negative anomalies occurred in Islamabad, Jhelum, Kohat and Jiwani. The lowest temperatures were recorded in the northern mountainous areas, whereas higher temperatures prevailed across southern Sindh and Balochistan.

Drought conditions persisted, particularly in western Balochistan, where extremely long dry spells were recorded. Consistent with reduced precipitation, water levels in major and minor reservoirs declined during early December. For the second half of December, cold and mainly dry weather is expected to continue, with very cold nights and mornings in hilly areas. Occasional light rain or snowfall may occur over mountainous regions due to a western disturbance, while fog and smog are likely to persist over the plains. Overall, the prevailing conditions emphasize the need for continued drought monitoring and adaptive water resource management especially in western and southwestern Balochistan where already 11 districts are under Drought Advisory (Pre-Alert) category.

For drought update, visit NDMC official website: https://ndmc.pmd.gov.pk/new/bulletins.php