Pakistan Meteorological Department

Monthly Drought Bulletin
For the Month of August, 2025

Highlights

- In August 2025, most parts of the country received heavy rainfall, whereas, some parts of western Balochistan remained dry.

- During the month, temperatures in most parts of the country were near normal.

- For September 2025, overall, a tendency for near-normal to above normal rainfall is anticipated in most plain areas of the country with maximum departure over northeastern Punjab and southeastern Sindh. In contrast, the northern parts of the country including northern Khyber Pakhtunkhwa, Gilgit-Baltistan and adjoining areas of Kashmir are expected to receive below normal rainfall during the month.
- Mean temperatures are expected to remain above normal over mountainous regions of the country whereas, the plain areas of eastern Punjab are expected to experience near normal temperature during September 2025.

- Keeping in view the weather forecast for the month of September 2025, disaster management authorities are requested to plan DRM activities accordingly in the drought effected areas of Baluchistan.

National Drought Monitoring and Early Warning Centre (NDMC)
Headquarters Office, Sector H-8/2, Islamabad
Tel: + (92-51) 9250598, Fax: + (92-51) 9250368,
URL: https://ndmc.pmdk/new/

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1. Monthly Rainfall and Temperature Analysis for August, 2025

During the month, the country received moderate to heavy rainfall. The spatial distribution of this rainfall is illustrated in **Figure 1**. The major amounts were recorded Upper Punjab and Potohar region as detailed in Table 1.

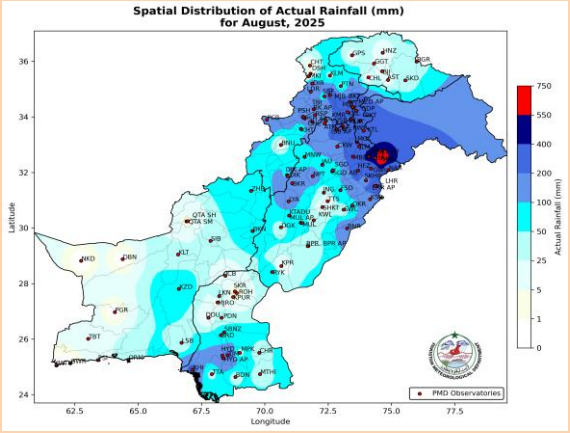


Figure 1: Spatial Distribution of rainfall

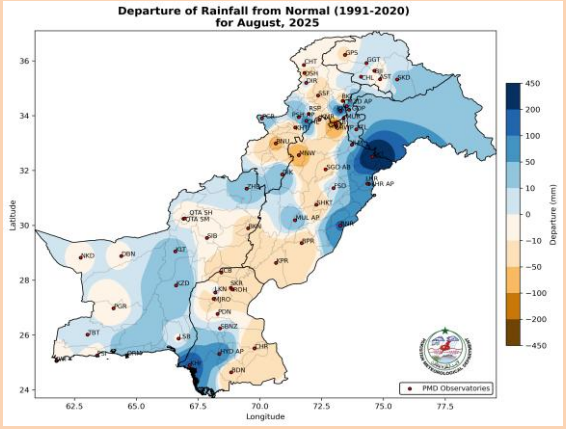


Figure 2: Departure of rainfall from Normal

Figure 2 illustrates the deviation of rainfall from the normal (1991-2020) levels. Above-normal rainfall was recorded in northeastern Punjab, AJK, southern Sindh, eastern Baluchistan. On the contrary, below normal rainfall was observed in eastern Sindh, central KP and South Punjab.

Table-1: Chief amount of rainfall recorded across Pakistan during the month of August, 2025

Sr. No.	Station	Rainfall (mm)	Sr. No.	Station	Rainfall (mm)
1	SIALKOT CANTT	730.8	14	MANGLA	272.7
2	SIALKOT AIRPORT	481.1	15	ISLAMABAD, AIRPORT	270.9
3	GUJRAT	426.4	16	LAHORE, CITY	253.1
4	NAROWAL	361.5	17	GARHI DOPATTA	243.0
5	KAKUL	361.0	18	TANDO JAM	235.0
6	MALAMJABBA	327.0	19	GUJRANWALA	230.7
7	RAWALAKOT	323.4	20	HAFIZABAD	226.0
8	MUZAFFARABAD AIRPORT	280.6	21	CHAKLALA AIRBASE	216.6
9	JHELUM	280.3	22	MANDIBAHAUDDIN	210.0
10	LAHORE, AIRPORT	275.2	23	KARACHI A/P	205.2
11	MURREE	274.0	24	CHERAT	202.3
12	KOTLI	274.0	25	BALAKOT	202.0
13	MUZAFFARABAD CITY	273.0			

Figure 3 shows the spatial distribution of mean temperatures recorded during August 2025 indicating variations across the country. Most plain areas of the country experienced mean temperatures ranging between 26°C and 30°C, whereas, upper KP and GB recorded relatively lower mean temperatures, ranging from 16°C to 24°C. Higher temperature zones were observed in upper Sindh, Chagai district and South punjab, where mean temperatures ranged between 28°C and 30°C.

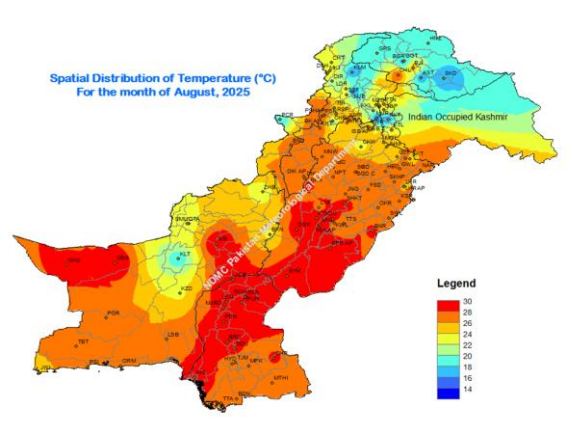


***Figure 3**: Monthly Mean Temperature (°C)*

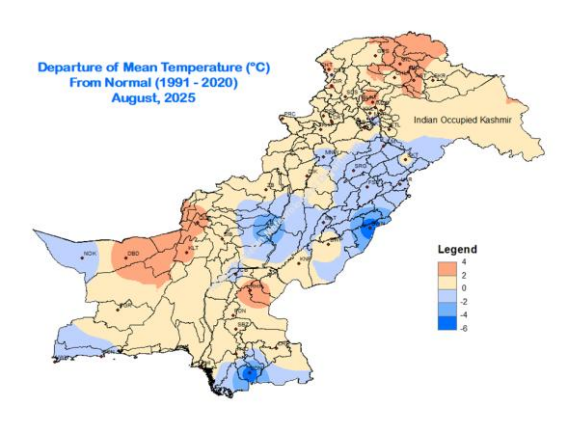


***Figure 4**: Monthly Departure from Normal Temperature*

Figure 4 illustrates the deviation of mean temperatures from the normal (1991-2020), indicating that most of KP, Sindh and Balochistan province expericed temperatures, up to 4°C above than the normal range. **Figures 5** and **Figure 6** display the monthly normal rainfall and mean temperatures for August, based on data from 1991 to 2020.

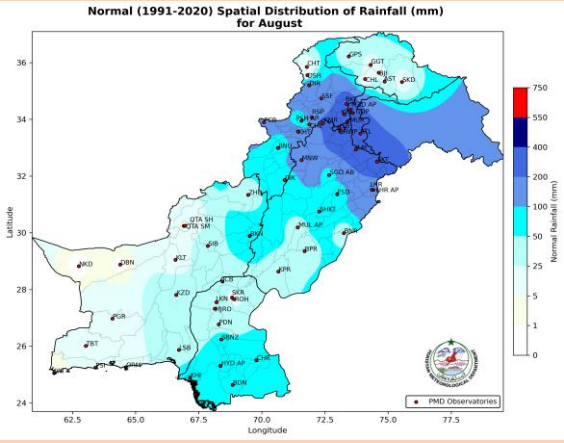


***Figure 5**: Monthly Normal Rainfall (mm)*

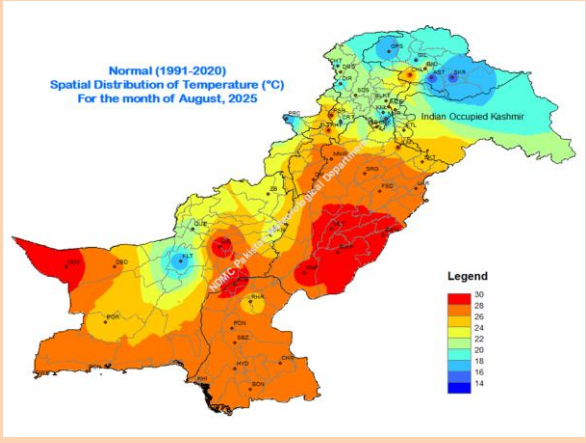


***Figure 6**: Monthly Normal Mean Temperature (°C)*

2. Comparison of Actual to Normal Monthly Rainfall for August, 2025

Figure 7 compares the actual August 2025 rainfall to the 1991-2020 historical normal across different regions: Khyber Pakhtunkhwa (7a), Sindh (7b), Punjab (7c), Balochistan (7d), and Gilgit-Baltistan & Azad Jammu & Kashmir (7e). The graphs indicate that rainfall was above normal for all provinces during the month.

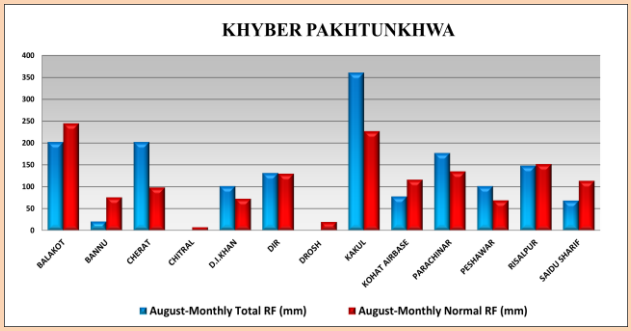


Figure 7a

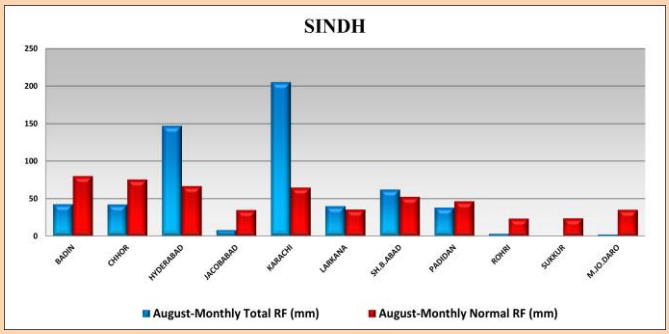


Figure 7b

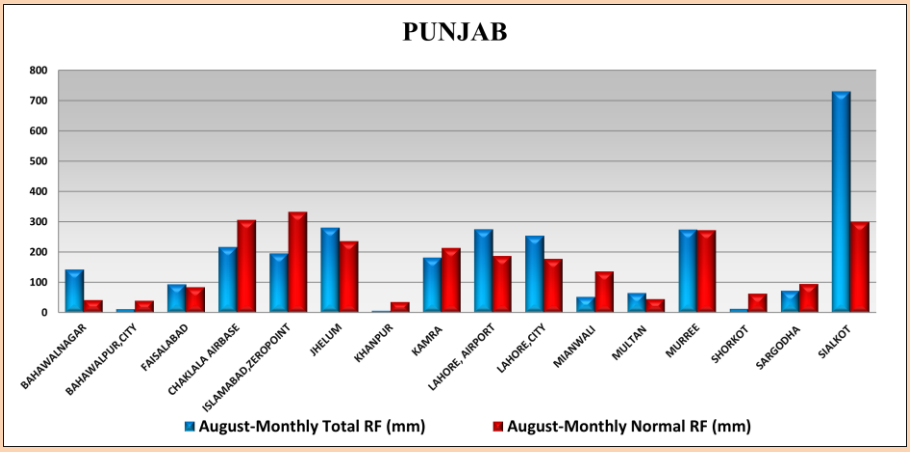


Figure 7c

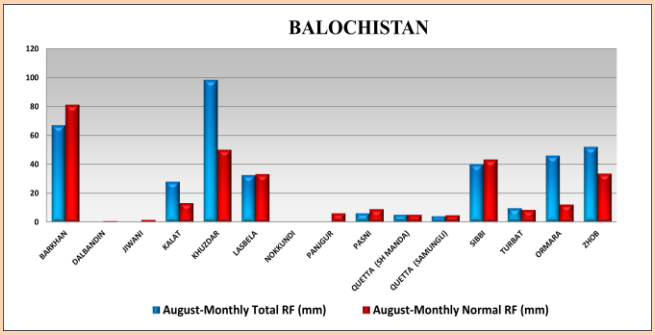


Figure 7d

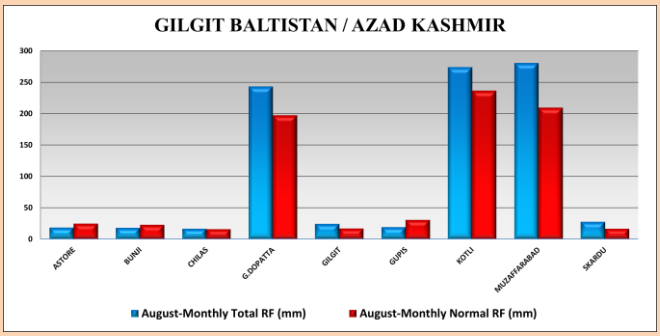


Figure 7e

3. Normalized Difference Vegetation Index (NDVI)

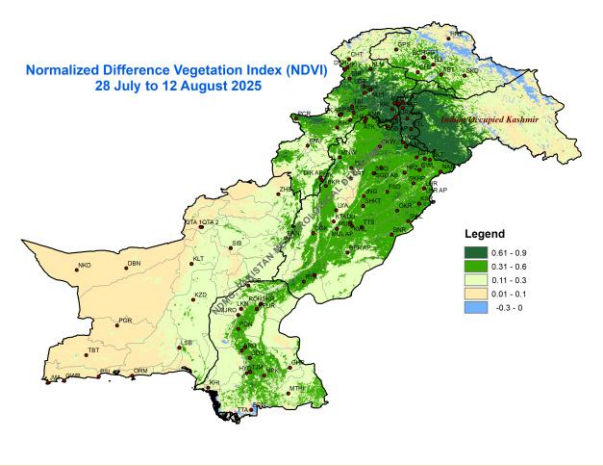


Figure 8: NDVI from 28 July to 12 August, 2025

Figure 8 presents the Normalized Difference Vegetation Index (NDVI) values from 28 July to 12 August, 2025. High NDVI values are observed in AJK, Punjab, Khyber Pakhtunkhwa, and along the Indus basin, indicating extensive vegetation in these areas. These conditions support the accumulation of chlorophyll in plants, thereby enhancing vegetation cover. Conversely, low rainfall has resulted in low or deficient NDVI values in the regions of Baluchistan.

4. Land Surface Temperature (LST)

Figure 9 depicts the Land Surface Temperatures (LST) from 28 July to 04 August, 2025. During this period, south Punjab, Sindh, and Baluchistan experienced average daytime temperatures ranging from 30-45°C.

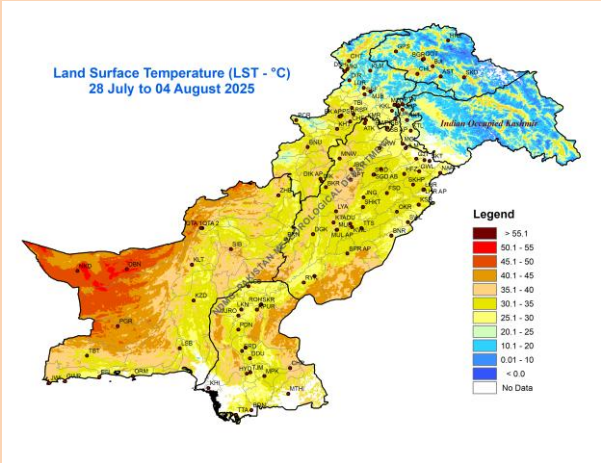


Figure 9: Land Surface Temperature (°C) from 28 July to 04 August, 2025

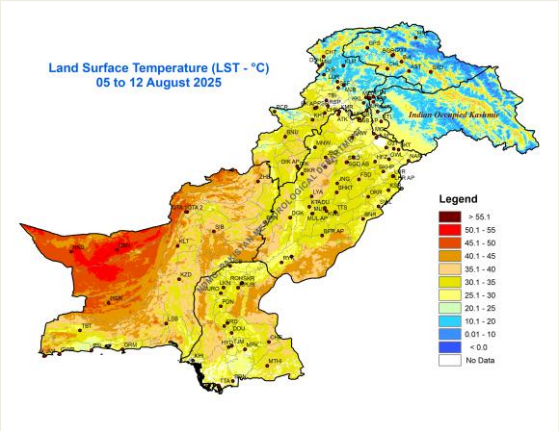


Figure 10: Land Surface Temperature (°C) from 05 to 12 August 2025

Figure 10 illustrates the Land Surface Temperatures from 05 to 12 August 2025. During this period, there was a slight rise in temperature compared to the previous week in western Baluchistan, parts of Sindh, and south Punjab.

5. Temperature Vegetation Dryness Index (TVDI)

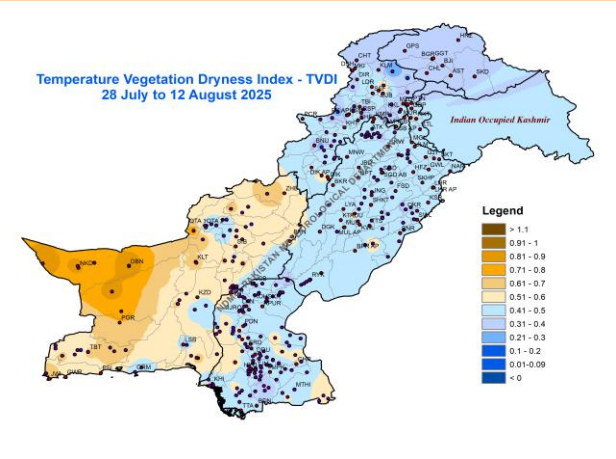


Figure 11: TVDI from 28th July to 12th August, 2025

Figure 11 illustrates the Temperature Vegetation Dryness Index (TVDI), derived from MODIS datasets MOD13A2 (NDVI) and MOD11A2 (LST). The TVDI Index highlights moderate dry-like conditions in Balochistan especially the western regions. These conditions indicate the dryness and soil moisture deficiency in the region.

6. Length of Consecutive Dry Days up to August 31, 2025

Figure 12 presents the maximum length of consecutive dry days (CDD). The highest number of consecutive dry days were recorded in Jiwani (223) and Dalbandin (184). However, significant precipitation has mitigated the intensity of the cumulative dry days (CDD) in most parts of the country.

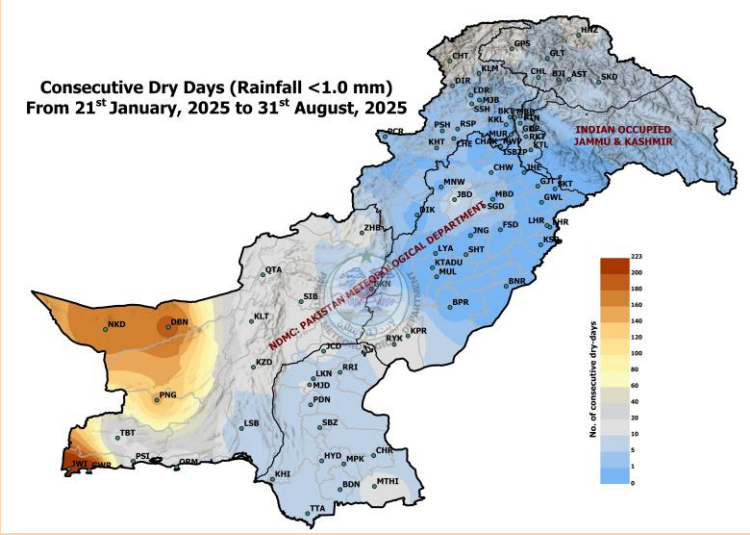


Figure 12: No. of consecutive dry days

7. Drought Monitor for the Month of August, 2025

Based on the different drought monitoring indices, as narrated above and ground station data observed across the country, the spatial drought monitor map is represented in **Figure 13** below.

In western parts of Balochistan, mild to moderate drought like situation is prevailing due less or no summer monsoon rainfall in these areas. Whereas, other parts of the country have received ample amount of rainfall therefore, the conditions are normal there and have sufficient water to meet the needs at least for next 2 to 3 months.

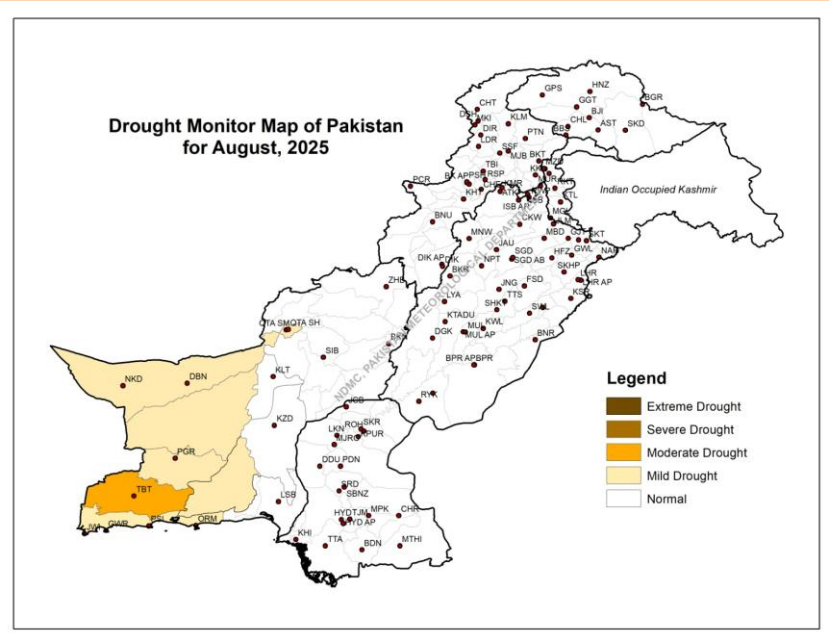
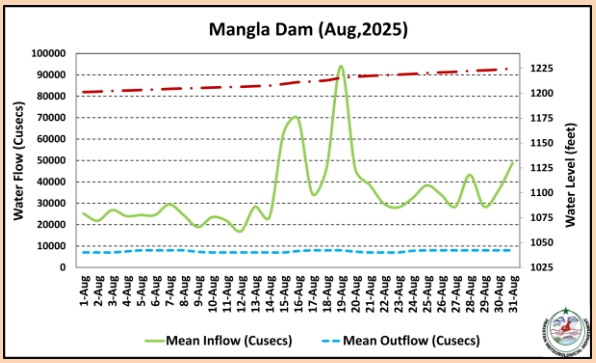
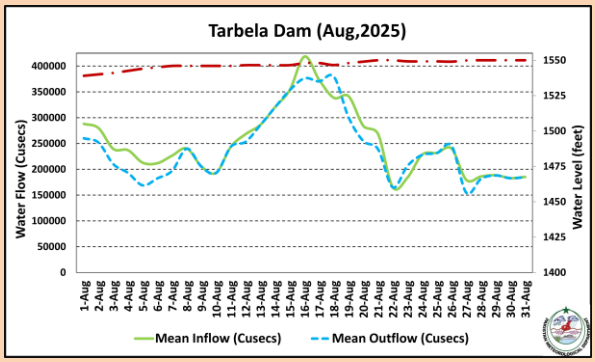


Figure 13: Drought Monitor of Pakistan for the month of August, 2025

8. Water availability/ Dams Flow Data:





During the month, water inflow, outflow and levels of the Mangla, Tarbela, Khanpur, Rawal, Simly and dams are shown in **Figure 14**. The water level at Mangla and Tarbela has increased due to glacial melt and recent heavy rainfall in its catchments during the month. Khanpur, Rawal, and Simly dams have also seen increase in level due to heavy moonsoon rainfall. The water levels at the major reservoirs, Tarbela and Mangla, stand at 1,550 feet and 1226 feet respectively.

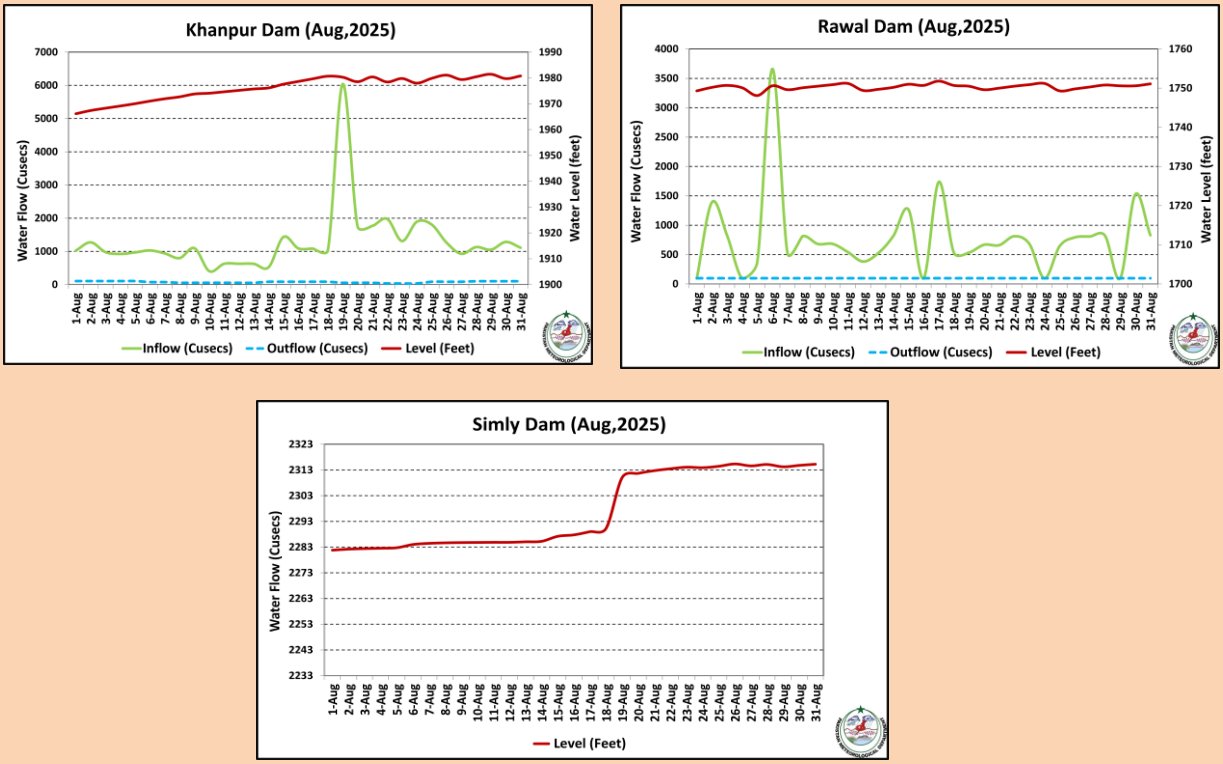


***Figure 14**: Water inflow, outflow and level of Rawal, Khanpur, Tarbela, Simly and Mangla Dams, August, 2025*

9. Weather Outlook for September, 2025

For September 2025, overall, a tendency for near-normal to above normal rainfall is anticipated in most parts of the country with maximum departure over northeastern Punjab and southeastern Sindh during the forecast month. In contrast, the northern parts of the country including northern Khyber Pakhtunkhwa, Gilgit-Baltistan and adjoining areas of Kashmir are expected to receive below normal rainfall during the coming month.

10. Drought Outlook for September, 2025

The near-normal to above-normal rainfall expected across most parts of the country is particularly favorable for Punjab and Sindh, where regions that faced drought conditions in early 2025 have already received beneficial monsoon rains. The expected continuation of these rainfall patterns are likely to improve the drought situation in the agricultural areas during September. In contrast, after prolonged dry spells in Turbat and pasni, rainfall was recorded in August, however, Jiwani, Gawadar, Dalbandi, Nokkundi and Panjgur continue to experience water stress.

General public and all concerned departments are advised to make efforts to save available water and promote its judicious use to mitigate any adverse impacts of drought.

11. Crop Condition

- Cotton crop is greatly affected by excessive water in the field. Make sure to make proper drainage of water in its fields.
- Rice crop needs more amount of water, but too mutch stagnant water is also not advice. Water management is required to utilize the excess water for other crops.
- Peanut crop also need proper scheduling for effective growth. Farmers should keep themselves aware of the weather forecasts to manage the crops.
- Corn field cannot sustain too much water. Drainage is required for proper yield.
- Agricultural productivity is greatly affected by weather conditions. Strategic measures can provide benefits even from unfavourable weather conditions. Farmers are therefore, advised to keep themselves aware of weather forecasts.

Pakistan Meteorological Department, Sector H-8/2, Islamabad

Ph: 051-9250598, Fax: 051-9250368, ndmcpmd@gmail.com