Pakistan Meteorological Department

Monthly Drought Bulletin
For the Month of March, 2026

Highlights

- Overall, the country received above-normal rainfall during the month, while departure of mean temperature ranged from 2°C to 4°C in most parts of the country.
- Overall, April 2026 is expected to be predominantly above-normal rainfall nationwide, with northwestern regions experiencing the highest positive deviations.
- Mean temperatures are likely to remain above normal nationwide, with highest positive departures expected over Gilgit-Baltistan Kashmir and northern Khyber Pakhtunkhwa.
- Considering weather forecast for April 2026, normal climatic conditions are likely to persist in upcoming month.

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.pmd.gov.pk/new/

CONTENTS

Highlights of Weather for the Month of March, 2026

1. Monthly Rainfall and Temperature Analysis....3

2. Comparison of Monthly Actual and Normal Rainfall 5

3. Normalized Difference Vegetation Index (NDVI) 6

4. Land Surface Temperature (LST)....6

5. Temperature Vegetation Index (TVDI) 7

6. Length of Consecutive Dry Days....7

7. Drought Monitor for the Month of March, 2026 8

8. Water Availability/ Dams Flow Data 8

9. Weather Outlook for April, 2026....9

10. Drought Outlook for April, 2026....9

11. Crop Condition & Advice for Farmers 10

1. Monthly Rainfall and Temperature Analysis for the Month of March, 2026

During the month, the rainfall was recorded across the country. The upper parts of the country, including Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB), Azad Jammu and Kashmir (AJK), upper Punjab, northern and southwestern Balochistan received significant amount of rainfall, as depicted in Figure 1. Figure 2 illustrates the departure of monthly rainfall from the climatological normal (1991-2020). Upper parts of the country except northwestern KP and southern parts of Sindh and Balochistan received above-normal rainfall whereas, central parts of the country and northwestern Balochistan received below-normal rainfall. Major amounts of rainfall recorded during the period are depicted in Figure 3.

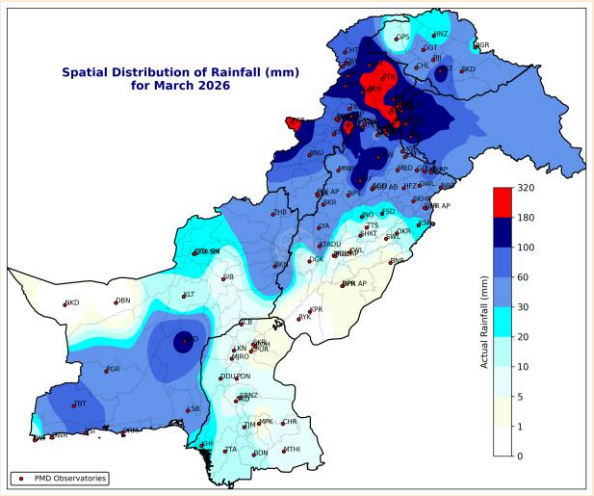

Figure 1: Spatial Distribution of Rainfall

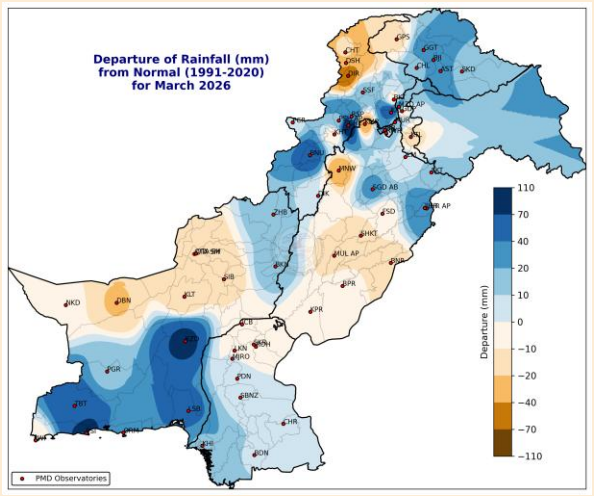

Figure 2: Departure of Rainfall from Normal

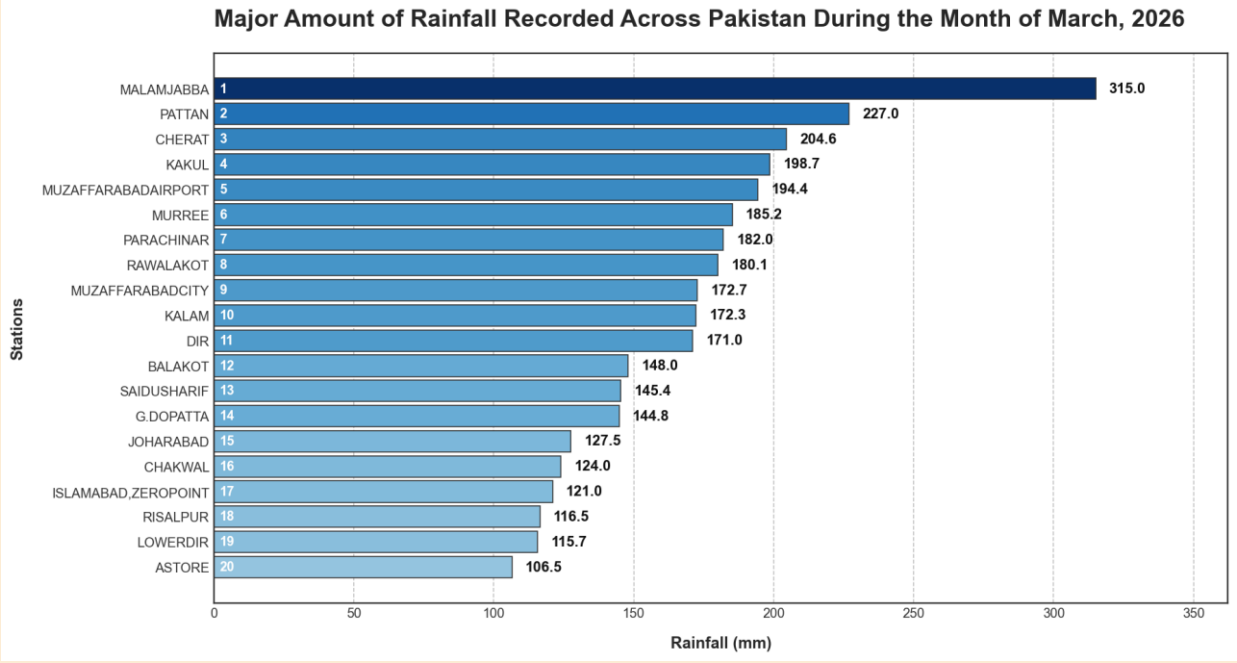

Figure 3: Major Amount of Rainfall (mm)

Figure 4 illustrates the spatial distribution of mean temperatures recorded at PMD stations during March 2026, highlighting significant regional variations across the country. Overall, mean temperatures ranged between 6°C and 28°C. Relatively lower temperatures, between 6°C and 24°C, were observed over parts of upper Punjab, Balochistan, upper Khyber Pakhtunkhwa, AJK, and Gilgit-Baltistan. In contrast, relatively higher temperatures prevailed in southern Punjab, Sindh, and coastal areas and western parts of Balochistan, where mean values ranged between 24°C and 28°C.

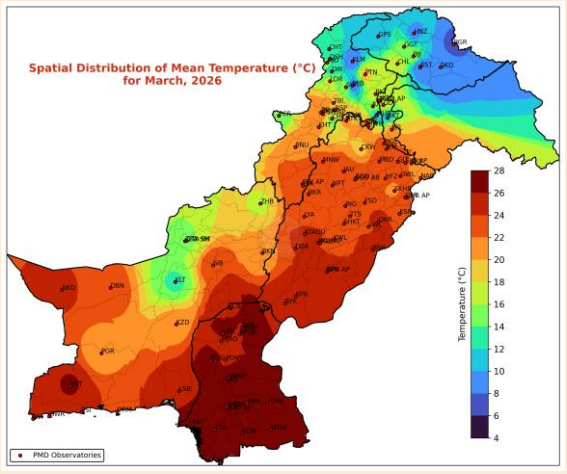

***Figure 4**: Monthly Mean Temperature (°C)*

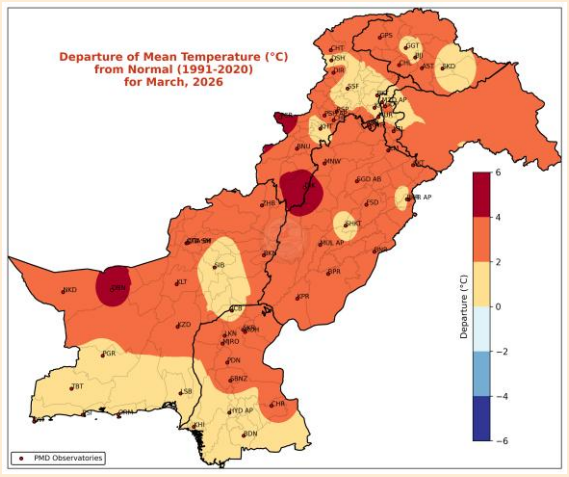

***Figure 5**: Monthly Departure from Normal Mean Temperature*

Figure 5 illustrates the deviation of mean temperatures from the climatological normal (1991-2020), indicating above-normal temperatures countrywide, with maximum positive anomalies of up to 6°C however, in most parts of the country, above-normal temperature ranged between 2°C and 4°C. Figures 6 and 7 present the monthly normal rainfall and mean temperature for March, respectively, based on the 1991-2020 reference period.

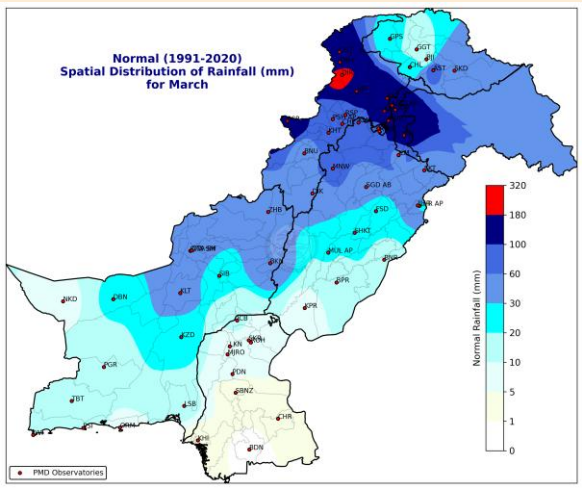

***Figure 6**: Monthly Normal Rainfall (mm)*

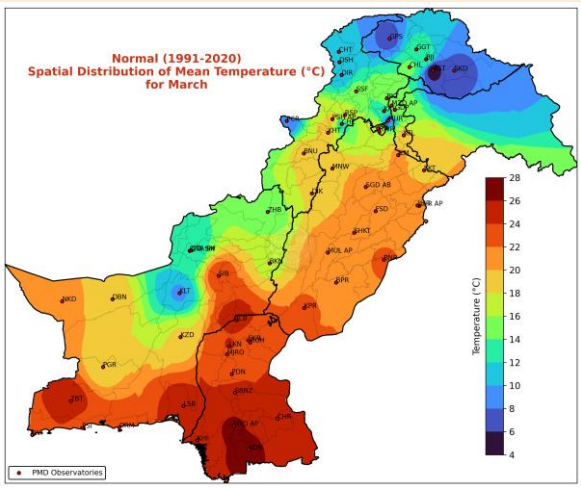

***Figure 7**: Monthly Normal Mean Temperature (°C)*

2. Comparison of Actual to Normal Monthly Rainfall for March, 2026

Figure 8 presents a regional comparison of actual rainfall with the climatological normal (1991-2020) for March 2026, shown separately for different regions: Khyber Pakhtunkhwa [Figure 8(a)], Sindh [8(b)], Punjab [8(c)], Balochistan [8(d)], Gilgit-Baltistan, and Azad Jammu & Kashmir [8(e)]. Overall, rainfall across the country remained above normal during the month with negative anomalies in some areas.

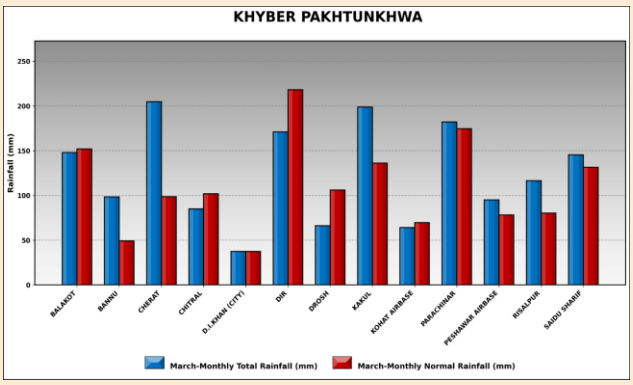

Figure 8a

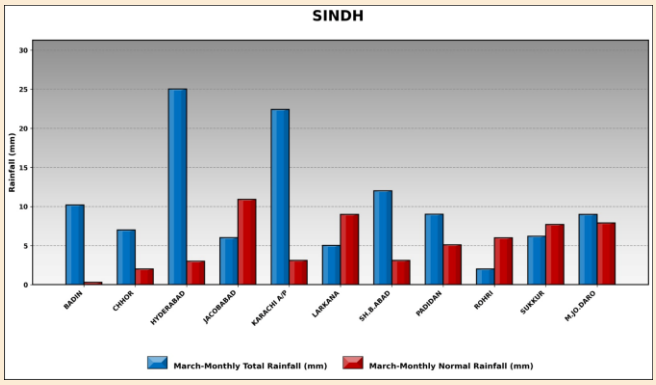

Figure 8b

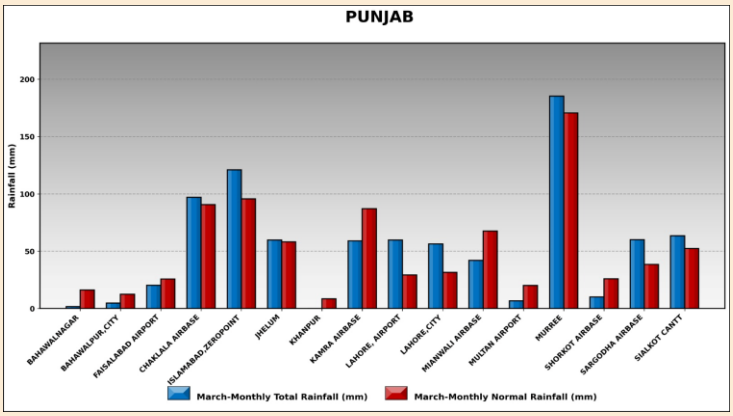

Figure 8c

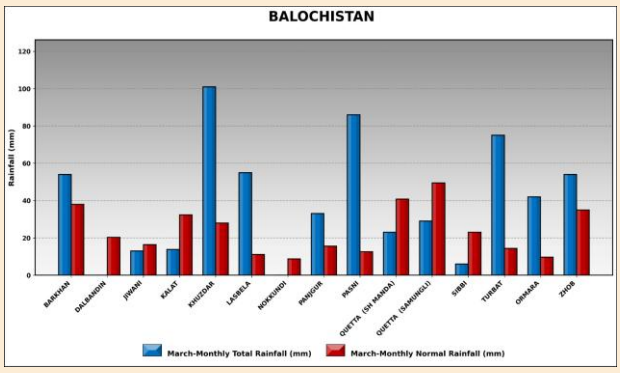

Figure 8d

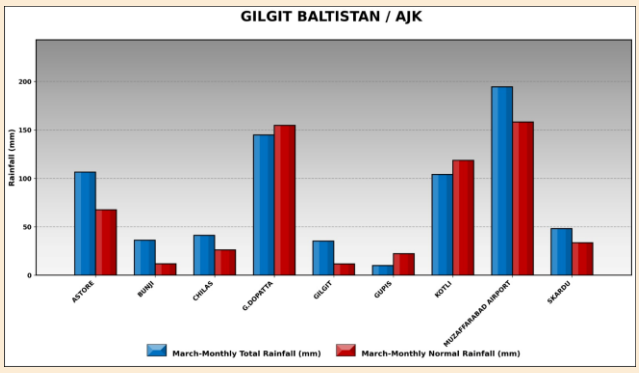

Figure 8e

3. Normalized Difference Vegetation Index (NDVI)

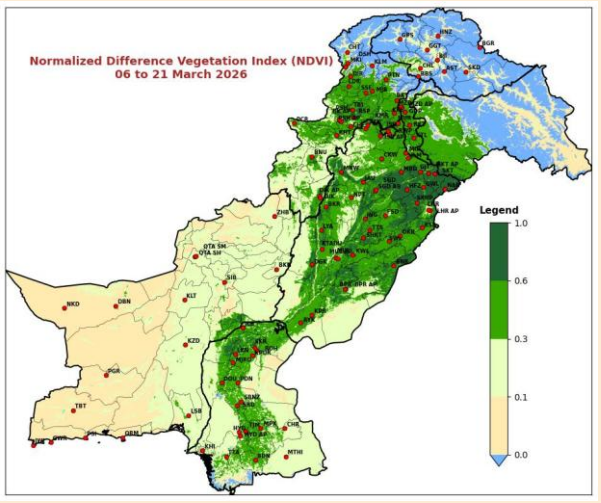

Figure 9: NDVI

Figure 9 presents the Normalized Difference Vegetation Index (NDVI) values for the period 06 to 21 March, 2026. Higher NDVI values were observed across AJK, Punjab, Khyber Pakhtunkhwa, and along the Indus Basin, reflecting extensive vegetation cover in these regions. These conditions indicate healthy plant growth supported by adequate chlorophyll accumulation. However, western Balochistan exhibited low NDVI values.

4. Land Surface Temperature (LST)

Figure 10 depicts the Land Surface Temperature (LST) distribution for the period 06 to 13 March, 2026. During this period, most parts of the country recorded LST values ranging from 0°C to 40°C. Higher LST values, between 25°C and 40°C, were observed in parts of Balochistan, Sindh and Punjab.

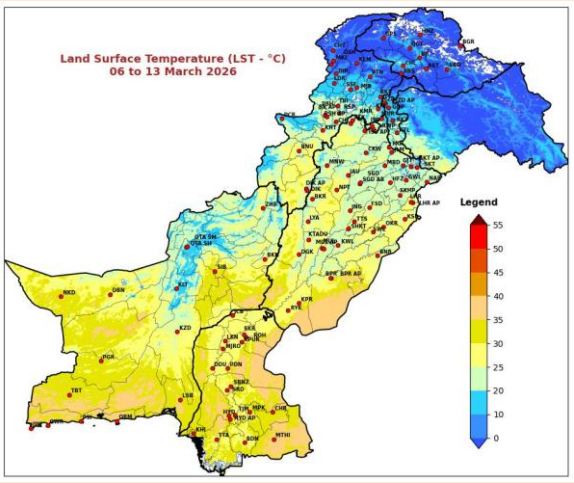

Figure 10: Land Surface Temperature (°C)

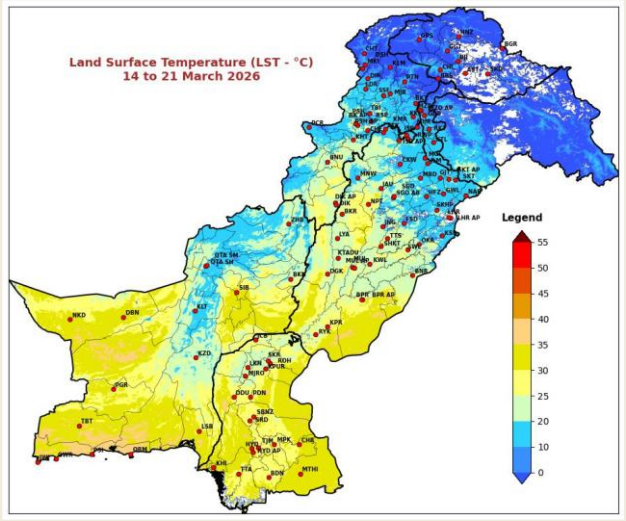

Figure 11: Land Surface Temperature (°C)

Figure 11 illustrates the Land Surface Temperature (LST) conditions from 14 to 21 March, 2026. During this period, a considerable decrease in LST was observed in Balochistan, Sindh and parts of Punjab primarily due to rainfall events.

5. Temperature Vegetation Dryness Index (TVDI)

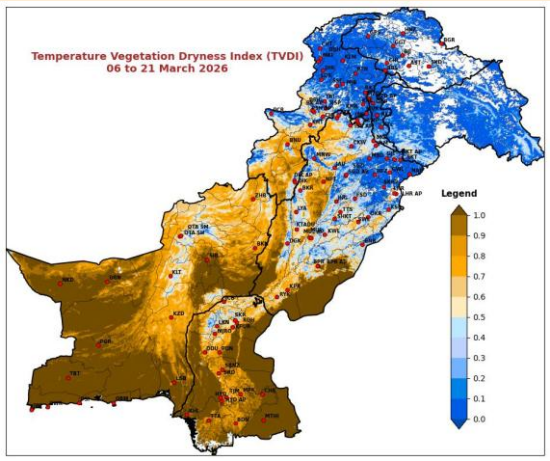

Figure 12: TVDI

Figure 12 presents the Temperature Vegetation Dryness Index (TVDI) from 06 to 21 March, 2026. The TVDI highlights dry-like conditions across the country, especially in Sindh and western/southwestern Balochistan. These elevated TVDI values reflect dryness and soil moisture deficits in these regions.

6. Length of Consecutive Dry Days up to 31st March, 2026

Figure 13 presents the maximum length of Consecutive Dry Days (CDDs) across the country. Recent rainfall events have partially broken the dry spell in southwestern Balochistan. The longest CDDs, up to 67 days are in prevailing in southern Punjab including Bahawalpur and Rahim Yar Khan districts. Moreover, CDDs have started to rise in western Balochistan.

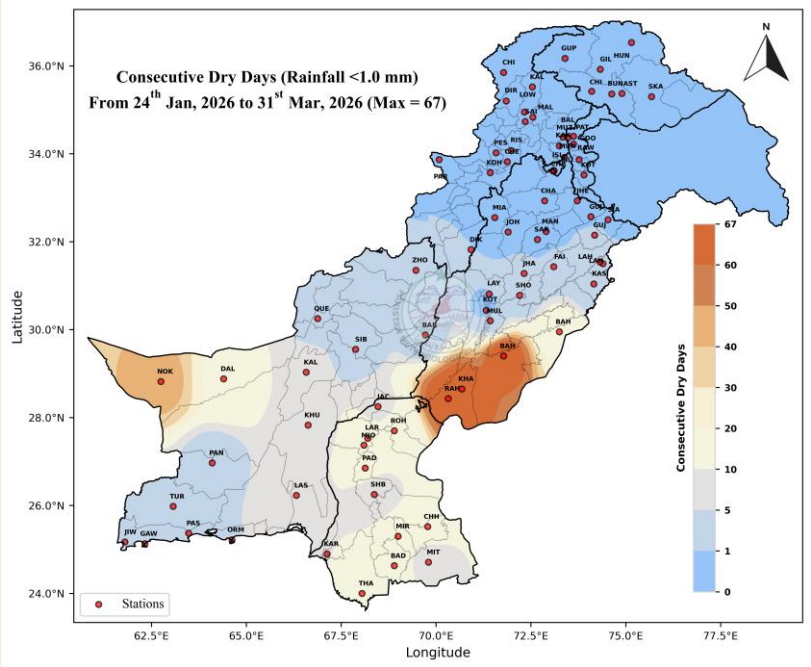

Figure 13: No. of Consecutive Dry Days

7. Drought Monitor for the Month of March, 2026

Figure 14 illustrates the countrywide drought situation for March 2026, based on an integrated analysis of multiple drought-monitoring indicators and ground-based observations from meteorological stations. During March, sufficient rainfall has been received across the country including drought-affected districts of Balochistan. Consequently, normal conditions are now prevailing across the country.

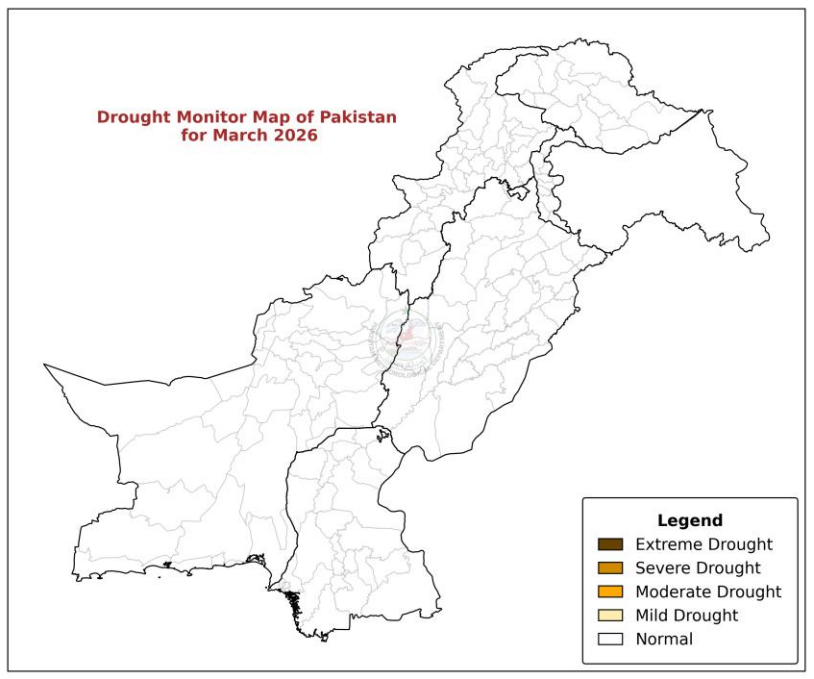

Figure 14: Drought Monitor of Pakistan for the month of March, 2026

8. Water Availability/ Dams Flow Data:

Figure 15 illustrates the water inflow, outflow, and storage levels of major reservoirs, including Mangla, Tarbela, Khanpur, Rawal, and Simly, during the month of March, 2026. The water level has gradually declined in all reservoirs. Currently, the water levels at the key reservoirs, Tarbela and Mangla, stand at 1,448 feet and 1,147 feet, respectively. Therefore, sufficient water is available in these reservoirs to meet irrigation and drinking water requirements.

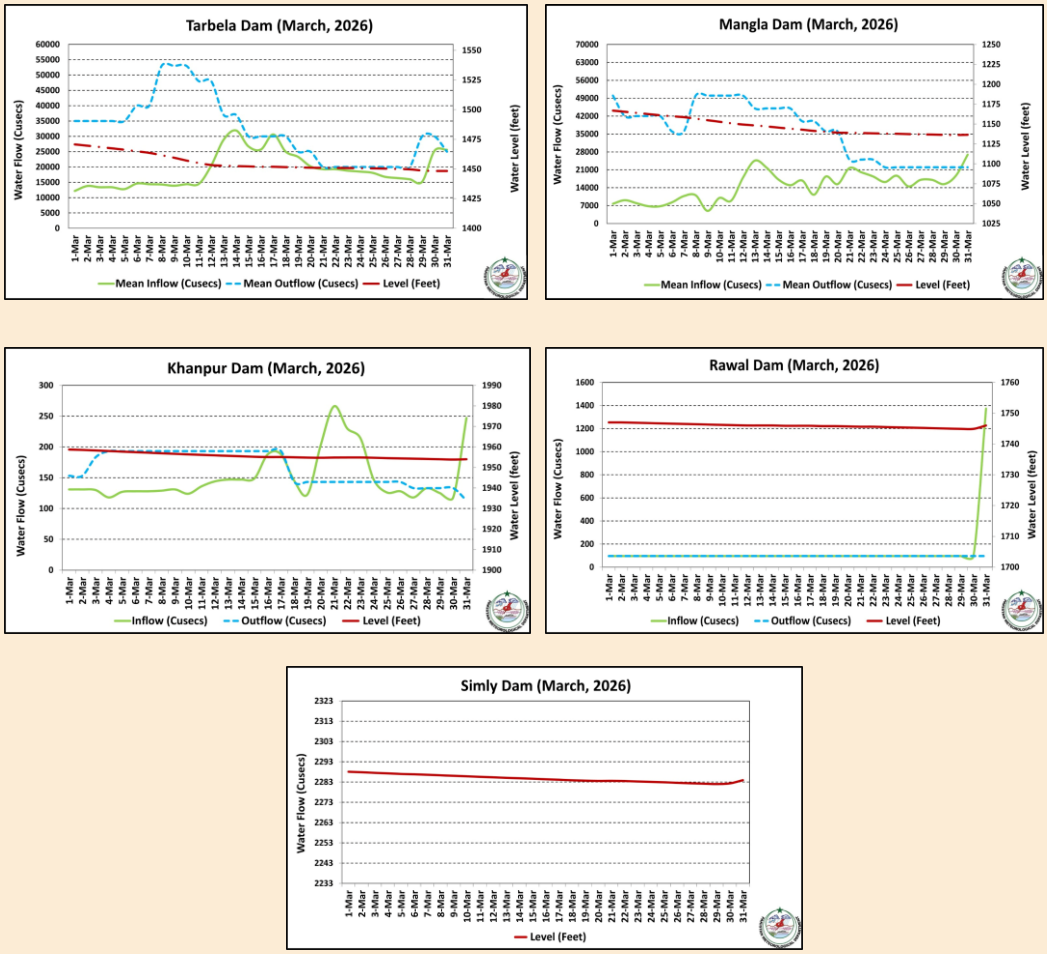

Figure 15: Water inflow, outflow and level of Tarbela, Mangla, Khanpur, Rawal and Simly Dams, March 2026

9. Weather Outlook for April, 2026

A general tendency for above-normal rainfall is anticipated across most parts of the country during April 2026, with the most pronounced positive anomalies concentrated over western to central regions, particularly Khyber Pakhtunkhwa and adjoining areas of central Punjab and northern Balochistan. Slightly above-normal rainfall is expected over the remaining parts of the country, including southern Punjab, southern Balochistan, Gilgit-Baltistan, Kashmir and Sindh during the month. Overall, April 2026 is expected to be predominantly above-normal rainfall nationwide, with northwestern regions experiencing the highest positive deviations. Mean temperatures are expected to remain above normal nationwide, with maximum departure over Gilgit-Baltistan, Kashmir and northern Khyber Pakhtunkhwa in April 2026.

10. Drought Outlook for April, 2026

Above-normal rainfall and temperature is anticipated during April 2026. Consequently, normal climatic conditions are likely to persist in upcoming month.

11. Crop Condition & Advice for Farmers

- The wheat crop has reached physiological maturity across most plains of the country. Harvesting and threshing operations are currently in full swing in Sindh and southern Punjab, and are progressively commencing in central and upper Punjab, Khyber Pakhtunkhwa, and lower Balochistan. In colder, high-altitude northern areas, the crop is in the final grain-filling to maturity stages.
- As April is the peak harvesting month, dry and warm weather is highly favorable. However, farmers must remain extremely vigilant regarding late-spring westerly disturbances. Windstorms and thunderstorms pose a severe threat at this stage, potentially causing grain shattering, lodging (flattening) of any remaining standing crop, and critical damage to the harvested wheat lying in the fields.
- Farmers are strongly advised to closely monitor daily weather forecasts and schedule their harvesting and threshing operations during clear weather windows to avoid post-harvest losses. Irrigation must be halted for fully mature crops to facilitate proper drying of the grain and stalks. Furthermore, harvested grain should be promptly shifted to safe storage or covered properly to protect it from unexpected showers. In drought-prone and rain-fed regions, farmers should begin employing moisture conservation strategies in empty fields to prepare the soil for the upcoming Kharif sowing season.

People and all concerned departments are advised to make efforts to
save water and promote its judicious use.