



Outlook for March-April-May (MAM), 2026

1. Current meteorological conditions

During the DJF 2025–26 season, cumulative rainfall remained below normal over most parts of the country. Two significant synoptic-scale precipitation episodes were observed: the first during the last week of December extending into the first week of January, and the second during the last week of January. These events were primarily associated with moderate-intensity westerly disturbances, producing widespread moderate rainfall over northern and western regions. The systems also generated moderate to locally heavy snowfall over higher elevations, contributing to persistent cold conditions in the affected areas. In contrast, February remained largely dry, with no major synoptic-scale system impacting the country. Only a few weak and isolated precipitation events were recorded, mainly confined to the northern and northwestern regions, resulting in limited spatial coverage and negligible contribution to seasonal totals. Two rainfall spells in Sindh during the last week of December and again in mid-February raised the overall seasonal rainfall to above-normal levels. However, as the normal rainfall for this season is generally low, even moderate rainfall events were sufficient to produce a positive departure from the average. Temperature conditions during DJF 2025–26 remained above normal across most parts of the country; with Gilgit-Baltistan experiencing maximum departure during the season (Table 1).

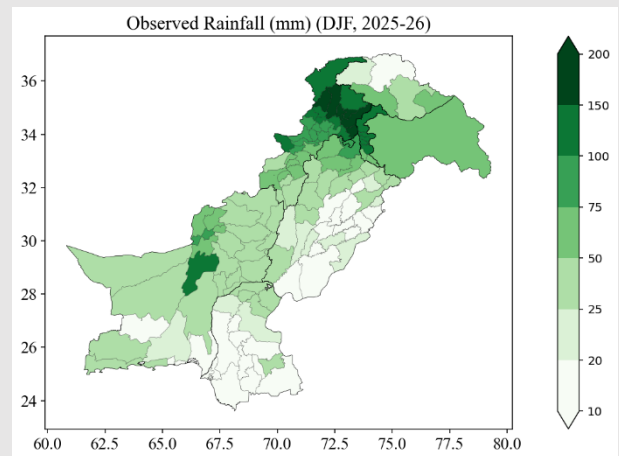


Figure 1: Observed rainfall (mm), DJF 2025-26

Table 1: Summary of the DJF 2025-26 Observed Rainfall and Temperature

Region	Total Rainfall (mm)	Normal* Rainfall (mm)	Rainfall Departure (%)	Mean Temp (°C)	Anomaly (°C)
Pakistan	57.0	77.2	-26.1	13.5	1.2
AJK	199.1	240.3	-17.2	12.2	1.0
Balochistan	43.3	53.0	-18.4	14.1	1.0
Gilgit-Baltistan	24.7	47.5	-48.1	5.5	2.2
Khyber Pakhtunkhwa	112.4	135.9	-17.3	11.0	1.8
Punjab	37.1	77.3	-52.0	14.0	0.9
Sindh	18.3	12.1	50.8	18.3	0.7

* Normal Period (1991 – 2020)

2. Seasonal Rainfall Outlook:

The seasonal outlook is based on the outputs of nine global seasonal prediction models with optimal skill. The models' outputs are combined using the Multi-Model Ensemble (MME) technique to generate operational outlooks for seasonal rainfall and temperature. Currently, the Indian Ocean Dipole (IOD) is in a neutral phase and expected to remain in a neutral phase during the season. Likewise, the El Niño–Southern Oscillation (ENSO), currently in a neutral phase, is expected to shift to a positive phase at the end of the season. Given these conditions, during the MAM (March–April–May) season, **near-normal*** to **slightly above-normal** rainfall is projected over the country, with the maximum positive anomaly expected over central to western regions, particularly southern Khyber Pakhtunkhwa and adjoining areas of central Punjab and northern Balochistan. This pattern suggests enhanced spring precipitation, likely associated with increased westerly disturbance activity. Near-normal rainfall is anticipated over Sindh, central to southern Balochistan, northern Khyber Pakhtunkhwa, Kashmir, and Gilgit-Baltistan, as the projected anomalies show minimal deviation from the climatological average for the MAM 2026 season (Figure 2, 3).

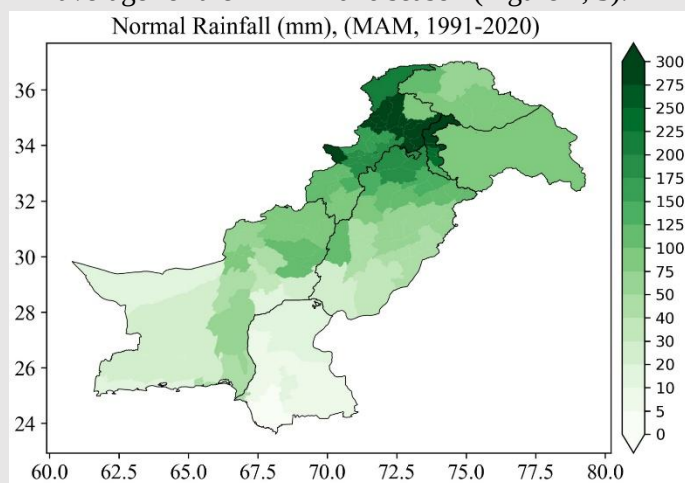


Figure 2: Normal (1991-2020) rainfall (mm) for MAM

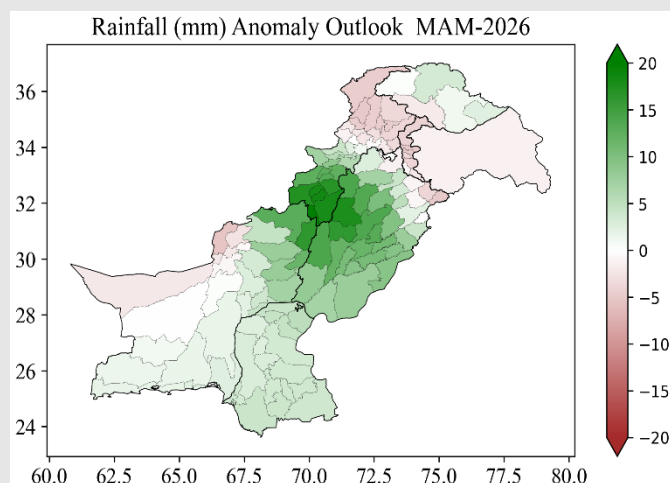


Figure 3: Seasonal rainfall (mm) anomaly for MAM 2026

The probabilistic rainfall outlook reflects a consensus among all models used in the ensembles. The tercile probability output (Figure 4) indicates that **near-normal rainfall** is likely across the country during MAM 2026, with the strongest signals over the southern regions, particularly southwestern Sindh and southern Balochistan. No significant or widespread signals for above- or below-normal seasonal rainfall are indicated for this period.

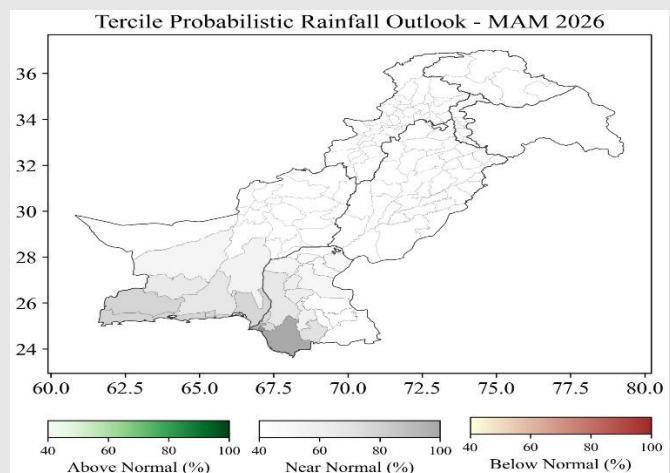


Figure 4: Probabilistic (%) rainfall outlook for MAM 2026

* Normal = 30-years average climatology

3. Seasonal Temperature Outlook:

Mean temperatures are expected to remain **above normal*** throughout the country, with maximum departure over northern areas of the country particularly Gilgit-Baltistan, Kashmir and northern Khyber Pakhtunkhwa during MAM 2026 (Figure 5, 6).

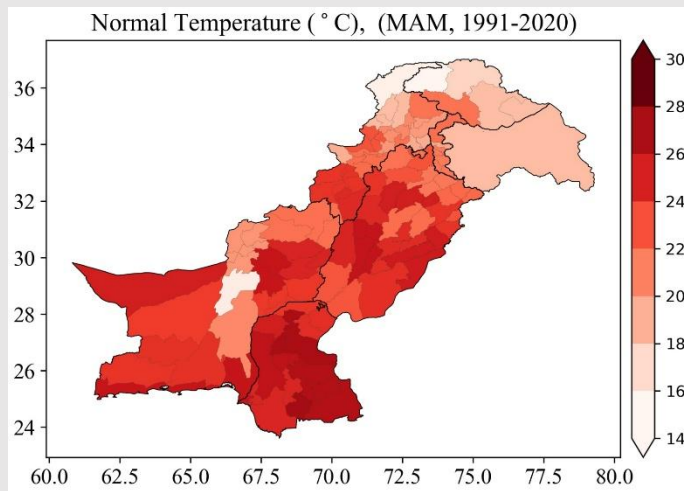


Figure 5: Normal (1991 - 2020) temperature for MAM 2026

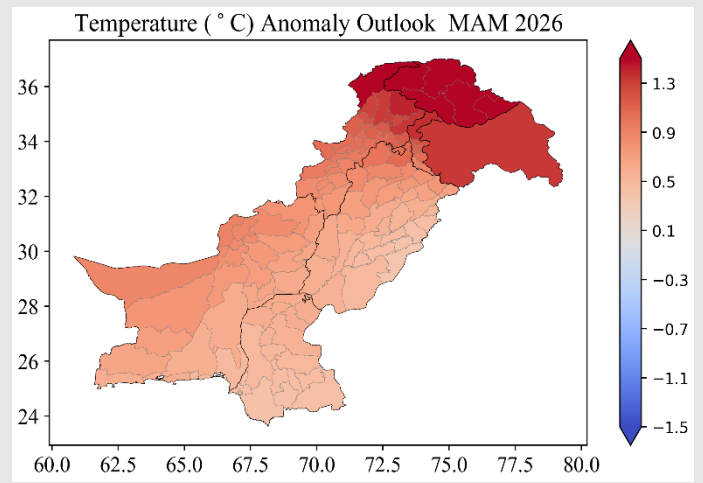


Figure 6: Seasonal temperature anomaly outlook for MAM 2026

The tercile probabilistic temperature outlook (Figure 7) shows that most models predict **above-normal** temperatures across the country, with the highest likelihood over northern Pakistan, including Gilgit-Baltistan and Kashmir, as well as over southeastern Pakistan, particularly Sindh during the MAM 2026 season.

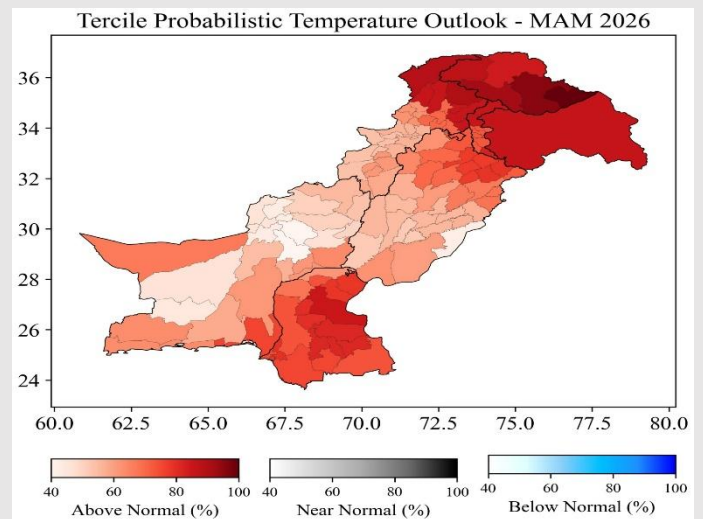


Figure 7: Probabilistic (%) temperature outlook for MAM 2026

* Normal = 30-years average climatology

4. Impacts:

- Near-normal to slightly above-normal rainfall can improve soil moisture during the grain-filling, and maturity stages of Rabi crops, supporting better crop yields. This may also reduce the need for supplemental irrigation.
- Higher temperatures could shorten the seasonal length of Rabi crop in plains of Punjab and KP.
- Above-normal temperatures may facilitate an early pollen peak episode during the season in major cities (e.g. Islamabad/Rawalpindi and Lahore). Rainfall after mid-March may further extend the pollen season beyond its usual duration, which could affect individuals with allergies or respiratory conditions.
- Above-normal temperatures across the country may accelerate pest and disease development in Rabi crops, particularly in plain areas of the country. This can trigger earlier and faster-spreading outbreaks, increasing the risk of yield and quality losses, and underscoring the need for timely monitoring and control measures.
- Near-normal rainfall in catchment areas is likely to improve reservoir water levels, supporting better water availability for agriculture and the power sector.
- Strong winds, dust storms, and hailstorms may arise as a result of the temperature gradients.
- The atmospheric conditions are suggestive for the likelihood of heat wave development during the season over the plain areas of southern Punjab and Sindh.
- Above normal temperatures over Gilgit-Baltistan and upper Khyber Pakhtunkhwa will cause snow melt that may contribute in glacier related hazards such as GLOF.

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.