FRDP
SERVING GRASSROOT COMMUNITIES

Situation Report: Emerging Drought in Sindh
SitRep 01 | 09 April 2025

SEASONAL OUTLOOK FOR SINDH (FEBRUARY-MARCH-APRIL 2025)

The Pakistan Meteorological Department (PMD) has released its seasonal forecast for February-March-April (FMA) 2025, which indicates significant changes in climate indicators during this period. Specifically, the El Niño Southern Oscillation (ENSO) is predicted to transition from its current negative phase to a neutral phase, while the Indian Ocean Dipole (IOD) is expected to remain in its neutral phase.

RAINFALL OUTLOOK FOR SINDH (FEBRUARY-MARCH-APRIL 2025)

As Sindh is located in the southern region of Pakistan, the seasonal forecast suggests that the province can expect near-normal rainfall during the February-March-April 2025 season. The forecast also indicates a reduced negative anomaly compared to the region's typical climatological patterns. Furthermore, the second half of the February-March-April 2025 season is expected to be wetter than the first half, which may bring some relief to the region.

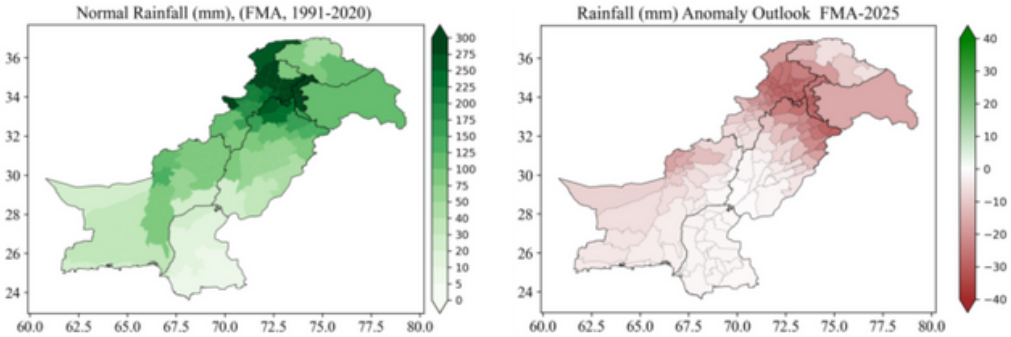


Figure 1: Normal (1991-2020) rainfall and monthly anomaly outlook for FMA 2025

SEASONAL TEMPERATURE OUTLOOK OF SINDH (FEBRUARY-MARCH-APRIL 2025)

The seasonal temperature outlook for February to April 2025 indicates a continuation of above-normal temperatures, consistent with the broader national trend. Although the most extreme anomalies are forecasted for the northern regions, Sindh remains highly vulnerable due to its already high baseline temperatures, as reflected in the climatological map (1991–2020), where average temperatures typically range between 32°C and 36°C during this season.

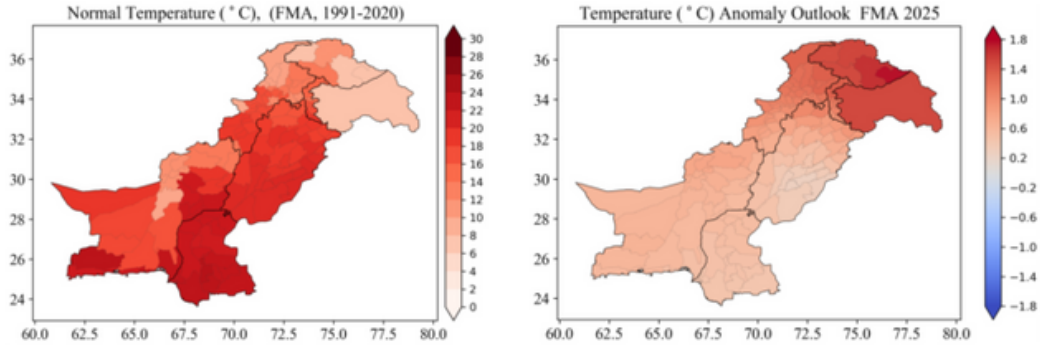


Figure 2: Normal (1991-2020) temperature and monthly anomaly outlook for FMA 2025

IMPLICATIONS

The projected temperature increase, even if moderate (around +0.6°C to +1.0°C), can have serious implications for the province. These include accelerated depletion of surface and groundwater resources, increased evapotranspiration, and heat stress on crops, particularly wheat and early sown cotton. Additionally, communities reliant on rainfed agriculture or fragile irrigation systems may face early onset of water scarcity, while rural livelihoods, particularly livestock-dependent households, could experience compounding heat and water stress.

DROUGHT PROJECTION BY PMD

Severity: · Sindh continues to face moderate to severe drought conditions, with a significant rainfall deficit of 62% recorded between September 2024 and March 2025 (Pakistan Meteorological Department, March 2025).

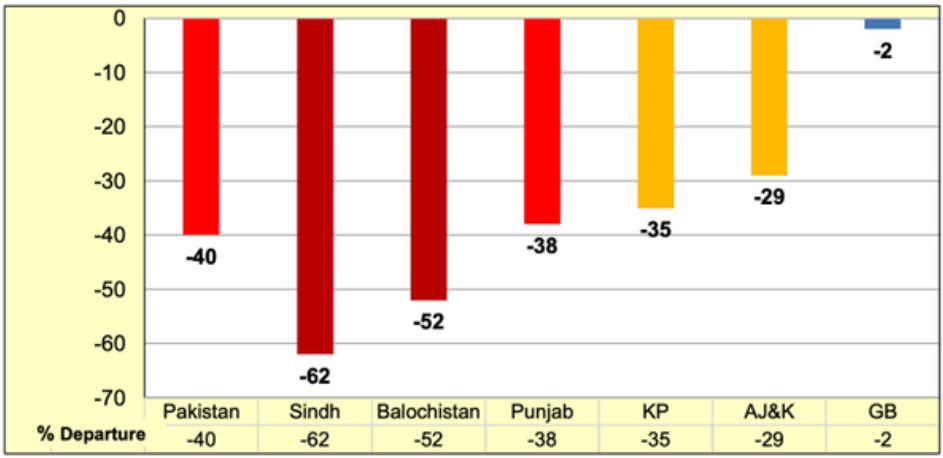
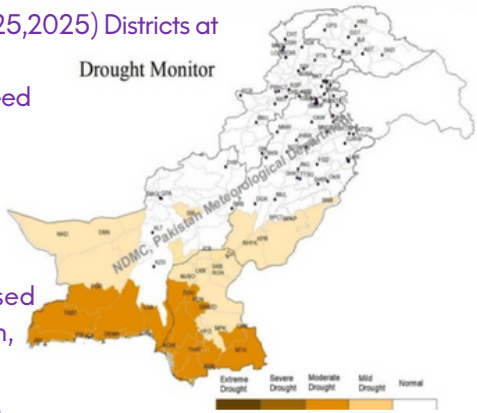


Figure-1: Rainfall Departure (%) across Pakistan

(Source: PMD)

According to PDMA Sindh Drought Alert (March 25,2025) Districts at **Moderate Drought:** Karachi Division, Tharparkar, Umerkot, Dadu, Badin, Hyderabad, Thatta, Shaheed Benazirabad, Naushahro Feroze



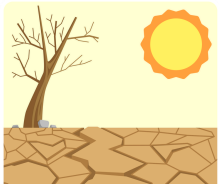
Mild Drought: Ghotki, Jacobabad, Larkana, Khairpur, Sukkur

Temperature Anomalies: March 2025 witnessed temperatures 2–3 °C above the seasonal norm, further intensifying water stress in already affected areas (Met Office Seasonal Outlook, March 2025).

As per advisory on April 7th, the NDMA predicted 04 to 07 °C above normal temperature during
April 08-11,2025 in central/south Punjab, Sindh and parts of Balochistan.

PROJECTED RISKS

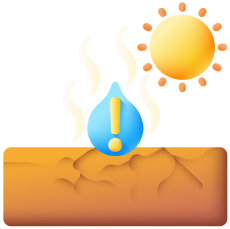
1. **Flash Droughts:** The increasing trend of rising temperatures and extended dry spells may result in sudden-onset or "flash droughts" (WMO Bulletin No. 5, 2024).





2. **Agricultural Impacts:** Rabi crops, particularly in arid and semi-arid zones such as Tharparkar, Umerkot, Sanghar, and Khairpur Mirs, are at risk. Local farmers have expressed concern about potential losses due to the prolonged dry season (Field Assessment Reports, March 2025).

3. **Water Scarcity:** A notable drop in the underground water table has been observed in Tharparkar, Umerkot, and Sanghar, raising serious concerns about future availability.





4. **Irrigation and Drinking Water Shortages:** Severe shortages are expected in Badin, Umerkot, Mirpurkhas, Sanghar, and Hyderabad, potentially affecting both household consumption and crop irrigation.

5. **Public Health Risks:** The anticipated rise in temperatures may result in increased cases of waterborne diseases and heatstroke, particularly among vulnerable populations.



GOVERNMENT RESPONSE

- District administrations have received pre-emptive drought advisories to prepare for escalating impacts.
- A coordination meeting involving humanitarian partners has been convened to streamline efforts.
- School Education Department has launched awareness campaigns targeting drought preparedness.
- Monitoring activities have been intensified in drought-prone zones including Thar and Cholistan.
- Advisories for farmers have been issued, encouraging them to stay updated and adopt water conservation techniques.

FRDP RESPONSE

1. Emergency Response Team has been formally activated.

2. The team is currently conducting real-time monitoring and field assessments.

3. Active engagement with district authorities, line departments, academia, and PDMA-Sindh is underway for coordinated action.

4. Implementation of drinking water supply schemes in Tharparkar, Umerkot, Mirpurkhas, Badin, and Khairpur Mirs has commenced.

5. Provision of one month ration (food packs) to widow headed households in Tharparkar, Mirpurkhas and Hyderabad.

6. Joint Typhoid awareness campaigns have been launched in partnership with the Umerkot Health Department.

7. In District Badin, support has been extended to farmers through the provision of seeds, fertilizers, agricultural tools, and livestock vaccinations.

8. Mobile Medical Service has been deployed in remote areas of Tharparkar, ensuring early screening, treatment, and referral mechanisms are in place.

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