

FORTNIGHTLY DROUGHT WATCH BULLETIN

(1-15 March, 2023)

1. Weather Summary for the 1st fortnight of March 2023

During the first fortnight of March 2023, Light to very less amount of rainfall reported from some stations in Khyber Paktunkhwa, AJK and Balochistan. Spatial distribution of the rainfall is shown in Figure No.1. The chief amounts of rainfall recorded across Pakistan during the period 1-15 March, 2023 are shown in Table-1 below;

Table:1					
Sr.No.	Station	Rainfall(mm)	Sr.No.	Station	Rainfall(mm)
1	PATTAN	60	6	FORT MUNRO	29.6
2	KHUZDAR	54.52	7	VEHOVA	26.6
3	PARACHINAR	47	8	LORALAI	25.1
4	BARKHAN	38	9	RAWALAKOT	25
5	MALAMJABBA	31	10	BAGROTE	24.81

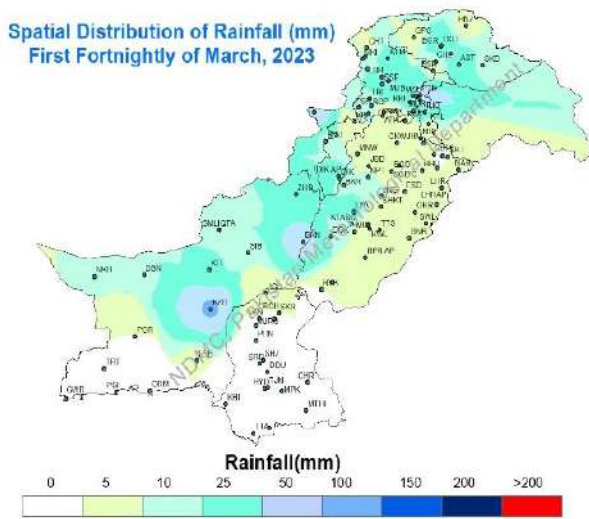


Figure 1: Rainfall distribution of Pakistan during First fortnight of Mar-2023

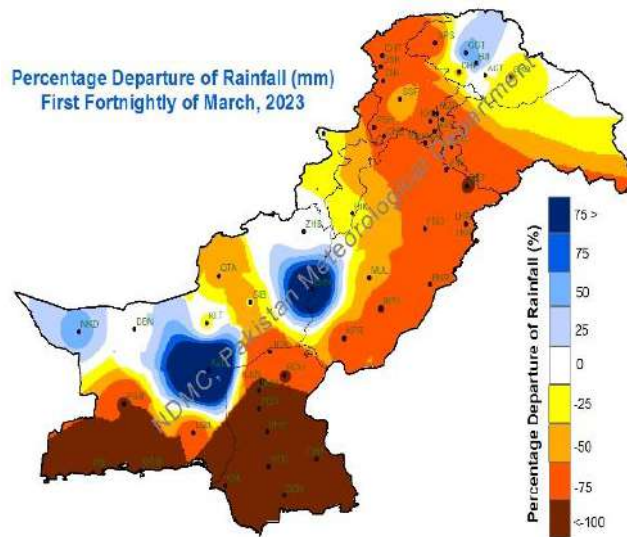


Figure 2: Rainfall Departure from Normal during First fortnight of Mar-2023

Figure 2 depicts the Percentage Departure of rainfall from normal during first fortnight. Most parts of Sindh, Punjab, Gilgit Baltistan and AJK receive well below normal rainfall during the fortnight while rest of the areas also receive Normal to below Normal rainfall. Farmers are advised to keep themselves abreast of weather updates and plan field activities accordingly to minimize weather induced losses to matured/cultivated crops.

2. Drought Situation Analysis

During last week, very light to no rain was reported in most parts of country. Dry weather prevailed in most districts of the country. Due to below-normal rainfall during the week, mild to moderate level dry conditions have been observed in some parts of the Azad Kashmir by SPI Index. As shown in figure 3.

According to meteorological conditions, dry weather is expected in most parts of the country while hot in plain areas. However, rain-thunderstorm is expected in south Punjab, Balochistan and few areas of upper Sindh.

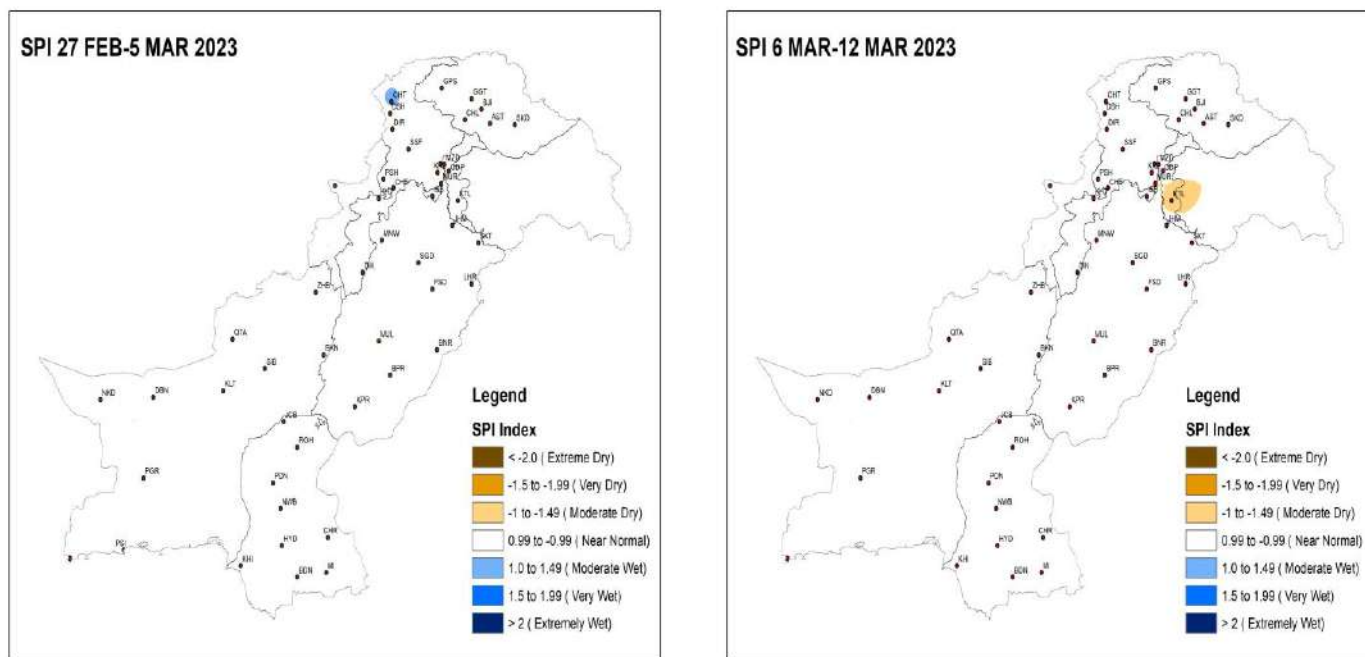


Figure 3: SPI Outlook during the 1st fortnight of March 2023

3. Normalized Difference Vegetation Index (NDVI)

Normalized Difference Vegetation Index values during first fortnight of March 2023 are shown in Fig.4. NDVI values are good in north Punjab and along the Indus belt depicting the good vegetation over there. Low NDVI values are observed in Sindh and Balochistan areas depicting low vegetation cover over there.

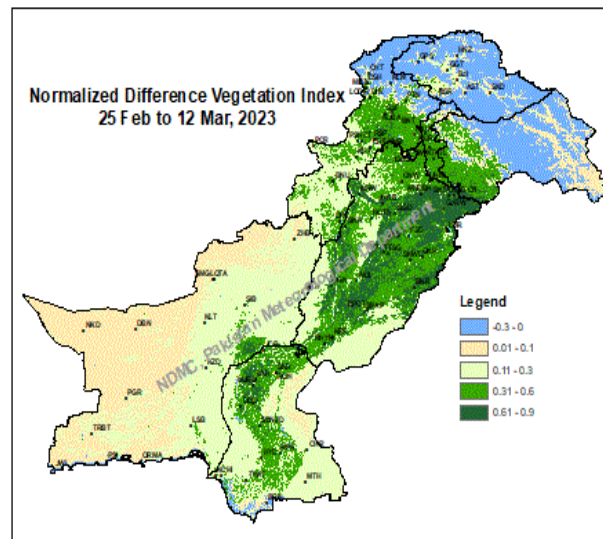


Figure.4: NDVI First Fortnight of Mar, 2023

4. Land Surface Temperature (LST)

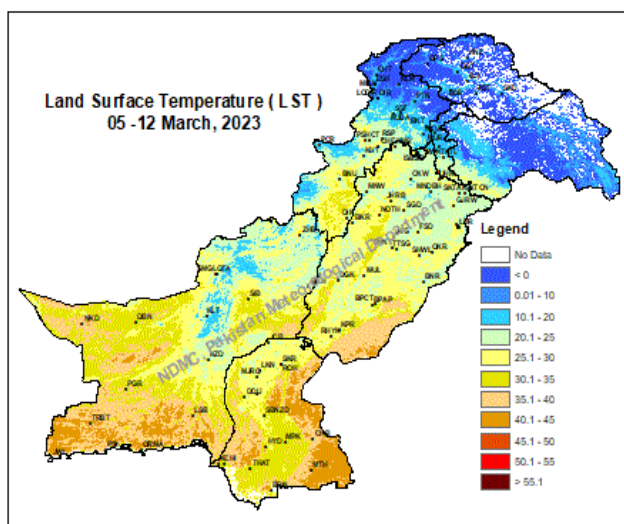


Figure5: LST First Fortnight of Mar, 2023

Land surface Temperatures (LST) during first fortnight of March 2023 represented in Fig.5. Most of the areas in Northern and central Pakistan areas are facing temperatures above 15°C. Southern and western parts of the country are also showing values of Temperature below 25°C. Some areas of Tharparkar in Sindh and Coastal Areas are even showing Higher than 30°C Land surface temperature.

5. Temperature Vegetation Dryness Index (TVDI)

Temperature Vegetation Dryness Index (TVDI) derived from MODIS product MOD13A2 (NDVI) and MOD11A2 (LST) is shown in Fig. 6, which depicts Moisture stress conditions in Nokundi and coastal areas of Balochistan and Mithi, Chor, Tharparkar areas of Sindh are showing moisture stress conditions.

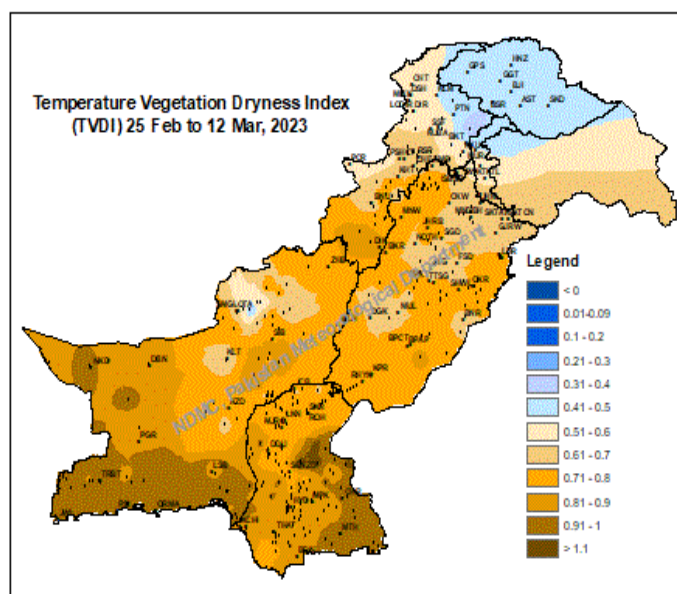


Figure 6: TVDI First Fortnight of Mar, 2023