

FORTNIGHTLY DROUGHT WATCH BULLETIN

(1-15 February, 2023)

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

During the first fortnight of February 2023, Light to very less amount of rainfall reported from some stations in Khyber Pakhtunkhwa, 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 February, 2023 are shown in Table-1 below;

Table:1					
Sr.No.	Station	Rainfall(mm)	Sr.No.	Station	Rainfall(mm)
1	DIR	91	6	PATTAN	54
2	MALAMJABBA	72.01	7	LOWER DIR	47.5
3	KALAM	72	8	BALAKOT	40
4	SAIDU SHARIF	64	9	CHITRAL	39.1
5	MUZAFFARABAD CITY	55	10	GARI DOPATTA	38

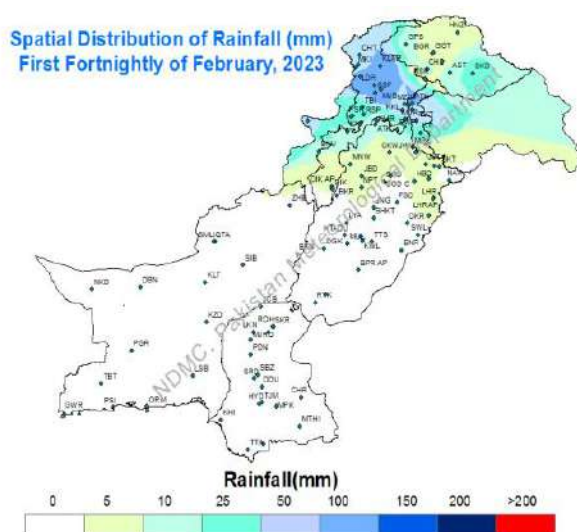


Figure 1: Rainfall distribution of Pakistan during First fortnight of Feb-2023

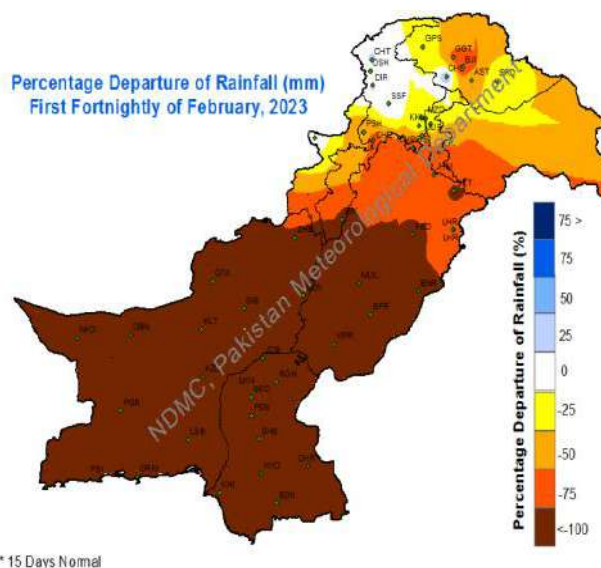


Figure 2: Rainfall Departure from Normal during First fortnight of Feb-2023

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, no rain was reported in Sindh and Balochistan. Dry weather prevailed over Sindh province while cold in Balochistan. The change occurred in the Drought situation during last week with respect to the previous week is updated using Standardized Precipitation Index (SPI). The change is shown in map form which is appended below. Currently normal conditions are prevailing in most of the districts in Balochistan and Sindh.

According to meteorological conditions, mainly cold and dry weather is expected in most districts of Sindh and Balochistan. Drought-like situation has been terminated from Sindh and Balochistan due to previous rains.

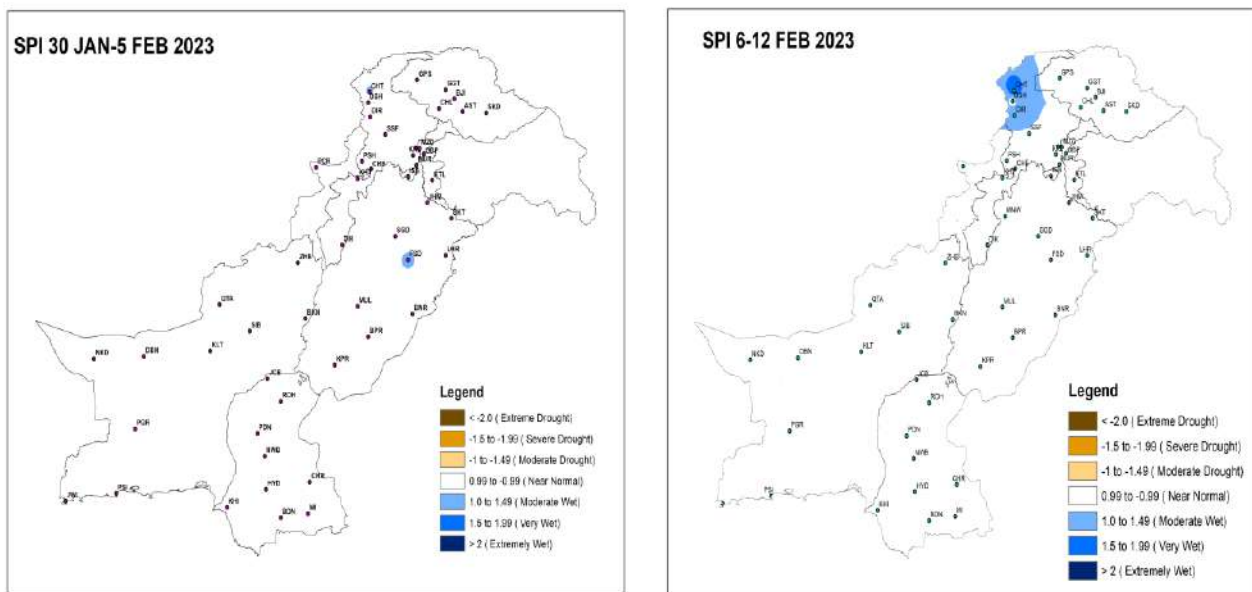


Figure 3: SPI Outlook during the 1st fortnight of February 2023

3. Normalized Difference Vegetation Index (NDVI)

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

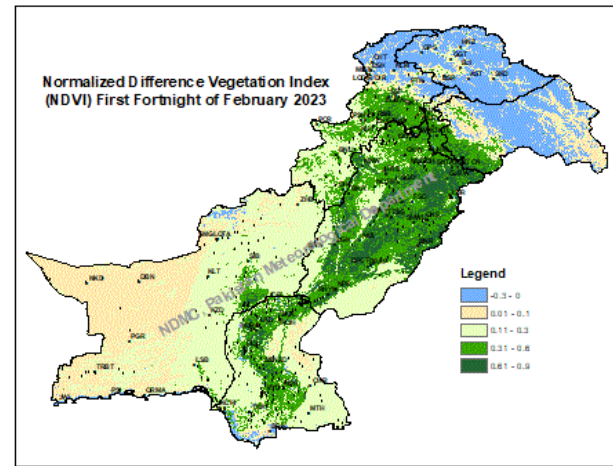


Figure.4: NDVI First Fortnight of Feb, 2023

4. Land Surface Temperature (LST)

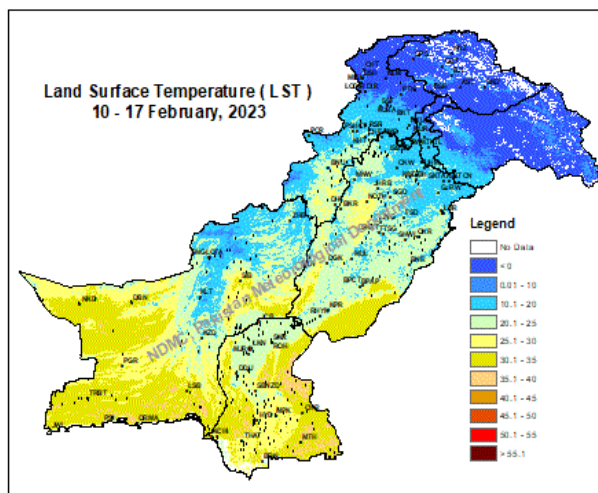


Figure5: LST First Fortnight of Feb, 2023

Land surface Temperatures (LST) during first fortnight of February 2023 represented in Fig.5. In northern, eastern and central parts of the country, temperatures are decreasing now. Most of the areas in Northern and central Pakistan areas are facing temperatures below 15°C. Southern and western parts of the country are also showing values of Temperature below 25°C.

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, Dalbandin, Ormara, Jiwani areas of Balochistan and Mithi, Chor, Tharparkar areas are showing moisture stress conditions.

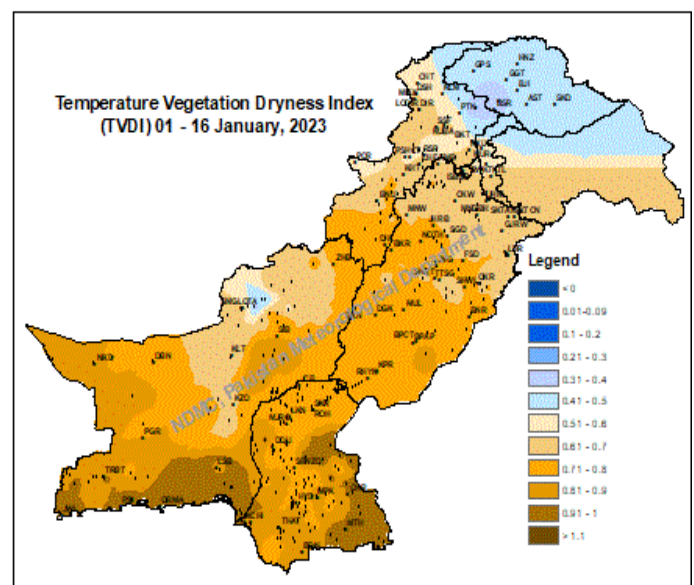


Figure 6: TVDI First Fortnight of Feb, 2023