

FORTNIGHTLY DROUGHT WATCH BULLETIN

(1-15April,2021)

1. Weather Summary for the 1st fortnight of April2021

During the first fortnight of April2021, Rain bearing systems produced light to moderaterainfall at isolated places in the Upper parts of the country. Spatial distribution is shown in Figure No.1. The chief amounts of rainfall recorded across Pakistan during the period 1-15April, 2021are shown in Table-1 below;

Table:1					
Sr. No.	Station	Rainfall (mm)	Sr. No.	Station	Rainfall (mm)
1	Kalam	78.2	6	Besham	49.1
2	Haraman	66.7	7	Pattan	49.0
3	Malam Jabba	64.2	8	Balakot	45.0
4	Chakothei	62.4	9	Mirkhani	43.0
5	Muzaffarabad A/P	49.2	10	Murree	40.0

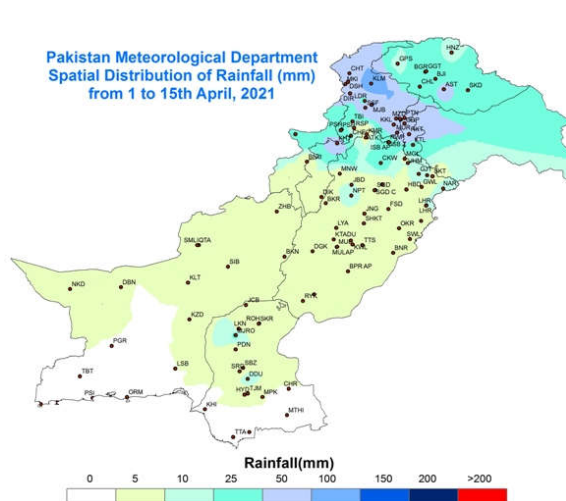


Figure 1: Rainfall distributionof Pakistan during 1st fortnight of April-2021

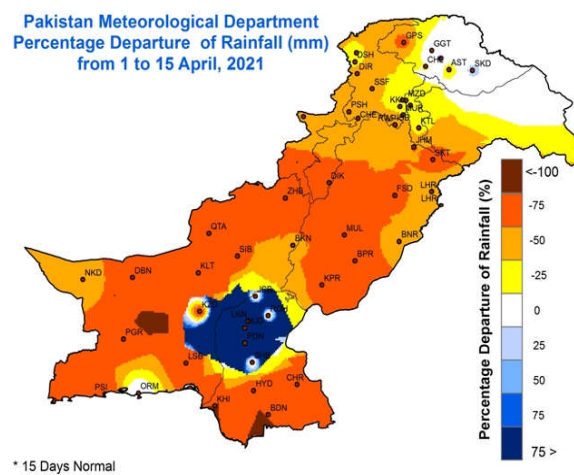


Figure 2: Rainfall Departure from Normal during 1st fortnight of April -2021

Figure 1 shows Spatial distribution of recorded rainfall during the period.The Figure 2 depicts the Percentage Departure of Rainfall from the normal. Generally,below normal rainfall was received acrosswhole of Pakistan except few stations in sindh which may be due to very low value of Normal rainfall at that station. 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

Drought analysis results using different indices are represented in Fig.3. Moderate drought conditions prevailed over western Balochistan and SE Sindh. During the first fortnight of April 2021, few good rains were reported from the agricultural plains of Upper Khyber Pakhtunkhwa and AJK and upper Punjab. Accordingly, normal situation was prevailing in upper parts of the country.

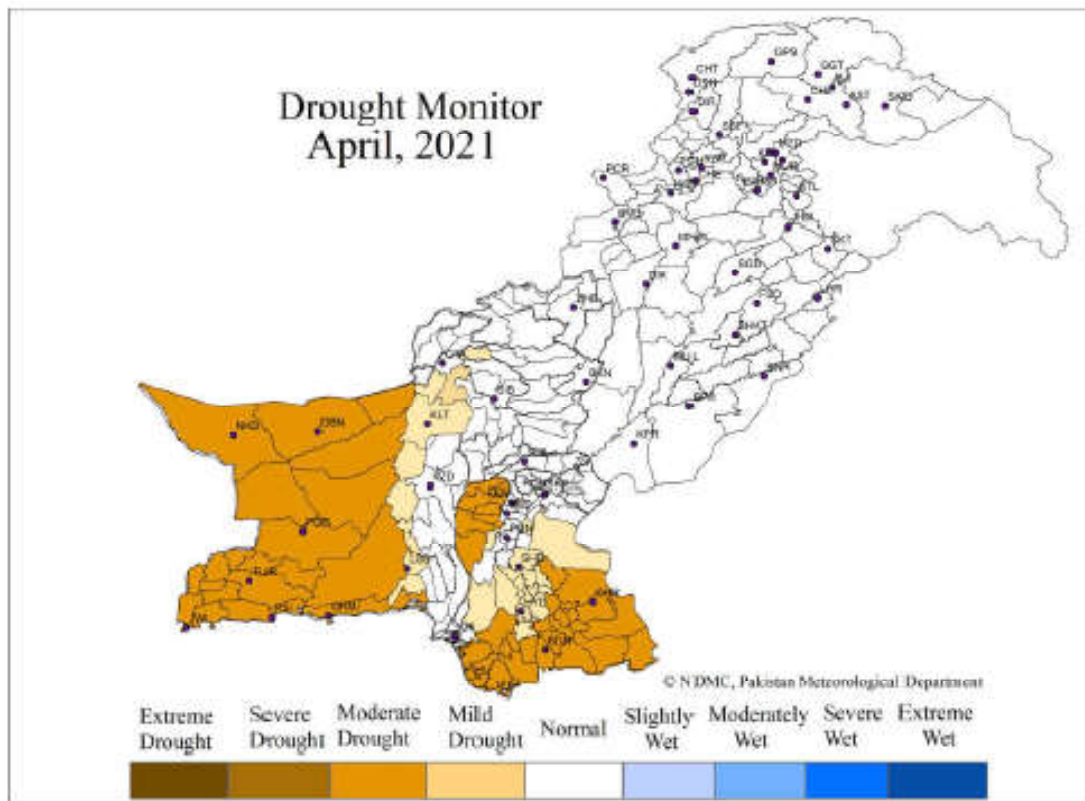


Figure 3: Drought Outlook during 1st fortnight of April 2021

3. Normalized DifferenceVegetation Index (NDVI)

Normalized Difference Vegetation Index values for the period 25 March to 09 April 2021 are shown in Fig.4. NDVI values are good over the areas of upper Khber Paktunkhwa, Punjab and along the Indus belt, whereas vegetation stress condition were observed in the southern parts of country.

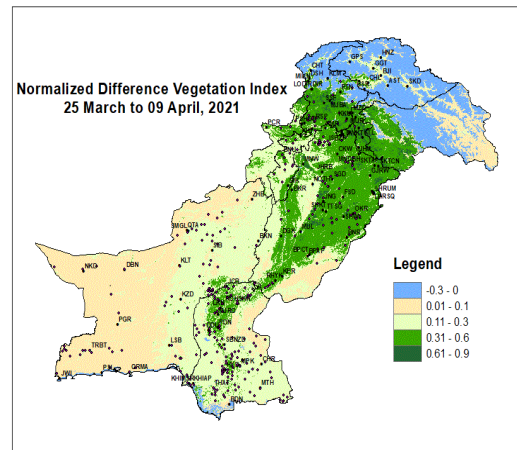


Figure.4: NDVI 25 Mar to 09 April, 2021

4. Land Surface Temperature (LST)

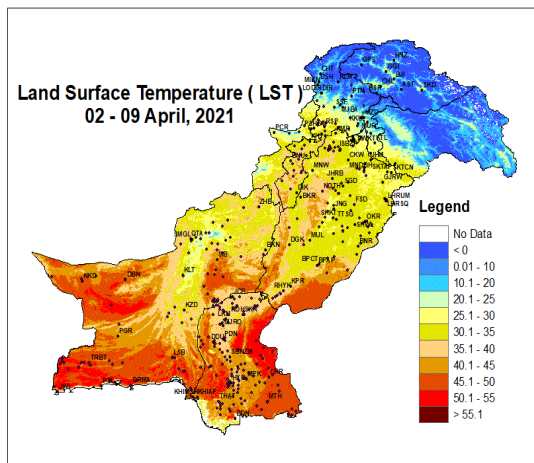


Figure5: LST 02-09April, 2021

Land surface Temperatures (LST) for the period 02 – 09April, 2021 are represented in Fig.5. In northern and central parts of the country, temperatures are low as compared with southern parts which are showing higher values. Most of the central areas are observing temperatures between 25°C to 30°C, while some areas in western Balochistan experienced temperatures around above 30°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 indicates that mild to moderate, dry conditions prevail across southwestern Balochistan. Areas around Nokkundi, Pasni and Ormara are under moisture stress conditions. Few areas in SE Sindh are also under water stress conditions.

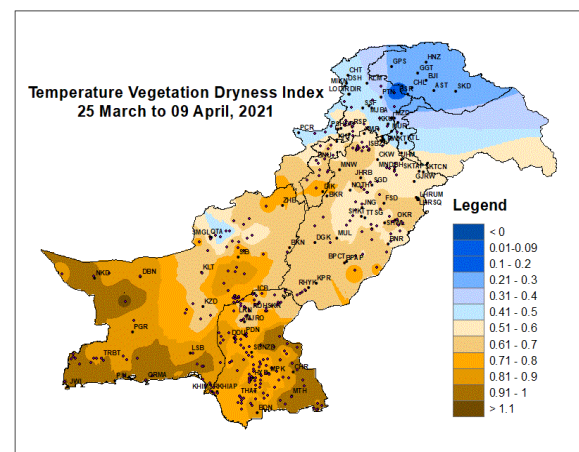


Figure 6: TVDI 25 March to 09 April, 2021