

FORTNIGHTLY DROUGHT WATCH BULLETIN

(1-15 August, 2021)

1. Weather Summary for the 1st fortnight of August 2021

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

Table:1					
Sr. No.	Station	Rainfall (mm)	Sr. No.	Station	Rainfall (mm)
1	Lahore	256.0	6	Dir	122.0
2	Malam Jabba	172.0	7	Murree	113.3
3	Kakul	141.3	8	Risalpur	106.6
4	Attock	125.2	9	Bhakkar	103.5
5	Mangla	123.4	10	Rawalakot	101.2

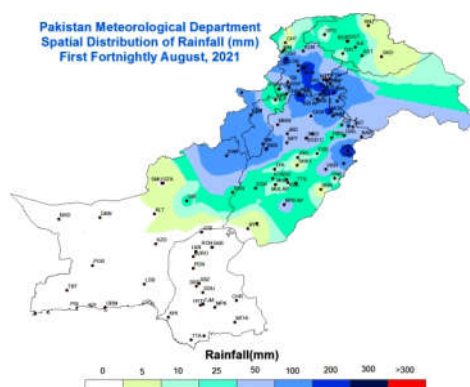


Figure 1: Rainfall distribution of Pakistan during 1st fortnight of August-2021

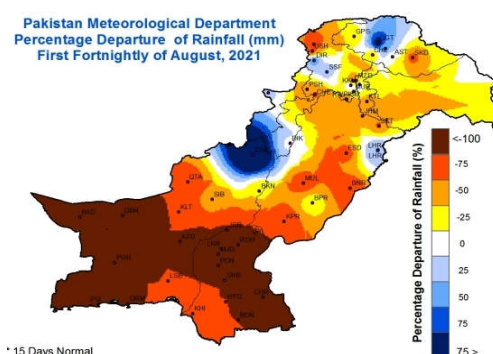


Figure 2: Rainfall Departure from Normal during 1st fortnight of August -2021

Figure 1 shows Spatial distribution of recorded rainfall during the period. The Figure 2 depicts the Percentage Departure of Rainfall from the normal. Below normal rainfall was received over most of the places in Punjab, KP, Sindh, Balochistan and whole of Gilgit Baltistan, whereas above normal rain was received at Zhob in Balochistan province. 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

Spatial drought analysis results using different indices are represented in Fig. 3. *In Balochistan, Districts Chagi, Kharan, Panjgur, Awaran, Washuk, Gawadar and Kech are facing Moderate Drought Conditions. In Sindh Province, Districts Tharparkar, Umerkot, Mirpurkhas Badin, Thatta, Sajawal and Hyderabad are facing Mild Drought while Dadu, Nawabshah, Jamshoro, Khairpur, Larkana and Sanghar are facing Moderate Drought Conditions.*

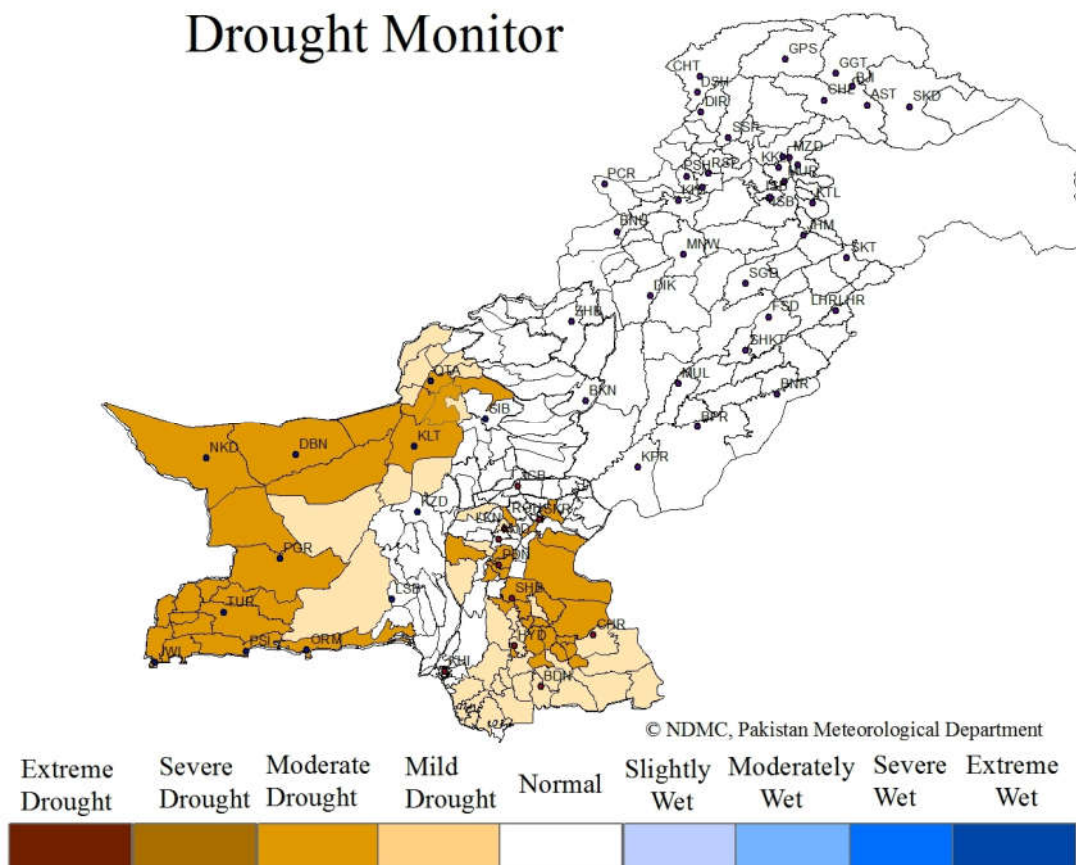


Figure 3: Drought Outlook during 1st fortnight of August 2021

3. Normalized Difference Vegetation Index (NDVI)

Normalized Difference Vegetation Index values for the period 01 - 16 August, 2021 are shown in Fig.4. NDVI values are good, depicting the impacts of wet conditions over the areas of upper KP, Punjab and along the Indus belt, whereas low NDVI values are observed in the southern parts.

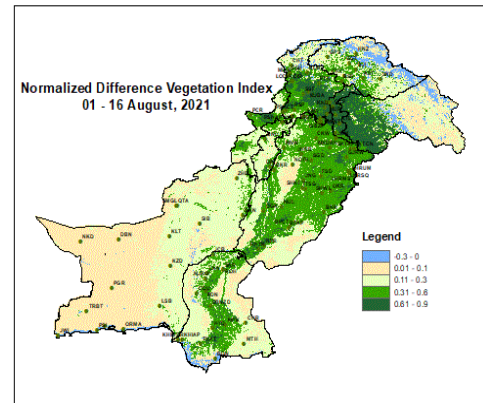


Figure.4: NDVI 01 - 16 August, 2021

4. Land Surface Temperature (LST)

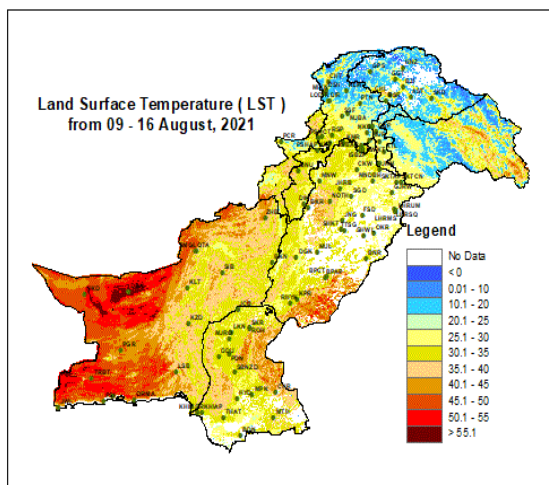


Figure5: LST 09 – 16 August, 2021

Land surface Temperatures (LST) for the period 09 – 16 August, 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 facing temperatures between 30°C to 35°C. However, Chor, Mithi, Badin districts of Sindh and coastal areas of Balochistan experienced above 35°C 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 indicates that mild dry conditions prevail across southwestern Balochistan Nokundi and Dalbandin areas and in the eastern Sindh. Some areas of Tharparkar, Chhor, Mithi are under moisture stress conditions.

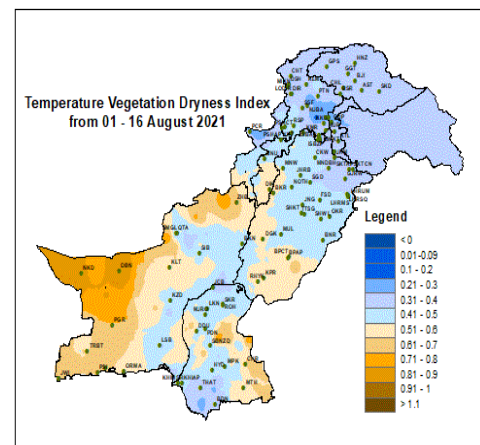


Figure 6: TVDI 01 - 16 August, 2021