

FORTNIGHTLY DROUGHT WATCH BULLETIN

(1-15June,2021)

1. Weather Summary for the 1st fortnight of June2021

During the first fortnight of June2021, Rain bearing systems produced light to moderaterainfall at isolated places in the Upper Punjab, Sindh, Balochistan. Spatial distribution is shown in Figure No.1. The chief amounts of rainfall recorded across Pakistan during the period 1-15June, 2021are shown in Table-1 below;

| Table:1 | | | | | |
|---------|-----------------|---------------|---------|---------------------|---------------|
| Sr. No. | Station | Rainfall (mm) | Sr. No. | Station | Rainfall (mm) |
| 1 | Bandi Abbaspur | 117.6 | 6 | Islamabad,Zeropoint | 85.0 |
| 2 | Chattar Kalas | 99.0 | 7 | Barnala | 82.8 |
| 3 | Murree | 95.0 | 8 | Rawalakot | 75.2 |
| 4 | Shamsabad (RWP) | 95.0 | 9 | Panjera | 68.9 |
| 5 | Kakul | 91.0 | 10 | Haraman | 66.2 |

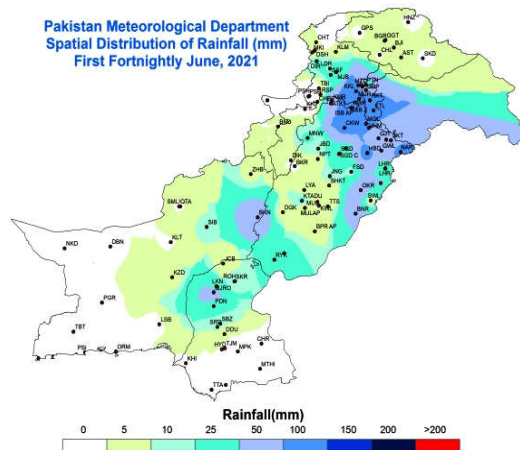


Figure 1: Rainfall distribution over Pakistan during 1st fortnight of June-2021

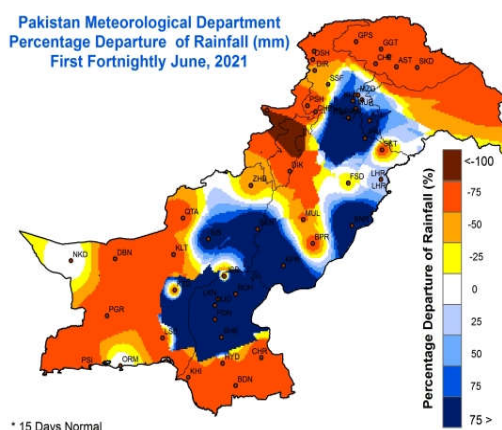


Figure 2: Rainfall Departure from Normal during 1st fortnight of June -2021

Figure 2 depicts the Percentage Departure of Rainfall from the normal. Presently, normal to below normal rainfall was received across whole of Pakistan except at few stations in Sindh and lower Punjab which may be due to very low value of Normal rainfall at those stations. 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 of Chagai, Kharan, Panjgur, Awaran, Washuk, Kech and Gawadar are facing Moderate to Severe Drought Conditions.

In Sindh Province, Districts of Badin, Tharparkar, Umerkot, Mirpurkhas and Sanghar are facing severe Drought while Thatta, Sajawal, Hyderabad, Khairpur, Larkana are facing Moderate and Dadu, Nawabshah, Jamshoro are facing Mild Drought Conditions

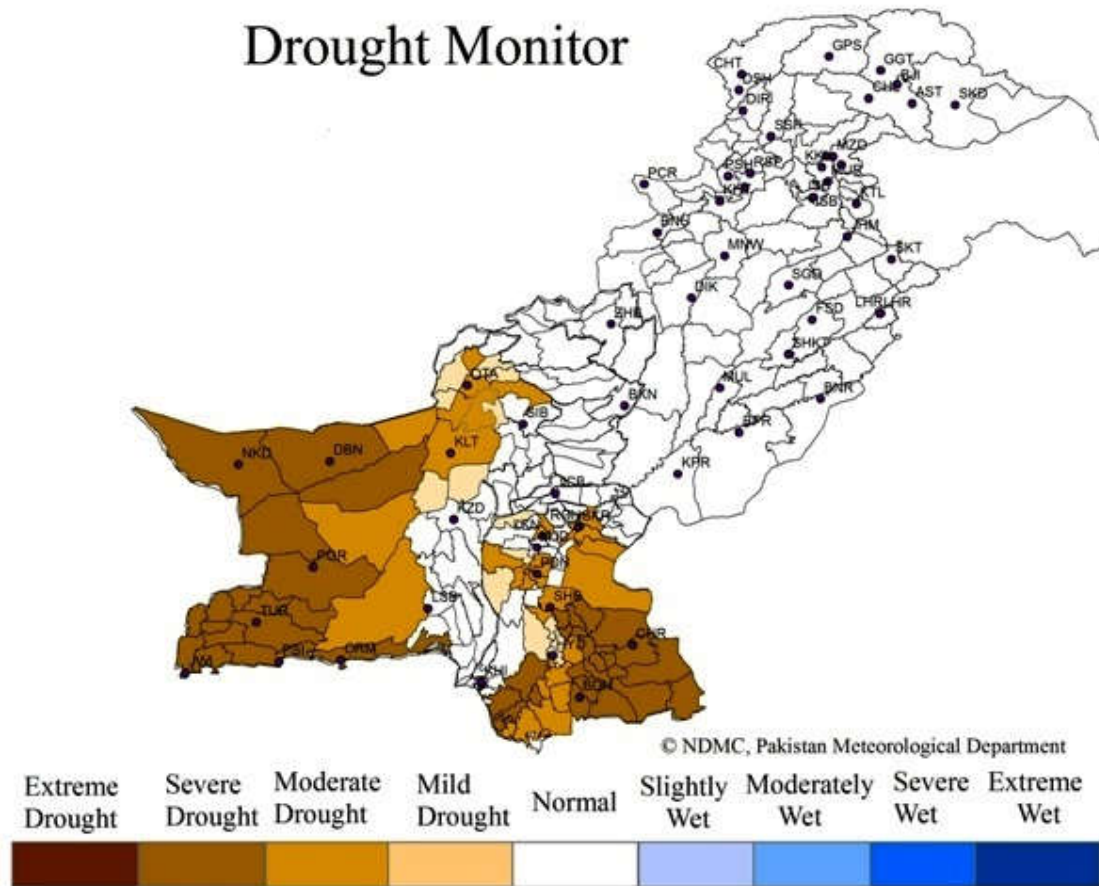


Figure 3: Drought Outlook during 1st fortnight of June 2021

Drought affected areas of Sindh province would receive light to moderate rainfall during 3rd week of June. However, no significant rainfall likely in western Balochistan that may further aggravate drought conditions. DRM agencies are requested to monitor water availability situation in drought affected areas and take necessary measures to minimize human sufferings

3. Normalized DifferenceVegetation Index (NDVI)

Normalized Difference Vegetation Index values during First Fortnight of June, 2021 are shown in Fig.4. NDVI values are good over the areas of upper Khber Paktunkhwa, Punjab and along the Indus belt, whereas low NDVI values are observed in the southern parts of country.

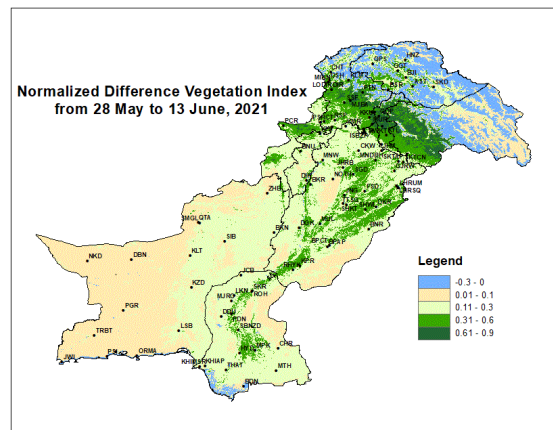


Figure4: NDVI During First Fortnight of June, 2021

4. Land Surface Temperature (LST)

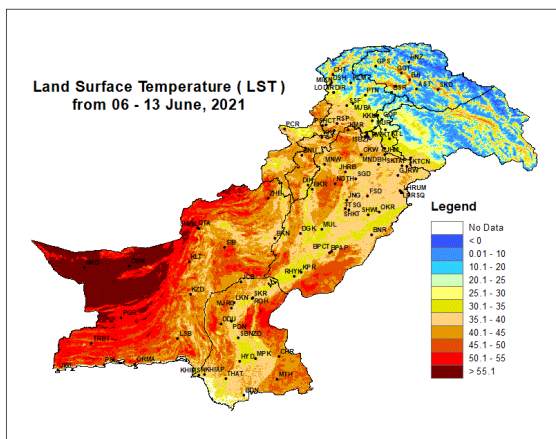


Figure5: LST06 – 13 June, 2021

Land surface Temperatures (LST) during First Fortnight June, 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 30°C to 40°C, while some areas in western Balochistan and some parts of Punjab and Sindh LST recorded above 40°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, Dalbandin, Jiwani, Pasni, Ormara and Tharparker in Sindh are under moisture stress conditions..

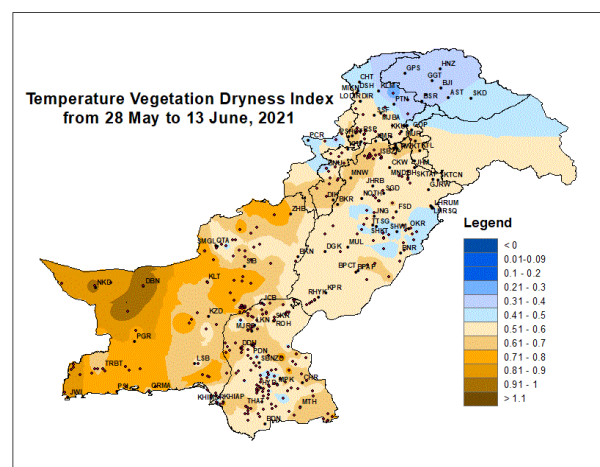


Figure 6: TVDI During First Fortnight of June, 2021