

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light to moderate with isolated heavy rainfall was reported from most parts of the country during the decade.
- ❖ Highest amount of rainfall recorded was 42.0 mm at Larkana during the last decade.
- ❖ Highest maximum temperature recorded as 49.0°C at Bhakkar during the last decade.
- ❖ Rain/wind thunderstorm is expected in Punjab, upper parts of KP, northern and southeast Baluchistan, GB and Kashmir, isolate rain at a few places in lower Sindh is also expected during the decade.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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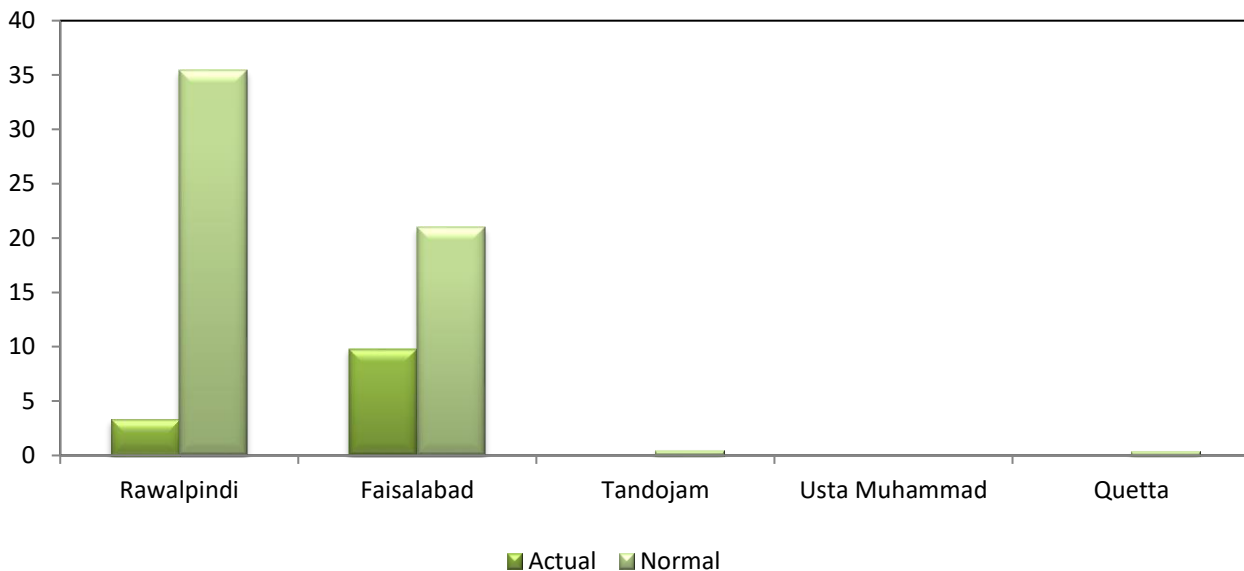
Meteorological Conditions during 2nd Decade of June 2024

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration(hours)	Wind Speed (km/hr)	ETo (mm/day)
		Normal	Actual	Dep	Tmx Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	Rawalpindi	35.4	3.3	-32.1	5.4	1.1	33.5	36.2	34.5	32.7	32.8	30.9	28.6	35	97.3	0.3	4.9
2	Faisalabad	21.0	9.8	-11.2	3.3	2.8	36.3	43.1	41.1	39.6	39.0	***	35.3	34	111.3	4.8	7.5
3	Jhelum	20.1	16.2	-3.9	9.7	0.9	38.3	39.2	37.4	35.5	33.9	33.2	***	31	99.7	4.5	7.6
4	Lahore	25.6	0.0	-25.6	3.8	2.4	36.3	38.5	37.0	35.1	34.4	***	30.8	30	108.3	2.5	6.3
5	Sargodha	20.1	5.0	-15.1	4.6	3.0	37.8	41.0	39.3	37.1	36.2	***	***	28	4.3	4.3	6.9
6	Multan	4.0	0.0	-4.0	0.7	-0.6	35.3	***	***	***	***	***	***	47	116.0	9.8	9.0
7	Khanpur	2.0	0.0	-2.0	1.2	2.2	36.5	***	39.3	39.1	38.8	38.3	35.3	46	102.5	***	8.1
8	Tandojam	0.4	0.0	-0.4	-0.1	-0.2	32.9	***	37.8	35.6	34.8	34.1	34.2	61	***	15.1	8.1
9	Sakrand	0.0	0.0	0.0	0.8	1.0	35.3	46.4	***	***	***	***	***	47	116.0	9.8	9.0
11	Rohri	2.7	0.0	-2.7	0.1	1.4	36.4	***	***	***	***	***	***	44	109.4	3.6	7.1
12	D.I Khan	10.0	4.4	-5.6	4.8	3.3	36.5	36.4	36.2	13.1	***	23.2	***	36	89.3	4.6	7.0
13	Peshawar	7.6	3.0	-4.6	1.8	-1.0	33.1	34.2	33.0	31.3	30.0	29.0	27.4	36	82.0	5.3	6.8
14	Usta M.	0.0	0.0	0.0	0.0	0.0	33.5	39.5	39.8	39.9	***	***	37.5	34	***	5.5	8.6
15	Quetta	0.4	0.0	-0.4	-0.2	2.1	27.3	34.9	32.6	29.4	28.2	27.7	24.8	25	101.5	5.1	6.4
16	Skardu	2.5	1.0	-1.5	-0.5	-0.7	20.1	***	***	***	***	***	***	31	73.1	4.5	5.0
17	Gilgit	3.6	0.0	-3.6	0.7	2.5	25.6	***	***	***	***	***	***	35	68.7	4.5	5.3

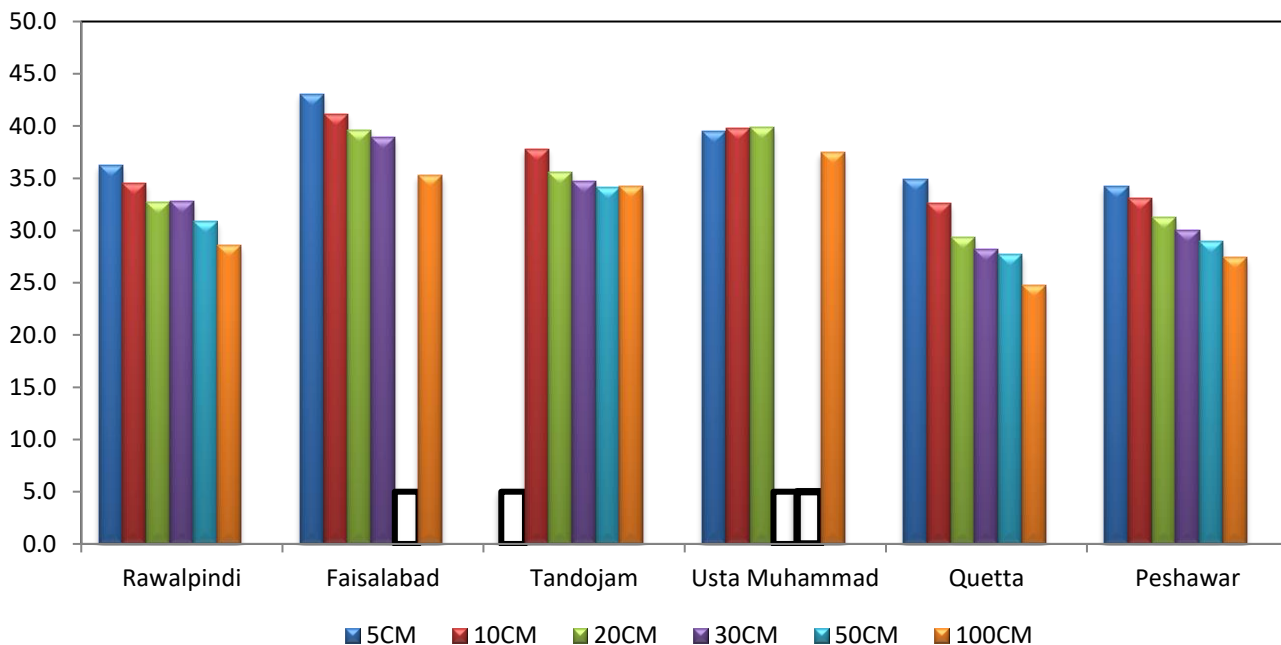
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration*** stands for data non availability.

Graph at RAMCs during June 2024

Precipitation(mm) during 2nd Decade



Soil Temperature(°C)



* Faisalabad 50 cm and Tandojam 5cm Usta Muhammad 30 cm , 50 cm soil temperature data is is not available.

Past Weather (11th to 20th June 2024)

Light to moderate amount of rainfall was reported from most parts of the country whereas dry weather reported from some isolated places of southern Sindh and Baluchistan.

1.1 Punjab

Light to moderate rainfall with isolated heavy falls were reported in the province. The decadal maximum temperature rose above normal by 4.0 °C and minimum temperature were observed below normal 1.6°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 36%, 102.7hrs, 4.3km/hr and 7.1mm/day respectively.

1.2 Sindh

Light to moderate rainfall was reported from different parts of the province. The decadal maximum and minimum temperatures rose above normal by 0.2 and 0.6 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 51%, 112.7hrs, 9.5km/hr and 8.0mm/day respectively.

1.3 Khyber Pakhtunkhwa

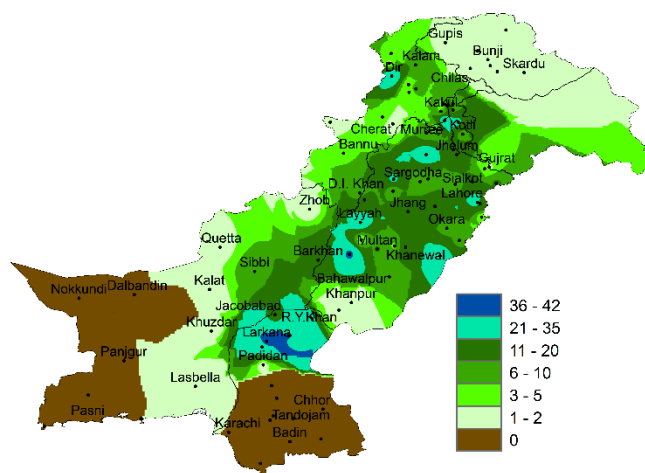
Light to moderate rainfall with isolated heavy rain at isolated places was reported from the province. The decadal maximum temperature rose above normal by 3.2 °C and minimum temperature were observed below normal 1.1°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 36%, 85.6hrs, 4.9km/hr and 6.9mm/day respectively.

1.4 Baluchistan

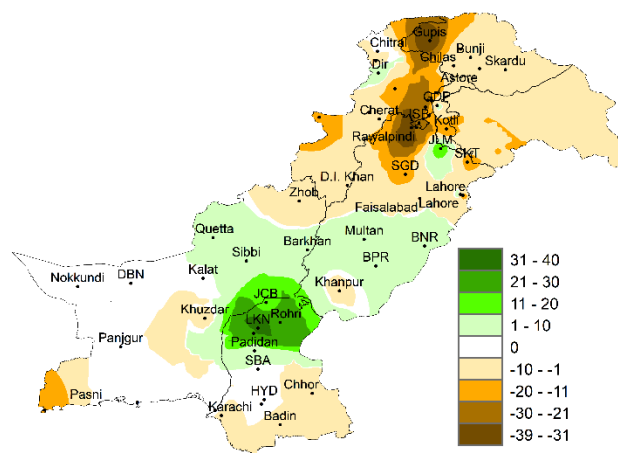
Light to moderate rainfall was reported north western and southern parts of the province. Decadal maximum temperature was observed fall below normal by 0.1 °C whereas above normal minimum temperature by 1.0 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 30%, 101.5hrs, 5.3km/hr and 7.5 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

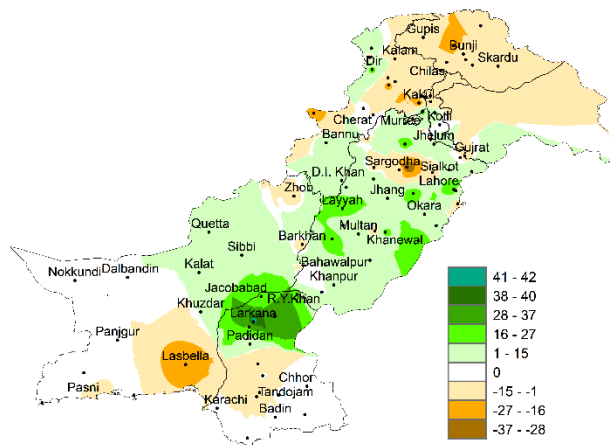
Moderate to heavy rain was reported from the province. The decadal maximum temperature rose above normal by 0.11 °C and minimum temperature were observed below normal 0.88°C in the province Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 33%, 70.9hrs, 4.5km/hr and 5.15mm/day respectively.



I. Actual rainfall



II. Departure of rainfall from Normal



III. Departure of rainfall from Previous Decade

Figure.1: Rainfall distribution during previous decade (mm)

(a) **Past Weather for Major Agricultural Plains (11th to 20th June 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 3.3 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 36%. Mean day temperature was 42.7°C while night temperature recorded as 24.2°C with 97.3 hours bright sunshine duration. Wind speed recorded as 0.3 km/hr with mean wind direction *variable*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 9.8 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 34%. Mean day temperature was 43.3°C while night temperature recorded as 29.2°C with 111.3 hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean wind direction *south southwesterly*.

Cotton: *Very good, Flowering.*

2.3 RAMC, Tandojam (Lower Sindh)

The weather was dry during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 61%. Mean day temperature was 39.3°C while night temperature recorded as 26.4°C. Wind speed recorded as 15.1 km/hr with mean wind direction *south westerly*.

Cotton: *Good, Third true leaf.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

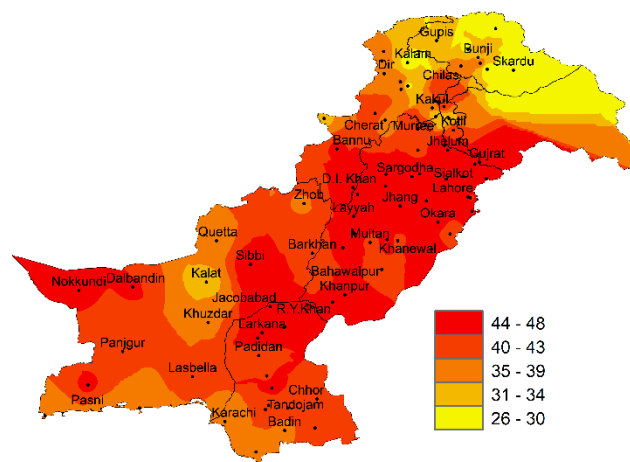
The weather was dry during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 34%. Mean day temperature was 46.2°C while night temperature recorded as 20.7°C. Wind speed recorded as 5.5 km/hr with mean wind direction *variable*.

Rice: *Good, Field preparing*

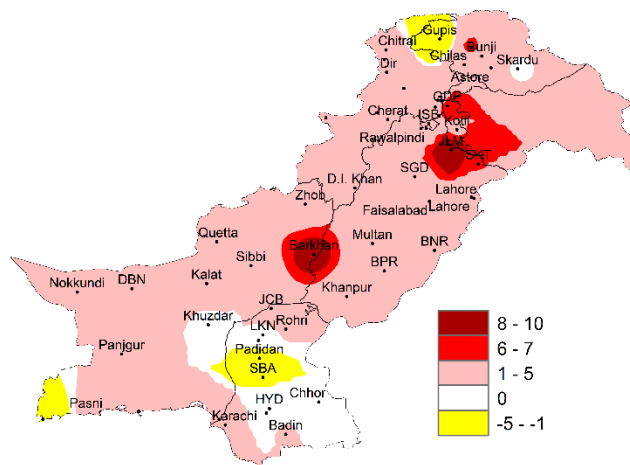
2.5 RAMC, Quetta (Northern Baluchistan)

The weather was dry during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 25%. Mean day temperature was 35.0°C while night temperature recorded as 19.6°C with 101.5 hours bright sunshine duration. Wind speed recorded as 5.1 km/hr with mean wind direction *north westerly*.

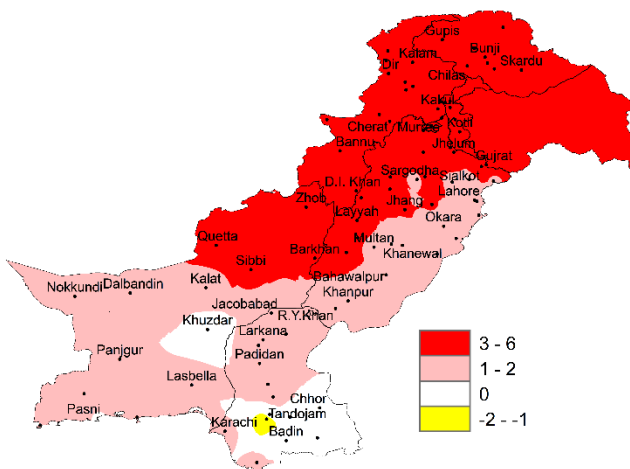
Wheat: *Harvested.*



I. Actual max-temperature



II. Departure of max-temperature from Normal



III. Departure of max-temperature from Previous Decade

Figure.2: Maximum Temperature distribution during previous decade (°C)

2(b) **Past Weather or Sub-Regional Agricultural Plains (11th to 20th June 2024)**

2.6 **Jhelum**

Rainfall reported as 16.20 mm during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 31%. Mean day temperature was 49.3°C while night temperature recorded as 26.7°C with 99.7 hours bright sunshine duration. Wind speed recorded as 4.5 km/hr with mean wind direction *south westerly*.

2.7 **Lahore**

The weather was dry during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 30%. Mean day temperature was 43.1°C while night temperature recorded as 29.5°C with 108.3 hours bright sunshine duration. Wind speed recorded as 2.5 km/hr with mean wind direction *north easterly*.

2.8 **Sargodha**

Rainfall reported as 5.0 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 28%. Mean day temperature was 45.3°C while night temperature recorded as 30.3°C with 84.2 hours bright sunshine duration. Wind speed recorded as 4.3 km/hr with mean wind direction *south westerly*.

2.9 **Multan**

Rainfall reported as 10.4 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 37%. Mean day temperature was 42.7°C while night temperature recorded as 31.0°C with 84.8 hours bright sunshine duration. Wind speed recorded as 12.5 km/hr with mean wind direction *south westerly*.

2.10 **Khanpur**

The weather was dry during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 46%. Mean day temperature was 43.6°C while night temperature recorded as 29.3°C with 102.5 hours bright sunshine duration. Mean wind direction *south westerly*.

2.11 **Sakrand**

The weather was dry during the decade. Average relative humidity recorded as 47%. Mean day temperature was 42.7°C while night temperature recorded as 27.9°C with 116 hours bright sunshine duration. Wind speed recorded as 9.8 km/hr with mean direction as *southerly*.

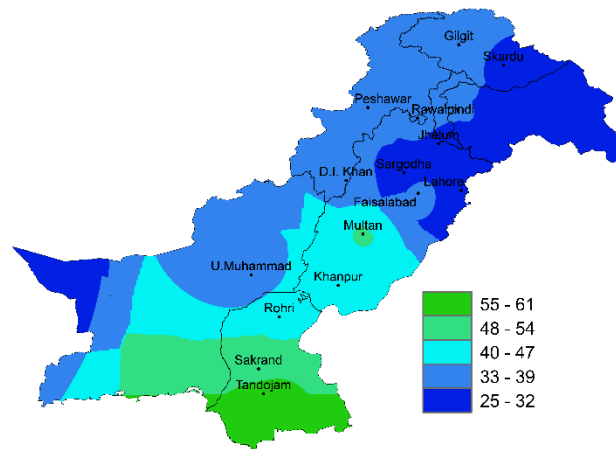


Figure.3: Relative Humidity in Percentage (%)

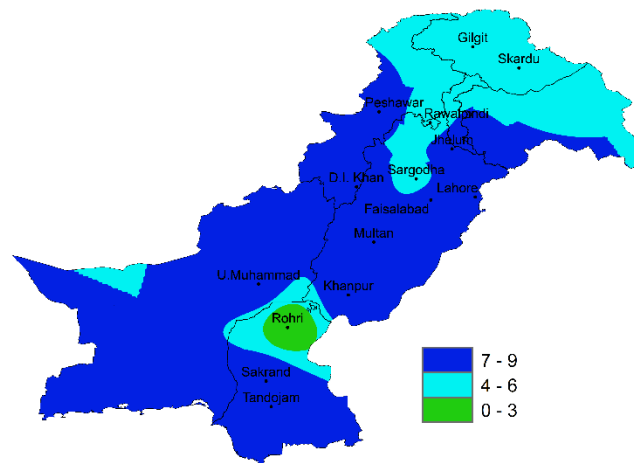


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

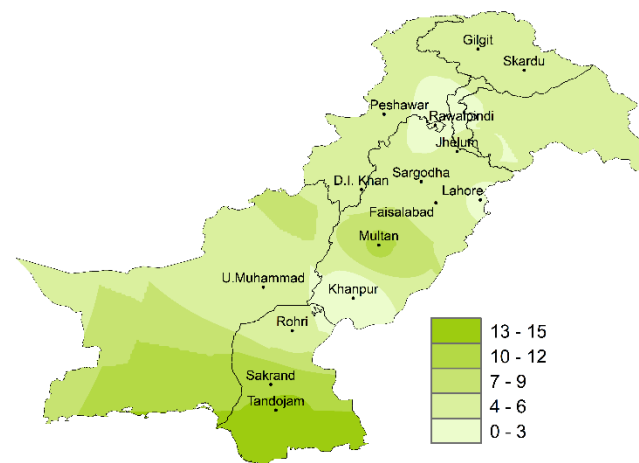


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

The weather was dry during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 44%. Mean day temperature was 43.7°C while night temperature recorded as 29.1°C with 109.4 hours bright sunshine duration. Wind speed recorded as 3.6 km/hr with mean direction as *south westerly*.

2.13 D.I. Khan

Rainfall reported as 4.4 mm during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 36%. Mean day temperature was 44.3°C while night temperature recorded as 28.7°C with 89.3 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean wind direction as *north easterly*

2.14 Peshawar

Rainfall reported as 3.0 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 36%. Mean day temperature was 41.9°C while night temperature recorded as 24.3°C with 82 hours bright sunshine duration. Wind speed recorded as 5.3 km/hr with mean wind direction as *north westerly*.

2.15 Skardu

Rainfall reported as 1.0 mm during the decade; however, weather remained cloudy for 04 days during the decade. Average relative humidity recorded as 31%. Mean day temperature was 28.1°C while night temperature recorded as 12.0°C with 73.1 hours bright sunshine duration. Wind speed recorded as 4.5 km/hr with mean wind direction as *west northwesterly*.

2.16 Gilgit

Rainfall reported as 0.01 mm during the decade; however, weather remained cloudy for 10 days during the decade. Average relative humidity recorded as 35.3%. Mean day temperature was 34.3°C while night temperature recorded as 16.8°C with 68.7 hours bright sunshine duration. Wind speed recorded as 4.5 km/hr with mean wind direction as *south easterly*.

Eleven Days Weather Advisory for Farmers (21th to 30th June 2024)

3.1 Temperature Forecast

Above normal mean temperature is likely over most parts of the country whereas below normal temperature in northern parts of the country including upper Khyber Pakhtunkhwa, Gilgit Baltistan and Kashmir.

3.2 Wind Forecast

Generally, normal wind patterns may prevail in most of the agricultural plains of the country.

3.3 Rain Forecast

- ❖ **Punjab:** Mainly Hot and Dry weather is expected in most parts of the province. However, Rain, wind/thunderstorm is expected in central/eastern Punjab during last 3-4 days of the decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly Hot and Dry weather is expected in most parts of the province Rain, wind/thunderstorm is expected in upper parts of the province during last days of the decade.
- ❖ **Sindh:** Mainly hot and dry weather is expected in Sindh province during the decade.
- ❖ **Baluchistan:** Mainly dry weather is expected in most parts of the province.
- ❖ **Gilgit-Baltistan:** Rain, wind/thunderstorm is expected at isolated places during the decade.
- ❖ **Kashmir:** Rain, wind/thunderstorm is expected during the decade.

3.4 Advisory for Farmers

Farmers are advised to follow the weather forecast to proceed for any field activity.