

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 42.5 mm at Mandibahauddin during the last decade.
- ❖ Highest maximum temperature recorded as 48.0°C at Sibbi and Turbat during the last decade.
- ❖ Rain/ wind thunderstorm is expected in upper KP, GB, Kashmir and eastern parts of Punjab during the decade.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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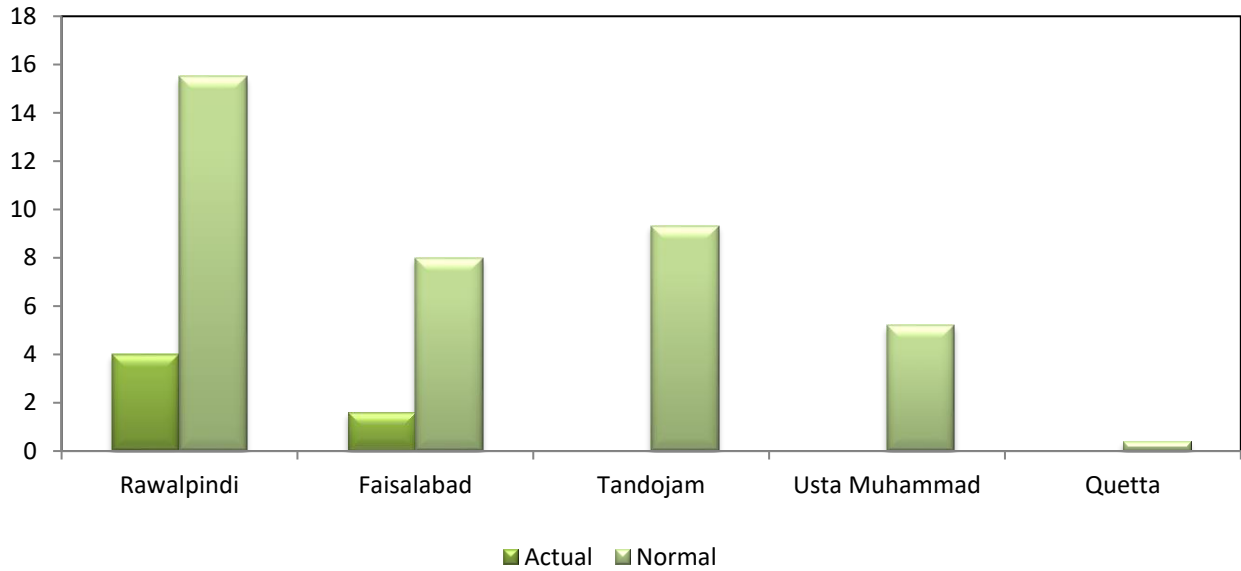
Meteorological Conditions during 1st Decade of June 2024

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	15.5	4.0	-11.5	1.4	-0.4	31.1	33.7	32.4	30.9	30.0	29.6	27.9	36	86.1	2.7	5.5
2	Faisalabad	8.0	1.6	-6.4	0.7	0.9	34.3	40.5	38.8	37.7	37.2	***	34.5	36	101.9	4.0	6.7
3	Jhelum	10.2	9.2	-1.0	0.6	0.0	33.3	35.0	34.1	32.2	30.9	30.5	***	33	97.8	6.6	7.6
4	Lahore	8.3	1.3	-7.0	0.9	-0.1	34.1	36.1	35.2	33.0	32.4	***	33.1	31	107.9	1.5	5.6
5	Sargodha	6.6	14.0	7.4	0.4	-0.9	34.4	37.2	35.9	34.5	34.0	***	***	34	4.6	4.6	4.9
6	Multan	2.2	32.0	29.8	-1.2	-1.4	34.0	***	***	***	***	***	***	51	107.1	7.6	7.8
7	Khanpur	1.9	0.0	-1.9	-0.5	1.1	35.0	***	38.8	38.7	38.6	38.3	34.8	41	99.6	***	7.9
8	Tandojam	9.3	0.0	-9.3	1.8	2.0	34.8	***	38.1	36.7	35.3	34.4	33.6	55	***	11.1	8.0
9	Sakrand	9.0	32.0	23.0	-0.2	0.5	34.0	45.3	***	***	***	***	***	51	107.1	7.6	7.8
11	Rohri	12.0	0.0	-12.0	-1.1	1.1	35.8	***	***	***	***	***	***	42	94.7	4.9	7.1
12	D.I Khan	2.8	2.0	-0.8	1.5	2.2	34.1	35.9	34.7	13.1	***	22.3	***	34	78.5	5.0	6.6
13	Peshawar	5.6	3.1	-2.5	-1.4	-3.3	29.9	31.2	30.6	29.4	28.7	28.1	26.8	44	72.8	5.3	6.1
14	Usta M.	5.2	0.0	-5.2	0.0	0.0	35.6	40.1	39.1	40.1	***	***	37.2	34	***	4.8	7.9
15	Quetta	0.4	0.0	-0.4	-1.5	1.0	25.1	31.4	29.5	27.0	26.1	26.0	23.1	29	100.8	4.8	6.0
16	Skardu	4.1	7.8	3.7	-2.8	-1.9	17.1	***	***	***	***	***	***	37	70.9	4.3	4.5
17	Gilgit	4.2	17.9	13.7	-2.5	0.4	21.6	***	***	***	***	***	***	42	64.7	4.5	4.7

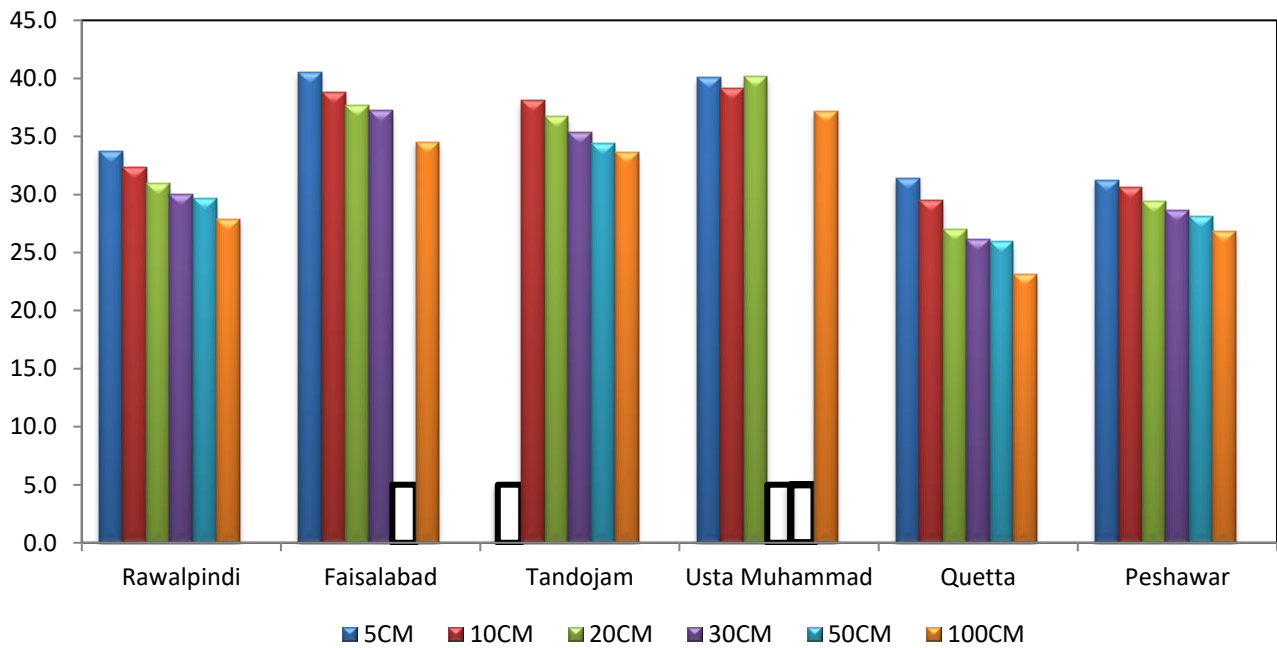
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during June 2024

Precipitation(mm) during 1st 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 (1st to 10th 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 was reported in the province. The decadal maximum temperature rose above normal by 0.3 °C and minimum temperature were observed below normal 0.1°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 37%, 86.4hrs, 4.5 km/hr and 6.5mm/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 1.2 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 49%, 100.9hrs, 7.8km/hr and 7.6mm/day respectively.

1.3 Khyber Pakhtunkhwa

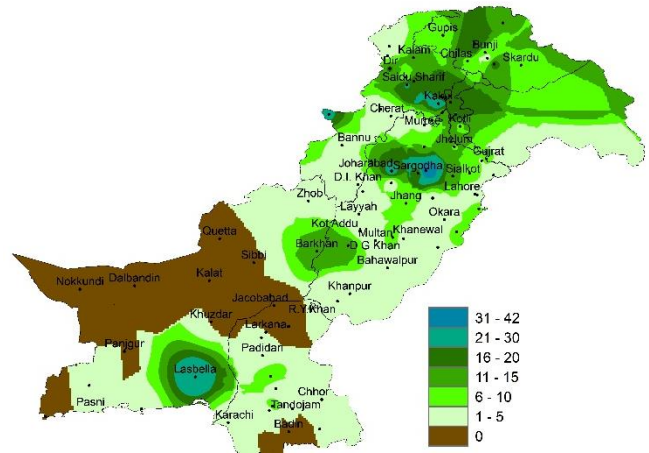
Light to moderate rainfall with isolated heavy rain at isolated places was reported from the province. The decadal maximum temperature rose above normal by 0.1 °C and minimum temperature were observed below normal 0.5°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 39%, 75.6hrs, 5.1km/hr and 6.3mm/day respectively.

1.4 Baluchistan

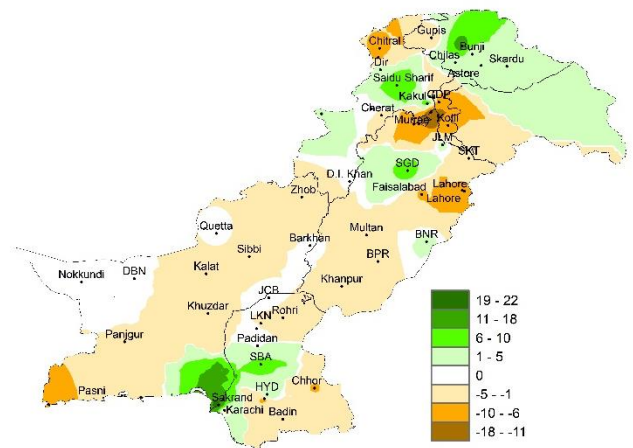
Light to moderate rainfall was reported north western and southern parts of the province. Decadal maximum temperature was observed fall below normal by 0.7 °C whereas above normal minimum temperature by 0.5 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 32%, 100.8hrs, 4.8km/hr and 6.9 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

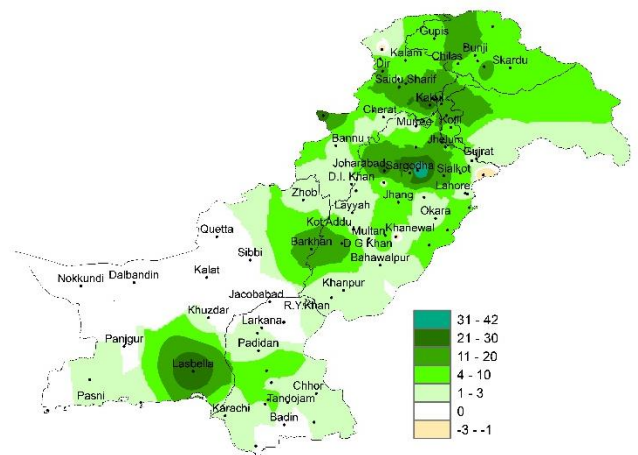
Moderate to heavy rain was reported from the province. The decadal maximum and minimum temperatures fall below normal by 2.6 and 0.8 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 39%, 67.8hrs, 4.4km/hr and 4.6mm/day respectively.



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 (1st to 10th June 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 4.0 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 36%. Mean day temperature was 39.9°C while night temperature recorded as 22.2°C with 86.1 hours bright sunshine duration. Wind speed recorded as 2.7 km/hr with mean wind direction *south westerly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 1.6 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 36%. Mean day temperature was 41.7°C while night temperature recorded as 26.9°C with 101.9 hours bright sunshine duration. Wind speed recorded as 4.0 km/hr with mean wind direction *westerly*.

Cotton: *Very good, Budding completed.*

2.3 RAMC, Tandojam (Lower Sindh)

The weather was dry during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 55%. Mean day temperature was 41.2°C while night temperature recorded as 25.4°C. Wind speed recorded as 11.1 km/hr with mean wind direction *south westerly*.

Cotton: *Good, Third true leaf.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

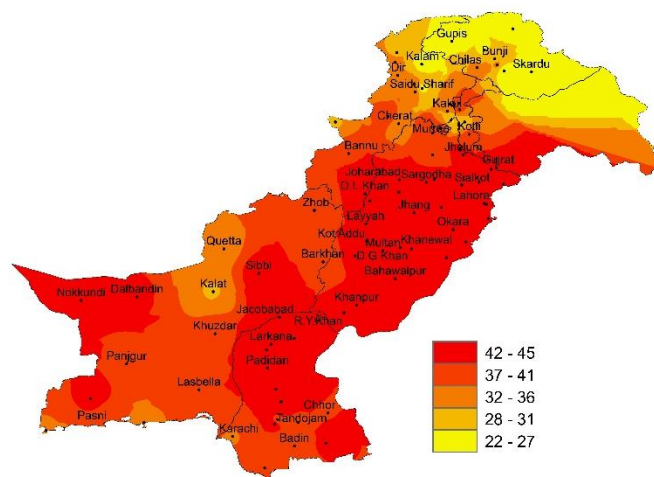
The weather was dry during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 34%. Mean day temperature was 45.2°C while night temperature recorded as 26.0°C. Wind speed recorded as 4.8 km/hr with mean wind direction *north easterly*.

Rice: *Good, Field preparing*

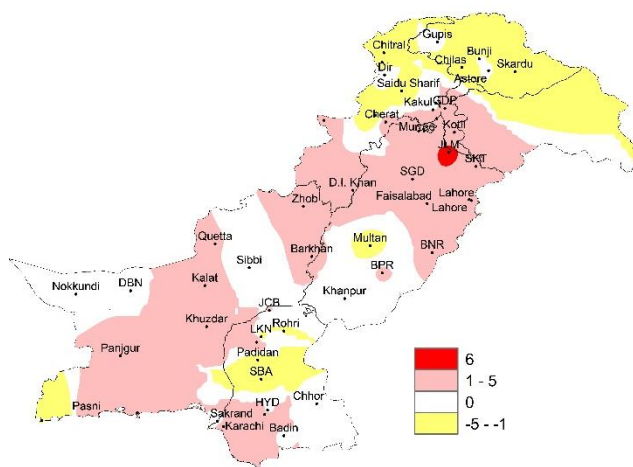
2.5 RAMC, Quetta (Northern Baluchistan)

The weather was dry during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 29%. Mean day temperature was 32.9°C while night temperature recorded as 17.2°C with 100.8 hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean wind direction *north westerly*.

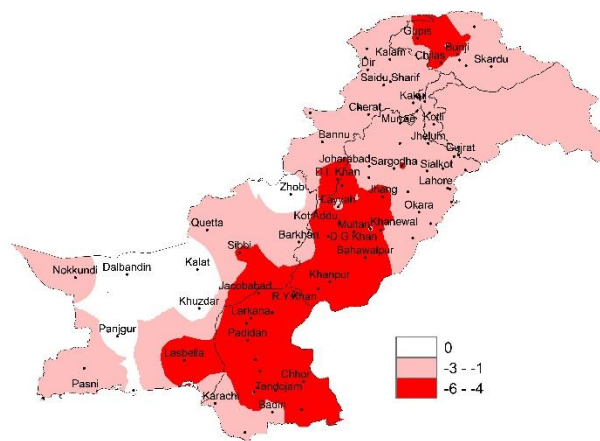
Wheat: *Harvested.*



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 (1st to 10th June 2024)

2.6 Jhelum

Rainfall reported as 9.2 mm during the decade; however, weather remained cloudy for 8 days. Average relative humidity recorded as 33%. Mean day temperature was 41.3°C while night temperature recorded as 25.2°C with 97.8 hours bright sunshine duration. Wind speed recorded as 6.6 km/hr with mean wind direction *variable*.

2.7 Lahore

Rainfall reported as 1.3 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 31%. Mean day temperature was 41.3°C while night temperature recorded as 26.9°C with 107.9 hours bright sunshine duration. Wind speed recorded as 1.5 km/hr with mean wind direction *north easterly*.

2.8 Sargodha

Rainfall reported as 14 mm during the decade; however, weather remained cloudy for 6 days. Average relative humidity recorded as 34%. Mean day temperature was 42.4°C while night temperature recorded as 26.3°C with 90.3 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean wind direction *north easterly*.

2.9 Multan

Rainfall reported as 0.6 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 34%. Mean day temperature was 41.9°C while night temperature recorded as 28.8°C with 68 hours bright sunshine duration. Wind speed recorded as 9.4 km/hr with mean wind direction *south westerly*.

2.10 Khanpur

The weather was dry during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 41%. Mean day temperature was 42.4°C while night temperature recorded as 27.6°C with 99.6 hours bright sunshine duration. Mean wind direction *south westerly*.

2.11 Sakrand

Rainfall reported as 32.0 mm during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 51%. Mean day temperature was 41.4°C while night temperature recorded as 26.5°C with 107.1 hours bright sunshine duration. Wind speed recorded as 7.6 km/hr with mean direction as *southerly*.

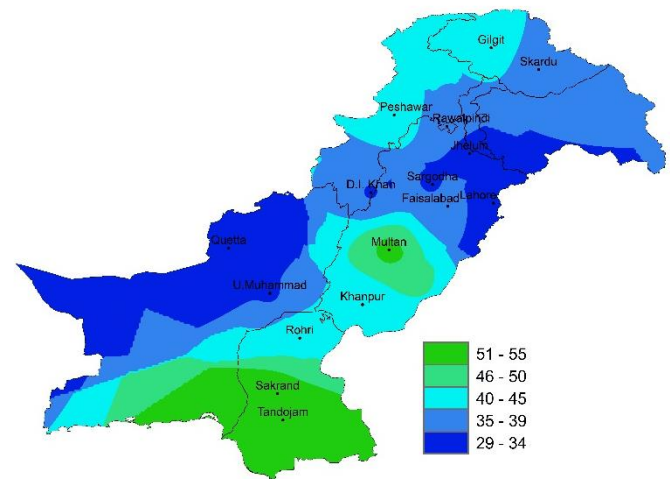


Figure.3: Relative Humidity in Percentage (%)

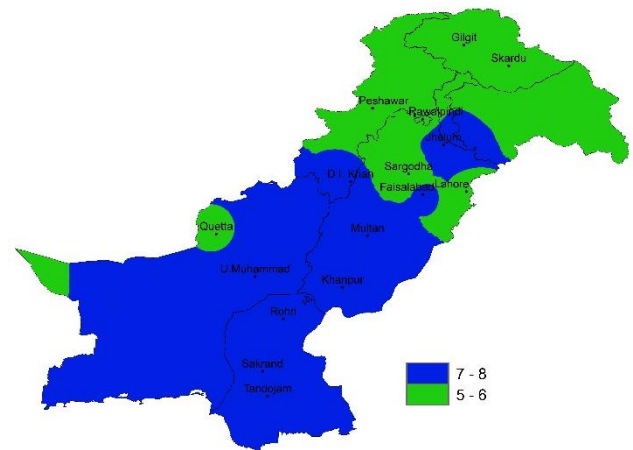


Figure.4: Reference Crop Evapotranspiration ET₀ (mm/day)

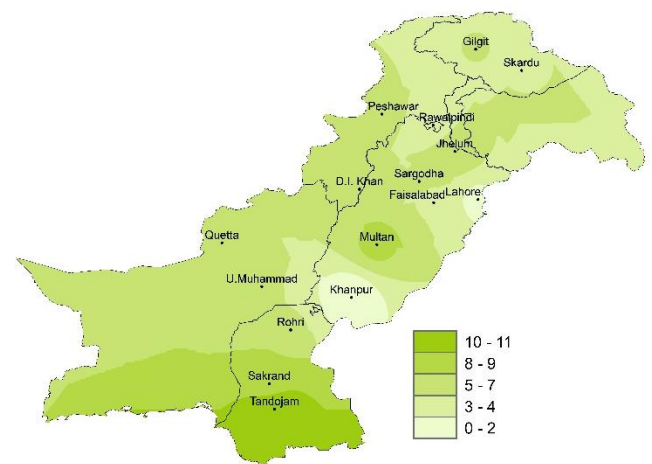


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

The weather was dry during the decade; however, weather remained cloudy for 4 days. Average relative humidity recorded as 42%. Mean day temperature was 42.9°C while night temperature recorded as 28.6°C with 94.7 hours bright sunshine duration. Wind speed recorded as 4.9 km/hr with mean direction as *south easterly*.

2.13 D.I. Khan

Rainfall reported as 2.0 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 34%. Mean day temperature was 41.5°C while night temperature recorded as 26.7°C with 78.5 hours bright sunshine duration. Wind speed recorded as 5.0 km/hr with mean wind direction as *south easterly*

2.14 Peshawar

Rainfall reported as 3.1 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 44%. Mean day temperature was 38.4°C while night temperature recorded as 21.3°C with 72.8 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 7.8 mm during the decade; however, weather remained cloudy for 06 days during the decade. Average relative humidity recorded as 37%. Mean day temperature was 24.5°C while night temperature recorded as 9.7°C with 70.9 hours bright sunshine duration. Wind speed recorded as 4.3 km/hr with mean wind direction as *north-north easterly*.

2.16 Gilgit

Rainfall reported as 17.9 mm during the decade; however, weather remained cloudy for 10 days during the decade. Average relative humidity recorded as 41.6%. Mean day temperature was 29.7°C while night temperature recorded as 13.5°C with 64.7 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 (11th to 20th 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:** Hot and Dry weather is expected in most parts of the province. However, Rain, wind/thunderstorm is expected in central/eastern Punjab during last 2-3 days of the decade (since 18 June 2024).
- ❖ **Khyber Pakhtunkhwa:** Rain, wind/thunderstorm is expected in upper parts of the province during 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 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.