

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light to moderate amount of rainfall was reported from most parts of the country while heavy showers were reported from upper KP, the Potohar region, and isolated areas of north-Eastern and central Punjab during the decade.
- ❖ Highest amount of rainfall recorded was 115 mm at Sialkot during the last decade.
- ❖ Highest maximum temperature recorded as 49.0°C at Dalbadin, Nukkundi, & Turbat during the last decade.
- ❖ Mainly hot and dry weather is expected while rain/wind thunderstorm is expected in upper half of Punjab, KP, north eastern Baluchistan, coastal areas of Sindh GB and Kashmir during the decade.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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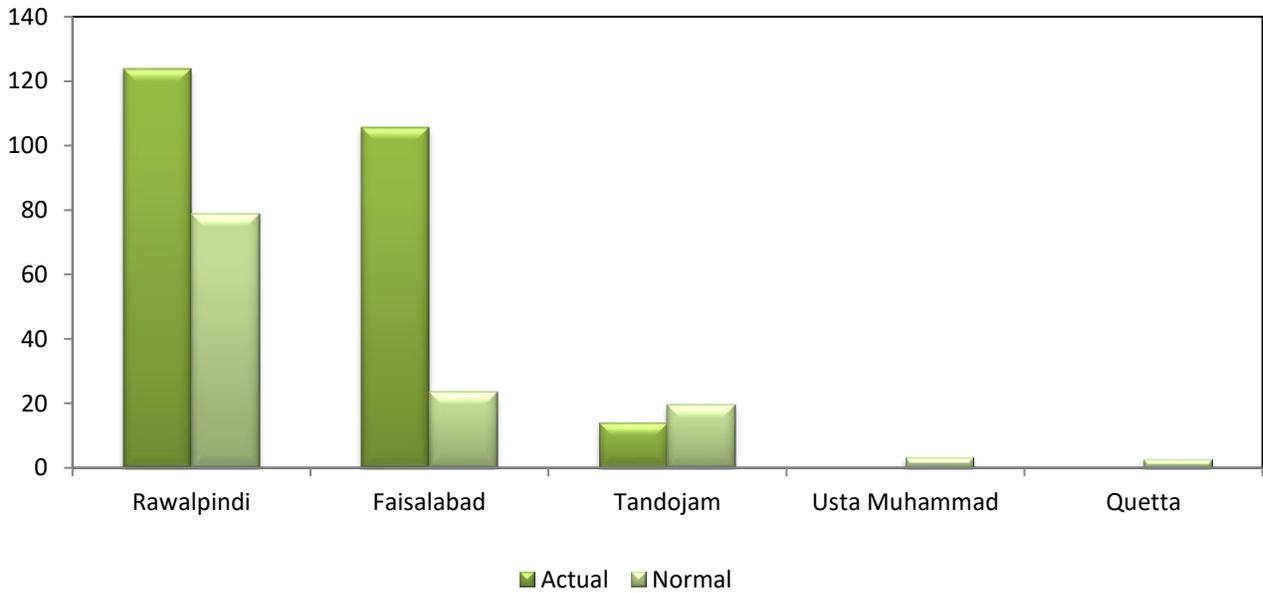
Meteorological Conditions during 1st Decade of July 2024

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	78.7	123.9	45.2	1.367	0.0	30.7	32.6	31.9	31.2	31.0	30.8	29.9	58	78.7	3.9	5.5
2	Faisalabad	23.5	105.6	82.1	-1.0	0.8	32.8	36.0	35.6	35.7	35.8	***	35.5	66	79.6	4.8	5.7
3	Jhelum	45.6	88.3	42.7	-0.8	0.7	31.9	35.5	34.6	33.9	33.4	33.4	***	69	58.1	4.2	4.9
4	Lahore	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	Sargodha	33.1	74.2	41.1	-0.2	0.2	33.6	37.6	36.8	35.9	35.8	***	***	63	72.8	4.6	5.7
6	Multan	14.3	48.8	34.5	-0.3	2.1	35.5	***	***	***	***	***	***	59	78.7	8.7	6.9
7	Khanpur	3.5	4.8	1.3	1.1	2.5	36.1	***	40.4	40.3	40.1	39.7	37.3	54	88.2	**	7.3
8	Tandojam	19.7	14.0	-5.7	-0.5	0.4	32.4	***	37.8	35.9	35.1	33.5	34.5	70	49.1	12.0	5.7
9	Sakrand	4.3	0.0	-4.3	-0.6	1.7	34.6	45.5	***	***	***	***	***	59	78.7	8.7	6.9
11	Rohri	40.8	0.0	-40.8	0.5	2.4	36.2	***	***	***	***	***	***	52	82.9	4.8	6.5
12	D.I Khan	19.8	28.4	8.6	0.4	2.5	34.6	36.8	35.9	13.1	***	23.7	***	62	55.3	5.2	5.4
13	Peshawar	10.2	12.8	2.6	-0.4	-0.9	32.4	36.8	36.1	34.3	33.2	31.8	30.2	58	68.0	6.4	6.0
14	Usta M.	3.2	0.0	-3.2	0.0	0.0	34.9	40.7	41.1	40.9	***	***	38.6	47	**	7.3	8.5
15	Quetta	2.7	0.0	-2.7	0.1	0.8	29.3	38.1	35.6	32.2	31.1	30.7	27.7	31	96.3	3.9	6.1
16	Skardu	2.7	1.4	-1.3	-0.4	1.4	23.7	***	***	***	***	***	***	35	73.7	1.4	4.3
17	Gilgit	1.8	1.1	-0.7	1.0	3.2	28.7	***	***	***	***	***	***	39	71.9	4.4	5.6

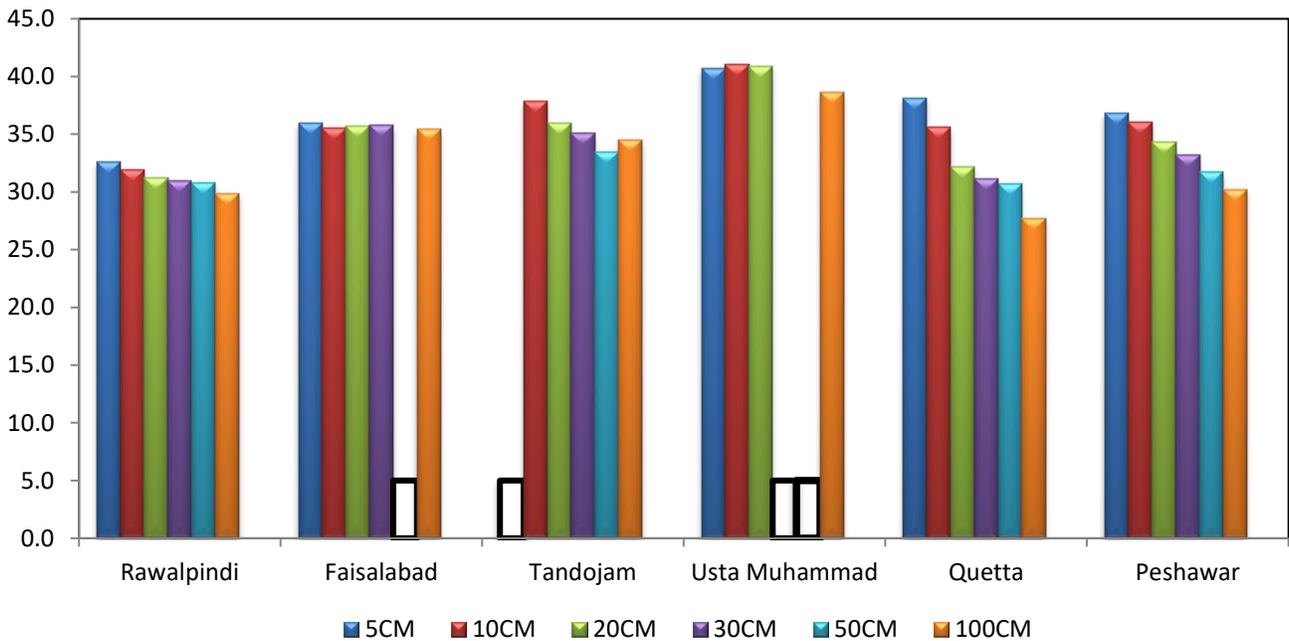
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during July 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 July 2024)

Light to moderate amount of rainfall was reported from most parts of the country while heavy showers were reported from upper KP, the Potohar region, and isolated areas of north-Eastern and central Punjab.

1.1 Punjab

Light to moderate rainfall with isolated heavy falls in Potohar region, north eastern and central part of Punjab were reported. The decadal maximum and minimum temperatures were reported near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 623%, 76.4hrs, 5.2km/hr and 6.0mm/day respectively.

1.2 Sindh

Light to moderate rainfall was reported from the province. The decadal maximum temperatures remained near normal while minimum temperatures rose above normal by 1.4 °C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 70.2hrs, 8.5km/hr and 6.3mm/day respectively.

1.3 Khyber Pakhtunkhwa

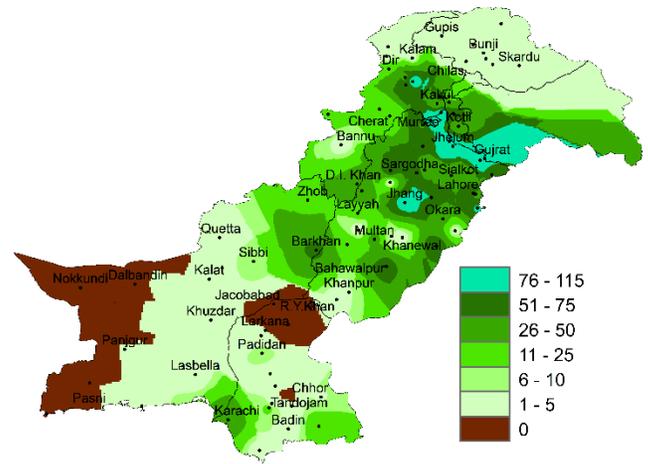
Light to moderate rainfall with isolated heavy rain at isolated places in upper KP was reported from the province. The decadal maximum and minimum temperatures remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 61.6hrs, 5.8km/hr and 5.7mm/day respectively.

1.4 Baluchistan

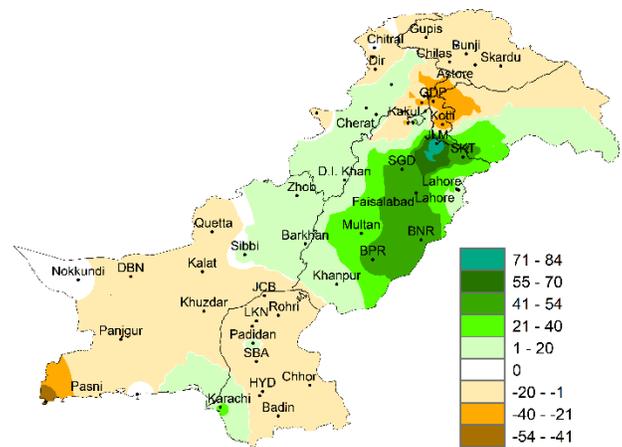
Light to moderate rainfall was reported from the province. The decadal maximum and minimum temperatures remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 39%, 96.3hrs, 5.6km/hr and 7.3 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

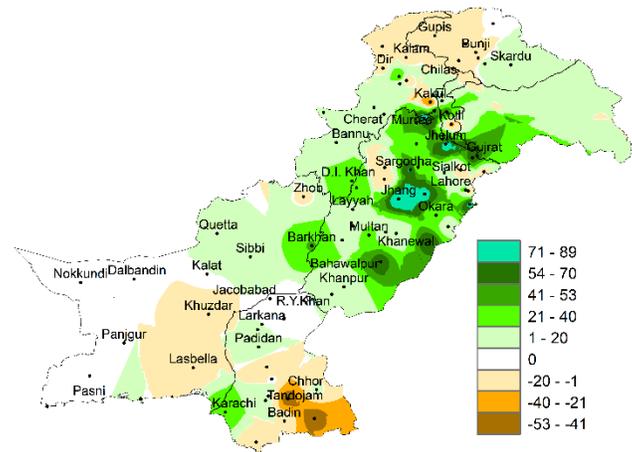
Light rain was reported from Gilgit-Baltistan while moderat to heavy rainfall was observed in Kashmir during the decade. The decadal maximum temperature was observed near normal and minimum temperature rose above normal by 2.2°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 37%, 73hrs, 2.9km/hr and 4.9mm/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 July 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 123.9 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 58%. Mean day temperature was 37.8°C while night temperature recorded as 23.6°C with 78.7 hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean wind direction *south easterly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 105.6 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 66%. Mean day temperature was 37.3°C while night temperature recorded as 28.3°C with 79.6 hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean wind direction *south easterly*.

Cotton: *Very good, Flowering completed.*

2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 14.0 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 70%. Mean day temperature was 37.3°C while night temperature recorded as 27.4°C. Wind speed recorded as 12.0 km/hr with mean wind direction *south westerly*.

Cotton: *Fair, Budding.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

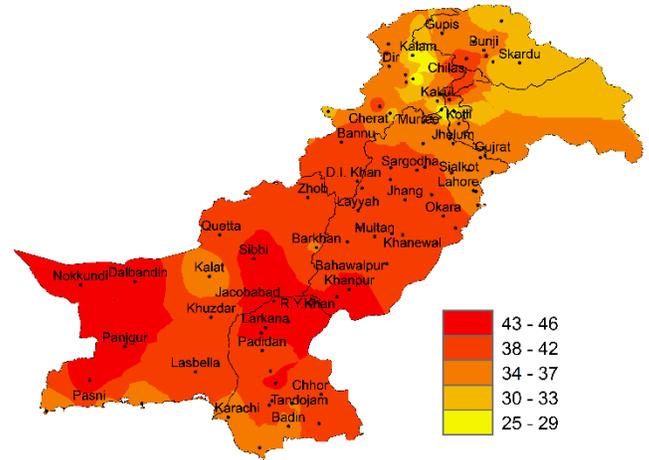
The weather was dry during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 47%. Mean day temperature was 44.3°C while night temperature recorded as 25.5°C. Wind speed recorded as 7.3 km/hr with mean wind direction *south easterly*.

Rice: *Good.*

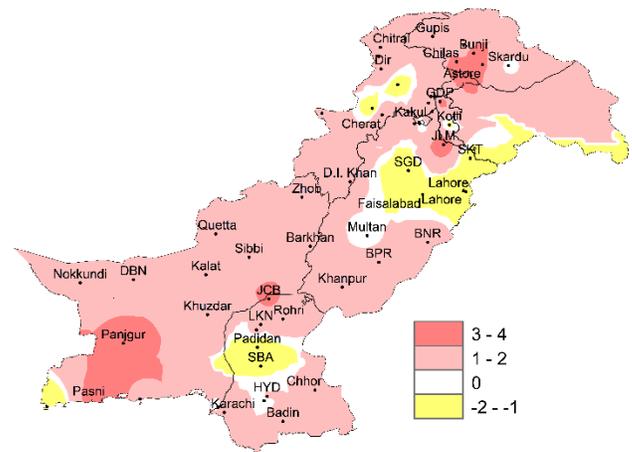
2.5 RAMC, Quetta (Northern Baluchistan)

The weather was dry during the decade; however, weather remained partially cloudy for 8 days. Average relative humidity recorded as 31%. Mean day temperature was 37.1°C while night temperature recorded as 21.5°C with 96.3 hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean wind direction *north westerly*.

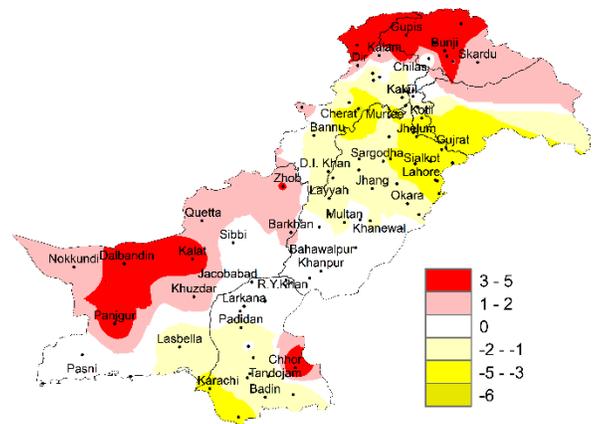
Wheat: *Nil.*



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 July 2024)**

2.6 **Jhelum**

Rainfall reported as 88.3 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 69%. Mean day temperature was 36.7°C while night temperature recorded as 27.1°C with 58.1 hours bright sunshine duration. Wind speed recorded as 4.2 km/hr with mean wind direction *south easterly*.

2.7 **Lahore**

Data not received.

2.8 **Sargodha**

Rainfall reported as 74.2 mm during the decade; however, weather remained partially cloudy. Average relative humidity recorded as 63%. Mean day temperature was 38.8°C while night temperature recorded as 28.3°C with 72.8 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean wind direction *variable*.

2.9 **Multan**

Rainfall reported as 48.8 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 54%. Mean day temperature was 39.8°C while night temperature recorded as 31.2°C with 50.3 hours bright sunshine duration. Wind speed recorded as 9.6 km/hr with mean wind direction *south westerly*.

2.10 **Khanpur**

Rainfall reported as 4.8 mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 54%. Mean day temperature was 41.7°C while night temperature recorded as 30.5°C with 88.2 hours bright sunshine duration. Mean wind direction *south westerly*.

2.11 **Sakrand**

The weather was dry during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 59%. Mean day temperature was 39.9°C while night temperature recorded as 29.2°C with 78.7 hours bright sunshine duration. Wind speed recorded as 8.7 km/hr with mean direction southerly.

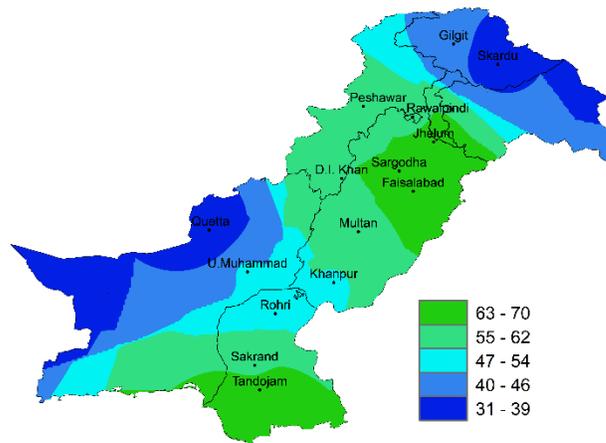


Figure.3: Relative Humidity in Percentage (%)

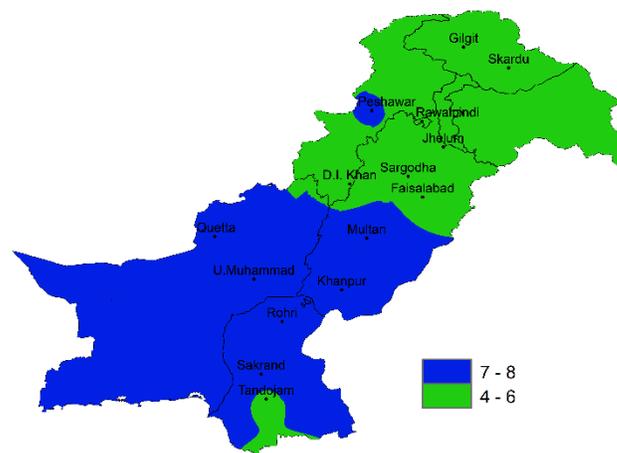


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)

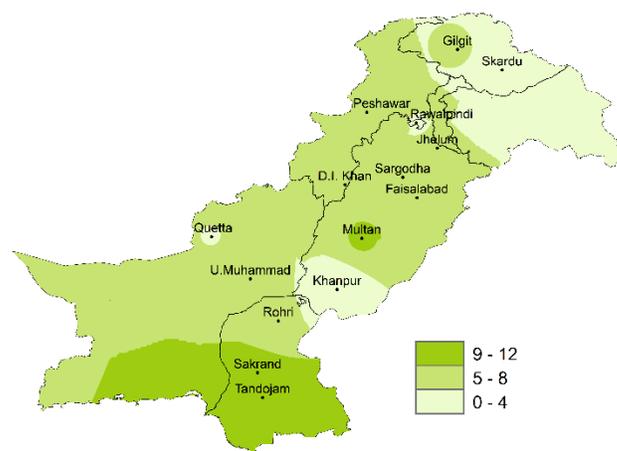


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

The weather was dry during the decade; however, weather remained partially cloudy for 8 days. Average relative humidity recorded as 52%. Mean day temperature was 42.3°C while night temperature recorded as 30.0°C with 82.9 hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean direction as *south westerly*.

2.13 D.I. Khan

Rainfall reported as 28.4 mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 62%. Mean day temperature was 40.1°C while night temperature recorded as 29.1°C with 55.3 hours bright sunshine duration. Wind speed recorded as 5.2 km/hr with mean wind direction as *south easterly*.

2.14 Peshawar

Rainfall reported as 12.8 mm during the decade; however, weather remained partially cloudy during . Average relative humidity recorded as 58%. Mean day temperature was 38.7°C while night temperature recorded as 26.1°C with 68 hours bright sunshine duration. Wind speed recorded as 6.4 km/hr with mean wind direction as *north easterly*.

2.15 Skardu

Rainfall reported as 1.4 mm during the decade; however, weather remained partially cloudy for 5 days during the decade. Average relative humidity recorded as 35%. Mean day temperature was 30.9°C while night temperature recorded as 16.4°C with 73.7 hours bright sunshine duration. Wind speed recorded as 1.4 km/hr with mean wind direction as *east southerly*.

2.16 Gilgit

Rainfall reported as 1.1 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 39%. Mean day temperature was 37.3°C while night temperature recorded as 20.0°C with 71.9 hours bright sunshine duration. Wind speed recorded as 4.4 km/hr with mean wind direction as *south easterly*.

**Eleven Days Weather Advisory for Farmers
(11th to 20th July 2024)****3.1 Temperature Forecast**

Above normal mean temperature is likely over most parts of the country.

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 upper part of Punjab during the decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly very hot and Dry weather is expected in most parts of the province during the day time. while rain, wind/thunderstorm is expected in the province during the night time in some areas.
- ❖ **Sindh:** Mainly very hot and dry weather is expected in Sindh province during the decade however rain is expected in south eastern and coastal areas of Sindh during the decade.
- ❖ **Baluchistan:** Mainly hot and dry weather is expected in province during the decade. However, rain, wind/thunderstorm is expected in northeastern part of province during the first half decade .
- ❖ **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.