

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Heavy rainfall reported from Khyber Pakhtunkhwa. Whereas, moderate to heavy rainfall was reported from the Balochistan, GB and Kashmir. However, light to moderate rainfall was reported Punjab province and light rain from Sindh.
- ❖ Highest amount of rainfall recorded was 396.0 mm at Malamjabba during the last decade.
- ❖ Highest maximum temperature recorded as 43.2 °C at Khairpur during the last decade.
- ❖ Rain (light snow over mountains) is expected in most parts of the country during the decade.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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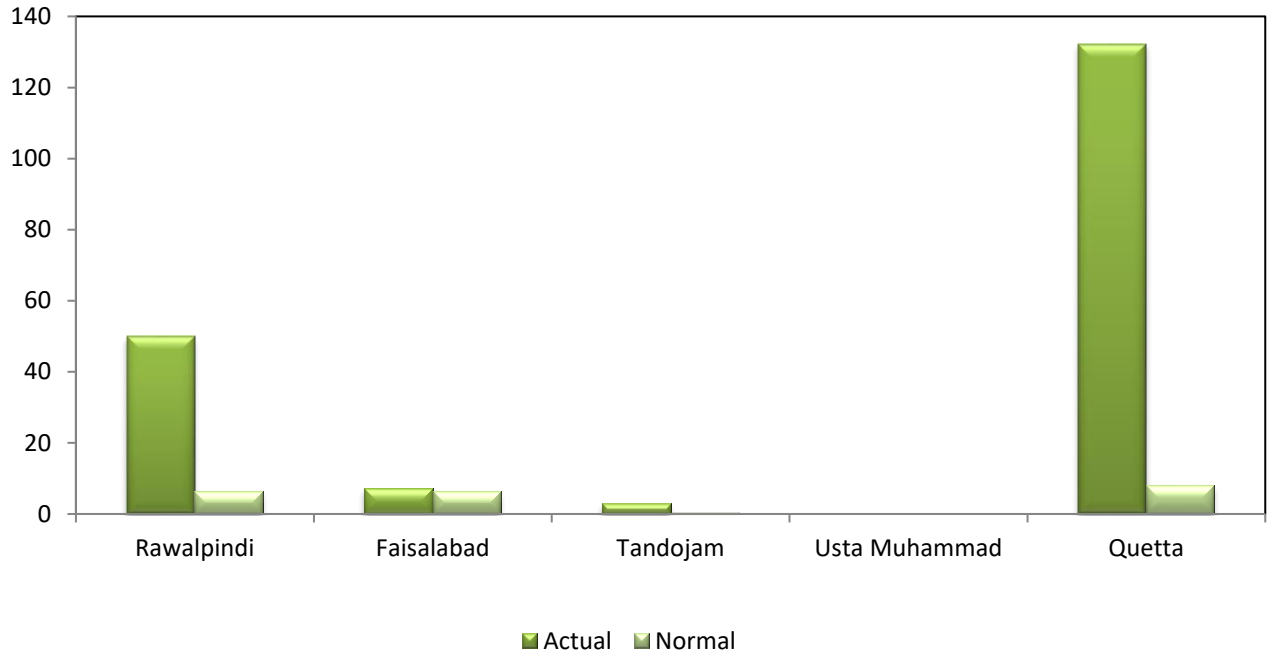
Meteorological Conditions during 2nd Decade of April 2024

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	6.4	49.9	43.5	-5.1	-1.9	20.6	22.1	21.9	21.2	21.3	21.2	20.8	70	41.7	2.2	3.0
2	Faisalabad	6.4	7.2	0.8	-2.6	1.4	25.6	28.1	27.7	27.1	26.8	***	25.6	60	72.2	3.7	4.3
3	Jhelum	11.9	35.2	23.3	-4.7	-0.2	23.2	24.4	23.7	23.1	22.4	22.7	***	70	63.8	4.2	3.8
4	Lahore	8.5	1.2	-7.3	-1.6	-0.2	26.5	26.1	26.6	25.5	24.7	***	23.4	50	56.9	2.2	3.8
5	Sargodha	10.5	36.0	25.5	-4.3	-0.4	24.5	26.7	26.1	25.6	25.5	***	***	60	52.7	1.9	3.4
6	Multan	5.3	34.2	28.9	-4.9	-0.3	25.3	***	***	***	***	***	***	50	55.6	5.6	4.6
7	Khanpur	1.6	7.2	5.6	-2.8	2.9	28.1	***	29.9	30.0	29.9	29.4	27.8	50	***	***	5.9
8	Tandojam	0.3	3.0	2.7	-7.7	-0.4	27.7	***	30.6	29.1	27.9	27.8	28.2	50	***	5.9	5.7
9	Sakrand	0.0	2.0	2.0	-4.4	2.6	29.4	38.5	***	***	***	***	***	50	69.7	5.8	5.5
11	Rohri	2.5	2.0	-0.5	-3.3	1.4	28.9	***	***	***	***	***	***	40	79.0	4.9	5.5
12	D.I Khan	10.0	50.0	40.0	-4.7	0.7	24.2	24.5	23.9	13.1	***	13.4	***	60	49.7	4.3	4.1
13	Peshawar	21.5	183	161.5	-5.5	-0.2	20.8	21.7	21.9	21.0	21.3	21.1	20.7	70	33.6	4.1	3.0
14	Usta M.	0.0	0.0	0.0	0.0	0.0	28.5	34.7	31.9	29.7	***	***	28.9	40	***	***	6.8
15	Quetta	8.1	132.2	124.1	-6.8	0.1	14.3	17.6	16.8	15.8	15.8	16.2	15.8	60	46.4	5.5	3.2
16	Skardu	9.0	19.8	10.8	-1.1	1.5	13.2	***	***	***	***	***	***	40	46.4	1.7	2.8
17	Gilgit	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

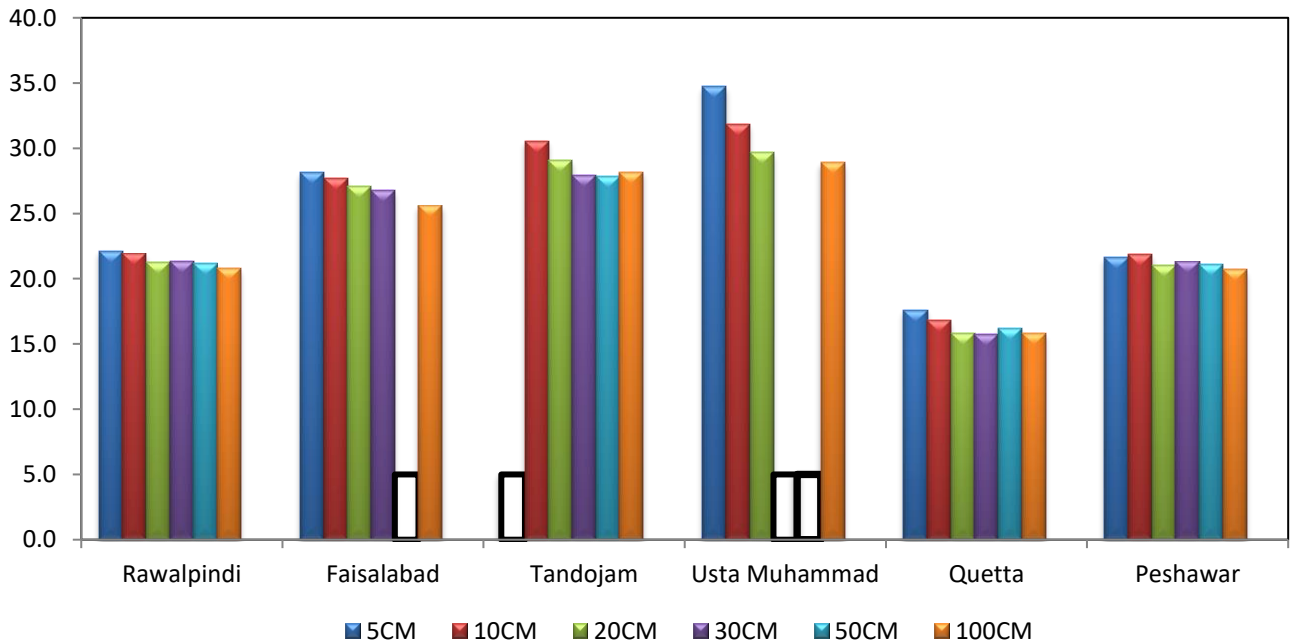
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during April, 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 March 2024)

Moderate to heavy amount of rainfall was reported from most parts of the country whereas light rainfall reported from some southern Sindh.

1.1 Punjab

Light to moderate rainfall was reported in the province. The decadal maximum temperature dropped below normal by -3.7 °C and minimum temperature rose above normal by 0.2°C in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded 59%,57.2hrs, 3.3 km/hr and 4.1mm/day respectively.

1.2 Sindh

Light rainfall was reported from most parts of the province. The decadal maximum dropped by -5.2°C and minimum temperatures rose above normal by 1.2°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 47%,74.4hrs, 5.5km/hr and 5.6 mm/day respectively.

1.3 Khyber Pakhtunkhwa

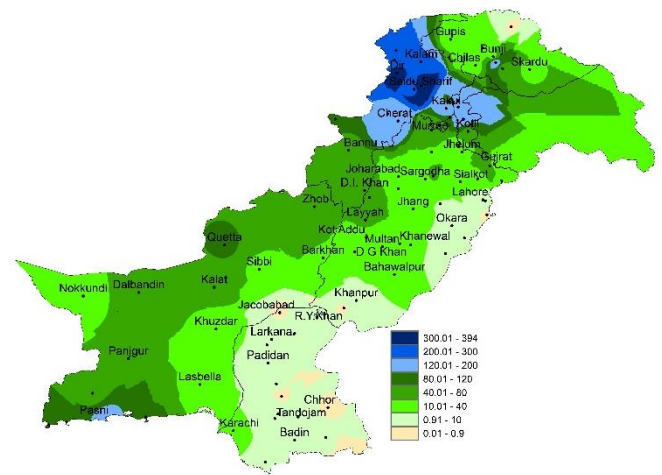
Heavy rainfall was reported from the province. The decadal maximum dropped by -5.1°C and minimum temperatures rose above normal by 0.2 °C respectively in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 65%,41.7 hrs, 4.2km/hr and 3.6 mm/day respectively.

1.4 Baluchistan

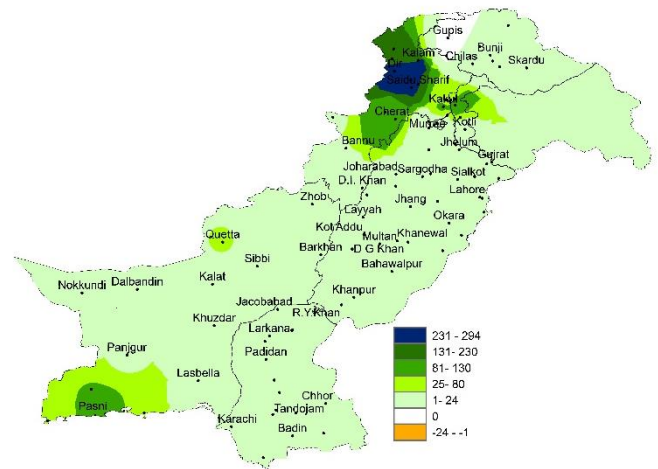
Moderate to heavy rain reported from the most parts of the province. Decadal maximum temperature was observed below normal by -3.4 °C whereas minimum temperature remained normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 46.4 hrs, 5.5 km/hr and 5.0 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

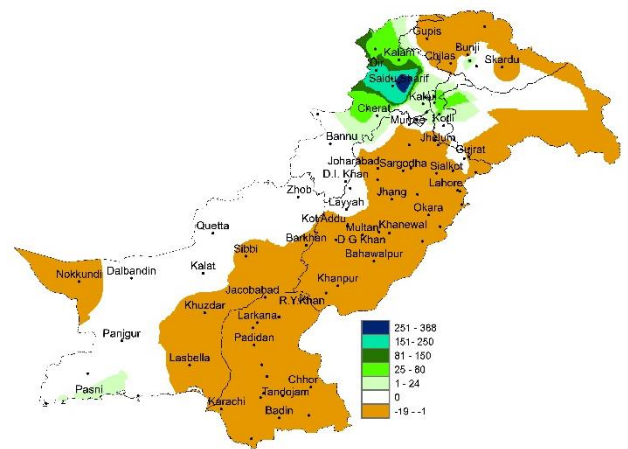
Moderate to heavy rain was reported from the province. Decadal maximum temperature was observed below normal by -1.1°C and the minimum temperature rose by 1.5°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 40%, 46.4 hrs, 1.7 km/hr and 2.8mm/day 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 March 2024)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 49.9 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 70%. Mean day temperature was 26.8°C while night temperature recorded as 14.3°C with 14.7 hours bright sunshine duration. Wind speed recorded as 2.2 km/hr with mean wind direction *north westerly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 7.2 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 60%. Mean day temperature was 31.5°C while night temperature recorded as 19.7°C. Wind speed recorded as 3.7 km/hr with mean wind direction *westerly*

Wheat: *Very good, maturity completed.*

2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 3.0 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 50%. Mean day temperature was 34.8°C while night temperature recorded as 20.6°C. Wind speed recorded as 5.9 km/hr with mean wind direction *south westerly*.

Land is preparing for new crop.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

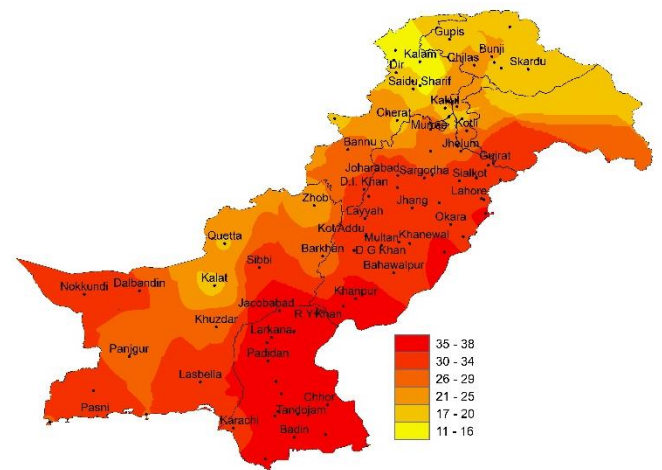
Rainfall reported as 0.01 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 40%. Mean day temperature was 37.0°C while night temperature recorded as 20.0°C. Mean wind direction *south easterly*.

Wheat: *good, Wax Maturity.*

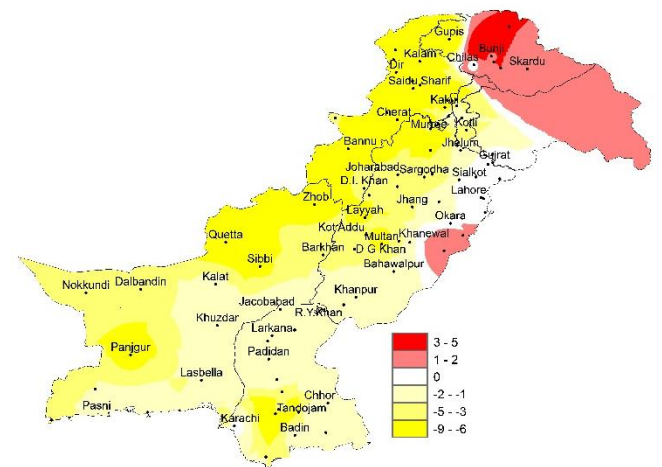
2.5 RAMC, Quetta (Northern Baluchistan)

Rainfall reported as 132.2 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 60%. Mean day temperature was 19.1°C while night temperature recorded as 9.4°C with 46.4 hours bright sunshine duration. Wind speed recorded as 5.5 km/hr with mean wind direction *southerly*.

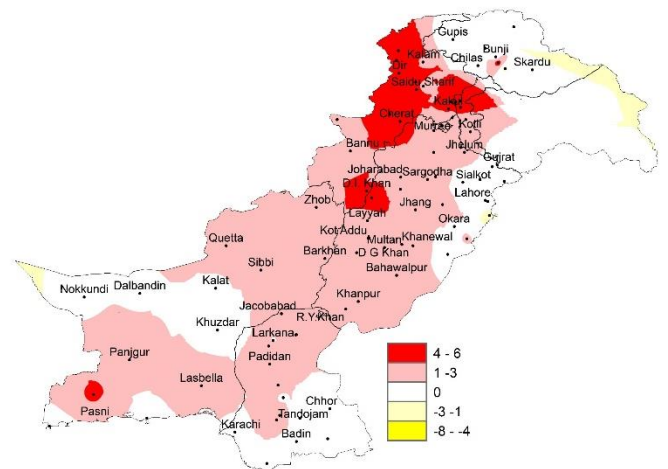
Wheat: *good, heading stage.*



I. Actual max-temp



II. Departure of max-temp from Normal



III. Departure of max-temp from Previous Decade

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

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

2.6 **Jhelum**

Rainfall reported as 35.20 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 70%. Mean day temperature was 28.7°C while night temperature recorded as 17.7°C with 63.8 hours bright sunshine duration. Wind speed recorded as 4.2 km/hr with mean wind direction *variable*.

2.7 **Lahore**

Rainfall reported as 1.20 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 50%. Mean day temperature was 32.6°C while night temperature recorded as 20.4°C. Wind speed recorded as 2.2 km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Rainfall reported as 36.0 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 60%. Mean day temperature was 29.8°C while night temperature recorded as 19.2°C with 52.7 hours bright sunshine duration. Wind speed recorded as 1.9 km/hr with mean wind direction *variable*.

2.9 **Multan**

Rainfall reported as 34.2 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 50%. Mean day temperature was 31.0°C while night temperature recorded as 19.5°C with 55.6 hours bright sunshine duration. Wind speed recorded as 5.6 km/hr with mean wind direction *north easterly*.

2.10 **Khanpur**

Rainfall reported as 7.2 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 50%. Mean day temperature was 34.7°C while night temperature recorded as 21.5°C. Mean wind direction *south easterly*

2.11 **Sakrand**

Rainfall reported as 2.0 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 50%. Mean day temperature was 35.6°C while night temperature recorded as 23.2°C with 69.7 hours bright sunshine duration. Wind speed recorded as 5.8km/hr with mean direction as *southerly*.

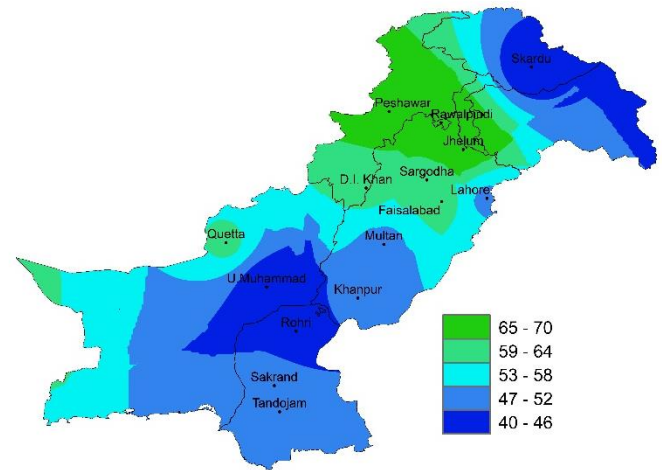


Figure.3: Relative Humidity in Percentage (%)

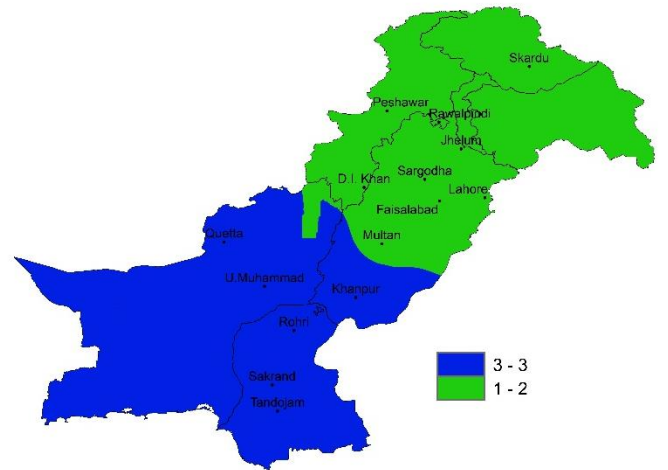


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)

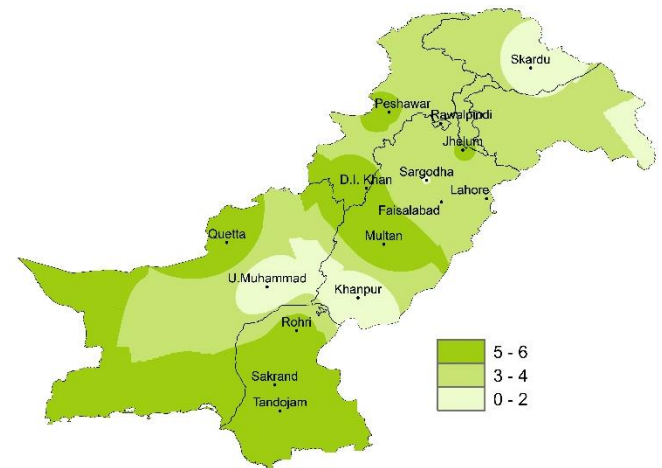


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as 2.0 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 40%. Mean day temperature was 34.8°C while night temperature recorded as 23.0°C with 79.0 hours bright sunshine duration. Mean wind direction is *north easterly*.

2.13 D.I. Khan

Rainfall reported as 50.0 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 60%. Mean day temperature was 29.2°C while night temperature recorded as 19.1°C with 40.7 hours bright sunshine duration. Mean wind direction is *east-northeasterly*.

2.14 Peshawar

Rainfall reported as 183.0 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 70%. Mean day temperature was 25.1°C while night temperature recorded as 16.5°C with 33.6 hours bright sunshine duration. Wind speed recorded as 4.1 km/hr with mean wind direction as *north westerly*.

2.15 Skardu

Rainfall reported as 19.8 mm during the decade; however, weather remained cloudy for 07 days during the decade. Average relative humidity recorded as 40%. Mean day temperature was 18.4°C while night temperature recorded as 7.9°C with 46.4 hours bright sunshine duration. Wind was *south easterly*.

2.16 Gilgit

Data is not available.

Ten Days Weather Advisory for Farmers **(21th to 30th April 2024)**

3.1 Temperature Forecast

Slightly below normal mean temperature is likely over most parts of the country whereas above normal temperature in Sindh and GB.

3.2 Wind Forecast

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

3.3 Rain Forecast

- ❖ **Punjab:** Rain/thunderstorm is expected in most parts of Punjab during the decade.
- ❖ **Khyber Pakhtunkhwa:** Rain thunderstorm (snow over Mountains) is expected during the decade.
- ❖ **Sindh:** Mainly dry weather is expected in Sindh province during the decade.
- ❖ **Baluchistan:** Rain/thunderstorm is expected in most parts of the province.
- ❖ **Gilgit-Baltistan:** Rain (snow over mountains) is expected during the decade.
- ❖ **Kashmir:** Rain is expected during the decade.

3.4 Advisory for Farmers

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