

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Moderate to heavy amounts of rainfall were reported from Punjab, KP, and Gilgit-Baltistan and light to moderate rain was observed in Baluchistan whereas dry weather was reported in Sindh.
- ❖ Highest amount of rainfall recorded was 140.0 mm at Muzaffarabad AP during the last decade.
- ❖ Lowest minimum temperature recorded as -3.5 °C at Kalam during the last decade.
- ❖ Rain-thunderstorm is expected in Gilgit-Baltistan, Kashmir, Potohar region and upper KP while dry weather is expected in rest of the country during the decade.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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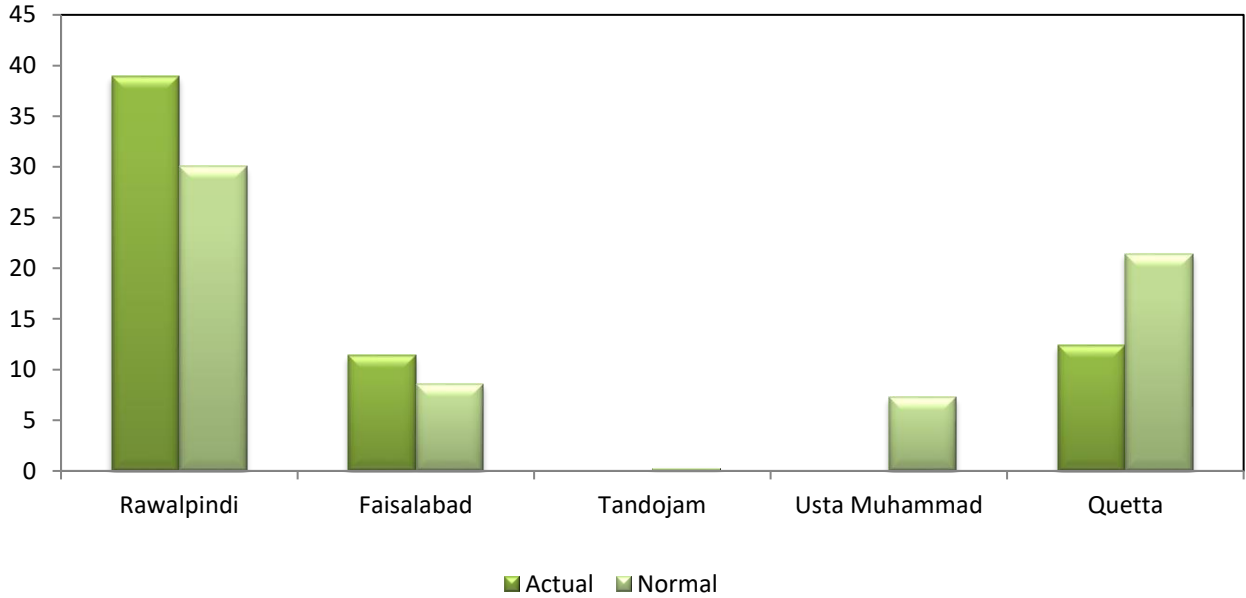
Meteorological Conditions during 3rd Decade of March 2024

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	30.1	38.9	8.8	0.3	0.2	20.6	21.1	20.3	19.5	19.4	18.9	18.3	60	58.3	2.4	3.1
2	Faisalabad	8.6	11.4	2.8	2.4	2.5	24.0	26.4	25.7	24.8	24.3	***	22.4	60	76.1	2.9	3.8
3	Jhelum	36.7	31.4	-5.3	1.7	1.9	23.0	20.1	19.4	19.0	18.4	18.7	***	60	69.6	4.6	3.9
4	Lahore	13.5	3.0	-10.5	-4.1	2.4	22.0	24.2	23.9	22.3	22.1	***	20.9	50	61.9	1.5	3.0
5	Sargodha	10.9	20.0	9.1	1.2	2.4	24.7	26.9	25.9	24.6	24.2	***	***	60	61.9	1.6	4.3
6	Multan	9.2	6.4	-2.8	1.9	3.1	25.5	***	***	***	***	***	***	50	61.5	5.3	4.4
7	Khanpur	2.2	2.0	-0.2	3.4	4.8	27.2	***	27.1	27.0	26.8	26.1	24.5	50	86.0	***	5.6
8	Tandojam	0.3	0.0	-0.3	0.6	2.0	28.5	***	30.0	27.3	25.9	25.8	26.1	40	***	7.2	6.6
9	Sakrand	1.1	0.0	-1.1	4.5	4.3	29.2	39.7	***	***	***	***	***	40	103.0	4.6	5.7
11	Rohri	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
12	D.I Khan	13.9	37.2	23.3	1.0	3.6	23.8	23.8	23.2	13.1	***	11.4	***	60	49.8	3.4	3.3
13	Peshawar	34.0	76.4	42.4	2.9	2.2	22.0	21.2	21.4	20.0	19.9	19.3	18.5	50	45.1	3.3	3.2
14	Usta M.	7.3	0.0	-7.3	0.0	0.0	26.3	32.6	29.3	28.0	***	***	26.0	60	***	***	5.5
15	Quetta	21.4	12.4	-9.0	1.2	5.3	16.6	18.9	17.8	15.5	14.7	14.4	13.2	50	73.7	5.0	3.6
16	Skardu	11.9	12.1	0.2	2.4	2.5	11.7	***	***	***	***	***	***	40	52.0	1.2	2.3
17	Gilgit	4.5	10.5	6.0	2.9	3.0	16.5	***	***	***	***	***	***	40	46.2	3.7	3.0

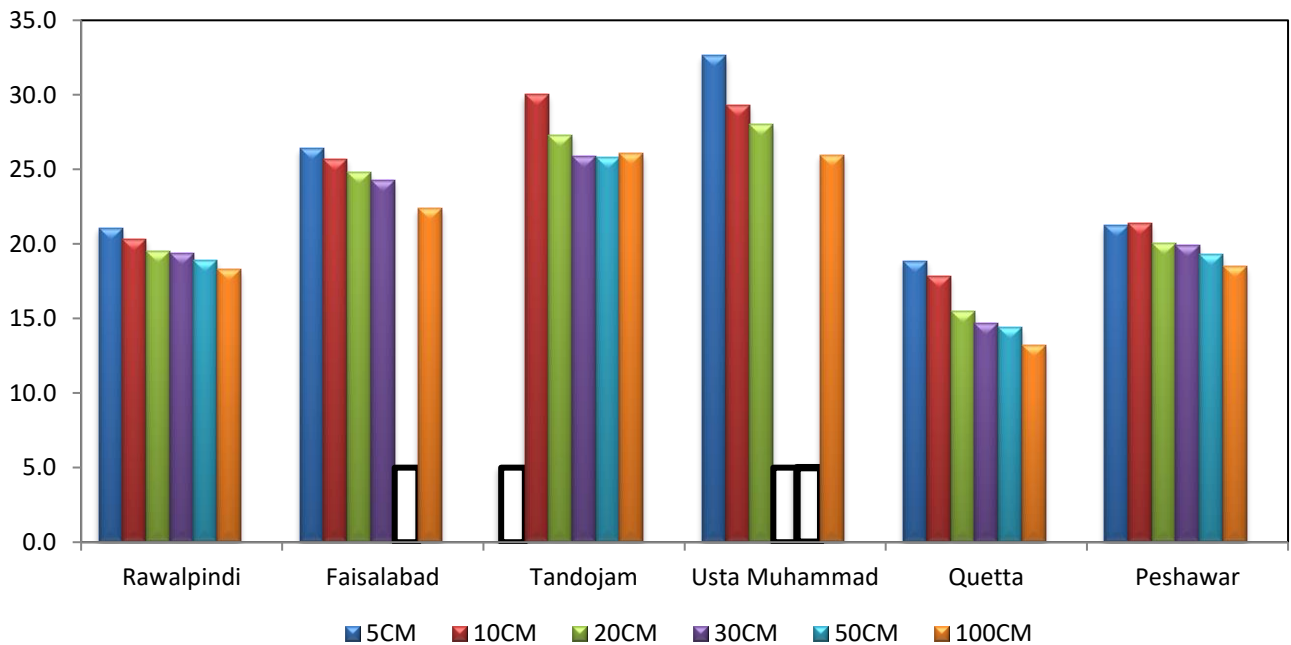
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during March, 2024

Precipitation(mm) during 3rd 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 (21th to 31th March 2024)

Moderate to heavy amount of rainfall were reported from Punjab, KP, and Gilgit-Baltistan and light to moderate rain was observed in Baluchistan whereas dry weather was reported in Sindh.

1.1 Punjab

Moderate to heavy rainfall was reported in the province. The decadal maximum temperature rose above normal by 1.0 °C and minimum temperature by 2.5°C in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded 56%, 67.9hrs, 3.1 km/hr and 4.0mm/day respectively.

1.2 Sindh

Light rainfall was reported from Jacobabad whereas dry weather reported from rest of the province. The decadal maximum and minimum temperatures rose above normal by 2.5 and 3.2 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 40%, 103.0hrs, 5.9 km/hr and 6.2 mm/day respectively.

1.3 Khyber Pakhtunkhwa

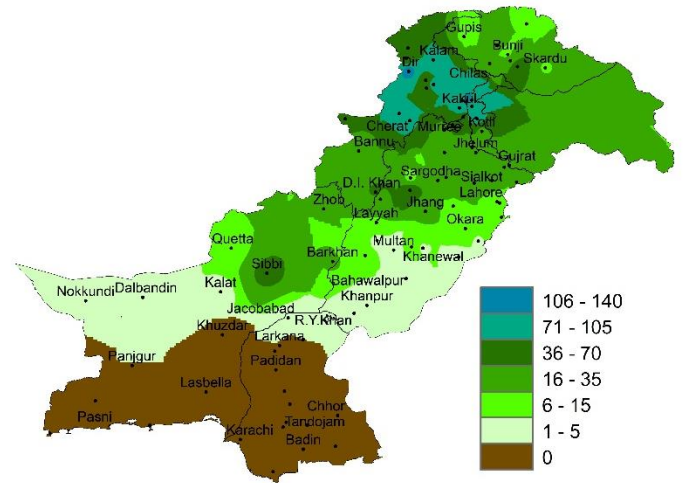
Moderate to heavy rainfall was reported from the province. The decadal maximum and minimum temperatures were observed above normal by 1.9 °C and 2.9 °C respectively in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 47.5.0 hrs, 3.4km/hr and 3.3 mm/day respectively.

1.4 Baluchistan

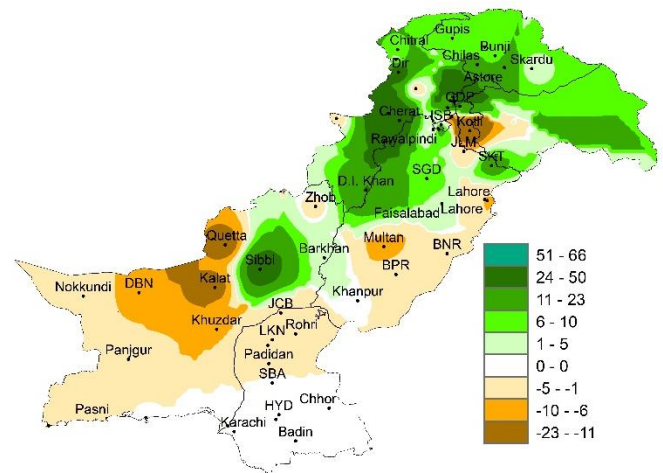
Light to moderate rain reported from the province. Decadal maximum temperature was observed normal whereas above normal minimum temperature by 2.6 degree in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 73.7 hrs, 5.0 km/hr and 4.6 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

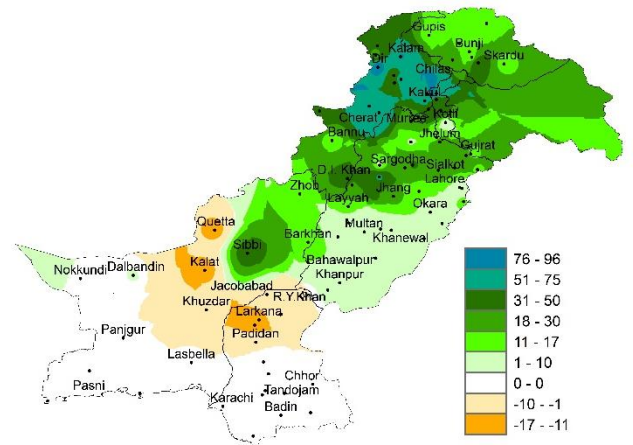
Moderate to heavy rain was reported from the province. Decadal maximum and minimum temperature were observed above normal by 2.7 degrees in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 40%, 49.1hrs, 2.5 km/hr and 2.7mm/day respectively



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**
(21th to 31th March 2024)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 38.9 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 60%. Mean day temperature was 28.3°C while night temperature recorded as 12.9°C with 58.3 hours bright sunshine duration. Wind speed recorded as 2.4 km/hr with mean wind direction *north westerly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 11.4 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 60%. Mean day temperature was 30.8°C while night temperature recorded as 17.1°C with 76.1 hours bright sunshine duration. Wind speed recorded as 2.9 km/hr with mean wind direction *south easterly*

Wheat: *Very good, wax maturity.*

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 40%. Mean day temperature was 37.2°C while night temperature recorded as 19.7°C. Wind speed recorded as 7.2 km/hr with mean wind direction *south westerly*.

Wheat: *good, full maturity.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

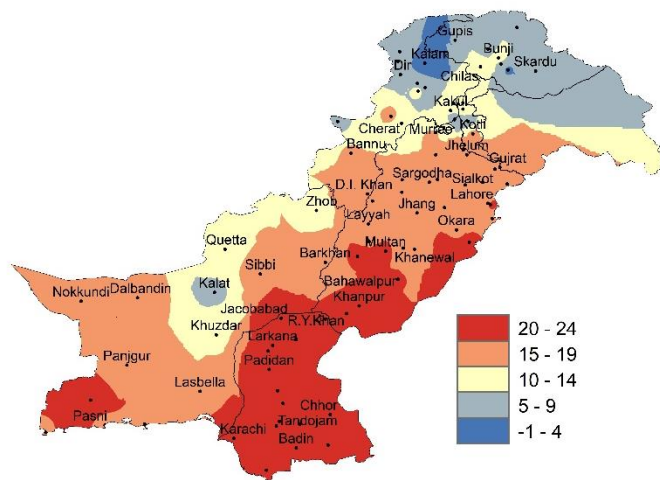
Dry weather reported during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 60%. Mean day temperature was 34.6. °C while night temperature recorded as 18.0°C. Mean wind direction *north easterly*.

Wheat: *good, milk maturity.*

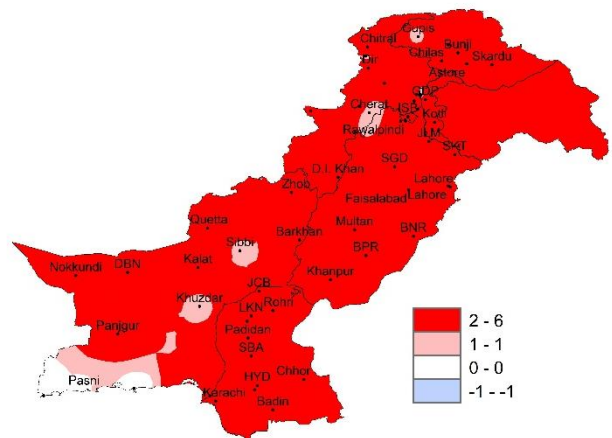
2.5 RAMC, Quetta (Northern Baluchistan)

Rainfall reported as 12.4 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 50%. Mean day temperature was 21.8°C while night temperature recorded as 11.4°C with 73.7 hours bright sunshine duration. Wind speed recorded as 5 km/hr with mean wind direction *southerly*.

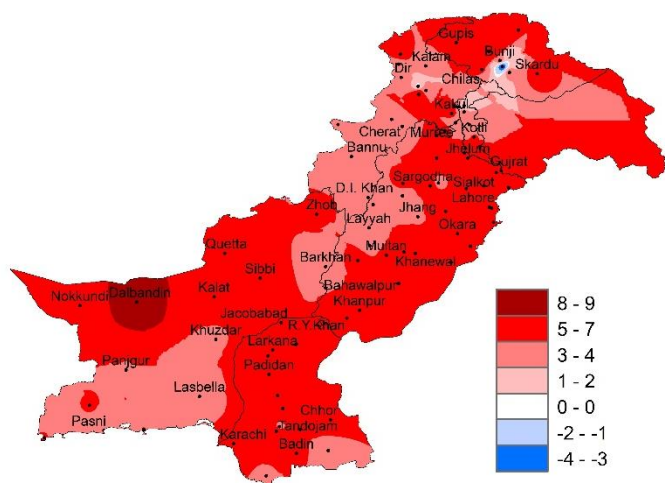
Wheat: *good, shooting stage.*



I. Actual min-temp



II. Departure of min-temp from Normal



III. Departure of min-temp from Previous Decade

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

2(b) Past Weather or Sub-Regional Agricultural Plains (21th to 31th March 2024)

2.6 Jhelum

Rainfall reported as 31.40 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 60%. Mean day temperature was 29.9°C while night temperature recorded as 16.0°C with 69.6 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean wind direction *north westerly*.

2.7 Lahore

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 24.7°C while night temperature recorded as 19.2°C with 61.9 hours bright sunshine duration. Wind speed recorded as 1.5 km/hr with mean wind direction *north westerly*.

2.8 Sargodha

Rainfall reported as 20.0 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 60%. Mean day temperature was 30.9°C while night temperature recorded as 18.5°C with 61.9 hours bright sunshine duration. Wind speed recorded as 1.6 km/hr with mean wind direction *variable*.

2.9 Multan

Rainfall reported as 6.4 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 50%. Mean day temperature was 32.1°C while night temperature recorded as 18.8°C with 61.5 hours bright sunshine duration. Wind speed recorded as 5.3km/hr with mean wind direction *north easterly*.

2.10 Khanpur

Rainfall reported as 2.0 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 50%. Mean day temperature was 34.9°C while night temperature recorded as 19.5°C with 86 hours bright sunshine duration. Mean wind direction *north easterly*.

2.11 Sakrand

Dry weather reported during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 40%. Mean day temperature was 37.1°C while night temperature recorded as 21.3°C with 103 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean direction as *northerly*.

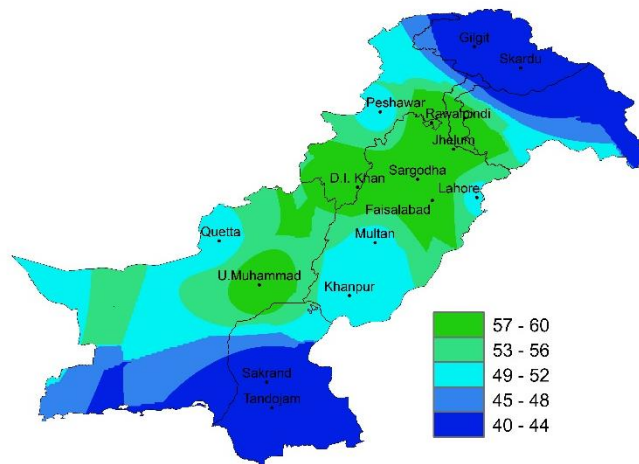


Figure.3: Relative Humidity in Percentage (%)

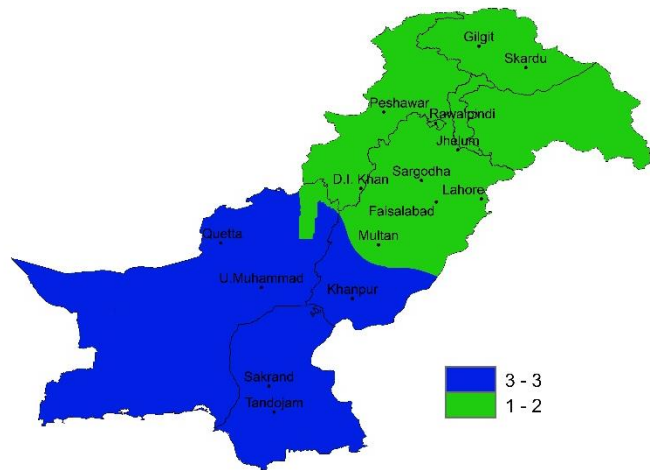


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

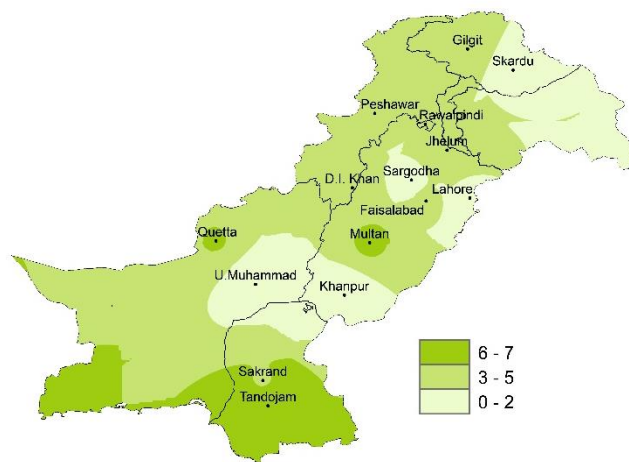


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Data is not available.

2.13 D.I. Khan

Rainfall reported as 37.20 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 60%. Mean day temperature was 29.3°C while night temperature recorded as 18.3°C with 49.8 hours bright sunshine duration. Mean wind speed recorded as 3.4 km/hr with mean wind direction is north *easterly*.

2.14 Peshawar

Rainfall reported as 76.4 mm during the decade; however, weather remained cloudy for 11 days. Average relative humidity recorded as 50%. Mean day temperature was 28.5°C while night temperature recorded as 15.4°C with 45.1 hours bright sunshine duration. Wind speed recorded as 3.3 km/hr with mean wind direction as *variable*.

2.15 Skardu

Rainfall reported as 12.1 mm during the decade; however, weather remained cloudy for 09 days during the decade. Average relative humidity recorded as 40%. Mean day temperature was 17.4°C while night temperature recorded as 5.9°C with 52 hours bright sunshine duration. Wind speed recorded as 1.2 km/hr with mean wind direction as *northerly*.

2.16 Gilgit

Rainfall reported as 10.50 mm during the decade; however, weather remained cloudy for 11 days. Average relative humidity recorded as 40%. Mean day temperature was 23.3°C while night temperature recorded as 9.7°C with 46.2 hours bright sunshine duration. Wind speed recorded as 3.7 km/hr with mean wind direction as *easterly*.

Ten Days Weather Advisory for Farmers
(1st to 10th April 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:** Rain/thunderstorm is expected in the Potohar region during the decade whereas dry weather is expected in most parts of the province.
- ❖ **Khyber Pakhtunkhwa:** Rain thunderstorm is expected in the upper parts of the province during the decade while dry weather is expected in the rest parts of the province.
- ❖ **Sindh:** Mainly 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 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.