

# Decadal Agromet Bulletin of Pakistan



## Highlights...

- ❖ Heavy rain was reported from the coastal belt of Baluchistan. Moderate to heavy amount of rainfall was reported from KPK, the upper half of Sindh, and rest of Baluchistan while light rainfall was reported from Gilgit- Baltistan & Kashmir and Punjab.
- ❖ The highest amount of rainfall recorded was 183.0 mm at Gawadar during the last decade.
- ❖ Lowest minimum temperature recorded as -12.5 °C at Kalam during the last decade.
- ❖ Rain (snow over mountains) is expected all over the country in first half of decade while cold and dry weather is expected during the 2<sup>nd</sup> half.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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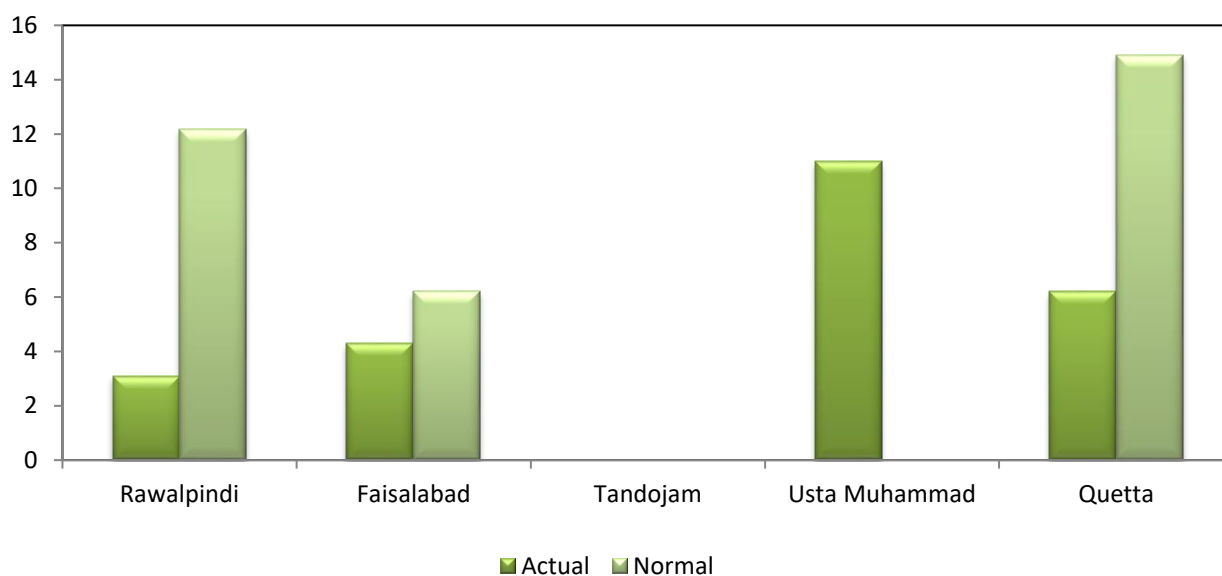
**Meteorological Conditions during 3<sup>rd</sup> Decade of February 2024**

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	12.2	3.1	-9.1	-0.5	-3.7	13.0	14.3	13.5	13.0	13.5	13.6	14.8	50	64.1	4.8	2.7
2	Faisalabad	6.2	4.3	-1.9	0.4	-0.3	16.0	17.9	17.5	17.0	17.0	***	18.6	50	60.1	2.0	2.3
3	Jhelum	17.2	0.0	-17.2	-0.1	-2.1	15.0	15.2	14.9	14.6	14.8	15.5	***	50	64.1	3.8	2.6
4	Lahore	11.9	0.0	-11.9	0.1	-2.6	16.2	16.7	16.5	16.2	16.0	***	17.6	60	65.7	1.2	2.1
5	Sargodha	8.7	1.5	-7.2	-0.1	-0.6	16.7	***	***	***	***	***	***	50	53.6	1.4	2.1
6	Multan	4.1	1.8	-2.3	-0.3	0.5	17.0	***	***	***	***	***	***	50	52.6	4.4	2.8
7	Khanpur	1.0	3.0	2.0	0.1	0.0	17.7	***	19.0	19.4	19.7	19.9	20.0	50	68.2	***	3.8
8	Tandojam	0.0	0.0	0.0	-2.8	-3.2	19.0	***	22.9	22.1	22.6	22.8	23.2	50	***	3.9	3.7
9	Sakrand	0.0	0.0	0.0	-0.3	-0.4	19.3	27.5	***	***	***	***	***	40	79.0	5.0	3.8
11	Rohri	1.2	5.0	3.8	-1.5	0.4	19.0	***	***	***	***	***	***	50	71.6	4.0	3.2
12	D.I Khan	5.5	6.0	0.5	-0.1	1.1	16.6	17.3	17.0	13.1	***	7.0	***	50	40.9	2.6	2.2
13	Peshawar	18.3	0.0	-18.3	0.4	-1.4	14.1	13.5	13.2	13.4	14.2	14.9	16.0	50	37.7	3.3	2.2
14	Usta M.	0.0	11.0	11.0	0.0	0.0	17.5	23.7	21.4	20.9	***	***	22.5	60	***	***	3.6
15	Quetta	14.9	6.2	-8.7	-4.2	0.7	6.4	10.1	9.3	8.4	8.6	9.6	11.4	60	42.5	4.2	1.9
16	Skardu	10.1	1.7	-8.4	-2.0	-2.5	0.9	***	***	***	***	***	***	50	39.8	0.2	1.1
17	Gilgit	1.6	0.0	-1.6	-0.1	-2.1	7.2	***	***	***	***	***	***	40	35.0	2.1	1.6

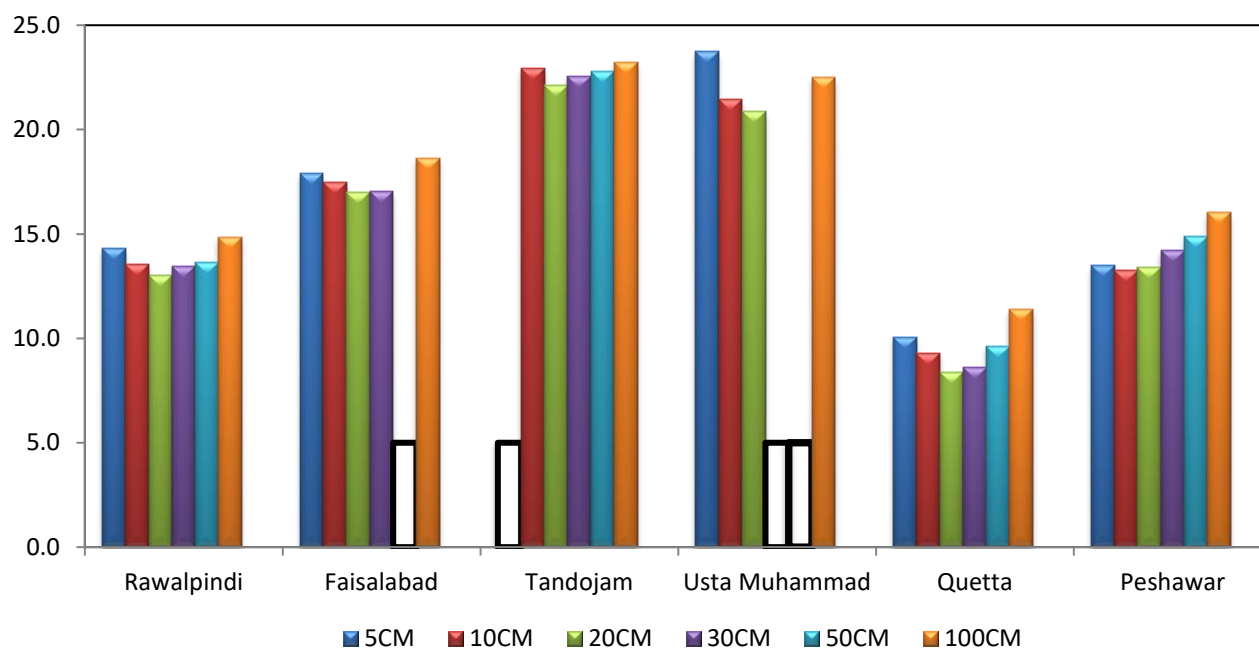
**Table-1:** Meteorological parameters for selected station of Pakistan. “Dep” in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. ‘ETo’ stands for reference crop Evapotranspiration\*\*\*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

## Graph at RAMCs during February, 2024

### Precipitation(mm) during 3<sup>rd</sup> 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 (21<sup>st</sup> to 29<sup>th</sup> February 2024)

Heavy rain was reported from coastal belt of Baluchistan. Moderate to heavy amount of rainfall was reported from KPK, upper half of Sindh and rest of Baluchistan while light rainfall was reported from Gilgit- Baltistan & Kashmir and Punjab.

#### 1.1 Punjab

Light rainfall was reported in the province. The decadal maximum remained near normal and the minimum temperature dropped below normal by 1.3 in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 51%, 61.2 hrs, 2.9 km/hr and 2.6 mm/day respectively.

#### 1.2 Sindh

Light to moderate rainfall was reported from the upper half of the province. The decadal maximum and minimum temperatures dropped below normal by 1.5 and 1.1 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 47%, 75.3 hrs, 4.3 km/hr and 3.6 mm/day respectively.

#### 1.3 Khyber Pakhtunkhwa

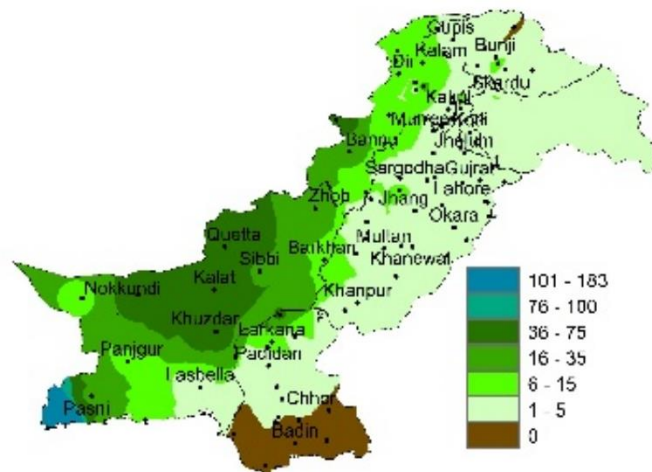
Moderate to heavy rainfall was reported from the province. The decadal maximum and minimum temperatures remained normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 39.3 hrs, 3.0 km/hr and 2.2 mm/day respectively.

#### 1.4 Baluchistan

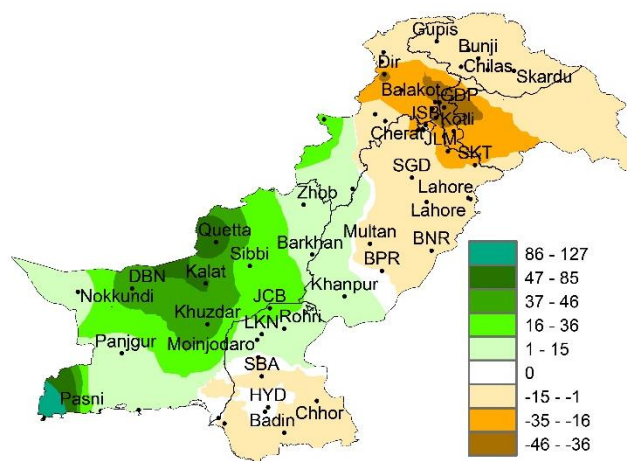
Moderate to heavy rain (heavy showers from the coastal belt) was reported from the province. Decadal maximum was reported below normal by 2.1 and minimum temperatures remained normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 42.5 hrs, 4.2 km/hr and 2.8 mm/day respectively.

#### 1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

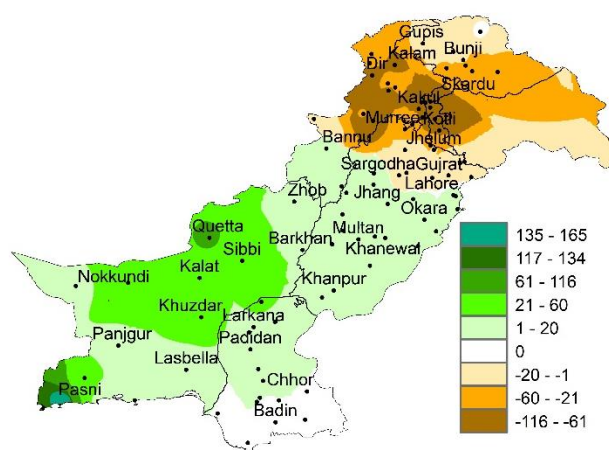
Light rain was reported from the province. Decadal maximum and the minimum dropped below normal by 1.1 and 2.3 degrees in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 45%, 37.4 hrs, 1.2 km/hr and 1.4 mm/day respectively.



I. Actual rainfall



II. Departure of rainfall from Normal



III. Departure of rainfall from the Previous Decade

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

(a) **Past Weather for Major Agricultural Plains  
(21<sup>st</sup> to 29<sup>th</sup> February 2024)**

**2.1 RAMC, Rawalpindi (Potohar region)**

Rainfall reported as 3.1 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 50%. Mean day temperature was 21.6°C while night temperature recorded as 4.3°C with 64.1 hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean wind direction *north westerly*.

**2.2 RAMC, Faisalabad (Central Punjab)**

Rainfall reported as 4.3 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 50.0%. Mean day temperature was 23.5°C while night temperature recorded as 8.5°C. Wind speed recorded as 2.0 km/hr with mean wind direction *north westerly*.

*Wheat: very good Shooting stage completed*

**2.3 RAMC, Tandojam (Lower Sindh)**

Dry weather reported during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 50%. Mean day temperature was 27.9°C while night temperature recorded as 10.1°C. Wind speed recorded as 3.9 km/hr with mean wind direction *north easterly*.

*Wheat: very good, Flowering stage.*

**2.4 RAMC, Usta Muhammad (Eastern Baluchistan)**

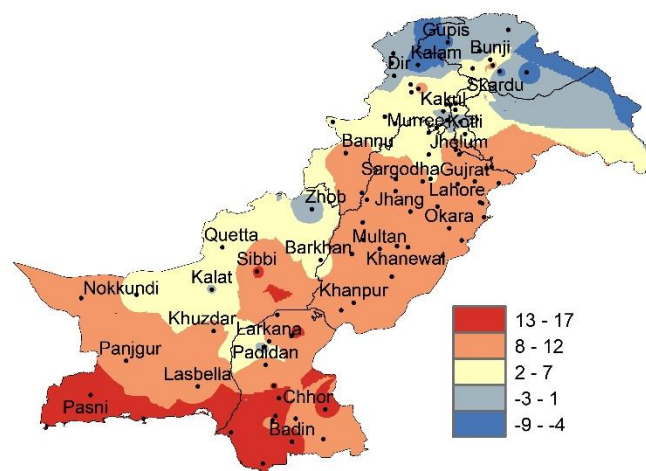
Rainfall reported as 11.0 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 60%. Mean day temperature was 25.0°C while night temperature recorded as 10.0°C. Mean wind direction was *north westerly*.

*Wheat: good, Tillering stage.*

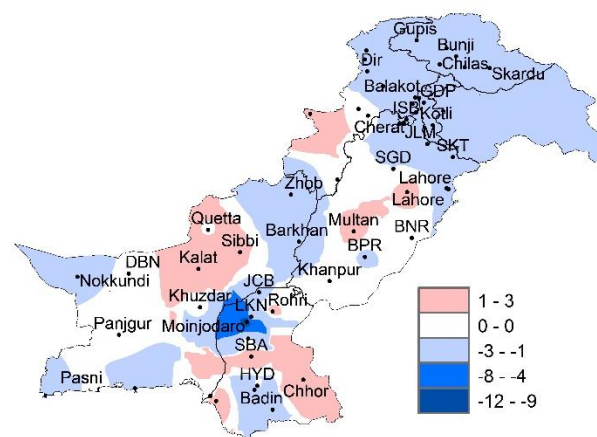
**2.5 RAMC, Quetta (Northern Baluchistan)**

Precipitation reported as 6.2 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 60%. Mean day temperature was 10.9°C while night temperature recorded as 1.9°C with 42.2 hours bright sunshine duration. Wind speed recorded as 4.2 km/hr with mean wind direction *north westerly*.

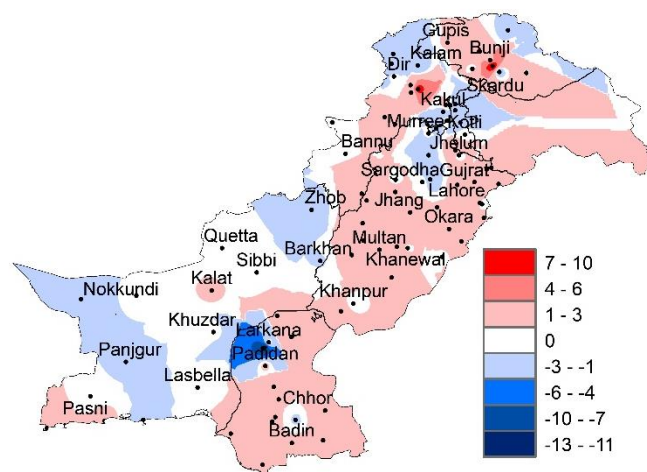
*Wheat: good, Tillering stage.*



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 (21<sup>st</sup> to 29<sup>th</sup> February 2024)

### 2.6 Jhelum

Rainfall reported as 0.01 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 50%. Mean day temperature was 22.8°C while night temperature recorded as 7.2°C with 64.1 hours bright sunshine duration. Wind speed recorded as 3.8 km/hr with mean wind direction *north westerly*.

### 2.7 Lahore

Dry weather reported during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 60%. Mean day temperature was 23.4°C while night temperature recorded as 8.9°C. Wind speed recorded as 1. km/hr with mean wind direction *north westerly*.

### 2.8 Sargodha

Rainfall reported as 1.5 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 50%. Mean day temperature was 23.9°C while night temperature recorded as 9.4°C with 53.6 hours bright sunshine duration. Wind speed recorded as 1.4 km/hr with mean wind direction *south westerly*.

### 2.9 Multan

Rainfall reported as 1.8 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 50%. Mean day temperature was 23.8°C while night temperature recorded as 10.2°C with 52.6 hours bright sunshine duration. Wind speed recorded as 4.4 km/hr with mean wind direction *north easterly*.

### 2.10 Khanpur

Rainfall reported as 3.0 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 50%. Mean day temperature was 25.8°C while night temperature recorded as 9.5°C with 68.2 hours bright sunshine duration. Mean wind direction *north easterly*.

### 2.11 Sakrand

Dry weather reported during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 40%. Mean day temperature was 26.8°C while night temperature recorded as 11.8°C with 79 hours bright sunshine duration. Wind speed recorded as 5.0 km/hr with mean direction as *northerly*.

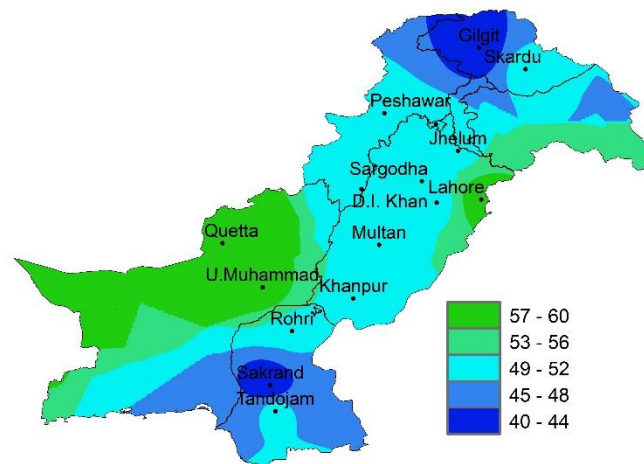


Figure.3: Relative Humidity in Percentage (%)

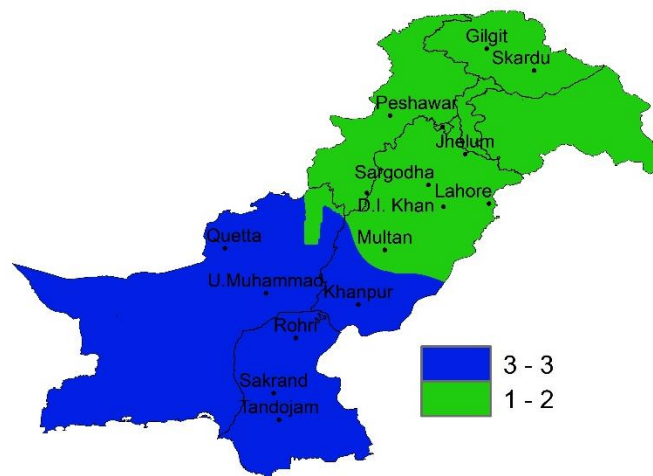


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

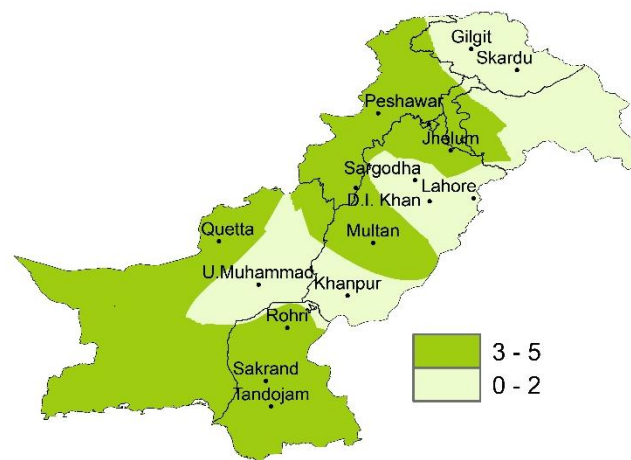


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Rainfall reported as 5.0 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 40%. Mean day temperature was 25.5°C while night temperature recorded as 12.5°C with 71.6 hours bright sunshine duration. Wind speed recorded as 4.0 km/hr with mean wind direction *north easterly*.

**2.13 D.I. Khan**

Rainfall reported as 6.0 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 50%. Mean day temperature was 23.2°C while night temperature recorded as 9.9°C with 40.9 hours bright sunshine duration. Mean wind direction is *easterly*.

**2.14 Peshawar**

Rainfall reported as 0.01 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 50%. Mean day temperature was 21.4°C while night temperature recorded as 6.7°C with 37.7 hours bright sunshine duration. Mean wind direction is *north westerly*.

**2.15 Skardu**

Precipitation reported as 1.7 mm during the decade however, weather remained cloudy for 04 days during the decade. Average relative humidity recorded as 50%. Mean day temperature was 6.5°C while night temperature recorded as -4.7°C with 39.8 hours bright sunshine duration. Wind was north *north easterly*.

**2.16 Gilgit**

Dry weather reported during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 40%. Mean day temperature was 14.5°C while night temperature recorded as -0.2°C with 35 hours bright sunshine duration. Wind speed recorded as 2.1 km/hr with mean wind direction as *southerly*.

### **Ten Days Weather Advisory for Farmers** **(1<sup>st</sup> to 10<sup>th</sup> March 2024)**

**3.1 Temperature Forecast**

Below normal mean temperature is likely over most parts of the country particularly over western Baluchistan and 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 (snow in Murree) is expected in the first days of the decade while during the last days of the decade mainly cold and dry weather is expected in plain areas of the country.
- ❖ **Khyber Pakhtunkhwa:** Rain thunderstorm (snow over Mountains) is expected in the first days of the decade while during the last days of the decade mainly cold and dry weather is expected in plain areas of the country, very cold in the upper parts.
- ❖ **Sindh:** Mainly cold and dry weather is expected in Sindh province while rain is expected during first two days of the decade.
- ❖ **Baluchistan:** Mainly cold and dry weather is expected in most parts of the province. However, rain (snow over mountains) is likely in Baluchistan during the first two days of the decade.
- ❖ **Gilgit-Baltistan:** Rain (snow over mountains) is expected during the start days of the decade.
- ❖ **Kashmir:** Rain (snow over mountains) is expected during the start days of the decade.

**3.4 Advisory for Farmers**

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