

# Decadal Agromet Bulletin of Pakistan



## Highlights...

- ❖ Light amount of rainfall was reported from the Potohar region, north eastern and southern part of Punjab, upper KP and Baluchistan while Sindh remained dry during the decade.
- ❖ Highest amount of rainfall recorded as 2.0 mm at Dir (Lower) during the last decade.
- ❖ Highest minimum temperature recorded as -9.7°C at Skardu during the last decade.
- ❖ Mainly cold and dry weather is expected in plain areas of the country, while very cold and partly cloudy in the upper parts. However, rain (snow over mountains) is likely in Gilgit Baltistan, northern Baluchistan and upper Khyber Pakhtunkhwa during the mid days of the decade.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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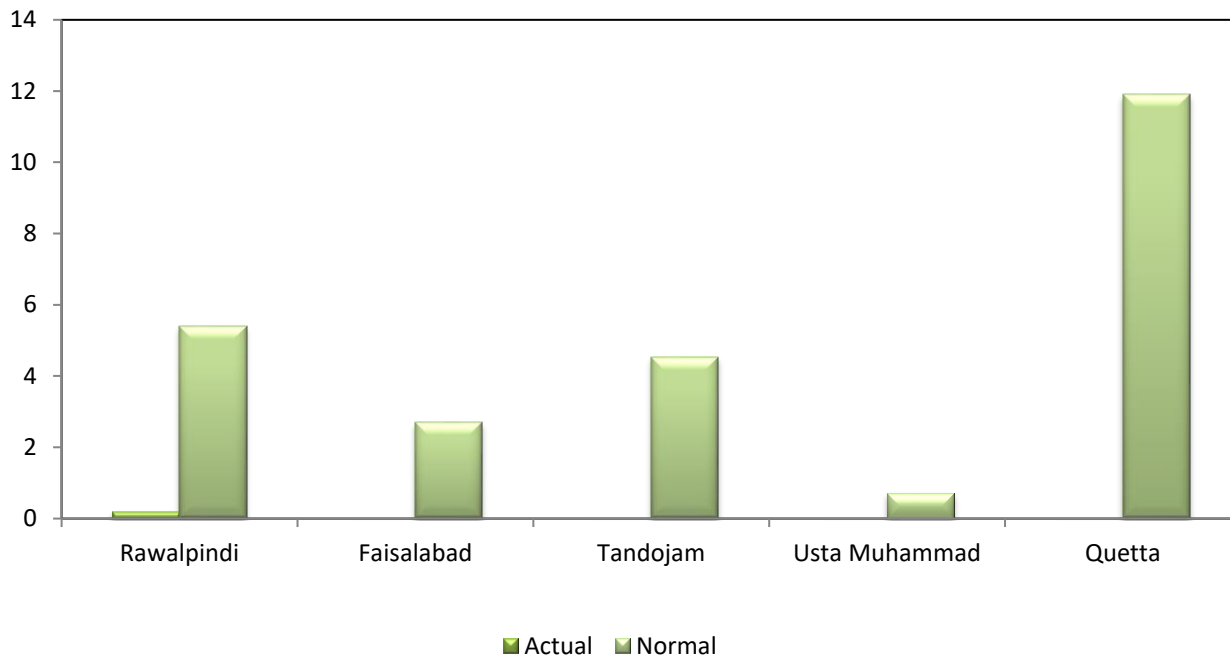
**Meteorological Conditions during 3<sup>rd</sup> Decade of December, 2023**

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	5.4	0.2	-5.2	3.6	0.0	13.1	13.2	12.4	12.1	12.7	13.8	16.3	70	68.3	0.8	1.0
2	Faisalabad	2.7	0.0	-2.7	1.2	2.6	14.4	15.1	14.8	15.5	15.4	***	19.6	70	46.5	1.4	1.2
3	Jhelum	12.6	0.0	-12.6	-0.7	0.8	13.1	13.6	13.5	12.9	14.3	15.7	***	70	50.4	0.7	0.9
4	Lahore	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	Sargodha	3.6	0.0	-3.6	0.5	2.2	14.1	16.1	15.8	16.3	16.8	***	***	80	39.1	0.6	1.0
6	Multan	1.7	0.0	-1.7	-0.6	2.2	14.3	***	***	***	***	***	***	71	34.0	1.9	1.2
7	Khanpur	1.1	0.2	-0.9	0.4	2.7	15.2	***	16.6	17.3	18.4	18.7	21.6	60	47.3	***	2.5
8	Tandojam	4.5	0.0	-4.5	1.0	0.5	17.5	***	18.8	19.9	21.1	21.7	23.7	60	78.8	4.2	2.5
9	Sakrand	0.0	0.0	0.0	1.6	2.2	16.8	22.0	***	***	***	***	***	60	87.0	4.0	2.3
11	Rohri	0.4	0.0	-0.4	0.2	1.2	16.4	***	***	***	***	***	***	60	79.4	2.9	1.9
12	D.I Khan	4.4	0.0	-4.4	0.3	3.9	14.9	14.9	14.7	13.1	***	6.9	***	80	47.1	2.2	1.2
13	Peshawar	8.6	0.0	-8.6	3.8	0.2	14.0	12.9	13.2	13.4	15.4	15.8	18.0	65	48.3	0.4	0.9
14	Usta M.	0.7	0.0	-0.7	0.0	0.0	14.9	22.6	20.4	20.5	***	***	25.4	60	***	1.5	1.6
15	Quetta	11.9	0.0	-11.9	5.6	4.2	10.3	12.4	11.3	9.4	9.7	10.8	12.5	30	92.5	4.4	2.1
16	Skardu	8.2	0.0	-8.2	2.0	-1.7	-0.4	***	***	***	***	***	***	50	41.1	0.0	0.5
17	Gilgit	2.8	0.0	-2.8	4.1	-1.3	5.5	***	***	***	***	***	***	50	36.8	1.1	0.8

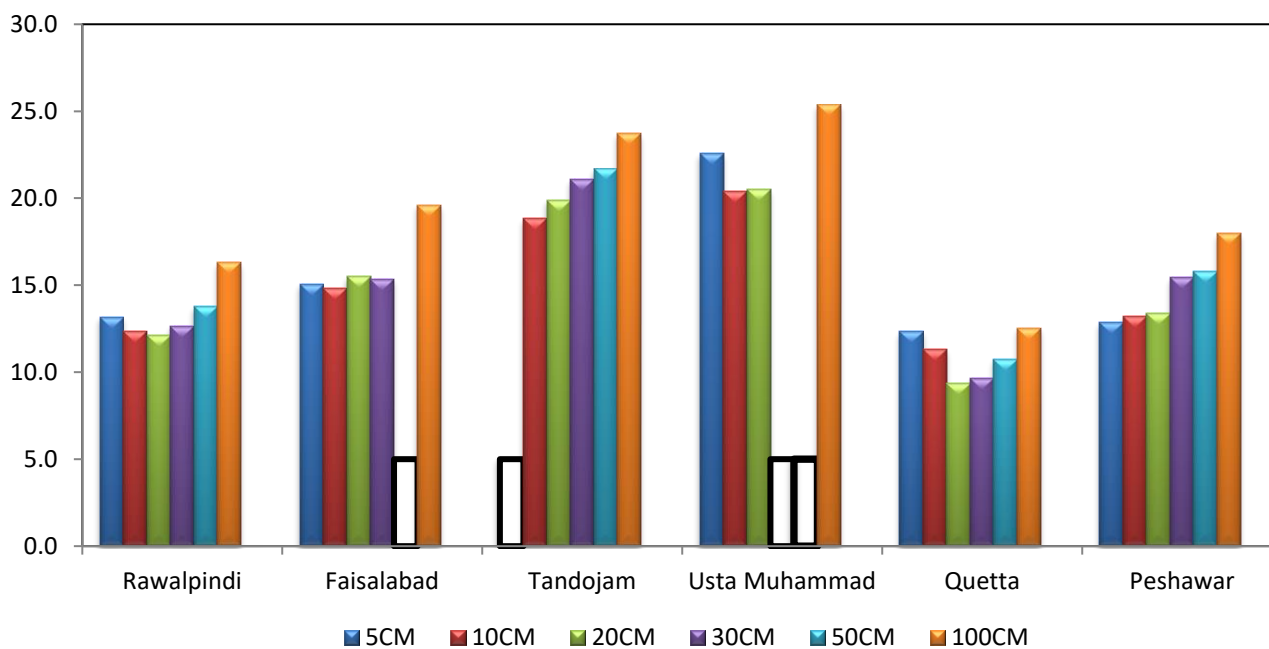
**Table-1:** Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normal used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration\*\*\*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

# Graph at RAMCs during December, 2023

## 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 avilable.

**Past Weather (21<sup>st</sup> to 31<sup>st</sup>December, 2023)**

Light amount of rainfall was reported from the Potohar region, north eastern and southern part of Punjab, upper KP and Baluchistan while Sindh remained dry.

**1.1 Punjab**

Light rainfall reported from Potohar region, north-eastern part and the southern part of the province. The decadal maximum remained normal while minimum rose by 1.8 from normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 70%,47.6 hrs,1.1 km/hr and 1.3 mm/day respectively.

**1.2 Sindh**

Dry weather reported from the agricultural plains of the province. Decadal maximum remained normal while minimum rose by 1.3 degree centigrade from normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 81.7 hrs, 3.7 km/hr and 2.2 mm/day respectively.

**1.3 Khyber Pakhtunkhwa**

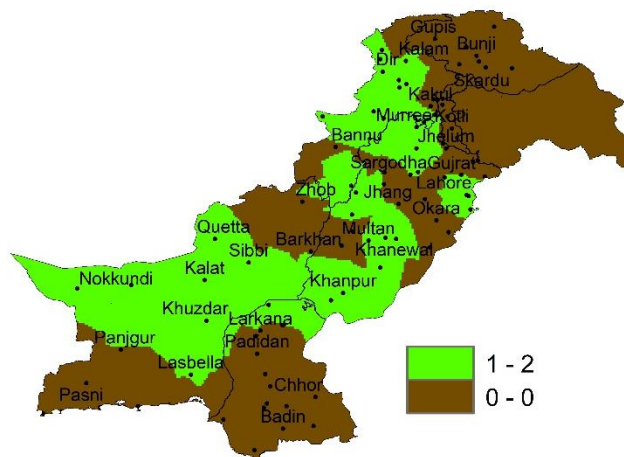
Mostly dry weather reported except upper and central part where light rainfall was reported from the province. Decadal maximum and minimum rose by 2.0 and 2.1 degree centigrade from normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 73%, 48.0 hrs, 1.3 km/hr and 1.1mm/day respectively.

**1.4 Baluchistan**

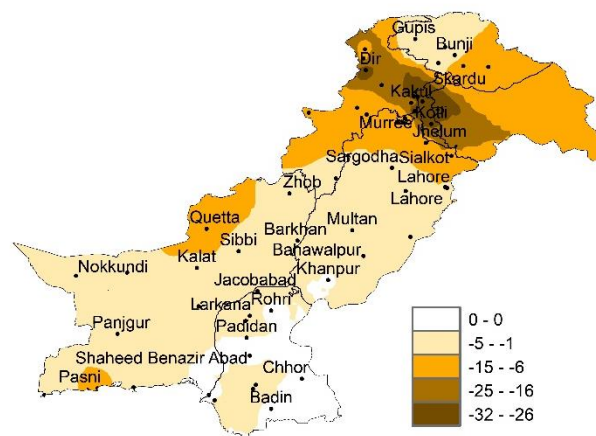
Light rain reported from scattered areas of the province. Decadal maximum remained and minimum rose by 2.8 and 2.1degree centigrade respectively from normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 45%, 92.5 hrs, 3.0km/hr and 1.9 mm/day respectively.

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

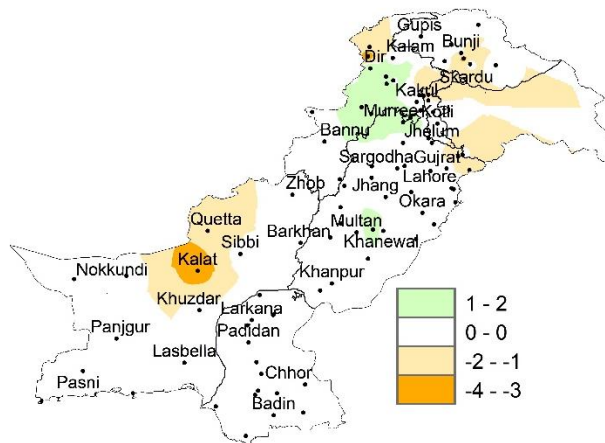
Dry weather reported from the province. Decadal maximum rose by 3.1 and minimum dropped below normal by 1.5 degree centigrade in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 39.0 hrs, 0.6 km/hr and 0.7 mm/day respectively



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**  
**(21<sup>st</sup> to 31<sup>st</sup> December, 2023)**

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

Dry weather reported during the decade; however weather remained cloudy for 05 days. Average relative humidity recorded as 65%. Mean day temperature was 24.1°C while night temperature recorded as 4.8°C with 73.1 hours bright sunshine duration.

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

Dry weather reported during the decade; however weather remained cloudy for 01 days. Average relative humidity recorded as 62%. Mean day temperature was 24.9°C while night temperature recorded as 8.9°C with 77.6 hours bright sunshine duration. Wind speed recorded as 1.1 km/hr with mean wind direction *Westerly*.

*Cotton: Very good, Tillering stage.*

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

Dry weather prevailed during the decade; however, weather remained sunny. Average relative humidity recorded as 62%. Mean day temperature was 26.8°C while night temperature recorded as 13.5°C with 77.6 hours bright sunshine duration. Mean wind direction was *Northeasterly*.

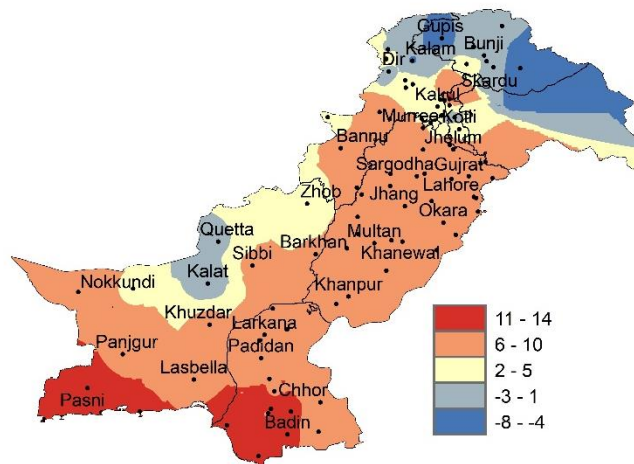
*Wheat: good, shooting stage.*

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

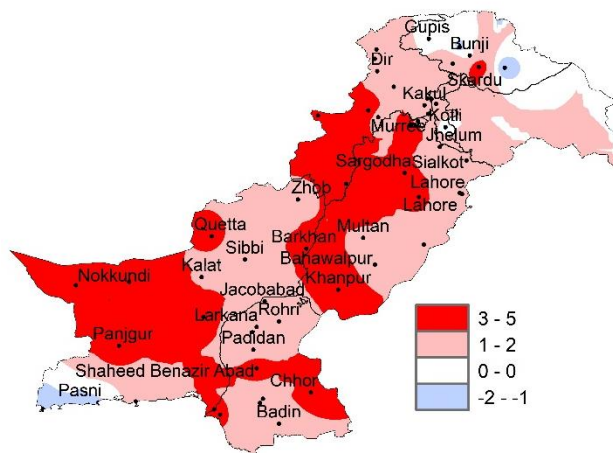
Dry weather prevailed during the decade; however, weather remained sunny. Average relative humidity recorded as 66%. Mean day temperature was 25.9°C while night temperature recorded as 10.2°.

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

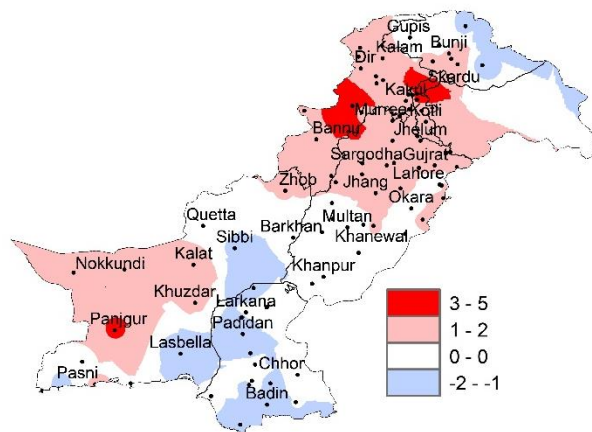
Dry weather prevailed during the decade; however weather remained cloudy for 07 day. Average relative humidity recorded as 36%. Mean day temperature was 16.4°C while night temperature recorded as 1.5°C with 94.1 hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean wind direction *north easterly*.



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> to31<sup>st</sup> December, 2023)**

2.6 **Jhelum**

Dry weather prevailed during the decade; however, weather remained cloudy for 01 day. Average relative humidity recorded as 70%. Mean day temperature was 19.3°C while night temperature recorded as 6.3°C with 50.4 hours bright sunshine duration. Wind speed recorded as 0.7 km/hr with mean wind direction south *westerly*.

2.7 **Lahore**

Data not available.

2.8 **Sargodha**

Dry weather prevailed during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 80%. Mean day temperature was 20.4°C while night temperature recorded as 7.7°C with 39.1 hours bright sunshine duration. Wind speed recorded as 0.6 km/hr with mean wind direction *variable*.

2.9 **Multan**

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 71%. Mean day temperature was 20.8°C while night temperature recorded as 7.8°C with 34 hours bright sunshine duration. Wind speed recorded as 1.9 km/hr with mean wind direction *northeasterly*.

2.10 **Khanpur**

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 60%. Mean day temperature was 22.8°C while night temperature recorded as 7.6 °C with 47.3 hours bright sunshine duration. Mean wind direction is *northeasterly*.

2.11 **Sakrand**

Dry weather prevailed during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 60%. Mean day temperature was 24.2°C while night temperature recorded as 9.4°C with 33.4 hours bright sunshine duration. Wind direction is *northwesterly*.

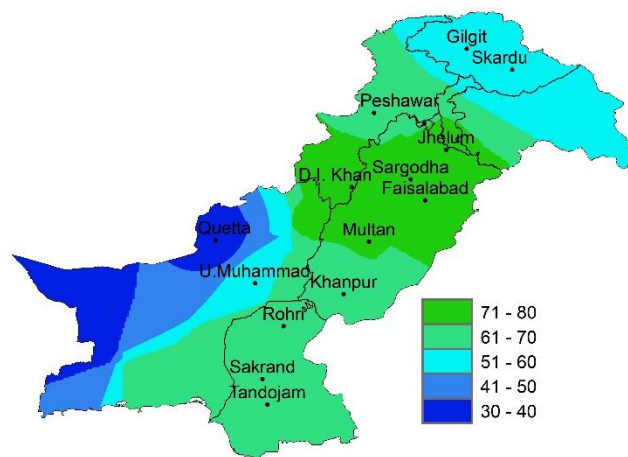


Figure.3: Relative Humidity in Percentage (%)

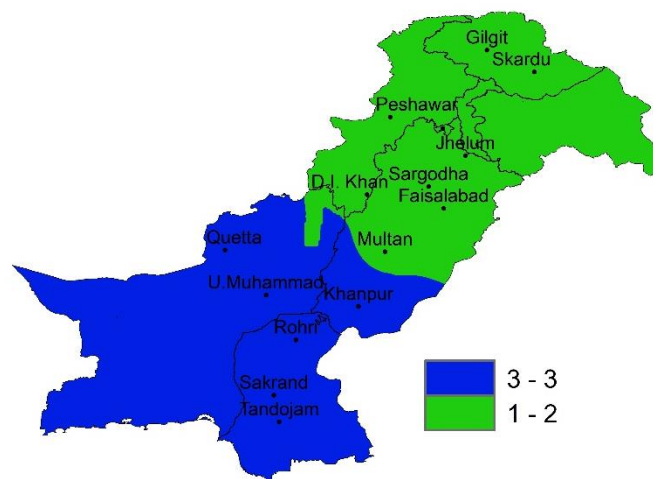


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)

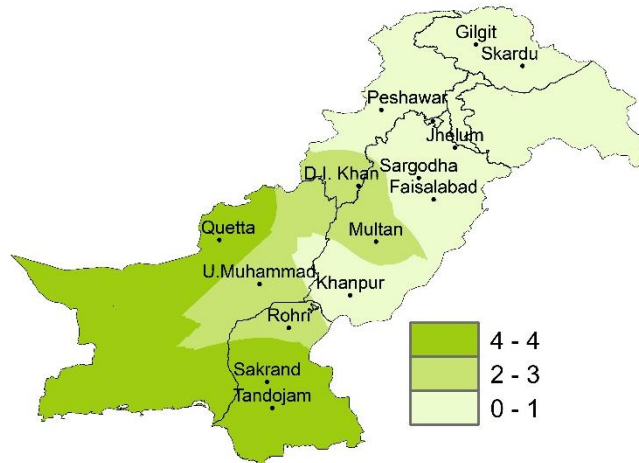


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Dry weather prevailed during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 60%. Mean day temperature was 23.2°C while night temperature recorded as 9.6°C with 79.4 hours bright sunshine duration. Wind speed recorded as 2.9 km/hr with mean wind direction northeasterly.

**2.13 D.I. Khan**

Dry weather prevailed during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 80%. Mean day temperature was 21.1°C while night temperature recorded as 8.6°C with 47.1 hours bright sunshine duration. Wind speed recorded as 2.2 km/hr with mean wind direction northeasterly.

**2.14 Peshawar**

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 65%. Mean day temperature was 28.5°C while night temperature recorded as 3.0°C with 48.3 hours bright sunshine duration. Wind speed recorded as 0.4 km/hr with mean wind direction northeasterly.

**2.15 Skardu**

Dry weather prevailed during the decade; however, weather remained cloudy for 04 days during the decade. Average relative humidity recorded as 50%. Mean day temperature was 7.4°C while night temperature recorded as -8.2°C with 41.1 hours bright sunshine duration. Wind was calm.

**2.16 Gilgit**

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 50%. Mean day temperature was 15.0°C while night temperature recorded as -4.0°C with 36.8 hours bright sunshine duration. Wind speed recorded as 1.1 km/hr with mean wind direction as southern.

**Ten Days Weather Advisory for Farmers  
(1<sup>st</sup> to 10<sup>th</sup> January, 2024)****3.1 Temperature Forecast**

Above 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:** Mainly cold and dry weather is expected in plain areas of the country, while very cold and partly cloudy in the upper parts. Fog/smog also likely in plain areas during morning and night
- ❖ **Khyber Pakhtunkhwa:** Mainly cold and dry weather is expected in plain areas of the country, while very cold and partly cloudy in the upper parts. However, rain (snow over mountains) is likely in upper Khyber Pakhtunkhwa during the mid days of the decade. Fog/smog also likely in plain areas during morning and night
- ❖ **Sindh:** Mainly cold and dry weather is expected in Sindh province.
- ❖ **Baluchistan:** Mainly cold and dry weather is expected in most parts of the province. However, rain (snow over mountains) is likely in northern Baluchistan during the mid days of the decade.
- ❖ **Gilgit-Baltistan:** Mainly cold and dry weather is expected in most parts of the province. However, rain (snow over mountains) is expected during the mid days of the decade.
- ❖ **Kashmir:** Mainly very cold and dry weather is expected in most parts of the province. However, rain (snow over mountains) is expected during the mid days of the decade.

**3.4 Advisory for Farmers**

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