

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light to moderate amount of rainfall was reported from the northeastern Punjab, KP, Kashmir and Gilgit Baltistan while light rainfall was reported from the rest parts of the country. However, dry weather observed over most parts of Sindh, northeastern and coastal areas of Baluchistan.
- ❖ Highest amount of rainfall recorded was 41.9 mm at Muzaffarabad during the last decade.
- ❖ Lowest minimum temperature recorded as -10.7 °C at Skardu 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 2nd half.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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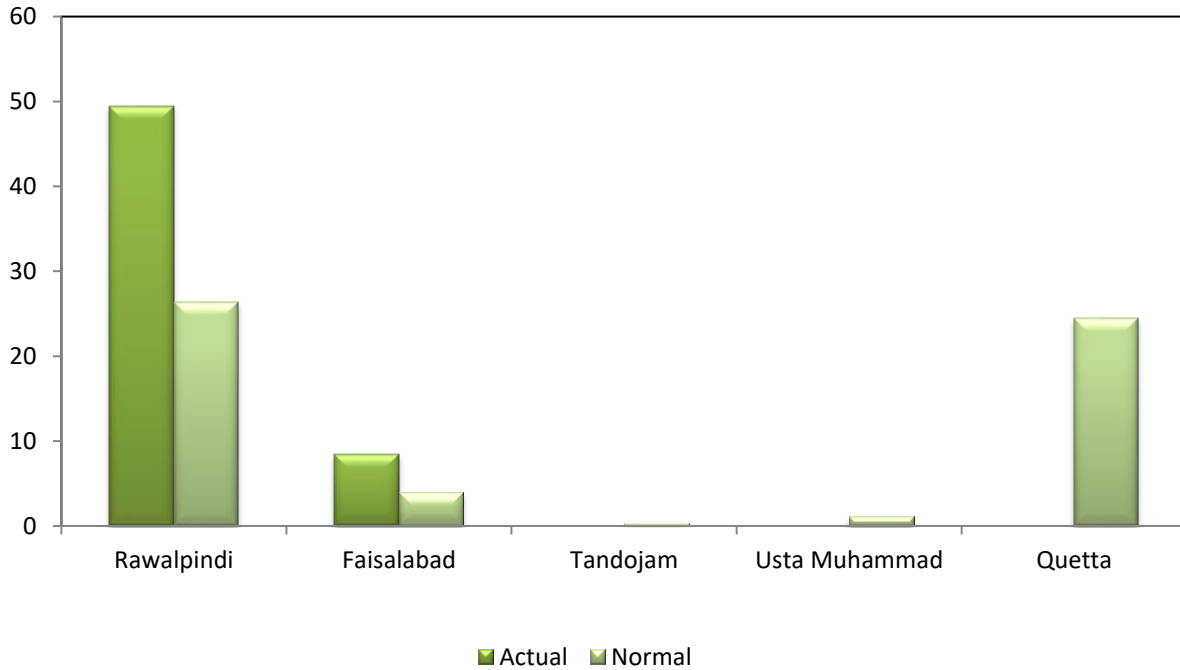
Meteorological Conditions during 3rd Decade of January 2024

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	26.4	49.5	23.1	-1.0	-0.8	10.2	11.8	11.1	10.9	11.4	12.5	14.1	71	39.7	1.0	1.1
2	Faisalabad	3.9	8.4	4.5	-3.8	1.6	11.3	12.7	12.4	12.3	12.5	***	16.3	75	22.2	1.8	1.1
3	Jhelum	17.4	21.0	3.6	-3.1	1.3	12.0	12.7	12.5	12.7	12.9	14.0	***	77	28.1	1.6	1.1
4	Lahore	9.4	0.0	-9.4	-3.8	-1.3	11.6	12.7	12.7	13.0	13.4	***	16.5	73	13.8	2.2	1.1
5	Sargodha	9.0	0.0	-9.0	-3.8	1.3	11.6	14.0	13.7	13.8	14.3	***	***	78	29.4	1.1	1.1
6	Multan	2.8	0.0	-2.8	-4.7	1.1	11.7	***	***	***	***	***	***	72	14.2	2.3	1.2
7	Khanpur	1.6	2.0	0.4	-4.7	0.2	11.7	***	13.6	14.0	14.5	15.3	17.8	78	11.5	***	1.6
8	Tandojam	0.3	0.0	-0.3	-1.5	-0.2	15.9	***	18.9	19.1	20.2	20.7	22.1	65	***	3.4	2.4
9	Sakrand	0.0	0.0	0.0	3.5	2.1	15.5	23.0	***	***	***	***	***	65	52.4	3.7	2.1
11	Rohri	2.2	0.0	-2.2	-4.6	0.0	13.6	***	***	***	***	***	***	73	29.6	3.3	1.6
12	D.I Khan	4.3	0.0	-4.3	-3.9	1.1	11.1	12.3	12.3	13.1	***	3.5	***	81	18.8	2.0	1.1
13	Peshawar	18.6	2.2	-16.4	-3.8	0.1	9.9	11.0	11.4	11.8	12.8	13.8	15.8	79	5.9	2.0	0.9
14	Usta M.	1.1	0.0	-1.1	0.0	0.0	13.2	19.4	16.7	16.8	***	***	20.8	69	***	1.7	1.8
15	Quetta	24.5	0.0	-24.5	4.6	4.7	9.4	12.5	11.2	9.3	9.1	9.8	11.1	45	83.5	4.0	2.0
16	Skardu	13.3	0.0	-13.3	3.2	1.0	0.2	***	***	***	***	***	***	51	41.1	***	1.5
17	Gilgit	1.4	0.0	-1.4	3.7	-1.2	5.5	***	***	***	***	***	***	48	29.0	0.6	0.9

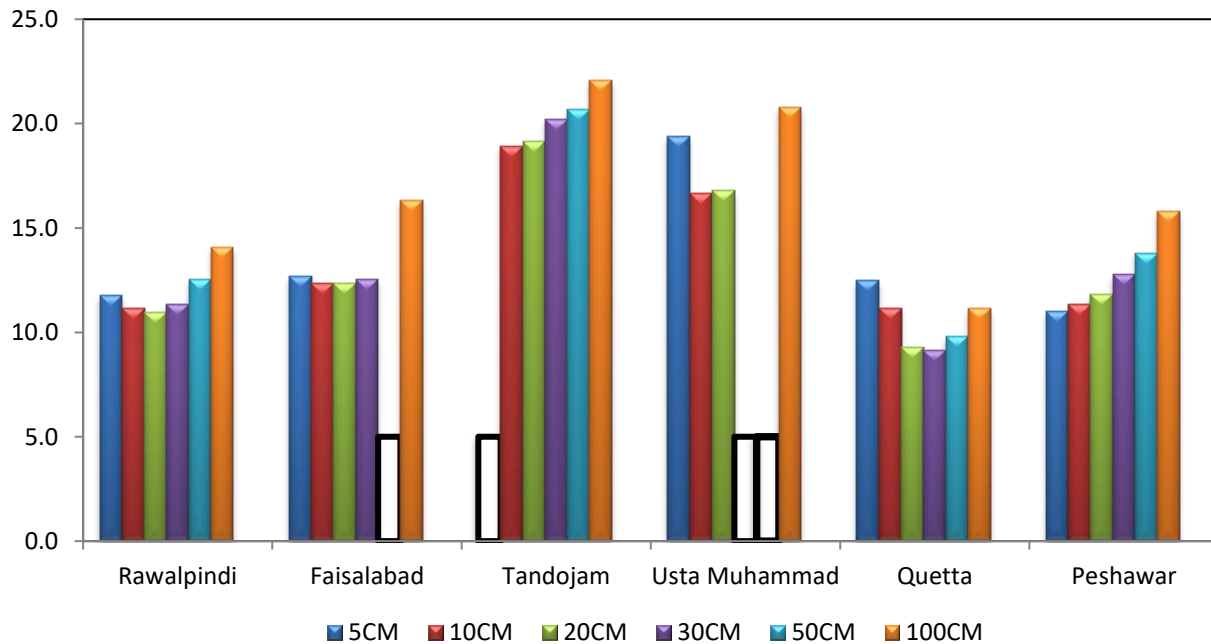
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during January, 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 (21st to 31st January 2024)

Light to moderate amount of rainfall was reported from northeastern Punjab, KPK, Kashmir and Gilgit Baltistan while light rainfall was reported from the rest parts of the country. However, dry weather observed over most parts of Sindh, northeastern and coastal areas of Baluchistan.

1.1 Punjab

Light to moderate rainfall was reported in the province. The decadal maximum temperature remained below normal by 3.6 and minimum temperature remained near normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 75%, 22.7 hrs, 1.7 km/hr and 1.2 mm/day respectively.

1.2 Sindh

Light rainfall was reported from northeastern part of 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 63%, 41.0 hrs, 3.5 km/hr and 2.0 mm/day respectively.

1.3 Khyber Pakhtunkhwa

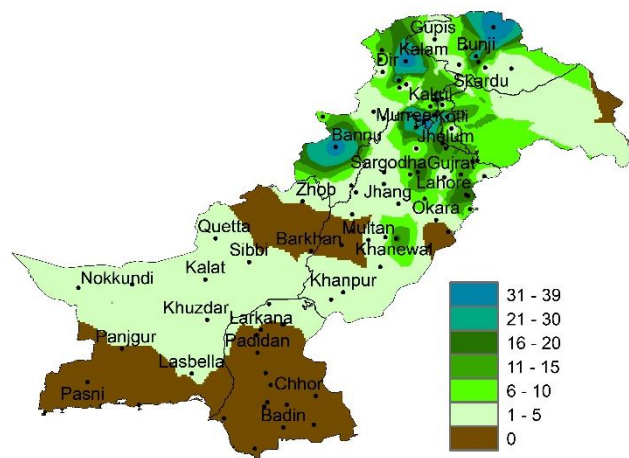
Light to moderate rainfall was reported from the province. The decadal maximum temperature remained below normal by 3.9, while minimum temperature remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 80%, 12.4 hrs, 2.0 km/hr and 1.0 mm/day respectively.

1.4 Baluchistan

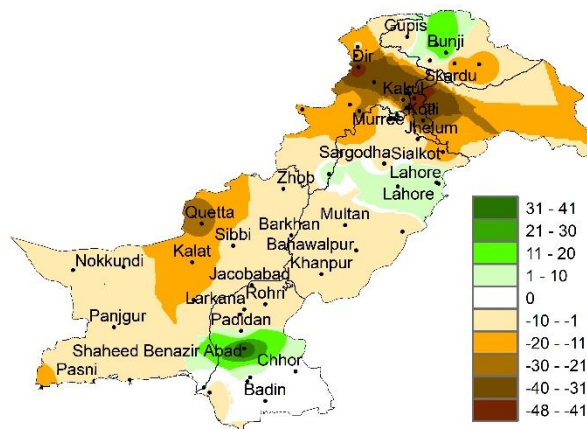
Light rain reported north western part of the province. Decadal maximum and minimum rose by 2.3 and 3.7 degree centigrade respectively from normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 57%, 83.5 hrs, 2.9 km/hr and 1.9 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

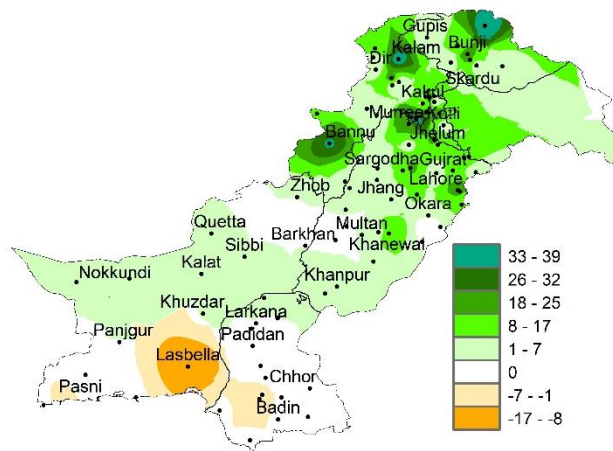
Light to moderate rain was reported from the province. Decadal maximum rose by 3.5 and the minimum remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 35.1 hrs, 0.6 km/hr and 1.2 mm/day respectively



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 (21st to 31st January 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 49.50 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 71%. Mean day temperature was 17.7°C while night temperature recorded as 2.7°C with 39.7 hours bright sunshine duration. Wind speed recorded as 1.0 km/hr with mean wind direction *southeastern*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 8.4 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 75%. Mean day temperature was 15.9°C while night temperature recorded as 6.7°C. Wind speed recorded as 1.8 km/hr with mean wind direction southwesterly.

Cotton: Very good, shooting completed.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 65%. Mean day temperature was 23.6°C while night temperature recorded as 8.1°C with 35.4 hours bright sunshine duration. Mean wind direction was *Northeasterly*.

Wheat: very good, shooting completed.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

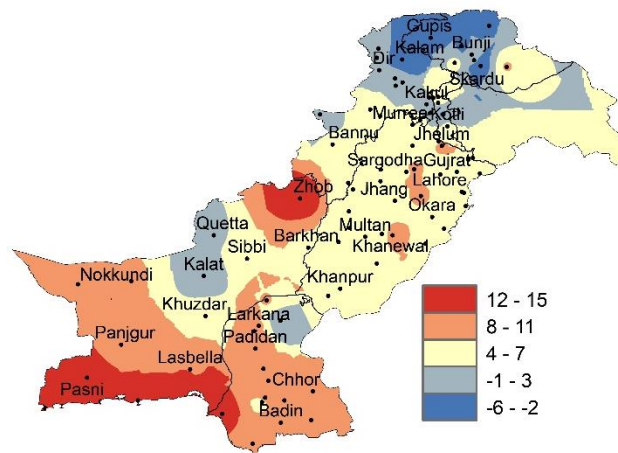
Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 69%. Mean day temperature was 21.9°C while night temperature recorded as 4.4°C. Mean wind direction was *Northeastern*.

Wheat: good, Third leaf stage.

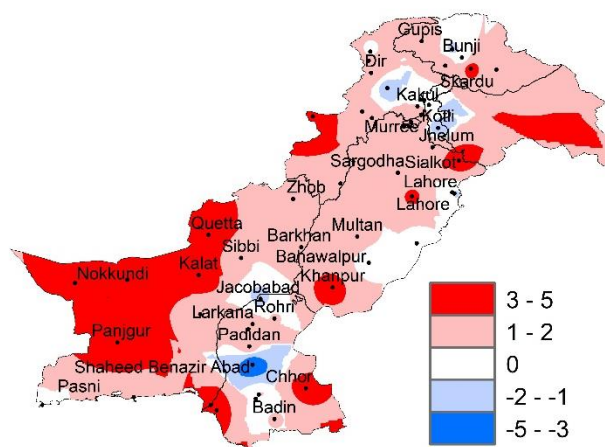
2.5 RAMC, Quetta (Northern Baluchistan)

Dry weather prevailed during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 45%. Mean day temperature was 15.8°C while night temperature recorded as 2.9°C with 83.5 hours bright sunshine duration. Wind speed recorded as 4.0 km/hr with mean wind direction *south westerly*.

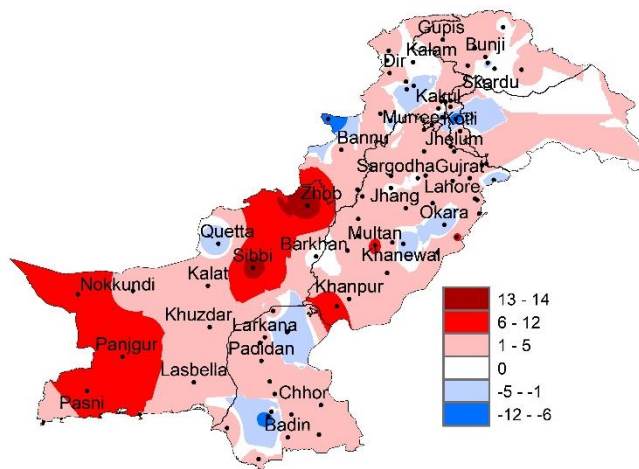
Wheat: good, Tillering stage.



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 (21st to 31st January 2024)

2.6 Jhelum

Rainfall reported as 21.0 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 77%. Mean day temperature was 16.8°C while night temperature recorded as 7.2°C with 28.1 hours bright sunshine duration. Wind speed recorded as 1.6 km/hr with mean wind direction *south westerly*.

2.7 Lahore

Rainfall reported as 0.01 (trace) during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 73%. Mean day temperature was 16.4°C while night temperature recorded as 6.7°C. Wind speed recorded as 2.2 km/hr with mean wind direction *north easterly*.

2.8 Sargodha

Dry weather prevailed during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 78%. Mean day temperature was 16.0°C while night temperature recorded as 7.2°C with 29.4 hours bright sunshine duration. Wind speed recorded as 1.1 km/hr with mean wind direction *northeasterly*.

2.9 Multan

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 72%. Mean day temperature was 16.5°C while night temperature recorded as 6.9°C with 14.2 hours bright sunshine duration. Wind speed recorded as 2.3 km/hr with mean wind direction *northeasterly*.

2.10 Khanpur

Rainfall reported as 2.0 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 78%. Mean day temperature was 17.4°C while night temperature recorded as 5.9°C with 11.5 hours bright sunshine duration. Mean wind direction is *northeasterly*.

2.11 Sakrand

Dry weather prevailed during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 65%. Mean day temperature was 21.9°C while night temperature recorded as 9.0°C with 52.0 hours bright sunshine duration. Wind speed recorded as 3.7 km/hr with mean direction as *northerly*.

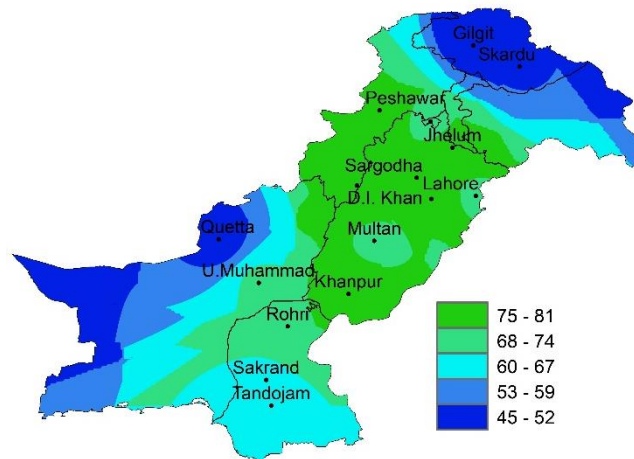


Figure.3: Relative Humidity in Percentage (%)

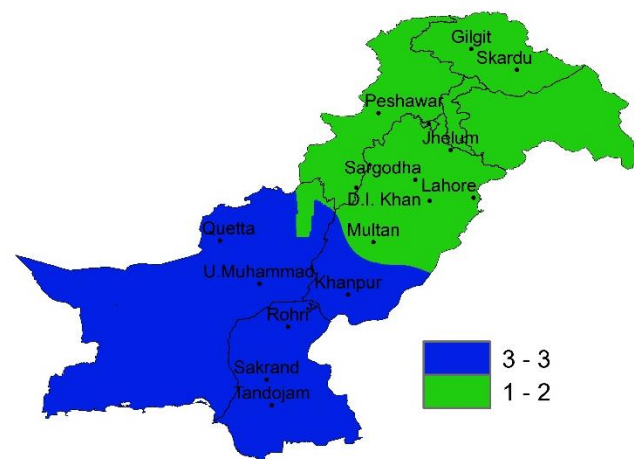


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

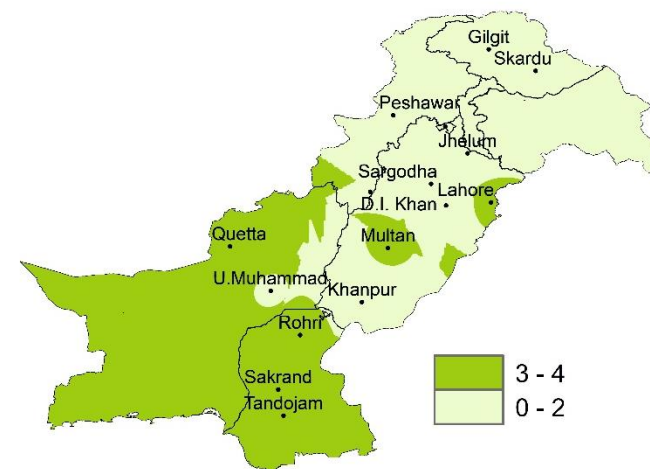


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather prevailed during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 73%. Mean day temperature was 18.5°C while night temperature recorded as 8.7°C with 29.6 hours bright sunshine duration. Wind speed recorded as 3.3 km/hr with mean wind direction *northeasterly*.

2.13 D.I. Khan

Rainfall reported as 0.01 (trace) during the decade; however, weather remained sunny. Average relative humidity recorded as 81%. Mean day temperature was 16.1°C while night temperature recorded as 6.0°C with 18.8 hours bright sunshine duration. Wind speed recorded as 2.0 km/hr with mean wind direction *southeasterly*.

2.14 Peshawar

Rainfall reported as 2.20 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 79%. Mean day temperature was 14.9°C while night temperature recorded as 4.9°C with 5.9 hours bright sunshine duration. Wind speed recorded as 2.0 km/hr with mean wind direction *northeasterly*.

2.15 Skardu

Dry weather prevailed during the decade; however, weather remained cloudy for 06 days during the decade. Average relative humidity recorded as 51%. Mean day temperature was 7.3°C while night temperature recorded as -10.7°C with 41.1 hours bright sunshine duration. Wind was calm.

2.16 Gilgit

Rainfall reported as 0.01 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 48%. Mean day temperature was 14.2°C while night temperature recorded as -3.2°C with 29.0 hours bright sunshine duration. Wind speed recorded as 0.6 km/hr with mean wind direction as *southeastern*.

**Ten Days Weather Advisory for Farmers
(1st to 10th February 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 Muree) 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.