

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light amount of rainfall was reported from the Baluchistan and scattered areas of Sindh and South Punjab while rest parts of the country remained dry.
- ❖ Highest amount of rainfall recorded as 30 mm at Quetta during the last decade.
- ❖ Highest minimum temperature recorded as -9.9°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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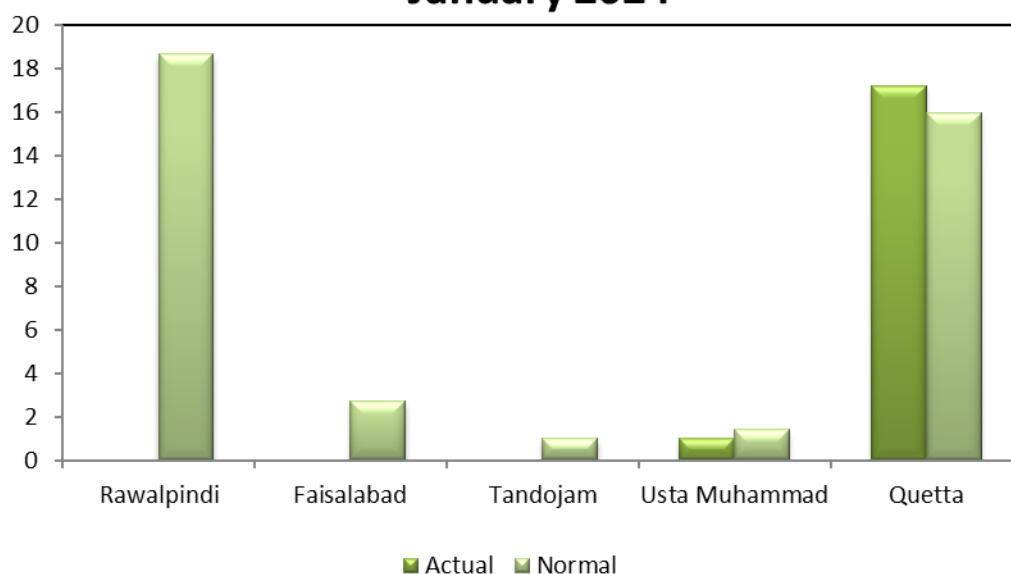
Meteorological Conditions during 1st Decade of January 2024

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	18.7	0.0	-18.7	1.8	-0.4	10.7	11.0	10.6	10.7	11.5	12.5	15.5	68	62.9	0.8	0.9
2	Faisalabad	2.7	0.0	-2.7	-9.4	1.4	8.5	11.1	11.3	12.3	13.0	***	18.7	86	0.0	2.8	0.9
3	Jhelum	10.8	0.0	-10.8	-7.8	0.6	7.8	11.0	11.7	12.3	13.2	14.5	***	95	7.6	1.6	0.7
4	Lahore	7.0	0.0	-7.0	-5.6	-0.6	9.1	12.5	12.4	14.1	14.8	***	18.2	85	0.0	1.4	0.9
5	Sargodha	8.3	0.0	-8.3	-7.9	0.7	7.5	12.2	12.5	15.4	14.8	***	***	92	3.0	0.5	0.7
6	Multan	4.4	0.0	-4.4	-6.5	1.2	9.1	***	***	***	***	***	***	85	5.8	1.6	0.9
7	Khanpur	1.0	0.0	-1.0	-5.1	0.8	10.3	***	14.5	15.2	16.0	17.2	20.3	85	16.1	***	0.8
8	Tandojam	1.0	0.0	-1.0	-2.4	-0.7	13.9	***	17.6	18.6	19.7	21.6	22.5	64	74.9	4.8	2.6
9	Sakrand	1.1	0.0	-1.1	1.6	1.4	13.0	18.9	***	***	***	***	***	68	59.4	4.3	2.2
11	Rohri	1.1	0.0	-1.1	-5.6	-1.6	11.1	***	***	***	***	***	***	83	20.5	3.4	1.4
12	D.I Khan	7.6	0.0	-7.6	-7.8	0.8	7.7	11.8	12.4	13.1	***	5.0	***	94	2.2	1.6	0.8
13	Peshawar	11.9	0.0	-11.9	-3.6	-1.3	8.3	10.1	10.7	11.8	13.2	14.7	17.0	82	11.4	1.0	0.8
14	Usta M.	1.4	1.0	-0.4	0.0	0.0	8.9	14.3	14.3	15.2	***	***	22.0	87	***	1.8	1.1
15	Quetta	16.0	17.2	1.2	1.7	3.0	6.9	9.6	8.9	8.2	8.4	9.9	11.9	56	69.5	3.8	1.7
16	Skardu	10.4	0.0	-10.4	2.8	-0.3	-0.9	***	***	***	***	***	***	50	52.1	0.0	0.5
17	Gilgit	1.8	0.0	-1.8	4.3	-1.0	5.0	***	***	***	***	***	***	48	36.0	1.0	0.8

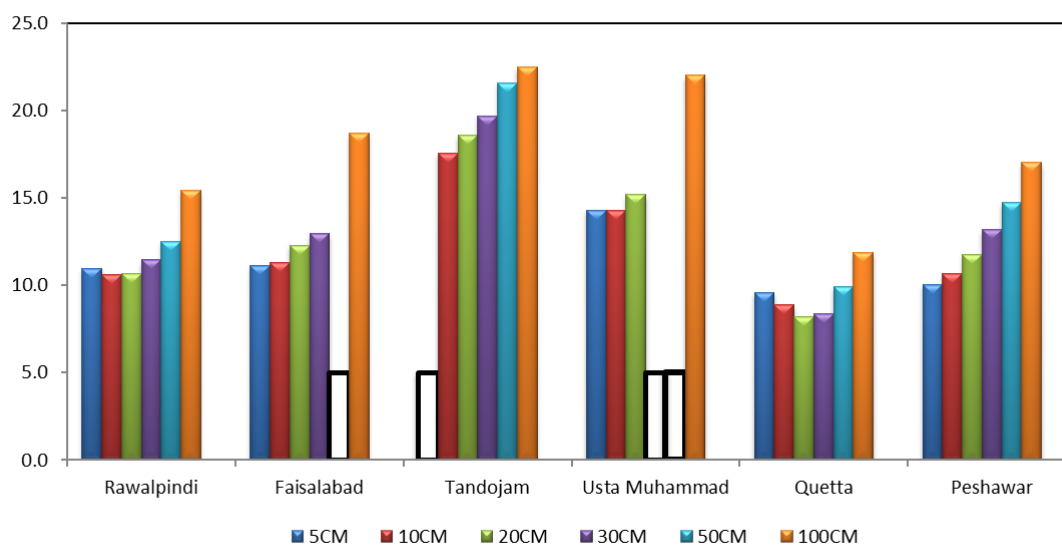
Table-1: Meteorological parameters for selected station of Pakistan. “Dep” in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. ‘ETo’ stands for reference crop Evapotranspiration***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

Graph at RAMCs during January, 2024

Precipitation(mm) during 1st Decade of January 2024



Soil Temperature(°C)



* Faisalabad 50 cm and Tandojam 5cm Usta Muhammad 30 cm , 50 cm soil temperature data is is not available.

Past Weather (01st to 10th January 2024)

Light amount of rainfall was reported from the Baluchistan and scattered areas of Sindh and South Punjab while rest parts of the country remained dry.

1.1 Punjab

Light rainfall reported from southern part of the province. The decadal maximum remained below normal by 5.8 while minimum remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 85%, 13.6 hrs, 1.5 km/hr and 0.8 mm/day respectively.

1.2 Sindh

Light rain reported from scattered areas of the province. The decadal maximum remained below normal by 2.1 while minimum remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 72%, 15.6 hrs, 4.2 km/hr and 2.1 mm/day respectively.

1.3 Khyber Pakhtunkhwa

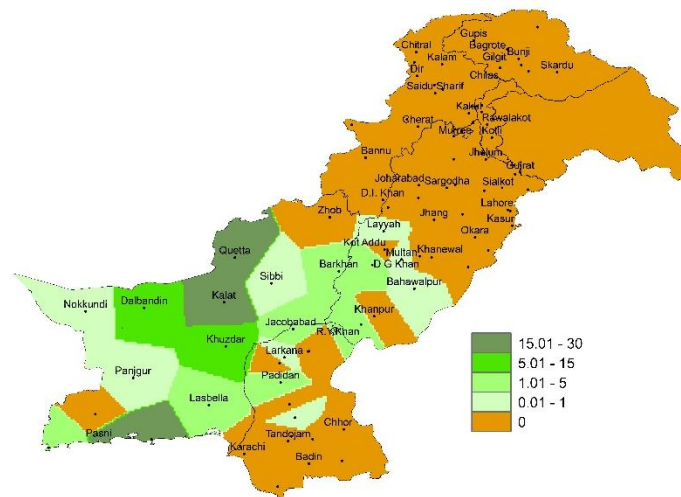
Dry weather reported from the province. The decadal maximum remained below normal by 5.7 while minimum remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 88%, 6.8 hrs, 1.3 km/hr and 0.8mm/day respectively.

1.4 Baluchistan

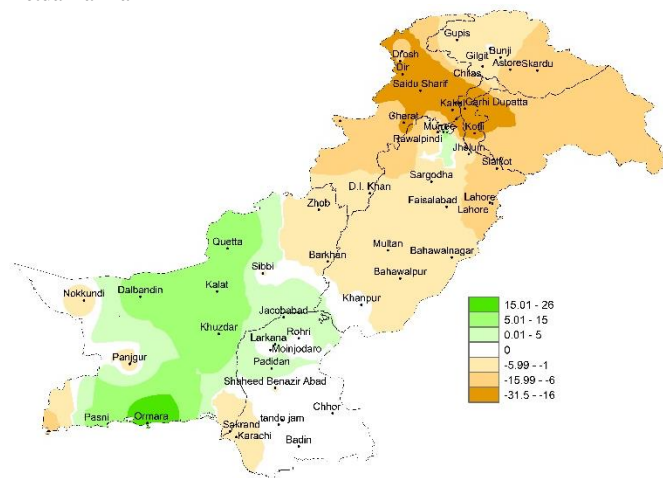
Light rain reported from the province. Decadal maximum remained normal and minimum rose by 1.5 degree centigrade respectively from normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 72%, 69.5 hrs, 2.8km/hr and 1.4 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

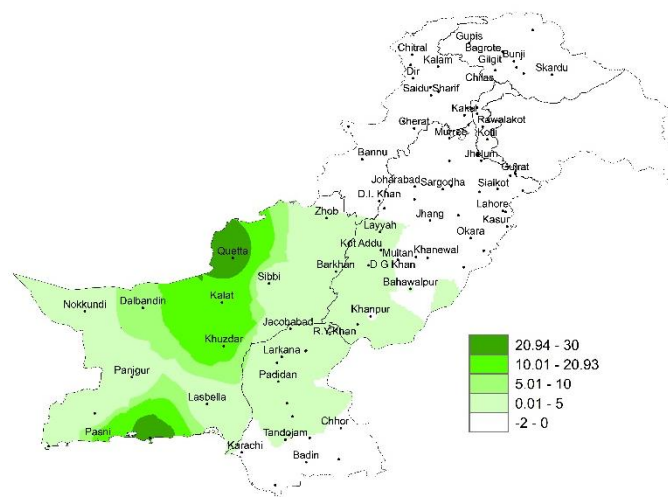
Dry weather reported from the province. Decadal maximum rose by 3.5 and minimum remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 44.1 hrs, 0.6 km/hr and 0.7 mm/day respectively



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
(01st to 10th January 2024)**

2.1 RAMC, Rawalpindi (Potohar region)

Dry weather reported during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 68%. Mean day temperature was 19.4°C while night temperature recorded as 1.9°C with 62.9 hours bright sunshine duration. Wind speed recorded as 0.8 km/hr with mean wind direction *southwestern*.

2.2 RAMC, Faisalabad (Central Punjab)

Dry weather reported during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 86%. Mean day temperature was 10.6°C while night temperature recorded as 6.3°C. Wind speed recorded as 1.5 km/hr with mean wind direction *Westerly*.

Cotton: Very good, Tillering completed.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather prevailed during the decade; however, weather remained sunny. Average relative humidity recorded as 64%. Mean day temperature was 20.7°C while night temperature recorded as 7.0°C with 74.9 hours bright sunshine duration. Mean wind direction was *Northeasterly*.

Wheat: good, shooting stage.

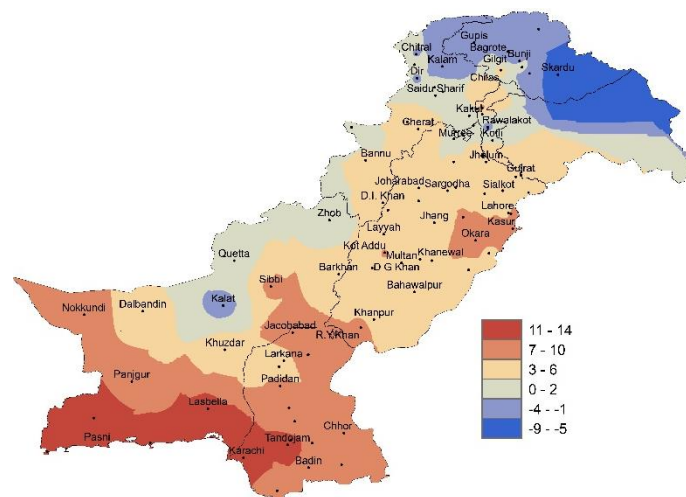
2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

Rainfall reported as 1.0 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 87%. Mean day temperature was 13.1°C while night temperature recorded as 4.7°. Mean wind direction was *Northern*.

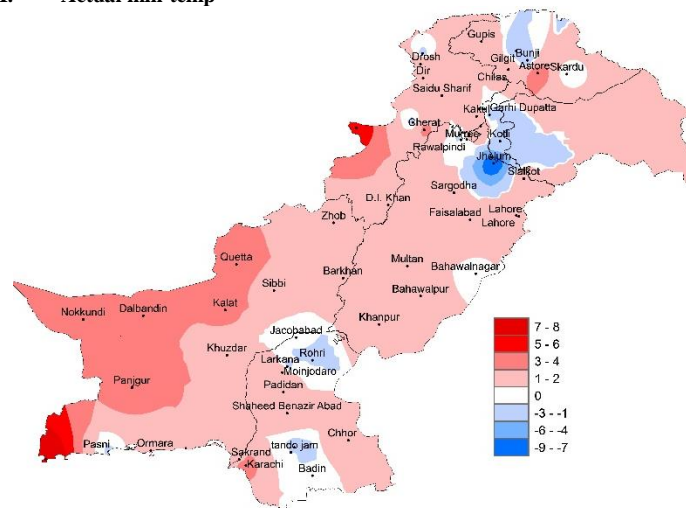
Wheat: good, Third leaf stage.

2.5 RAMC, Quetta (Northern Baluchistan)

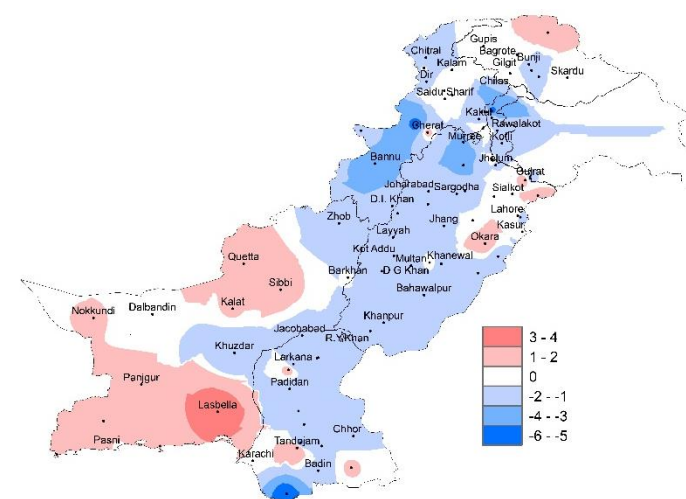
Rainfall reported as 17.2 during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 56%. Mean day temperature was 13.0°C while night temperature recorded as 0.7°C with 69.5 hours bright sunshine duration. Wind speed recorded as 3.8 km/hr with mean wind direction *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 (01st to 10th January 2024)

2.6 Jhelum

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 95%. Mean day temperature was 10.0°C while night temperature recorded as 5.6°C with 7.6 hours bright sunshine duration. Wind speed recorded as 7.6 km/hr with mean wind direction *south westerly*.

2.7 Lahore

Dry weather prevailed during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 85%. Mean day temperature was 11.4°C while night temperature recorded as 6.7°C. Wind speed recorded as 1.4 km/hr with mean wind direction *north westerly*.

2.8 Sargodha

Dry weather prevailed during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 92%. Mean day temperature was 9.4°C while night temperature recorded as 5.6°C with 3.0 hours bright sunshine duration. Wind speed recorded as 0.3 km/hr with mean wind direction *southwesterly*.

2.9 Multan

Dry weather prevailed during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 85%. Mean day temperature was 11.8°C while night temperature recorded as 6.3°C with 5.8 hours bright sunshine duration. Wind speed recorded as 1.6 km/hr with mean wind direction *northeasterly*.

2.10 Khanpur

Dry weather prevailed during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 85%. Mean day temperature was 14.6°C while night temperature recorded as 5.9 °C with 16.1 hours bright sunshine duration. Mean wind direction is *northeasterly*.

2.11 Sakrand

Dry weather prevailed during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 68%. Mean day temperature was 18.9°C while night temperature recorded as 7.0°C with 59.4 hours bright sunshine duration. Wind speed recorded as 4.3 km/hr with mean direction as *northwesterly*.

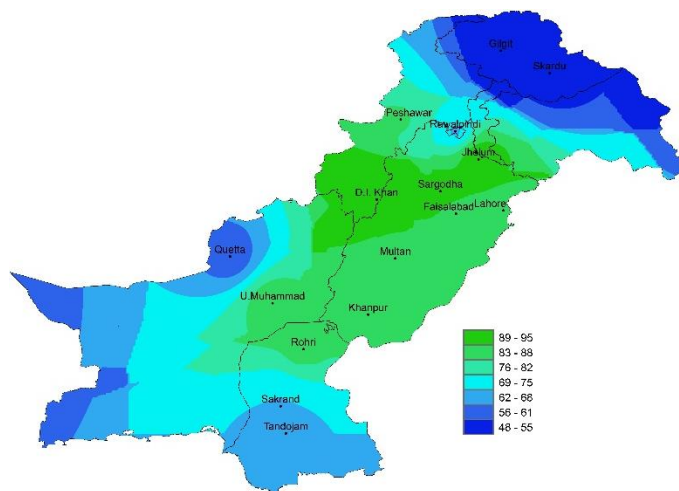


Figure.3: Relative Humidity in Percentage (%)

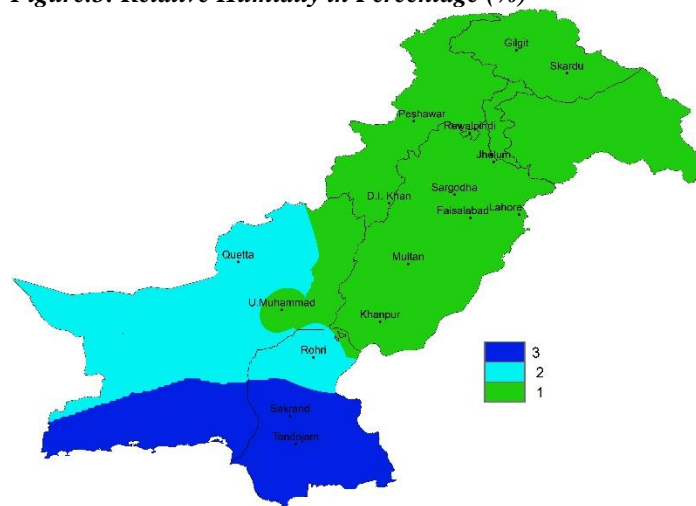


Figure.4: Reference Crop Evapotranspiration ET₀ (mm/day)

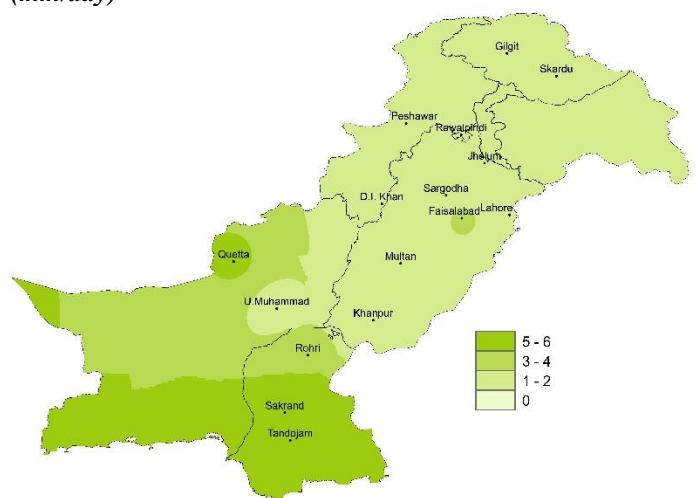


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather prevailed during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 83%. Mean day temperature was 15.2°C while night temperature recorded as 6.9°C with 20.5 hours bright sunshine duration. Wind speed recorded as 3.4 km/hr with mean wind direction *northeasterly*.

2.13 D.I. Khan

Dry weather prevailed during the decade; however, weather remained sunny. Average relative humidity recorded as 94%. Mean day temperature was 10.3°C while night temperature recorded as 5.0°C with 2.2 hours bright sunshine duration. Wind speed recorded as 1.6 km/hr with mean wind direction *southeasterly*.

2.14 Peshawar

Dry weather prevailed during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 82%. Mean day temperature was 13.8°C while night temperature recorded as 2.7°C with 11.4 hours bright sunshine duration. Wind speed recorded as 1.0 km/hr with mean wind direction *northwesterly*.

2.15 Skardu

Dry weather prevailed during the decade; however, weather remained cloudy for 02 days during the decade. Average relative humidity recorded as 50%. Mean day temperature was 7.3°C while night temperature recorded as -9.1°C with 52.1 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 48%. Mean day temperature was 14.7°C while night temperature recorded as -4.8°C with 36.0 hours bright sunshine duration. Wind speed recorded as 1.0 km/hr with mean wind direction as *southeastern*.

Ten Days Weather Advisory for Farmers **(11th to 20th 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/frost 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 is 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.