

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Mostly dry weather is reported from the country.
- ❖ However, trace amount of rainfall reported from Upper reaches of KPK and Gilgit Baltistan.
- ❖ Highest amount of rainfall recorded as 1.0 mm at Kalam during the last decade.
- ❖ Highest minimum temperature recorded as -8.2°C at Skardu during the last decade.
- ❖ Mainly dry and cold weather is expected in Baluchistan, Sindh and southern parts of the country while light rain is expected in the upper areas of Baluchistan, KPK, Pothohar, GB and Kashmir during the decade.
- ❖ Farmers are advised to view weather forecast before any field activity.

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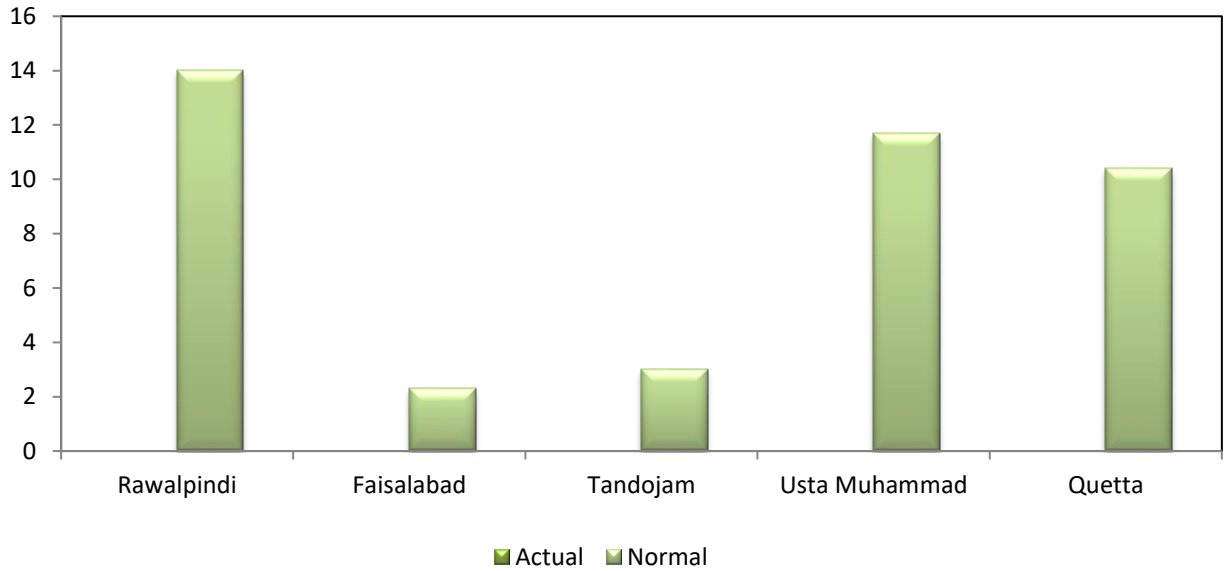
Meteorological Conditions during 1st Decade of December, 2023

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	14.0	0.0	-14.0	2.4	0.0	14.5	15.0	14.4	14.5	15.1	16.5	19.3	65	73.1	0.8	1.1
2	Faisalabad	2.3	0.0	-2.3	1.6	2.3	16.9	17.8	17.6	17.5	18.0	***	22.5	62	77.6	1.1	1.4
3	Jhelum	5.8	0.0	-5.8	0.6	1.0	16.0	15.8	15.6	16.2	17.6	19.0	***	67	78.7	0.1	1.7
4	Lahore	0.9	0.0	-0.9	0.2	0.9	17.3	16.6	16.9	17.4	17.8	***	21.6	72	63.1	0.5	1.2
5	Sargodha	3.4	0.0	-3.4	1.1	1.8	17.5	18.8	18.9	18.6	19.4	***	***	65	63.3	0.1	1.1
6	Multan	2.0	0.0	-2.0	0.1	2.8	17.6	***	***	***	***	***	***	63	51.2	1.7	1.5
7	Khanpur	0.9	0.0	-0.9	0.3	3.5	18.0	***	20.0	20.8	21.5	22.7	24.8	66	67.0	***	2.7
8	Tandojam	3.0	0.0	-3.0	0.4	2.7	20.2	***	21.0	21.4	23.0	24.7	25.4	62	77.6	3.0	2.4
9	Sakrand	14.7	0.0	-14.7	2.8	3.1	19.3	24.9	***	***	***	***	***	57	80.1	2.6	2.2
11	Rohri	14.6	0.0	-14.6	-0.3	2.0	19.1	***	***	***	***	***	***	62	81.5	2.1	2.3
12	D.I Khan	1.5	0.0	-1.5	1.6	3.5	17.7	17.2	17.0	13.1	***	9.2	***	67	62.7	2.0	1.6
13	Peshawar	5.4	0.0	-5.4	1.4	-0.2	14.6	14.7	15.2	15.6	17.0	18.2	20.5	70	49.3	1.2	1.1
14	Usta M.	11.7	0.0	-11.7	0.0	0.0	18.1	23.7	21.9	22.0	***	***	26.8	66	***	1.4	1.7
15	Quetta	10.4	0.0	-10.4	0.3	2.9	9.0	12.5	11.5	10.1	10.9	12.6	15.0	36	94.1	3.9	3.2
16	Skardu	4.1	0.0	-4.1	-0.3	-1.3	1.7	***	***	***	***	***	***	45	49.1	0.0	0.6
17	Gilgit	1.0	0.0	-1.0	2.3	-0.3	7.4	***	***	***	***	***	***	54	48.9	0.9	0.8

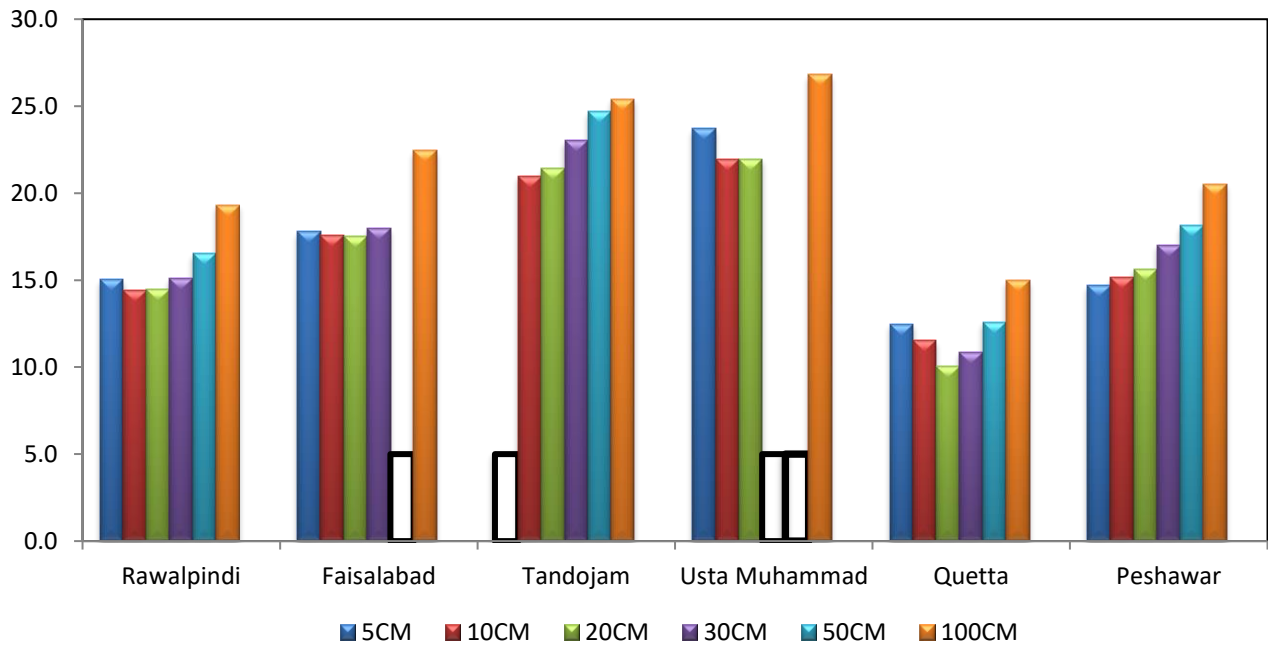
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normal used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration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

Graph at RAMCs during December, 2023

Precipitation(mm) during 1st Decade



Soil Temperature(°C)



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

Past Weather (1st to 10th December, 2023)

Light to moderate amount of rainfall reported from the upper half of the country during the decade. While light rainfall reported from Baluchistan, and Sindh remained dry.

1.1 Punjab

Dry weather reported from the province. Decadal maximum rose by 1.0 degree centigrade while minimum rose by 1.8 from normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 66%, 67.7 hrs, 0.7 km/hr and 1.5 mm/day respectively.

1.2 Sindh

Dry weather reported from the agricultural plains of the province. Decadal maximum rose by 1.0 degree centigrade while minimum rose by 2.6 degree centigrade from normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 79.7 hrs, 2.6 km/hr and 2.3 mm/day respectively.

1.3 Khyber Pakhtunkhwa

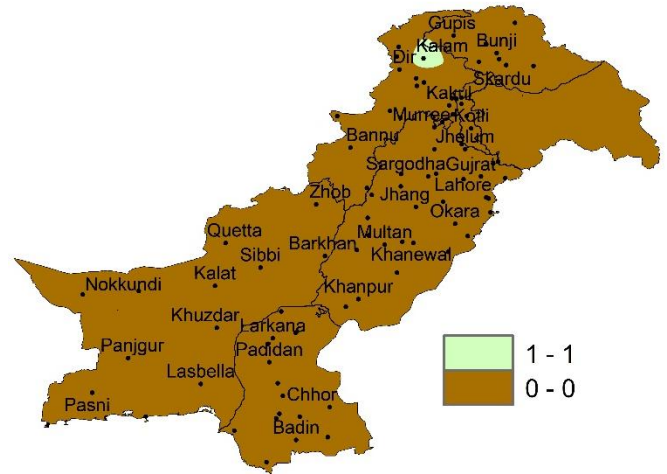
Mostly dry weather reported from the province, however, light rain reported from Kalam. Decadal maximum rose by 1.5 degree centigrade while minimum rose by 1.7 degree centigrade from normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 69%, 56.0 hrs, 1.6 km/hr and 1.4mm/day respectively.

1.4 Baluchistan

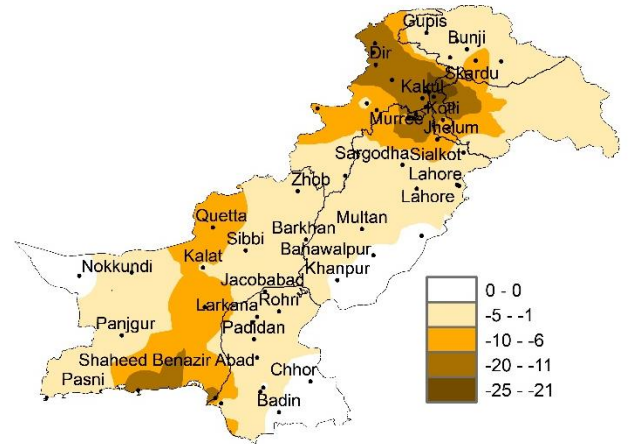
Dry weather reported from the province. Decadal maximum remained normal meanwhile minimum rose by 1.4 from normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 51%, 94.1 hrs, 2.7km/hr and 2.5 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

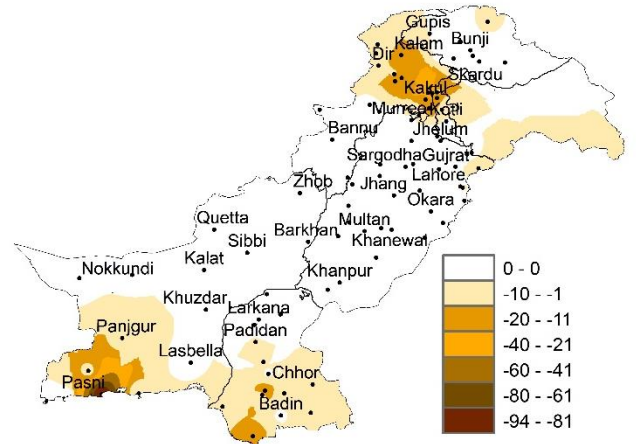
Mostly dry weather reported from the province, however, trace amount of rain reported from Chilas and Gilgit. Decadal maximum rose by 1.0 and minimum remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 49.0 hrs, 0.5 km/hr and 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
(1st to 10th 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, emergence.

2.3 RAMC, Tandojam (Lower Sindh)

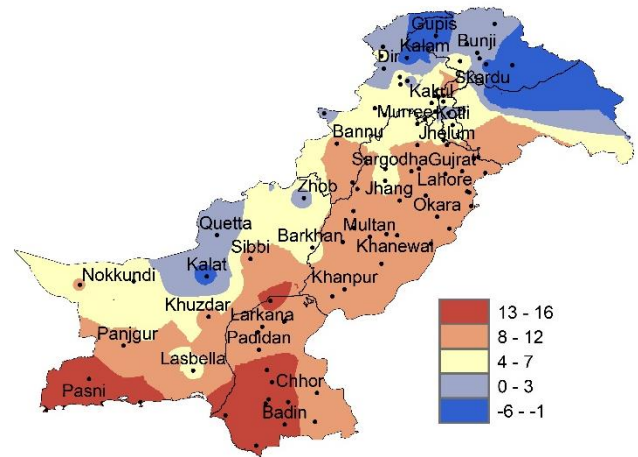
Dry weather prevailed during the decade; however, weather remained sunny. Average relative humidity recorded as 62%. Mean day temperature was 26.8°C while night temperature recorded as 13.5°C with 77.6 hours bright sunshine duration. Mean wind direction was *Northeasterly*.
Wheat: good, germination.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

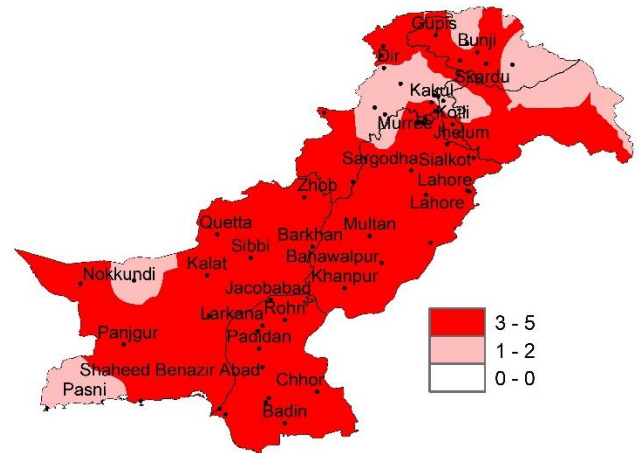
Dry weather prevailed during the decade; however, weather remained sunny. Average relative humidity recorded as 66%. Mean day temperature was 25.9°C while night temperature recorded as 10.2°.

2.5 RAMC, Quetta (Northern Baluchistan)

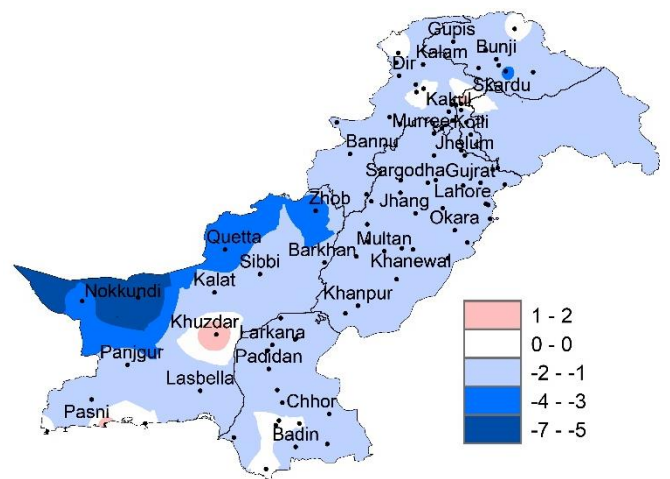
Dry weather prevailed during the decade; however weather remained cloudy for 07 day. Average relative humidity recorded as 36%. Mean day temperature was 16.4°C while night temperature recorded as 1.5°C with 94.1 hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean wind direction *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 (1st to 10th December, 2023)**

2.6 **Jhelum**

Dry weather prevailed during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 67%. Mean day temperature was 23.8°C while night temperature recorded as 8.1°C with 78.7 hours bright sunshine duration. Wind speed recorded as 0.1 km/hr with mean wind direction *westerly*.

2.7 **Lahore**

Dry weather prevailed during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 72%. Mean day temperature was 24.0°C while night temperature recorded as 10.5°C with 63.1 hours bright sunshine duration. Wind speed recorded as 0.5 km/hr with mean wind direction *northeasterly*.

2.8 **Sargodha**

Dry weather prevailed during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 65%. Mean day temperature was 25.2°C while night temperature recorded as 9.7°C with 63.3 hours bright sunshine duration. Wind speed recorded as 0.1 km/hr with mean wind direction *southwesterly*.

2.9 **Multan**

Dry weather prevailed during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 63%. Mean day temperature was 24.6°C while night temperature recorded as 10.5°C with 51.2 hours bright sunshine duration. Mean wind direction is *westerly*.

2.10 **Khanpur**

Dry weather prevailed during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 66%. Mean day temperature was 25.8°C while night temperature recorded as 10.2 °C with 67 hours bright sunshine duration. Mean wind direction is *south westerly*.

2.11 **Sakrand**

Dry weather prevailed during the decade; however, weather remained clear. Average relative humidity recorded as 57%. Mean day temperature was 26.6°C while night temperature recorded as 12.0°C with 80.1 hours bright sunshine duration. Wind direction is *northwesterly*.

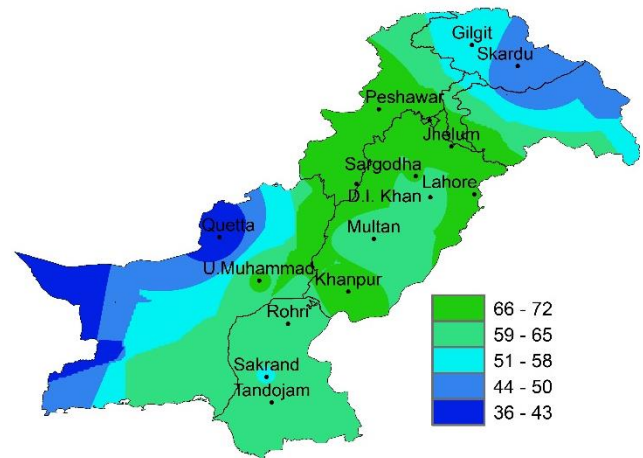


Figure.3: Relative Humidity in Percentage (%)

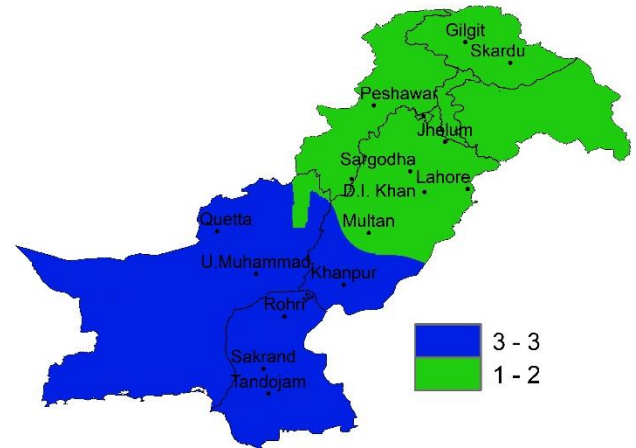


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)

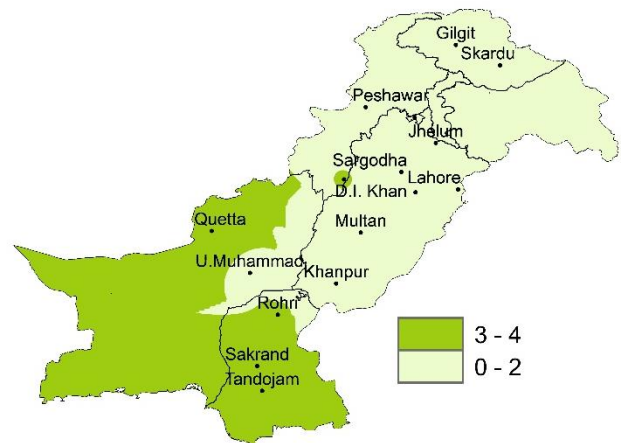


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather prevailed during the decade; however, weather remained sunny. Average relative humidity recorded as 49%. Mean day temperature was 25.5°C while night temperature recorded as 12.6°C with 81.5 hours bright sunshine duration. Wind speed recorded as 2.1 km/hr with mean wind direction northeasterly.

2.13 D.I. Khan

Dry weather prevailed during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 67%. Mean day temperature was 25.2°C while night temperature recorded as 10.1°C with 62.7 hours bright sunshine duration. Wind speed recorded as 2.0 km/hr with mean wind direction southeasterly.

2.14 Peshawar

Dry weather prevailed during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 70%. Mean day temperature was 23.2°C while night temperature recorded as 6.0°C with 51.3 hours bright sunshine duration. Wind speed recorded as 1.97 km/hr with mean wind direction northwesterly.

2.15 Skardu

Dry weather prevailed during the decade; however, weather remained cloudy for 03 days during the decade. Average relative humidity recorded as 45%. Mean day temperature was 9.0°C while night temperature recorded as -5.6°C with 38.4 hours bright sunshine duration. Wind was calm.

2.16 Gilgit

Rain reported as 0.01 (trace) during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 54%. Mean day temperature was 16.3°C while night temperature recorded as -1.6°C with 48.9 hours bright sunshine duration. Wind speed recorded as 0.9 km/hr with mean wind direction southeasterly.

Ten Days Weather Advisory for Farmers (11th to 20th December, 2023)**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.

Wind Forecast

Generally, normal wind patterns may prevail in most of the agricultural plains of the country.

3.2 Rain Forecast

- ❖ **Punjab:** Mainly cold/dry and foggy weather is expected over most parts of the province. However, light rain is expected at Potohar region.
- ❖ **Khyber Pakhtunkhwa:** Mainly cold and cloudy weather with chances of rain (light snow over hills) is likely in Khyber Pakhtunkhwa whereas fog is likely in the plain areas during the decade.
- ❖ **Sindh:** Mainly cold and dry weather is expected in Sindh province.
- ❖ **Baluchistan:** Mainly dry weather is expected over most parts of the province. Whereas, cloudy weather with chances of rain is likely at isolated places in northwestern Baluchistan.
- ❖ **Gilgit-Baltistan:** Cloudy weather with chances of rain (light snow over hills) is likely in Gilgit Baltistan during the decade.
- ❖ **Kashmir:** Cloudy weather with chances of rain (light snow over hills) is likely in Kashmir.

3.3 Advisory for Farmers

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