

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Dry weather was observed in Punjab.
- ❖ Dry weather was observed in GB and Kashmir.
- ❖ Dry weather reported from Baluchistan during the last decade.
- ❖ Dry weather reported from Sindh during the last decade.
- ❖ Highest precipitation recorded as 0.01 mm at Nokkundi during the last decade.
- ❖ Lowest minimum temperature recorded as -5.6°C at Skardu during the last decade.
- ❖ Mainly dry weather is expected over most parts of the country. However, rain-thunderstorm is expected at isolated places in upper Khyber Pakhtunkhwa, Southern Sindh, SW Baluchistan, Potohar region, Kashmir and Gilgit-Baltistan during evening/night.
- ❖ Farmers are advised to plan their activities in accordance with the expected weather conditions.

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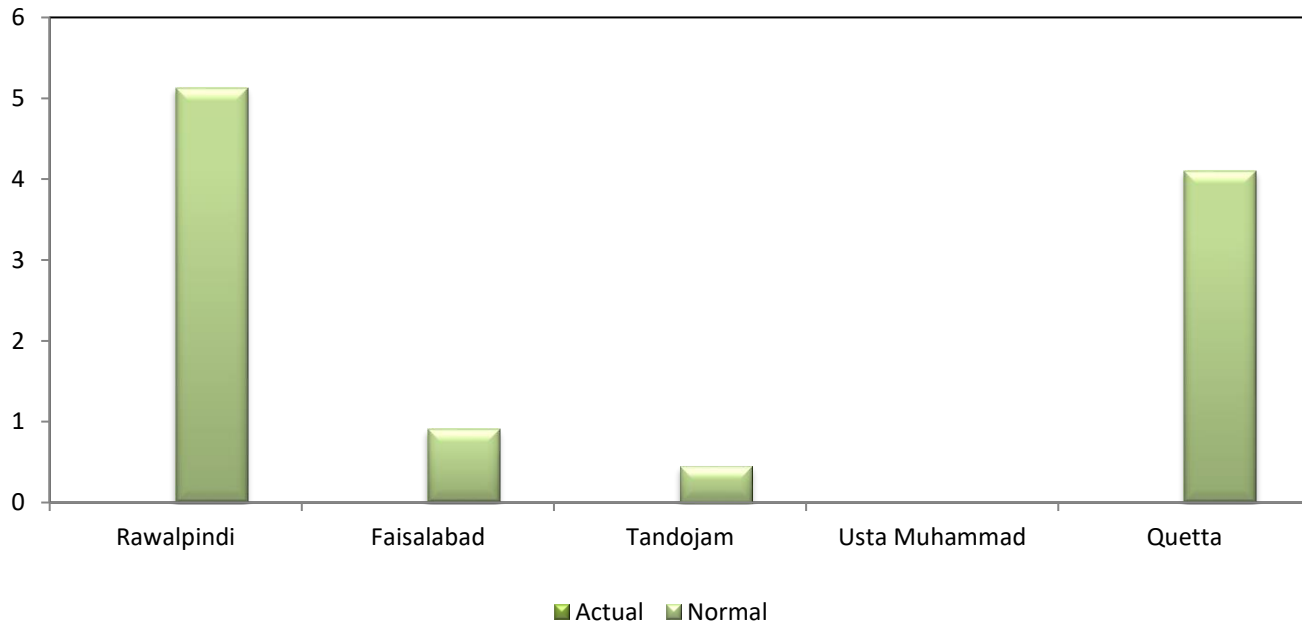
Meteorological Conditions during 2nd Decade of November, 2023

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	5.1	0.0	-5.1	1.4	-0.4	17.3	18.4	18.0	17.6	18.3	19.5	22.0	64	77.2	0.7	1.5
2	Faisalabad	0.9	0.0	-0.9	-0.7	0.8	19.3	20.3	20.3	20.4	20.9	***	25.6	63	64.8	0.9	1.6
3	Jhelum	4.5	0.0	-4.5	-0.9	0.9	19.2	19.3	18.9	19.4	20.0	20.9	***	71	81.2	1.2	1.7
4	Lahore	2.2	3.5	1.3	-0.7	-0.1	20.2	19.1	19.5	22.0	20.7	***	24.2	60	72.3	0.6	1.7
5	Sargodha	1.9	0.0	-1.9	-0.5	1.0	19.7	21.1	20.9	21.3	22.1	***	***	67	59.6	0.4	1.5
6	Multan	0.5	0.0	-0.5	-1.9	1.2	20.1	***	***	***	***	***	***	61	43.6	1.6	1.7
7	Khanpur	0.1	0.0	-0.1	-1.3	1.8	20.7	***	23.7	24.8	25.4	26.5	28.4	60	73.8	***	3.3
8	Tandojam	0.4	0.0	-0.4	-2.4	-0.4	21.3	***	24.9	25.2	27.5	27.3	28.1	60	64.3	3.2	6.1
9	Sakrand	0.0	0.0	0.0	-0.4	1.9	21.5	28.4	***	***	***	***	***	55	72.0	2.8	2.6
11	Rohri	0.0	0.0	0.0	-1.9	0.4	21.6	***	***	***	***	***	***	56	80.1	1.9	2.3
12	D.I Khan	2.1	0.0	-2.1	-1.1	2.2	20.0	19.5	19.7	13.1	***	12.2	***	68	67.6	1.5	1.8
13	Peshawar	5.9	0.0	-5.9	-0.5	-0.7	17.4	17.1	17.8	18.4	19.6	20.9	23.0	68	54.9	0.3	1.2
14	Usta M.	0.0	0.0	0.0	0.0	0.0	21.7	28.9	26.8	26.7	***	***	30.5	58	***	10.0	4.1
15	Quetta	4.1	0.0	-4.1	0.5	4.1	12.8	16.2	15.2	13.7	14.3	15.6	17.8	37	87.5	4.4	2.5
16	Skardu	3.3	0.0	-3.3	0.1	-1.0	5.5	***	***	***	***	***	***	44	62.5	0.0	0.8
17	Gilgit	1.4	0.0	-1.4	1.8	0.3	10.7	***	***	***	***	***	***	53	58.8	0.8	1.1

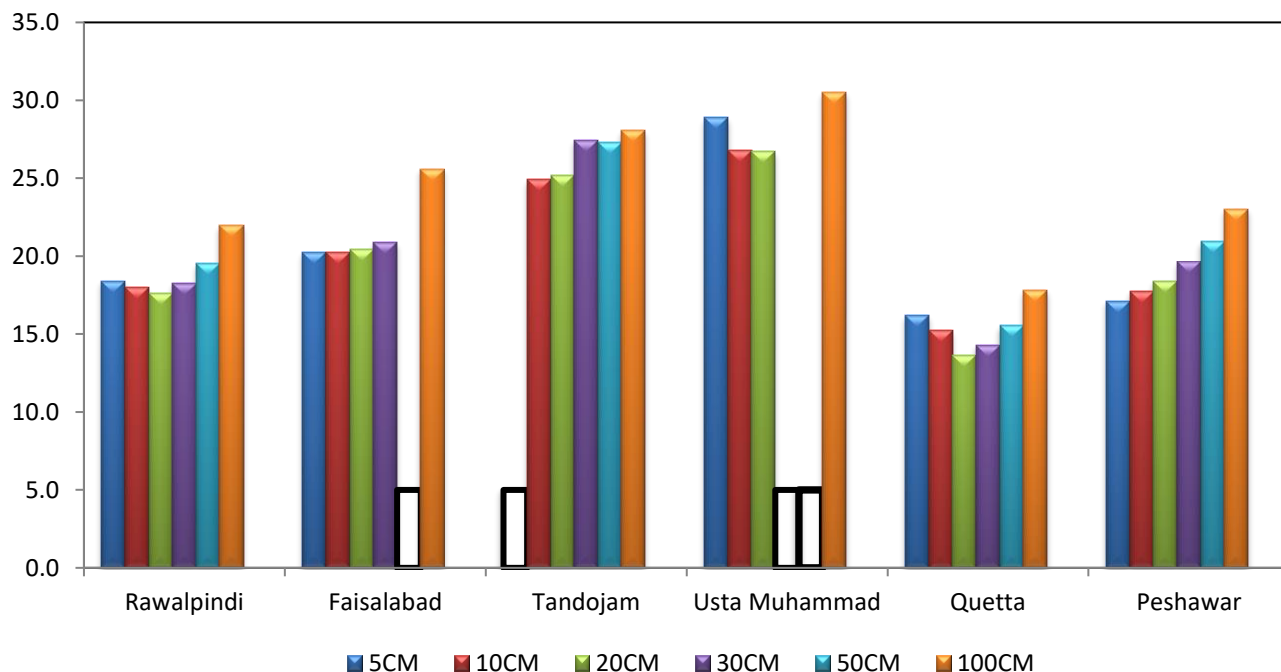
Table-1: Meteorological parameters for selected stations of Pakistan. “Dep” in the table stands for the difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. ‘ETo’ stands for reference crop Evapotranspiration***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

Graph at RAMCs during November, 2023

Precipitation(mm) during 2nd 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 (10th to 20th November, 2023)

Dry weather was observed from all over the country.

1.1 Punjab

Dry weather is reported from the agricultural plains of Punjab during the previous decade. The decadal maximum and minimum temperatures remained near normal. Whereas, relative humidity, sunshine hour, wind speed & ETO were recorded as 64%, 67.5 hrs, 0.9 km/hr and 1.9 mm/day respectively.

1.2 Sindh

Dry weather reported from most part of the agriculture plain of Sindh during the decade. The decadal maximum temperature drops below normal by 1.6°C and the minimum remained near normal. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 57%, 72.1 hrs, 2.6 km/hr and 3.7 mm/day respectively.

1.3 Khyber Pakhtunkhwa

Dry weather is reported in the province during the previous decade. The decadal maximum and minimum temperatures remained near normal. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 68%, 61.3 hrs, 0.9 km/hr and 1.5 mm/day respectively.

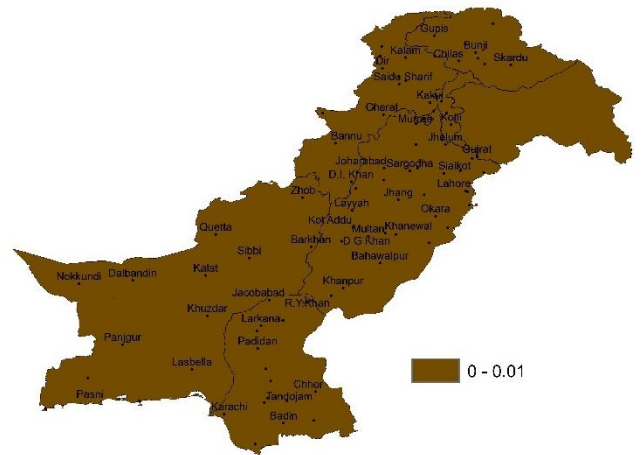
1.4 Baluchistan

Dry weather is reported during the decade. Decadal maximum temperature remained near normal and minimum temperature raised above normal by 2.0°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 47 %, 87.5 hrs, 7.2 km/hr and 3.3 mm/day respectively

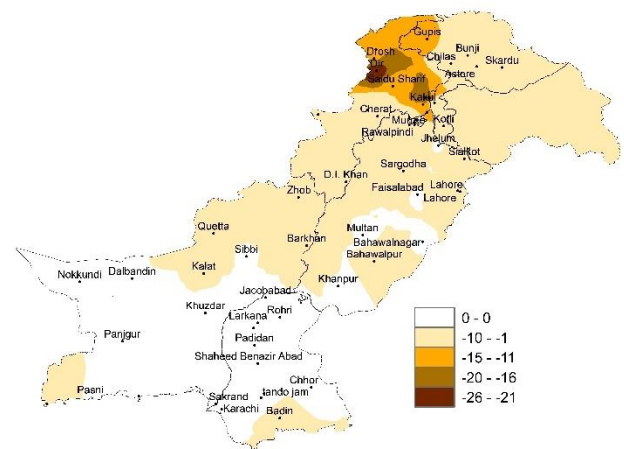
1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

Dry weather is reported during the decade. Decadal maximum and minimum temperatures remained near normal. Whereas, relative humidity, sunshine hour, wind speed & ETO recorded as 49%, 60.7 hrs, 0.4 km/hr and 1.0 mm/day respectively.

I. Actual precipitation



II. Departure of precipitation from Normal



III. Departure of precipitation from the previous Decade

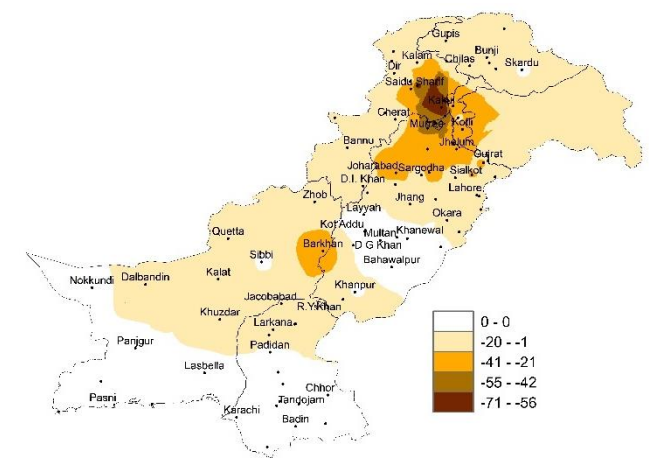


Figure.1: precipitation distribution during the previous decade (mm)

(a) **Past Weather for Major Agricultural Plains**
(10th to 20th November, 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 64% mean day temperature was 26.3°C while night temperature recorded as 8.2°C with 77.2 hours bright sunshine duration. Besides, wind speed recorded as 0.7 km/hr with *southwest* mean direction.

No crop is available in the fields at present.

2.2 RAMC, Faisalabad (Central Punjab)

Dry weather reported during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 63% mean day temperature was 26.7°C while night temperature recorded as 11.9°C with 64.8 hours bright sunshine duration. Also, wind speed recorded as 0.9 km/hr with *north westerly* mean direction.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 54%, mean day temperature was 28.7°C while night temperature recorded as 13.9°C with 64.3 hours bright sunshine duration. Also, wind speed recorded as 3.4 km/hr with *east northeasterly* mean direction.

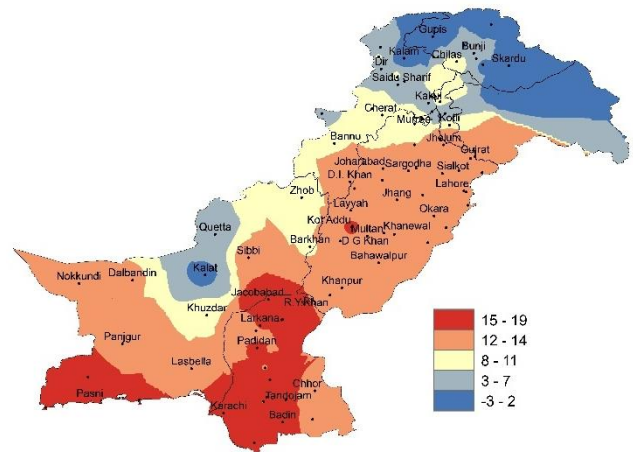
2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

Dry weather reported during the decade; however, weather remained partially cloudy for 01 days. Average relative humidity recorded as 58%, mean day temperature was 29.8°C while night temperature recorded as 13.5°C. Also, wind speed recorded as 10.0 km/hr with *northeasterly* mean direction.

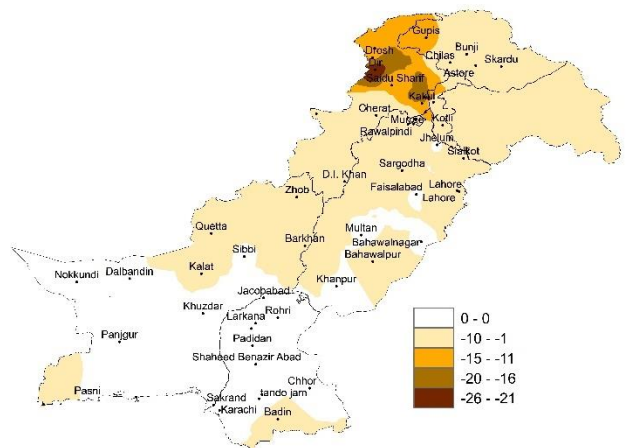
2.5 RAMC, Quetta (Northern Baluchistan)

Dry weather reported during the decade; however, weather remained partially cloudy for 01 days. Average relative humidity recorded as 36.8%, mean day temperature was 20.5 °C while night temperature recorded as 5.0°C with 87.5 hours bright sunshine duration. Also, wind speed recorded as 4.4 km/hr with *north easterly* mean direction.

I. Actual max-temp



II. Departure of max-temp from Normal



III. Departure of max-temp from the previous Decade

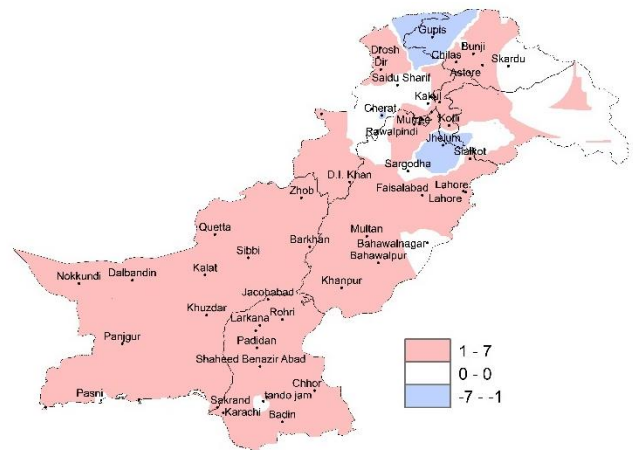


Figure.2: Maximum Temperature distribution during the previous decade (°C)

2(b) Past Weather for Sub-Regional Agricultural Plains (10th to 20th November, 2023)

2.6 Jhelum

Dry weather reported during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 71%, mean day temperature was 26.7°C while night temperature recorded as 11.6°C with 81.2 hours bright sunshine duration. Wind speed recorded as 1.2 km/hr with *northwesterly mean* direction.

2.7 Lahore

Rain reported as 3.5 mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 60%, mean day temperature was 26.9°C while night temperature recorded as 13.4°C with 72.3 hours bright sunshine duration. Wind speed recorded as 0.6 km/hr with *north westerly* wind direction.

2.8 Sargodha

Dry weather reported during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 67%, mean day temperature was 26.5°C while night temperature recorded as 12.9°C with 59.6 hours bright sunshine duration. Wind speed recorded as 0.4 km/hr with *north easterly* wind direction.

2.9 Multan

Dry weather reported during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 61%, mean day temperature was 26.7°C while night temperature recorded as 13.5°C. Wind speed recorded as 1.6 km/hr with *northwesterly* mean wind direction.

2.10 Khanpur

Dry weather reported during the decade; however, weather remained partially cloudy for 01 days. Average relative humidity recorded as 60%, mean day temperature was 28.5°C while night temperature recorded as 12.9°C. Mean wind direction reported in *north easterly* direction.

2.11 Sakrand

Dry weather reported during the decade; however, weather remained partially cloudy for 02 days during the decade. Average relative humidity recorded as 55%, mean day temperature was 28.5 °C while night temperature recorded as 14.4°C with 72.0 hours bright sunshine duration. Wind speed recorded as 2.8 km/hr with *northerly* mean direction.

Figure.3: Relative Humidity (%)

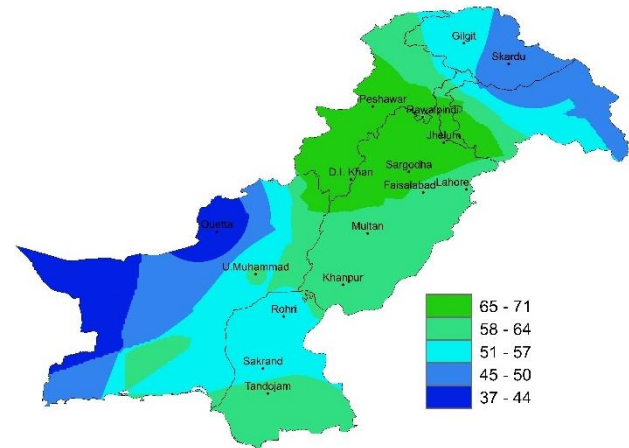


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

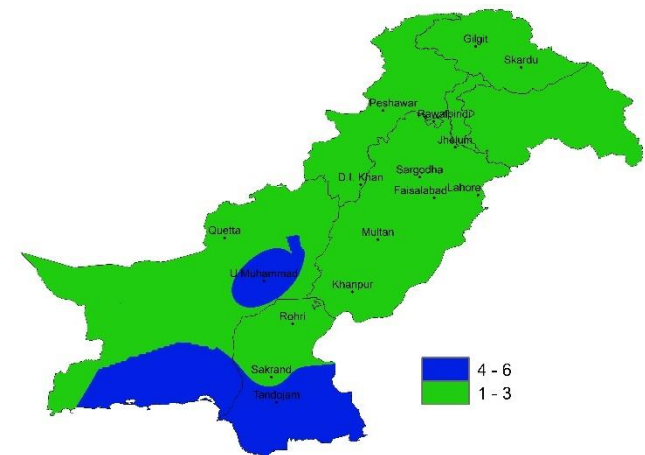
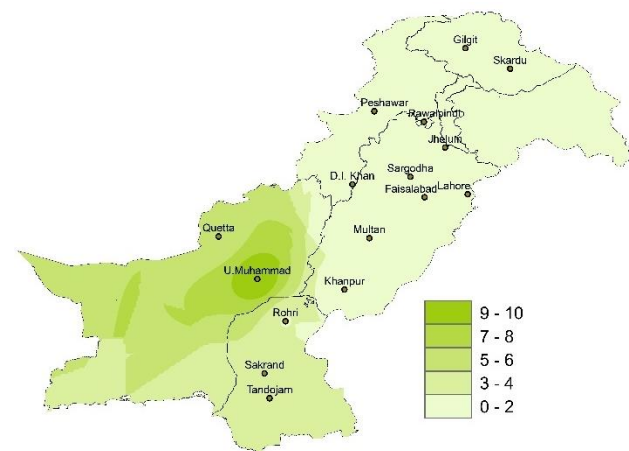


Figure 5: Wind Speed (km/h)



2.12 Rohri

Dry weather reported during the decade; however, weather remained partially cloudy for 01 days. Average relative humidity recorded as 56%, mean day temperature was 28.2°C while night temperature recorded as 14.9°C with 80.1 hours bright sunshine duration. Wind speed recorded as 1.9 km/hr with *easterly* mean direction.

2.13 D.I. Khan

Dry weather reported during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 68%, mean day temperature was 26.8°C while night temperature recorded as 13.2°C with 67.6 hours bright sunshine duration. Wind speed recorded as 1.5 km/hr with *south easterly* mean direction.

2.14 Peshawar

Dry weather reported during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 68%, mean day temperature was 25.4°C while night temperature recorded as 9.4°C with 54.9 hours bright sunshine duration. Wind speed recorded as 0.3 km/hr with *westerly* mean wind direction.

2.15 Skardu

Dry weather reported during the decade; however, average relative humidity recorded as 44%, mean day temperature was 14.1°C while night temperature recorded as -3.2°C with 62.5 hours bright sunshine duration. Wind recorded as calm.

2.16 Gilgit

Dry weather reported during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 53.0%, mean day temperature was 20.6°C while night temperature recorded as 0.7°C with 58.8 hours bright sunshine duration. Wind speed recorded as 0.8 km/hr with *south easterly* mean wind direction.

**Ten Days Weather Advisory for Farmers
(20th to 30th November, 2023)****3.1 Temperature Forecast**

Slightly above normal day and night time temperatures are expected over most parts of the country except the northern belt.

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 dry weather is expected over most parts of the province. However, light rain-thunderstorm is expected at isolated places in Potohar region whereas fog is expected in plane areas of the province.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected over most parts of the province. However, light rain-thunderstorm is expected at isolated places in upper parts of KP.
- ❖ **Sindh:** Mainly dry weather is expected over most parts of the province. However, light rain is expected in southern Sindh
- ❖ **Baluchistan:** Light rain-thunderstorm is expected in south-western parts of the province.
- ❖ **Gilgit-Baltistan:** Rain-wind thunderstorm (Light snowfall) is expected at isolated parts during the decade.
- ❖ **Kashmir:** Rain-wind thunderstorm is expected at isolated parts during the decade.

3.4 Advisory for Farmers

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