

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light rainfall was observed in most parts of Punjab.
- ❖ Light precipitation was observed in GB and Kashmir.
- ❖ Light to moderate precipitation was observed in KPK.
- ❖ Light to moderate rainfall reported from Baluchistan during the last decade.
- ❖ Light rainfall reported from Sindh during the last decade.
- ❖ Highest precipitation recorded as 94.0 mm at Pasni during the last decade.
- ❖ Lowest minimum temperature recorded as -5.0°C at Skardu during the last decade.
- ❖ Mainly dry and cold weather is expected over most parts of the Country, however, foggy weather is expected in Punjab plains.
- ❖ Farmers are advised to follow weather forecast to proceed for any field activity

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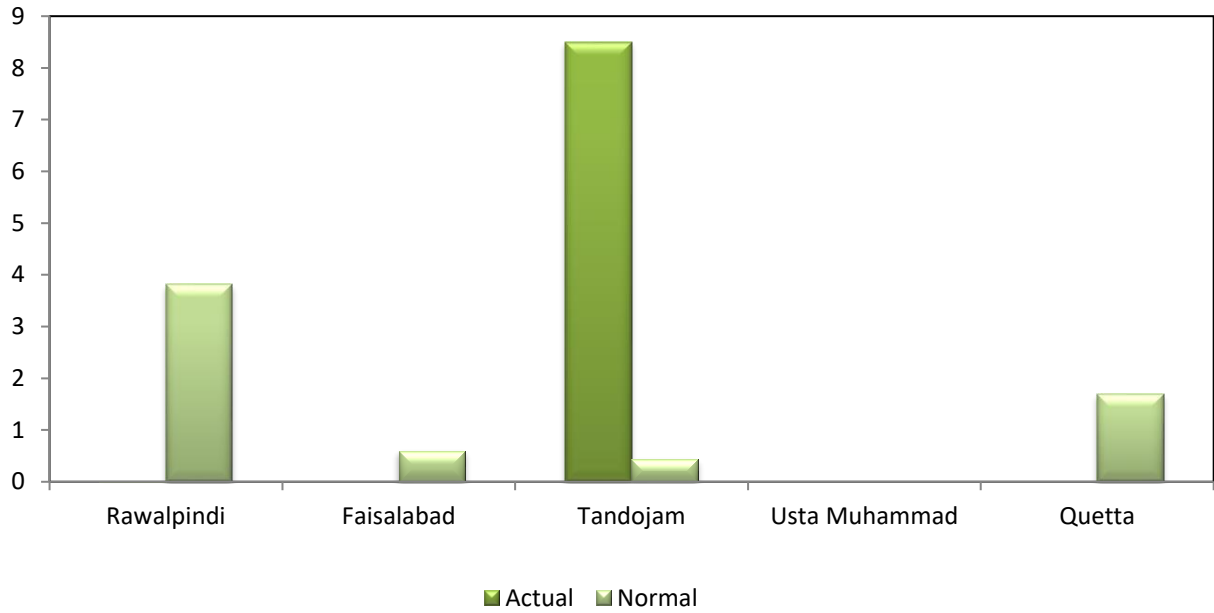
Meteorological Conditions during 3rd Decade of November, 2023

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	3.8	0.0	-3.8	0.4	1.6	15.7	16.6	16.2	16.0	16.8	17.8	20.5	67	50.9	2.1	1.5
2	Faisalabad	0.6	0.0	-0.6	-0.2	3.0	18.2	18.7	18.4	18.6	18.9	***	23.7	69	38.2	1.0	1.6
3	Jhelum	4.0	0.0	-4.0	-1.3	1.4	17.3	17.5	17.3	17.1	18.4	19.6	***	73	49.6	1.9	1.7
4	Lahore	2.2	1.5	-0.7	-3.2	1.1	17.2	16.6	16.8	17.0	0.0	***	20.6	63	30.6	1.2	1.7
5	Sargodha	1.1	0.0	-1.1	-0.8	1.9	18.2	19.7	19.4	19.8	20.5	***	***	68	40.4	0.6	1.5
6	Multan	0.7	0.0	-0.7	-1.3	3.4	19.1	***	***	***	***	***	***	64	18.7	2.3	1.7
7	Khanpur	0.3	0.0	-0.3	-1.0	4.3	19.8	***	21.5	22.1	22.9	24.2	26.4	64	50.1	***	3.3
8	Tandojam	0.4	8.5	8.1	-2.9	1.5	20.2	***	21.6	23.0	26.3	26.3	26.8	66	51.9	3.0	6.1
9	Sakrand	0.0	0.0	0.0	-2.1	3.3	20.4	25.4	***	***	***	***	***	62	51.8	3.2	2.6
11	Rohri	0.2	0.0	-0.2	-1.7	3.0	20.7	***	***	***	***	***	***	58	49.7	3.5	2.3
12	D.I Khan	0.3	0.0	-0.3	0.0	3.8	19.0	18.2	18.4	13.1	***	10.3	***	67	46.5	2.4	1.8
13	Peshawar	4.6	0.0	-4.6	-0.1	0.0	15.7	15.5	16.1	16.7	18.0	19.2	21.3	66	30.7	0.5	1.2
14	Usta M.	0.0	0.0	0.0	0.0	0.0	19.3	24.9	24.0	24.2	***	***	28.7	68	***	1.3	4.1
15	Quetta	1.7	0.0	-1.7	0.6	6.2	11.8	15.3	14.6	13.2	13.7	14.9	16.7	45	81.2	4.4	2.5
16	Skardu	1.0	0.0	-1.0	1.3	0.9	5.0	***	***	***	***	***	***	47	46.3	0.0	0.8
17	Gilgit	0.3	0.7	0.4	3.3	2.6	10.5	***	***	***	***	***	***	49	37.9	1.2	1.1

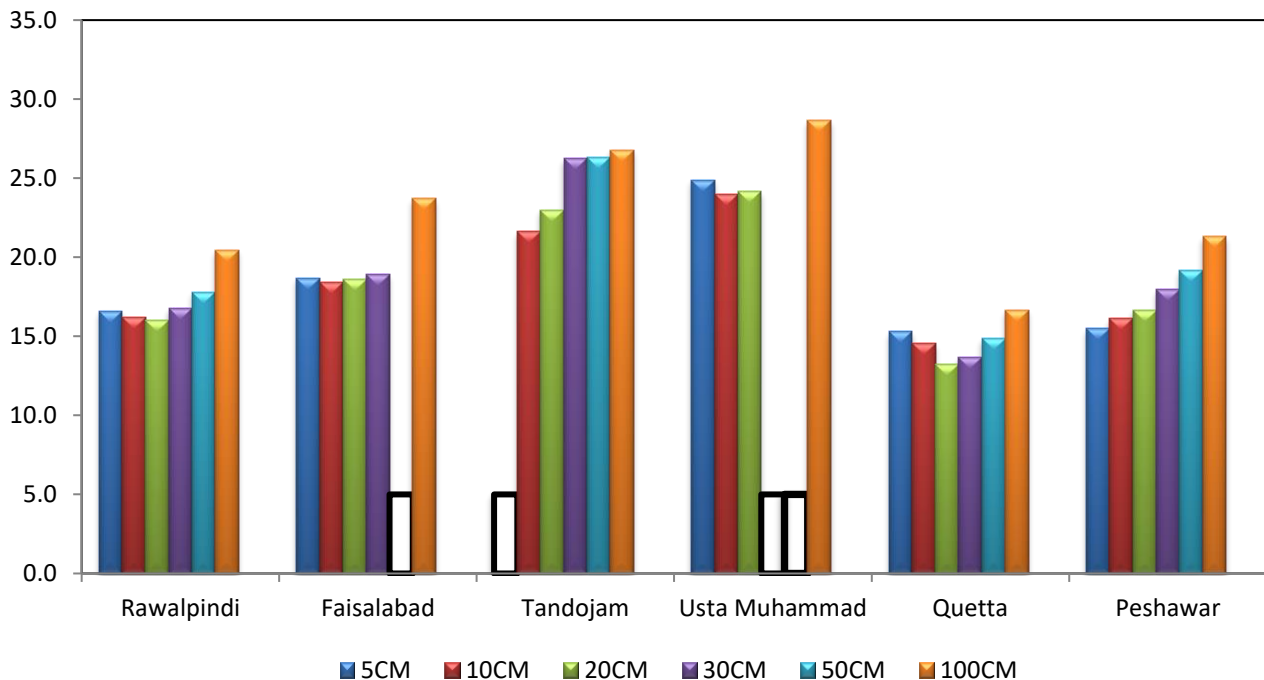
Table-1: Meteorological parameters for selected stations of Pakistan. "Dep" in the table stands for the difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during November, 2023

Precipitation(mm) during 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 (21th to 30th November, 2023)

Light to moderate rainfall was observed from Punjab, Sindh and Baluchistan. Light to moderate precipitation was observed in most parts of the Khyber Pakhtunkhwa, Gilgit-Baltistan and Kashmir while dry weather reported from Sindh.

1.1 Punjab

Light to moderate rainfall is reported from the agricultural plains of Punjab during the previous decade. The decadal maximum drop below normal by 1.0°C and minimum rose above normal by 2.4°C. Whereas, relative humidity, sunshine hour, wind speed & ETO were recorded as 67%, 39.8 hrs, 1.5 km/hr and 1.9 mm/day respectively.

1.2 Sindh

Light to moderate rainfall reported from most part of the agriculture plain of Sindh during the decade. The decadal maximum drop below normal by 2.2°C and minimum temperature rose above normal by 3.5°C respectively. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 62%, 51.1 hrs, 3.2 km/hr and 3.7 mm/day respectively.

1.3 Khyber Pakhtunkhwa

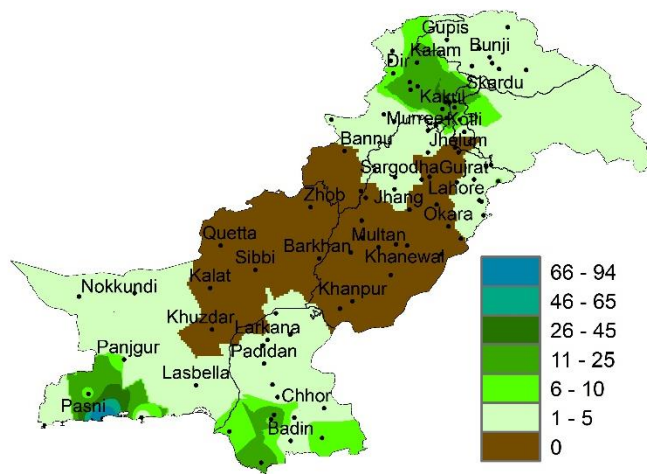
Light to moderate rainfall is reported in the province during the previous decade. The decadal maximum remained near normal and minimum rose above normal 1.9°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 67%, 38.6 hrs, 1.5 km/hr and 1.5 mm/day respectively.

1.4 Baluchistan

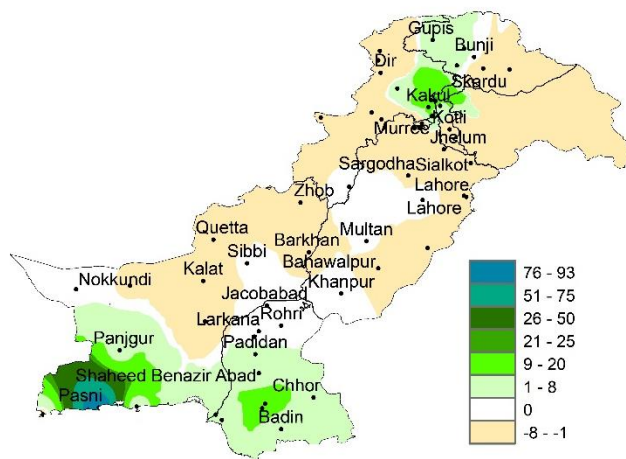
Light to moderate rainfall reported in the province during the previous decade. Decadal maximum remained near normal and minimum temperatures raised above normal by 8.7°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 56 %, 81.2 hrs, 2.9 km/hr and 3.3 mm/day respectively

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

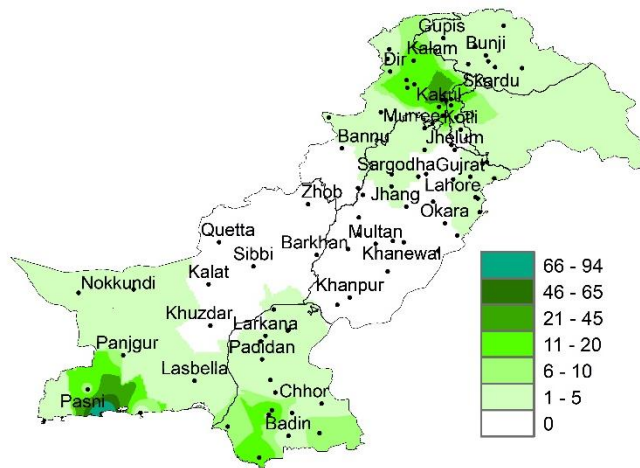
Light to moderate precipitation was reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the decade. Decadal maximum rose above normal by 2.3°C and minimum temperature drop below normal by 2.3°C. Whereas, relative humidity, sunshine hour, wind speed & ETO recorded as 48%, 42.1 hrs, 0.6 km/hr and 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)

Past Weather for Major Agricultural Plains

(21th to 30th November, 2023)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 0.01(trace) mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 67% mean day temperature was 24.0°C while night temperature recorded as 7.3°C with 50.9 hours bright sunshine duration. Besides, wind speed recorded as 2.1 km/hr with *variable* 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 06 days. Average relative humidity recorded as 69% mean day temperature was 24.9°C while night temperature recorded as 11.5°C with 38.2 hours bright sunshine duration. Also, wind speed recorded as 1.0 km/hr with west *north westerly* mean direction.

2.3 RAMC, Tandojam (Lower Sindh)

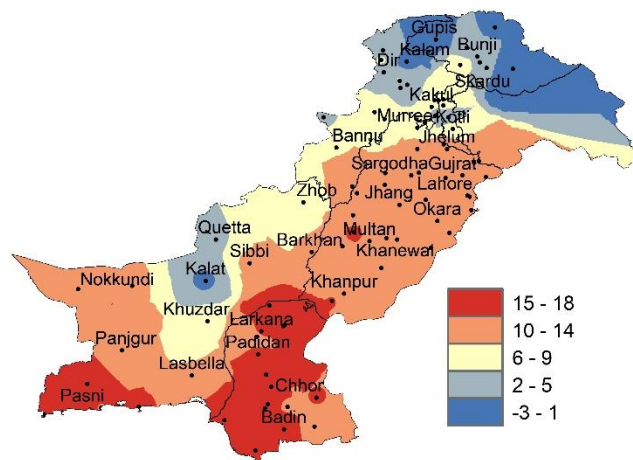
Rain reported as 8.5 mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 66%, mean day temperature was 26.6°C while night temperature recorded as 13.7°C with 51.9 hours bright sunshine duration. Also, wind speed recorded as 3.0 km/hr with *northeasterly* mean direction.

2.4 RAMC, Usta Muhammad

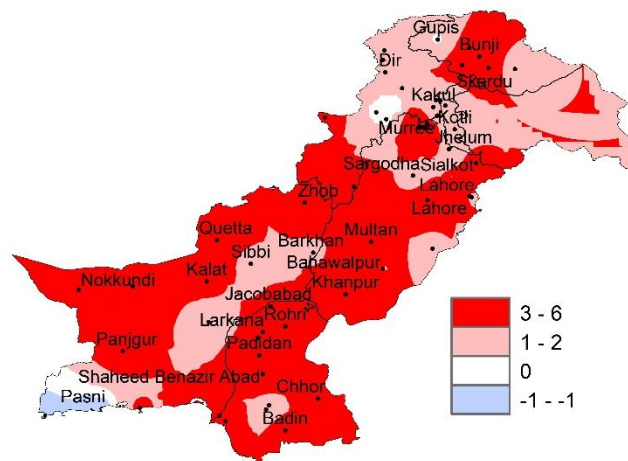
Dry weather reported during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 68%, mean day temperature was 26.6°C while night temperature recorded as 12.0°C. Also, wind speed recorded as 1.3 km/hr with *northeasterly* mean direction.

2.5 RAMC, Quetta (Northern Baluchistan)

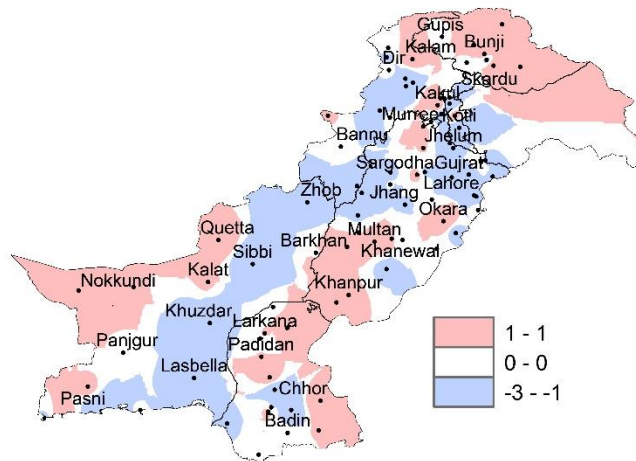
Dry weather reported during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 44.5%, mean day temperature was 18.3 °C while night temperature recorded as 5.3°C with 81.2 hours bright sunshine duration. Also, wind speed recorded as 4.4 km/hr with *southerly* mean direction.



I. Actual minimum-temp



II. Departure of min-temp from Normal



III. Departure of min-temp from the previous Decade

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

2(b) Past Weather for Sub-Regional Agricultural Plains (21th to 30th November, 2023)

2.6 Jhelum

Dry weather reported during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 73%, mean day temperature was 24.1°C while night temperature recorded as 10.5°C with 49.6 hours bright sunshine duration. Wind speed recorded as 1.9 km/hr with *variable mean* direction.

2.7 Lahore

Rain reported as 1.5 mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 63%, mean day temperature was 22.2°C while night temperature recorded as 12.2°C with 30.6 hours bright sunshine duration. Wind speed recorded as 1.2 km/hr with *variable mean* direction.

2.8 Sargodha

Dry weather reported during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 68%, mean day temperature was 24.7°C while night temperature recorded as 11.6°C with 40.4 hours bright sunshine duration. Wind speed recorded as 0.6 km/hr with *northeasterly* wind direction.

2.9 Multan

Dry weather reported during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 64%, mean day temperature was 25.2°C while night temperature recorded as 13.0°C. Wind speed recorded as 2.3 km/hr with *northeasterly* mean wind direction.

2.10 Khanpur

Dry weather reported during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 64%, mean day temperature was 26.7°C while night temperature recorded as 12.8°C. Mean wind direction reported in *south 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 62%, mean day temperature was 26.8 °C while night temperature recorded as 14.0°C with 51.8 hours bright sunshine duration. Wind speed recorded as 3.2 km/hr with *northeasterly* mean direction.

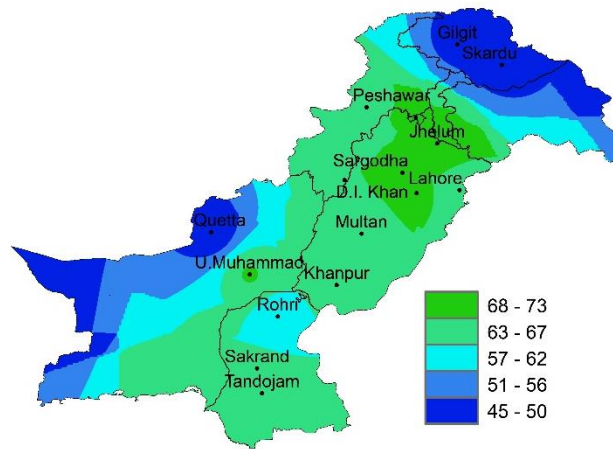


Figure.3: Relative Humidity (%)

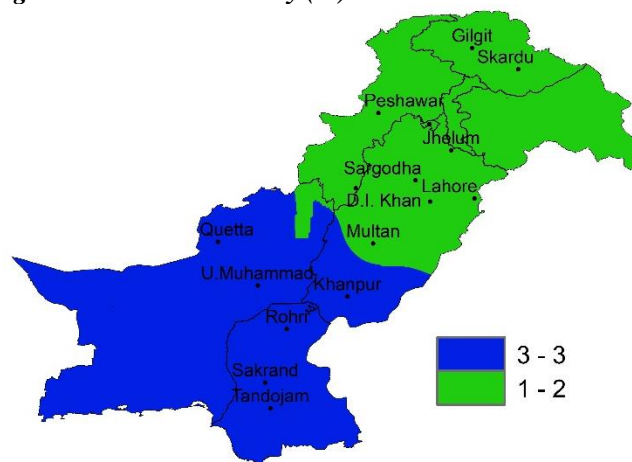


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)



Figure 5: Wind Speed (km/h)

2.12 Rohri

Dry weather reported during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 58%, mean day temperature was 26.2°C while night temperature recorded as 15.2°C with 49.7 hours bright sunshine duration. Wind speed recorded as 3.5 km/hr with *north easterly* mean direction.

2.13 D.I. Khan

Dry weather reported during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 67 %, mean day temperature was 25.8°C while night temperature recorded as 12.1°C with 46.5 hours bright sunshine duration. Wind speed recorded as 2.4 km/hr with *north easterly* mean direction.

2.12 Peshawar

Rain reported as 0.01 mm (trace) during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 66%, mean day temperature was 23.8°C while night temperature recorded as 7.6°C with 30.7 hours bright sunshine duration. Wind speed recorded as 0.5 km/hr with *northeasterly* mean wind direction.

2.13 Skardu

Dry weather reported during the decade; however, average relative humidity recorded as 47%, mean day temperature was 12.9°C while night temperature recorded as -3.0°C with 46.3 hours bright sunshine duration. Wind speed recorded as calm.

2.14 Gilgit

Rain reported as 0.70 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 48.7%, mean day temperature was 19.6°C while night temperature recorded as 1.4°C with 37.9 hours bright sunshine duration. Wind speed recorded as 1.2 km/hr with *southwesterly* mean wind direction.

Ten Days Weather Advisory for Farmers
(1st to 10th December, 2023)

3.1 Temperature Forecast

slightly above normal mean temperature is likely in most parts of the country particularly over western Baluchistan and northeastern parts of the country including 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/dry and foggy weather is expected over most parts of the province.
- ❖ **Khyber Pakhtunkhwa:** Mainly cold and dry weather is expected in most parts of the province during the decade.
- ❖ **Sindh:** Mainly dry weather is expected over most parts of the province.
- ❖ **Baluchistan:** Mainly dry weather is expected over most parts of the province.
- ❖ **Gilgit-Baltistan:** Partly cloudy/cold weather is expected at isolated places during the decade.

3.4 Kashmir: Partly cloudy/cold weather is expected at isolated places during the decade.

3.5 Advisory for Farmers

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