

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light rainfall was observed in most parts of Punjab.
- ❖ Light precipitation was observed in GB and Kashmir.
- ❖ Light rainfall reported from Baluchistan during the last decade.
- ❖ Light rainfall reported from Sindh during the last decade.
- ❖ Highest precipitation recorded as 16.0 mm at Barkhan during the last decade.
- ❖ Lowest minimum temperature recorded as -1.2°C at Kalam during the last decade.
- ❖ Mainly dry weather is expected over most parts of the Country. However, rain is expected at isolated places in upper Khyber Pakhtunkhwa, Potohar region, Kashmir and Gilgit-Baltistan and North Baluchistan during evening/night.
- ❖ Farmers are advised to follow weather forecast to proceed for any field activity

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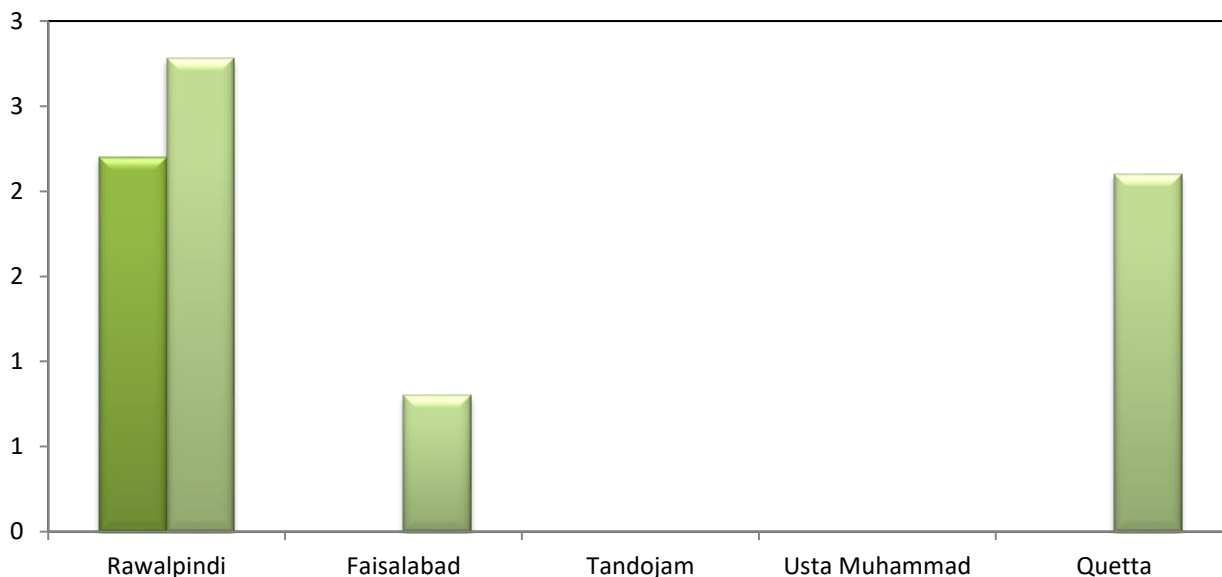
Meteorological Conditions during 3rd Decade of October, 2023

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	2.8	2.2	-0.6	0.8	0.1	21.2	22.3	22.0	21.4	21.8	22.7	24.6	63	90.6	1.0	2.3
2	Faisalabad	0.8	0.0	-0.8	0.3	2.9	24.7	25.3	26.0	25.2	25.4	***	28.3	65	76.7	1.0	2.5
3	Jhelum	2.9	3.8	0.9	-0.5	1.9	23.5	23.3	23.0	23.1	23.3	24.1	***	69	92.5	1.6	2.6
4	Lahore	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	Sargodha	2.5	0.0	-2.5	0.2	2.0	24.8	26.8	26.3	26.1	26.4	***	28.4	63	66.6	0.5	2.2
6	Multan	1.2	2.2	1.0	-0.8	4.7	26.3	***	***	***	***	***	***	55	46.4	2.5	2.6
7	Khanpur	0.4	5.0	4.6	0.9	5.8	27.2	***	30.1	30.4	30.8	31.4	31.4	57	82.6	***	4.5
8	Tandojam	0.0	0.0	0.0	0.9	3.1	28.7	***	29.8	30.0	30.9	31.2	31.5	54	84.7	2.6	3.7
9	Sakrand	0.0	1.0	1.0	-0.2	3.7	28.4	36.3	***	***	***	***	***	51	98.1	2.1	3.7
11	Rohri	0.1	0.0	-0.1	4.4	3.7	29.8	***	***	***	***	***	***	54	86.9	3.3	3.9
12	D.I Khan	2.3	0.0	-2.3	1.1	5.1	25.6	25.0	24.9	13.1	***	16.0	***	65	57.4	2.1	2.5
13	Peshawar	3.2	1.0	-2.2	0.1	0.9	22.5	23.0	23.2	22.8	23.7	24.1	25.6	63	70.7	1.2	2.3
14	Usta M.	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
15	Quetta	2.1	0.0	-2.1	0.1	5.9	17.2	22.4	21.0	18.8	19.2	20.1	21.3	31	88.9	4.9	3.4
16	Skardu	2.7	0.0	-2.7	-1.4	-0.4	8.9	***	***	***	***	***	***	44	61.0	0.1	1.3
17	Gilgit	1.7	0.0	-1.7	0.7	1.5	14.9	***	***	***	***	***	***	51	74.3	1.2	1.8

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 October, 2023

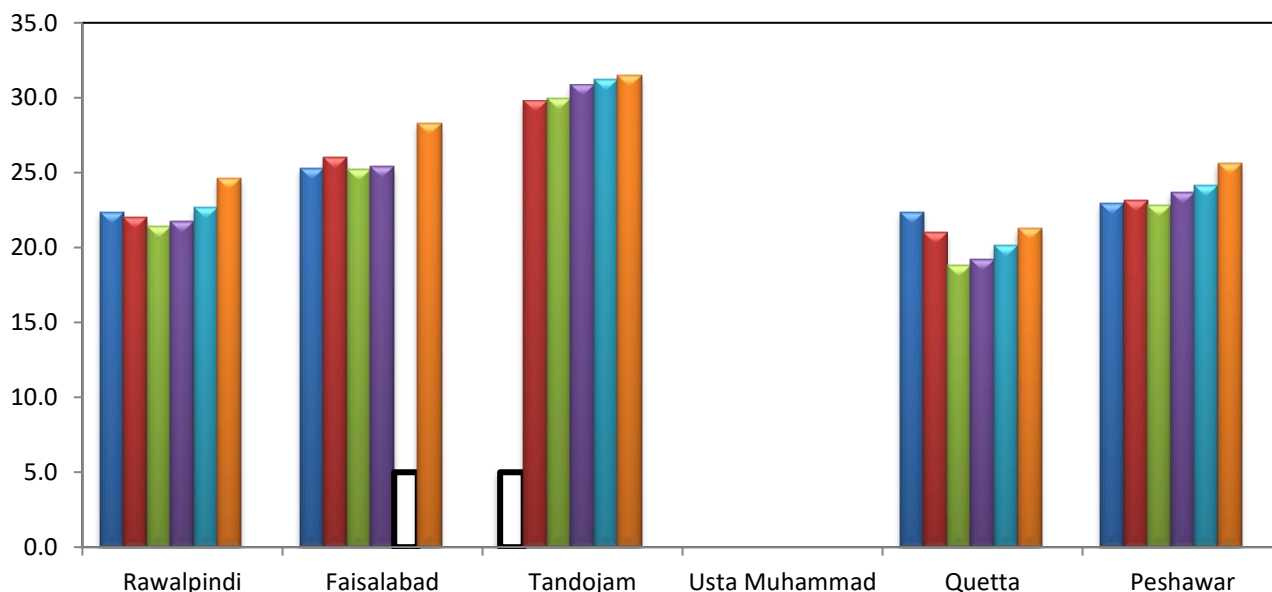
Precipitation(mm) during 3rd Decade



* Usta Muhammad data is is not available.

■ Actual ■ Normal

Soil Temperature(°C)



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

Past Weather (21th to 31st October, 2023)

Light 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 rainfall is reported from the agricultural plains of Punjab during the previous decade. The decadal maximum rose above normal by 4.3°C and minimum remained near normal. Whereas, relative humidity, sunshine hour, wind speed & ETO were recorded as 53%, 65.1 hrs, 1.1 km/hr and 2.9 mm/day respectively.

1.2 Sindh

Light rainfall reported from most part of the agriculture plain of Sindh during the decade. The decadal maximum and minimum both raised above normal by 1.7°C and 3.5°C respectively. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 53%, 89.9 hrs, 2.7 km/hr and 3.8 mm/day respectively.

1.3 Khyber Pakhtunkhwa

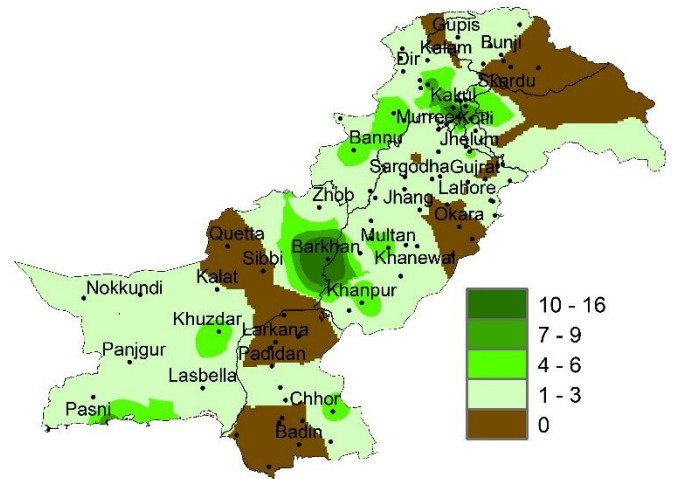
Light rainfall is reported in the province during the previous decade. The decadal maximum remained near normal and minimum rose above normal 3.0°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 64%, 64.1 hrs, 1.7 km/hr and 2.4 mm/day respectively.

1.4 Baluchistan

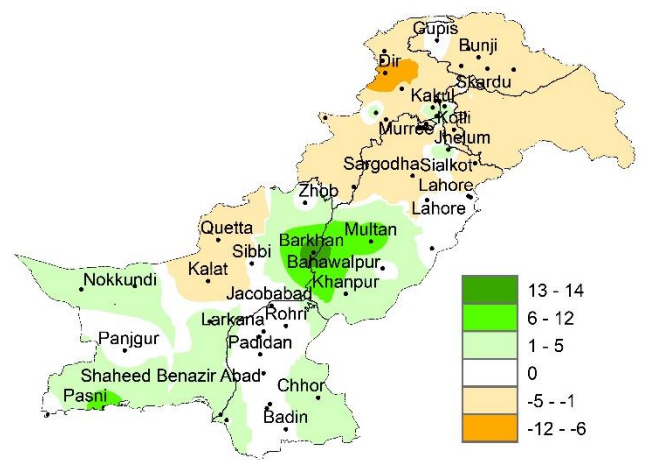
Light rainfall reported in the province during the previous decade. Decadal maximum remained near normal and minimum temperatures raised above normal by 2.9°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 31 %, 44.5 hrs, 2.5 km/hr and 2.9 mm/day respectively

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

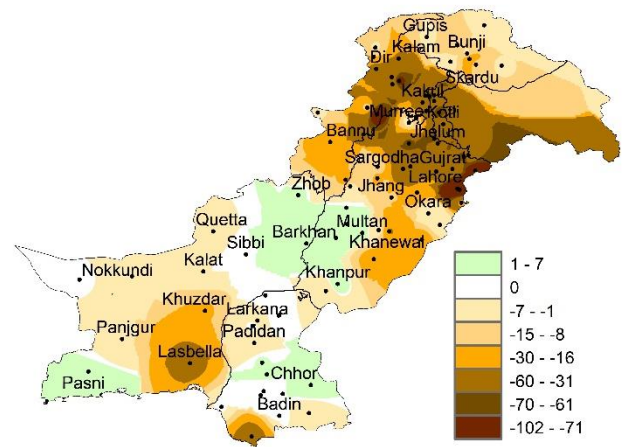
Light precipitation was reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the decade. Decadal maximum and minimum temperatures remained near normal. Whereas, relative humidity, sunshine hour, wind speed & ETO recorded as 48%, 67.7 hrs, 0.7 km/hr and 1.6 mm/day respectively.



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**
(21th to 31st October, 2023)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 2.2 mm during the decade; however, weather remained cloudy for 01 days. Average relative humidity recorded as 63% mean day temperature was 30.0°C while night temperature recorded as 12.4°C with 90.6 hours bright sunshine duration. Besides, wind speed recorded as 1.0 km/hr with *variable* mean direction.

No crop is available in the fields at present.

2.2 RAMC, Faisalabad (Central Punjab)

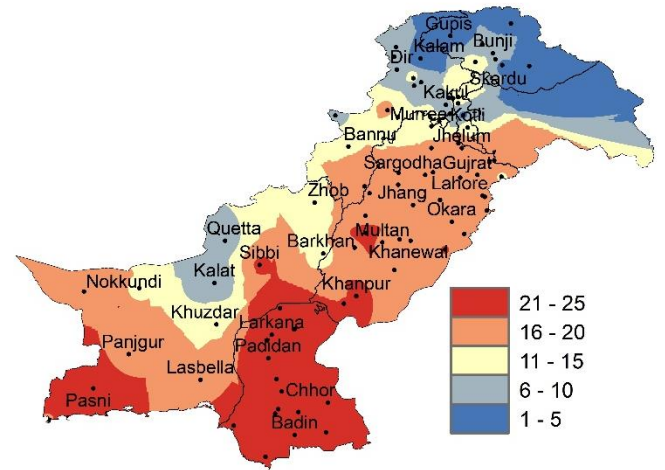
Dry weather reported during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 65% mean day temperature was 31.6°C while night temperature recorded as 17.8°C with 76.7 hours bright sunshine duration. Also, wind speed recorded as 1.0 km/hr with west *south westerly* mean direction.

2.3 RAMC, Tandojam (Lower Sindh)

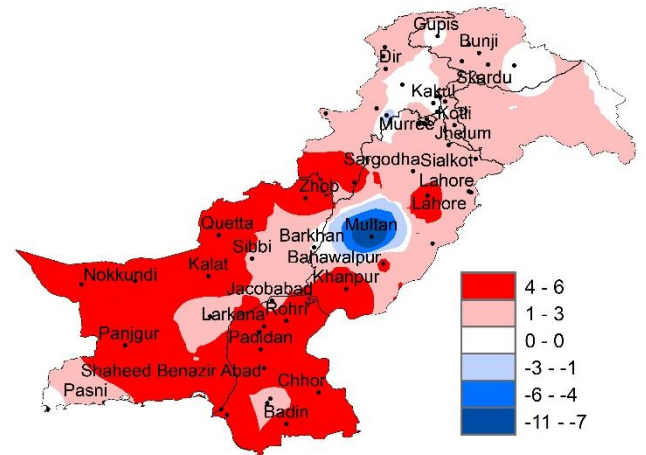
Dry weather reported during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 54%, mean day temperature was 36.4°C while night temperature recorded as 20.9°C with 84.7 hours bright sunshine duration. Also, wind speed recorded as 2.6 km/hr with *northeasterly* mean direction.

2.4 RAMC, Quetta (Northern Baluchistan)

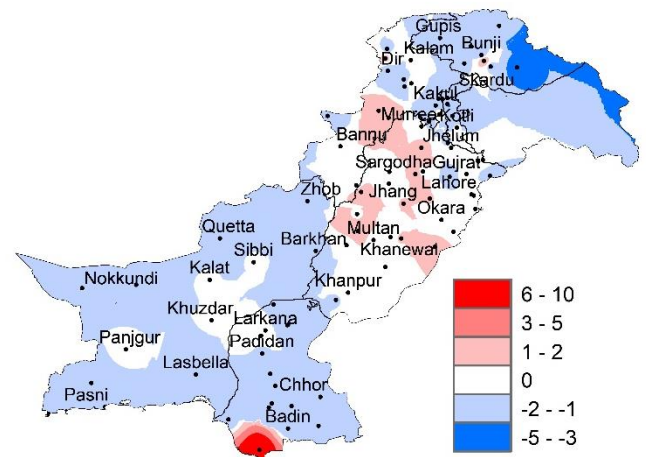
Dry weather reported during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 30.5%, mean day temperature was 24.2 °C while night temperature recorded as 10.1°C with 88.9 hours bright sunshine duration. Also, wind speed recorded as 4.9 km/hr with *north westerly* 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 (21th to 31st October, 2023)

2.5 Jhelum

Rain reported as 3.8 mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 69%, mean day temperature was 30.6°C while night temperature recorded as 16.4°C with 92.5 hours bright sunshine duration. Wind speed recorded as 1.6 km/hr with *variable mean* direction.

2.6 Sargodha

Dry weather reported during the decade; however, weather remained partially cloudy for 01 days. Average relative humidity recorded as 63%, mean day temperature was 31.2°C while night temperature recorded as 18.4°C with 66.6 hours bright sunshine duration. Wind speed recorded as 0.5 km/hr with *variable* wind direction.

2.7 Multan

Rain reported as 2.20 mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 55%, mean day temperature was 31.8°C while night temperature recorded as 20.7°C. Wind speed recorded as 2.5 km/hr with *southerly* mean wind direction.

2.8 Khanpur

Rain reported as 5.0 mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 57%, mean day temperature was 34.4°C while night temperature recorded as 19.9°C. Mean wind direction reported in *north easterly* direction.

2.9 Sakrand

Rain reported as 1.0 mm during the decade; however, weather remained partially cloudy for 02 days during the decade. Average relative humidity recorded as 51%, mean day temperature was 35.8 °C while night temperature recorded as 21.0°C with 98.1 hours bright sunshine duration. Wind speed recorded as 2.1 km/hr with *northerly* mean direction.

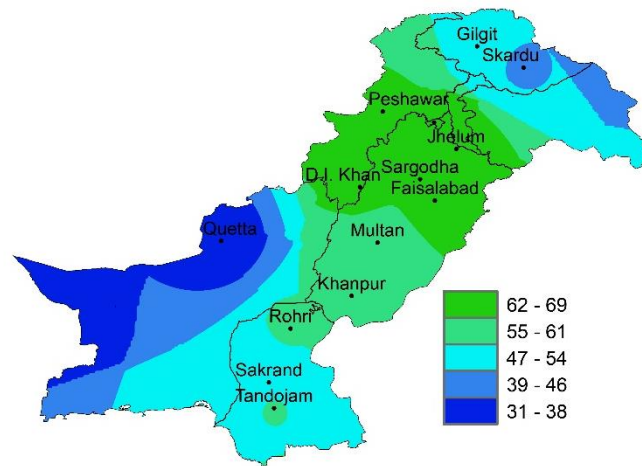


Figure.3: Relative Humidity (%)

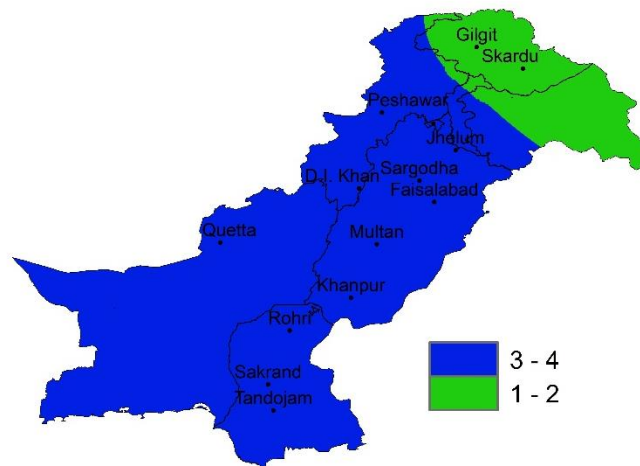


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

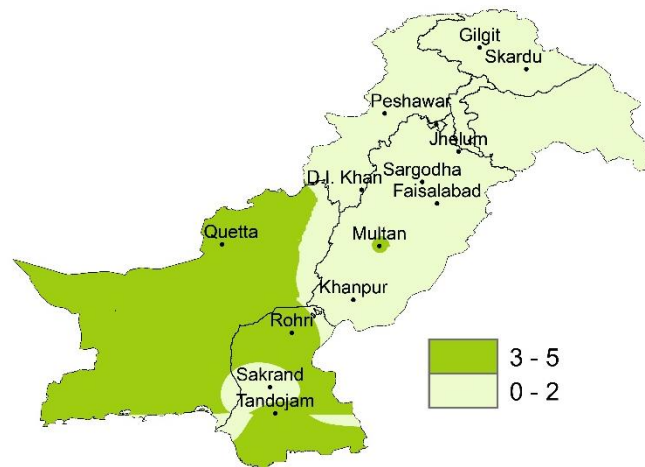


Figure 5: Wind Speed (km/h)

2.10 Rohri

Dry weather reported during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 54%, mean day temperature was 38.0°C while night temperature recorded as 21.5°C with 86.9 hours bright sunshine duration. Wind speed recorded as 3.3 km/hr with *north easterly* mean direction.

2.11 D.I. Khan

Rain reported as trace (0.01 mm) during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 65 %, mean day temperature was 31.7°C while night temperature recorded as 19.5°C with 57.4 hours bright sunshine duration. Wind speed recorded as 2.1 km/hr with *south easterly* mean direction.

2.12 Peshawar

Rain reported as 1.0 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 63%, mean day temperature was 29.9°C while night temperature recorded as 15.1°C with 70.7 hours bright sunshine duration. Wind speed recorded as 1.2 km/hr with *northeasterly* mean wind direction.

2.13 Skardu

Dry weather reported during the decade; however, average relative humidity recorded as 44%, mean day temperature was 17.2°C while night temperature recorded as 0.6°C with 61.0 hours bright sunshine duration. Wind speed recorded as 0.1 km/hr with *south easterly* mean wind direction.

2.14 Gilgit

Dry weather reported during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 51.0%, mean day temperature was 24.8°C while night temperature recorded as 5.0°C with 74.3 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 November, 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 dry and foggy weather is expected over most parts of the province. However, light rain is expected at isolated places of province during the decade.
- ❖ **Khyber Pakhtunkhwa:** Partly cloudy with rain (snowfall over mountains) is expected at isolated places of upper KP 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. However, light rain expected at isolated places of north Baluchistan.
- ❖ **Gilgit-Baltistan:** Partly cloudy with rain (snowfall over mountains) is expected at isolated places during the decade.
- ❖ **Kashmir:** Partly cloudy with rain (snowfall over mountains) is expected at isolated places during the decade.

3.4 Advisory for Farmers

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