

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Moderate to heavy rainfall was observed from central and upper parts of Punjab, KPK, and parts of Baluchistan.
- ❖ Light precipitation was observed in South Punjab and Sindh.
- ❖ Highest precipitation recorded as 83.01 mm at Chaklala Airbase during the last decade.
- ❖ Lowest minimum temperature recorded as -3.0°C at Skardu during the last decade.
- ❖ Mainly cold and dry weather is expected over most parts of the country. However, fog may prevail during early morning/night.
- ❖ Farmers are advised to plan their activities in accordance with the expected weather conditions.

**NATIONAL AGROMET CENTRE (NAMC)
PAKISTAN METEOROLOGICAL DEPARTMENT
SECTOR H-8/2, ISLAMABAD**

Patron-in-Chief: *Mr. Sahibzad Khan, Director General*

Editor-in-Chief: *Ms. Asma Jawad Hashmi, Director*

Editor: *Ms. Saeeda Saleh, Assistant Meteorologist*

Phone: [+92-51-9250592](tel:+92-51-9250592)

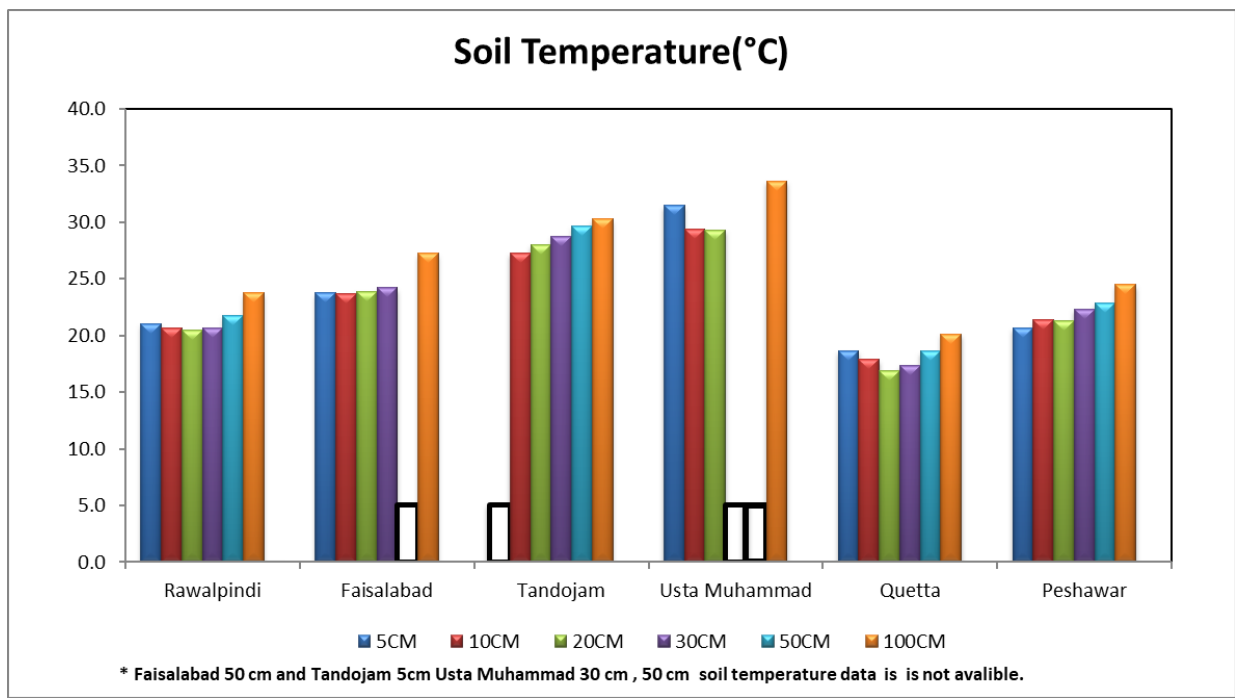
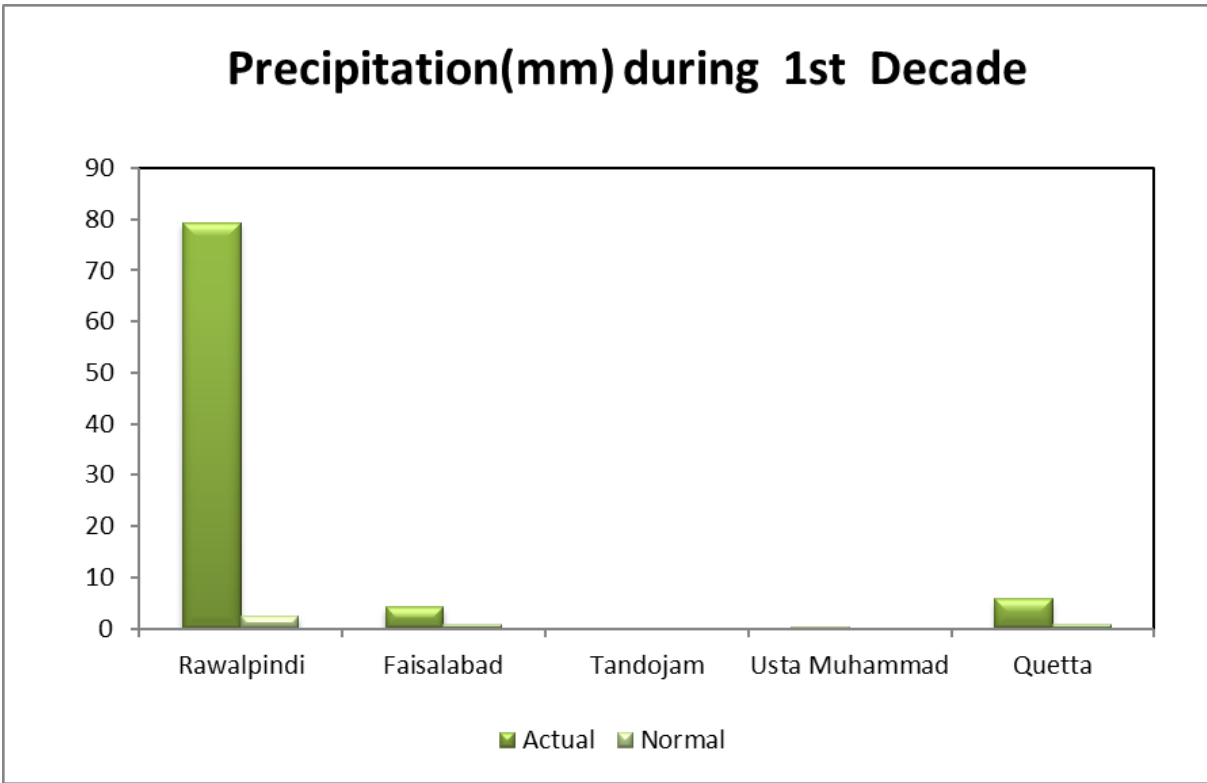
Email: dirnamc@yahoo.com

Meteorological Conditions during 1st 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	2.5	79.3	76.8	-0.2	1.1	19.6	21.0	20.6	20.4	20.7	21.8	23.8	63	66.2	0.9	1.7
2	Faisalabad	0.7	4.2	3.5	-1.4	5.0	23.1	23.8	23.7	23.9	24.2	***	27.3	73	13.8	1.0	1.5
3	Jhelum	1.1	29.3	28.2	-2.2	2.1	21.1	21.7	21.6	22.2	22.5	23.4	***	72	53.6	0.6	1.7
4	Lahore	2.5	3.8	1.3	-1.7	2.4	22.9	22.7	23.1	23.2	23.6	***	25.6	68	8.9	0.9	1.4
5	Sargodha	1.2	12.2	11.0	-0.9	3.6	23.1	24.8	24.5	24.7	25.2	***	***	73	28.0	0.6	2.2
6	Multan	0.1	0.0	-0.1	-1.6	5.3	24.3	***	***	***	***	***	***	63	6.3	2.6	1.8
7	Khanpur	0.0	0.0	0.0	0.3	5.5	25.3	***	27.5	28.0	28.4	29.3	30.1	62	62.0	***	3.7
8	Tandojam	0.0	0.0	0.0	0.0	3.2	26.9	***	27.3	28.0	28.8	29.7	30.3	54	69.2	3.4	6.6
9	Sakrand	0.0	0.0	0.0	0.3	3.5	26.5	32.8	***	***	***	***	***	53	73.4	2.0	2.9
11	Rohri	11.6	7.0	-4.6	-0.1	5.5	26.9	***	***	***	***	***	***	53	86.6	2.9	3.2
12	D.I Khan	0.4	18.0	17.6	-1.7	5.5	23.5	23.8	23.8	13.1	***	14.9	***	74	16.2	2.3	1.7
13	Peshawar	3.4	7.7	4.3	-0.4	1.8	20.5	20.7	21.4	21.3	22.3	22.9	24.5	69	38.4	1.2	1.5
14	Usta M.	0.0	0.0	0.0	0.0	0.0	25.2	31.5	29.4	29.3	***	***	33.6	54	108.0	1.8	2.7
15	Quetta	0.8	5.8	5.0	-2.1	5.5	14.6	18.7	17.9	16.9	17.4	18.6	20.1	47	71.9	4.8	2.5
16	Skardu	2.6	0.0	-2.6	-1.8	0.4	7.2	***	***	***	***	***	***	45	44.9	1.0	1.2
17	Gilgit	1.6	0.0	-1.6	-0.7	1.7	12.3	***	***	***	***	***	***	52	41.4	1.4	1.4

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



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

Moderate to heavy rainfall was observed from central and upper parts of Punjab, KPK, and parts of Baluchistan. Light precipitation was observed in South Punjab and Sindh.

1.1 Punjab

Light to moderate rainfall is reported from the agricultural plains of central and upper parts of Punjab and light rain in South Punjab during the previous decade. The decadal maximum drop below normal by 1.1°C and minimum rose above normal by 3.6°C. Whereas, relative humidity, sunshine hour, wind speed & ETO were recorded as 68%, 34.1 hrs, 1.1 km/hr and 2.0 mm/day respectively.

1.2 Sindh

Light rainfall reported from most part of the agriculture plain of Sindh during the decade. The decadal maximum temperature remained near normal and the minimum raised above normal by 4.1°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 53%, 76.4 hrs, 2.4 km/hr and 4.2 mm/day respectively.

1.3 Khyber Pakhtunkhwa

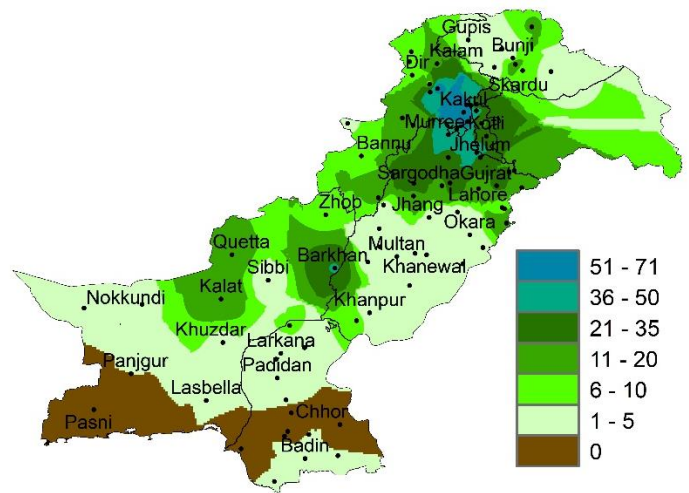
Light to moderate rainfall is reported in the province during the previous decade. The decadal maximum drop below normal by 1.1°C and minimum rose above normal by 3.6°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 72%, 27.3 hrs, 1.8 km/hr and 1.6 mm/day respectively.

1.4 Baluchistan

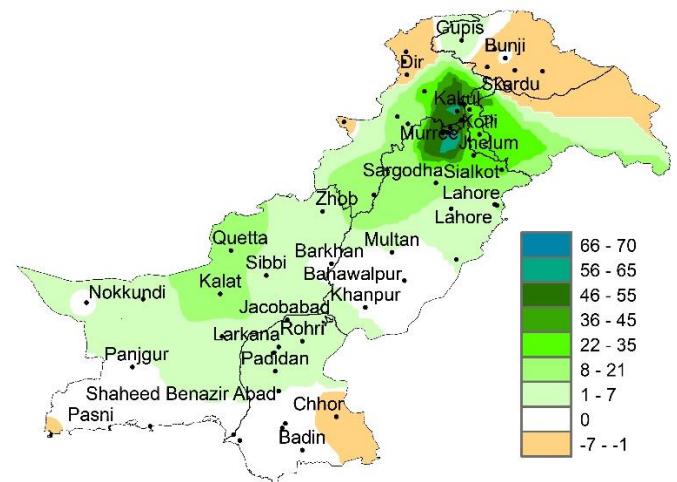
Light to moderate rainfall was reported from Baluchistan during the decade. Decadal maximum temperature dropped below normal by 1.1°C and minimum temperature raised above normal by 2.8°C. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 51 %, 90.0 hrs, 3.3 km/hr and 2.6 mm/day respectively

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

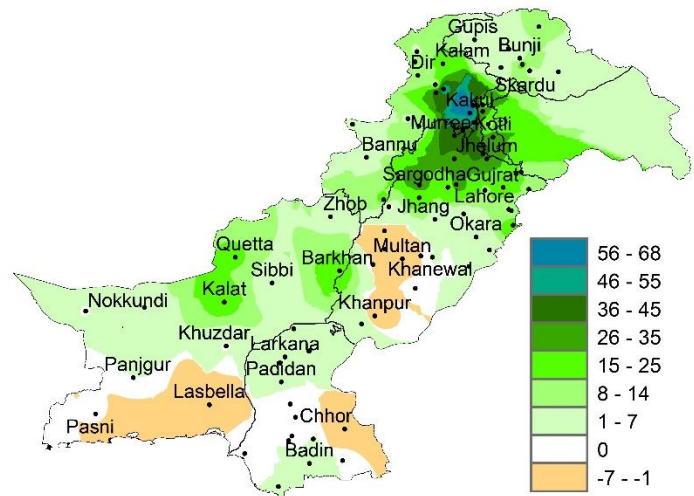
Light precipitation was reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the decade. Decadal maximum temperature dropped below normal by 1.3°C centigrade whereas minimum temperature raised above normal by 1.0°C. Whereas, relative humidity, sunshine hour, wind speed & ETO recorded as 49%, 43.2 hrs, 1.2 km/hr and 1.3 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**
(1st to 10th November, 2023)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 79.3 mm during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 63% mean day temperature was 27.5°C while night temperature recorded as 11.6°C with 66.2 hours bright sunshine duration. Besides, wind speed recorded as 0.9 km/hr with *variable* mean direction.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 4.2 mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 73% mean day temperature was 28.2°C while night temperature recorded as 17.9°C with 13.8 hours bright sunshine duration. Also, wind speed recorded as 1.0 km/hr with *Westsouth westerly* mean direction.

2.3 RAMC, Tandojam (Lower Sindh)

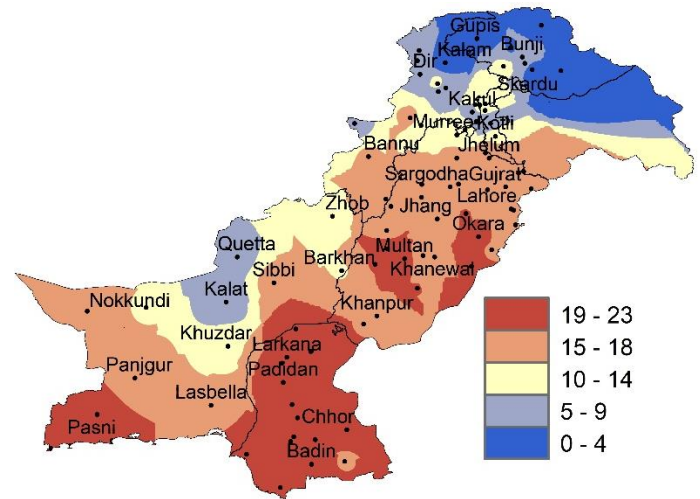
Dry weather reported during the decade; however, weather remained partially cloudy for 02 days. Average relative humidity recorded as 54%, mean day temperature was 34.1°C while night temperature recorded as 19.6°C with 69.2 hours bright sunshine duration. Also, wind speed recorded as 3.4 km/hr with *Northeasterly* mean direction.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

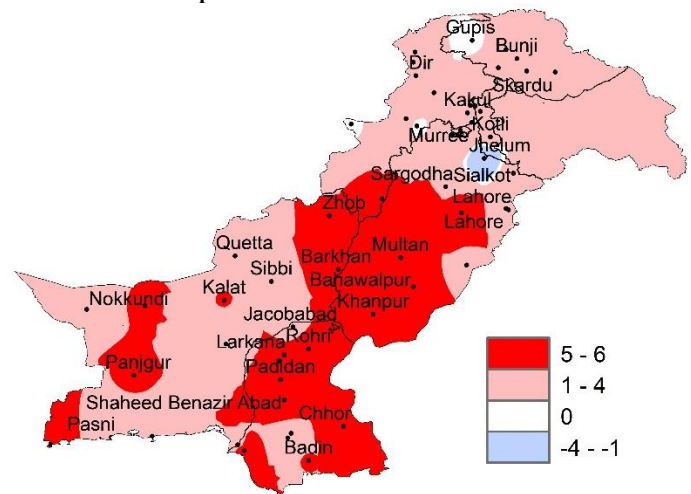
Rain reported as 0.01mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 54%, mean day temperature was 33.2°C while night temperature recorded as 17.1°. Also, wind speed recorded as 1.8 km/hr with *south easterly* mean direction.

2.5 RAMC, Quetta (Northern Baluchistan)

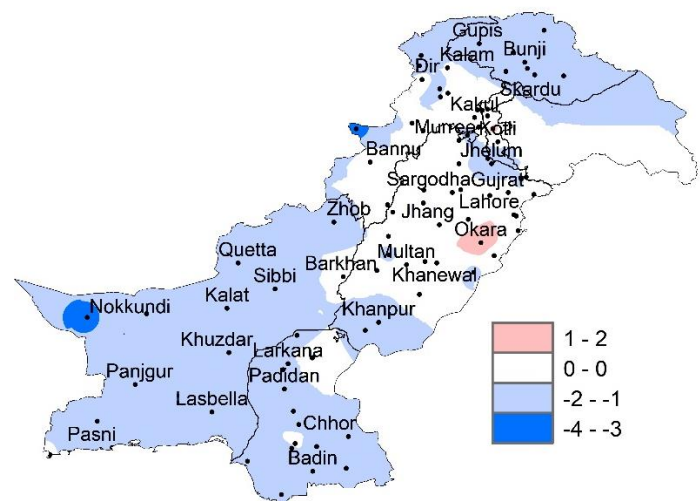
Rain reported as 5.8 mm during the decade. Average relative humidity recorded as 47.0%, mean day temperature was 20.5 °C while night temperature recorded as 8.7°C with 71.9 hours bright sunshine duration. Also, wind speed recorded as 4.8 km/hr with *north westerly* mean direction.



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 (1st to 10th November, 2023)

2.6 Jhelum

Rain reported as 29.3 mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 72%, mean day temperature was 27.4°C while night temperature recorded as 14.8°C with 53.6 hours bright sunshine duration. Wind speed recorded as 0.6 km/hr with *northwesterly mean* direction.

2.7 Lahore

Rain reported as 3.8 mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 68%, mean day temperature was 27.9°C while night temperature recorded as 17.8°C with 8.9 hours bright sunshine duration. Wind speed recorded as 0.9 km/hr with *north easterly* wind direction.

2.8 Sargodha

Rainfall reported as 12.2 mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 73%, mean day temperature was 28.0°C while night temperature recorded as 18.1°C with 28.0 hours bright sunshine duration. Wind speed recorded as 0.6km/hr with *north easterly* wind direction.

2.9 Multan

Rainfall reported as 0.01 (trace) during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 63%, mean day temperature was 29.3°C while night temperature recorded as 19.3°C. Wind speed recorded as 2.6 km/hr with *northerly* mean wind direction.

2.10 Khanpur

Dry weather reported during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 62%, mean day temperature was 32.2°C while night temperature recorded as 18.3°C. Mean wind direction reported in *north westerly* 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 53%, mean day temperature was 33.4 °C while night temperature recorded as 19.6°C with 73.4 hours bright sunshine duration. Wind speed recorded as 2.0 km/hr with *northerly* mean direction.

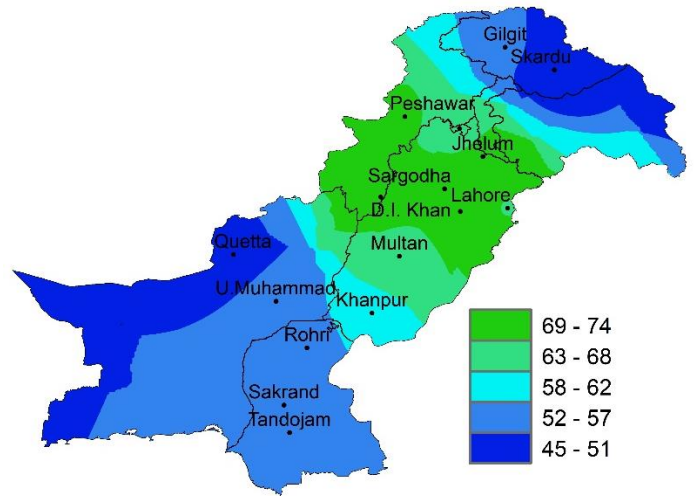


Figure.3: Relative Humidity (%)

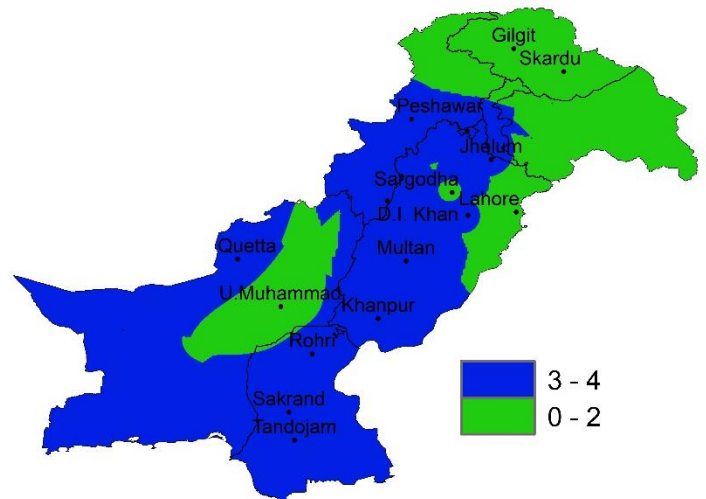


Figure.4: Reference Crop Evapotranspiration ET0 (mm/day)

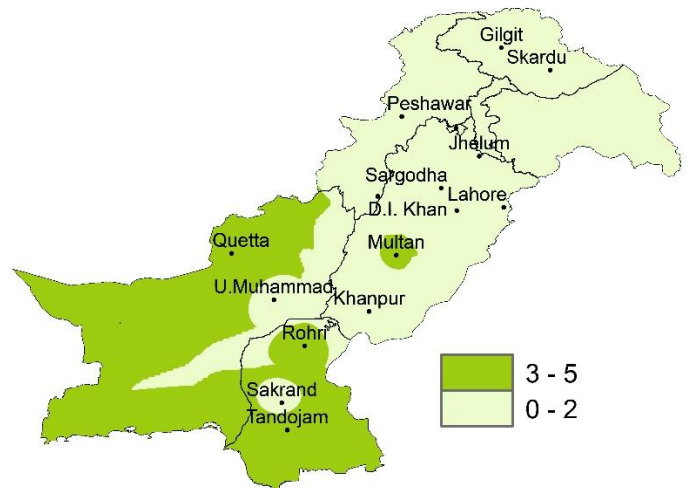


Figure 5: Wind Speed (km/h)

2.12 Rohri

Rainfall reported as 7.0 mm during the decade; however, weather remained partially cloudy for 02 days. Average relative humidity recorded as 53%, mean day temperature was 32.0°C while night temperature recorded as 21.7°C with 86.2 hours bright sunshine duration. Wind speed recorded as 2.9 km/hr with *north easterly* mean direction.

2.13 D.I. Khan

Rainfall reported as 18.0 mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 74 %, mean day temperature was 28.4°C while night temperature recorded as 18.5°C with 16.2 hours bright sunshine duration. Wind speed recorded as 2.3 km/hr with *north easterly* mean direction.

2.14 Peshawar

Rain reported as 7.7 mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 69%, mean day temperature was 27.1°C while night temperature recorded as 13.9°C with 38.4 hours bright sunshine duration. Wind speed recorded as 1.2 km/hr with *easterly* mean wind direction.

2.15 Skardu

Dry weather reported during the decade; however, average relative humidity recorded as 45%, mean day temperature was 14.9°C while night temperature recorded as -0.5°C with 44.9 hours bright sunshine duration. Wind speed recorded as 2.1 km/hr with *north easterly* mean wind direction.

2.16 Gilgit

Precipitation reported as 0.01 mm (trace) during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 52.0%, mean day temperature was 21.1°C while night temperature recorded as 3.5°C with 41.4 hours bright sunshine duration. Wind speed recorded as 1.4 km/hr with *south easterly* mean wind direction.

Seven Days Weather Advisory for Farmers (13th to 20th 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 and cold weather is expected over most parts of the province. However, fog may prevail during early morning /night.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry and cold weather is expected over most parts of the province. However, fog may prevail during early morning /night
- ❖ **Sindh:** Mainly dry and cold weather is expected over most parts of the province.
- ❖ **Baluchistan:** Mainly cold and dry weather is expected over most parts of the province.
- ❖ **Gilgit-Baltistan** Mainly very cold and dry weather is expected over most parts of the province.
- ❖ **Kashmir:** Mainly very cold and dry weather is expected over most parts of the province.

3.4 Advisory for Farmers

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