

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Moderate to heavy precipitation was observed almost all over the country except Sindh where light to moderate rainfall was reported during the previous decade.
- ❖ Highest precipitation recorded as 107.0 mm at Malam Jabba during the last decade.
- ❖ Highest maximum temperature recorded as 45.5°C at Chhor during the last decade.
- ❖ During the decade, mainly dry weather is expected all over the country while rain-wind thunderstorm is expected in isolated places of KP , Potohar region ,Gilgit-Baltistan, and Kashmir.
- ❖ Farmers are advised to plan their activities in accordance with the expected weather conditions.

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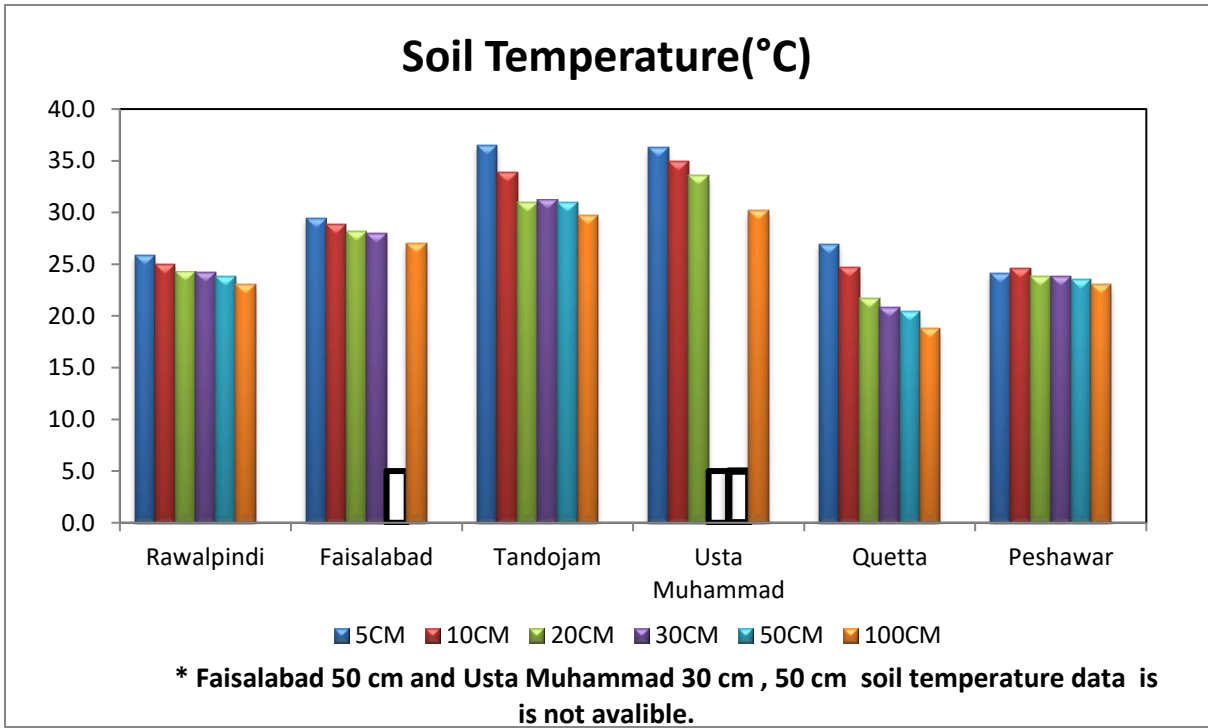
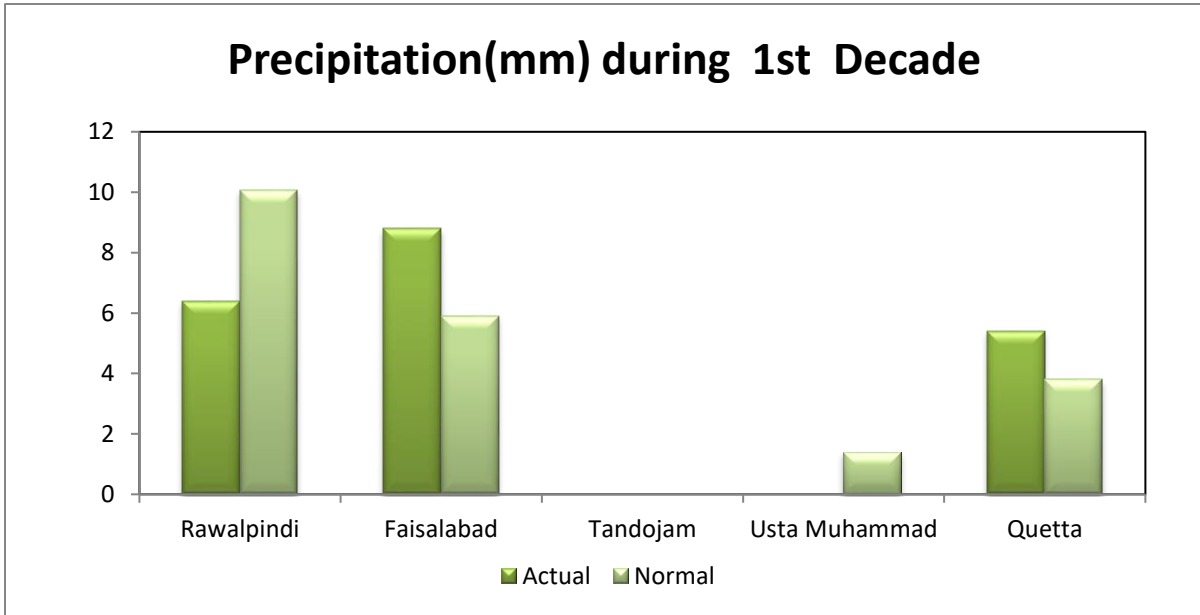
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Meteorological Conditions during 1st Decade of May, 2023

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	10.1	6.4	-3.7	-4.7	-3.2	23.5	25.9	24.9	24.3	24.2	23.8	23.0	52	72.9	2.7	4.2
2	Faisalabad	5.9	8.8	2.9	-4.9	-2.1	26.5	29.5	28.8	28.2	27.9	***	27.0	50	92.2	3.4	5.1
3	Jhelum	12.60	40.5	27.9	-4.8	-3.5	25.1	27.5	26.7	25.7	25.8	25.6	***	54	81.1	5.3	5.1
4	Lahore	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	Sargodha	4.8	22.8	18.0	-5.5	-4.1	26.2	29.9	28.8	27.8	27.5	***	26.5	52	75.1	2.5	4.5
6	Multan	3.3	24.4	21.1	-6.0	-2.6	27.4	***	***	***	***	***	***	48	76.2	5.3	5.4
7	Khanpur	2.8	0.0	-2.8	-3.1	-0.5	29.7	***	31.6	31.6	31.6	31.5	29.9	42	101.9	***	7.1
8	Tandojam	0.0	0.0	0.0	-2.3	-1.2	30.7	36.5	33.9	31.0	31.2	31.0	29.8	45	101.4	5.9	6.7
9	Sakrand	0.0	0.0	0.0	-3.3	-0.8	31.4	43.3	***	***	***	***	***	40	112.0	3.7	6.3
11	Rohri	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
12	D.I Khan	4.2	29.0	24.8	-3.5	-1.8	27.1	28.2	27.5	13.1	***	15.7	***	53	76.8	11.7	5.4
13	Peshawar	10.5	25.4	14.9	-3.7	-1.7	24.6	24.1	24.6	23.8	23.9	23.6	23.1	53	69.5	5.0	4.8
14	Usta M.	1.4	0.0	-1.4	0.0	0.0	31.0	36.3	35.0	33.6	***	***	30.2	59	***	4.0	4.6
15	Quetta	3.8	5.4	1.6	-2.3	-1.9	18.8	26.9	24.7	21.7	20.8	20.5	18.8	31	98.5	6.0	5.5
16	Skardu	10.1	2.7	-7.4	-2.9	-2.3	13.4	***	***	***	***	***	***	35	49.6	8.4	4.3
17	Gilgit	10.8	5.9	-4.9	-2.2	-0.5	18.2	***	***	***	***	***	***	37	67.0	6.0	4.7

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 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 May, 2023



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

Moderate to heavy precipitation was observed in most parts of the country while light to moderate rainfall is reported from Sindh during the last decade.

1.1 Punjab

Moderate to heavy precipitation is reported from the agricultural plains of Punjab during the previous decade. The decadal maximum & minimum temperatures dropped by 4.8 and 2.7 degree centigrade from normal respectively. Whereas, relative humidity, sunshine hour, wind speed & ETO were recorded as 50%, 83.2 hrs, 3.8km/hr and 5.2 mm/day respectively.

1.2 Sindh

Light to moderate rainfall is reported from almost all over Sindh during the previous decade. Decadal maximum temperature and minimum temperatures dropped by 2.8 and 1.0 degree centigrade from normal respectively. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 43%, 106.7 hrs, 4.8 km/hr and 6.5 mm/day respectively.

1.3 Khyber Pakhtunkhwa

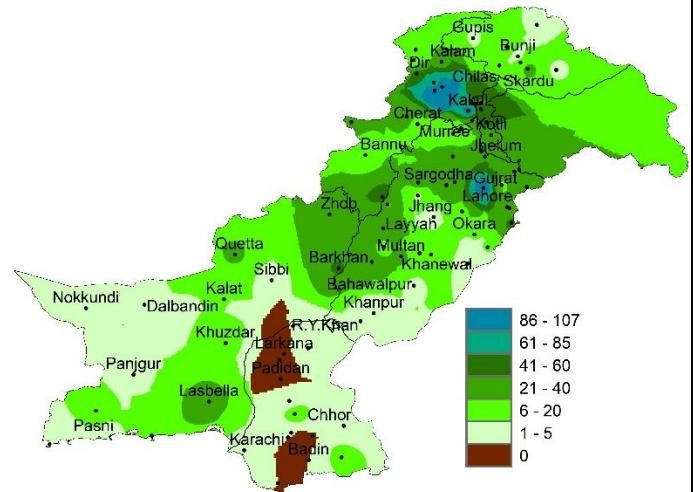
Moderate to heavy precipitation is reported in the province during the previous decade. Decadal maximum temperature and minimum temperatures dropped by 3.6 and 1.7 degree centigrade from normal respectively. Besides, relative humidity, sunshine hour, wind speed & ETO recorded as 53%, 73.2 hrs, 8.4 km/hr and 5.1 mm/day respectively.

1.4 Baluchistan

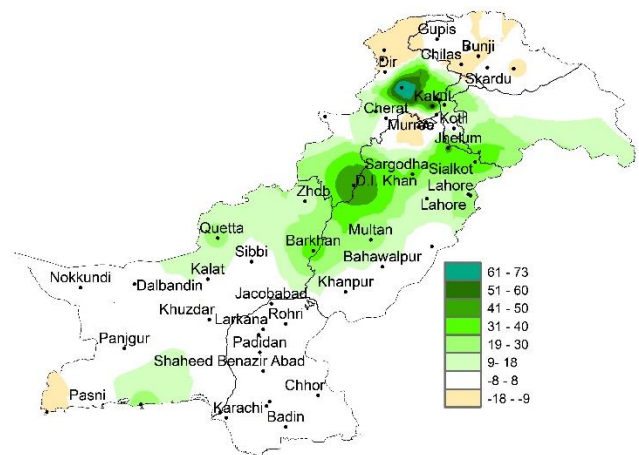
Moderate to heavy rainfall is reported from most of the province during the previous decade. Decadal maximum temperature dropped by 1.2 degree centigrade from normal while and minimum temperatures remained nearly normal. Besides, relative humidity, sunshine hour, wind speed & ETO were recorded as 45 %, 98.5 hrs, 5.0 km/hr and 5.1 mm/day respectively

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

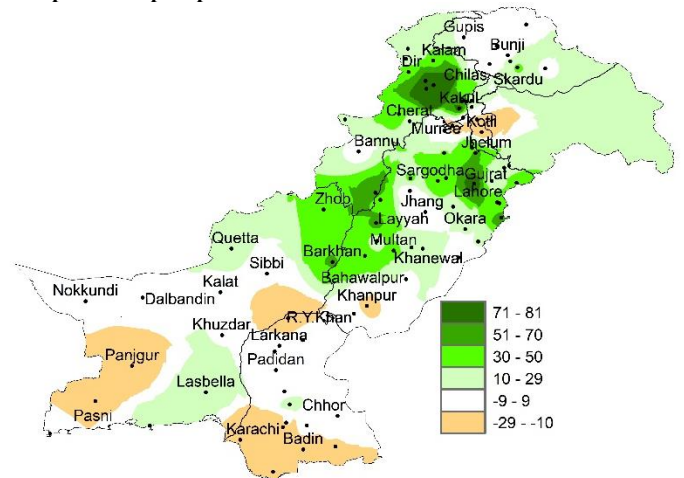
Moderate to heavy precipitation reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the decade. The decadal maximum temperature and minimum temperature dropped below normal by 2.5 and 1.4 degree centigrade respectively. Whereas, relative humidity, sunshine hour, wind speed & ETO recorded as 36%, 58.3 hrs, 7.2 km/hr and 4.5 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 May, 2023)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 6.4 mm during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 52% mean day temperature was 30.6°C while night temperature recorded as 16.4°C with 72.9 hours bright sunshine duration. Besides, wind speed recorded as 2.7 km/hr with *south wessterly* mean direction. *No crop is available in the fields at present.*

2.2 RAMC, Faisalabad (Central Punjab)

Rain reported as 8.8 mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 50% mean day temperature was 32.8°C while night temperature recorded as 20.2°C with 92.2 hours bright sunshine duration. Also, wind speed recorded as 3.4 km/hr with *south easterly* mean direction.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather prevailed during the decade; however, weather remained partially cloudy for 5 days. Average relative humidity recorded as 45%, mean day temperature was 38.8°C while night temperature recorded as 22.6°C with 101.4 hours bright sunshine duration. Also, wind speed recorded as 5.9 km/hr with *south westerly* mean direction.

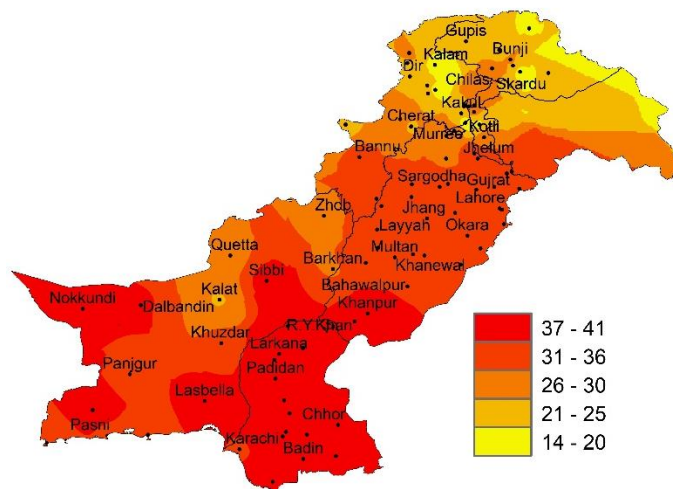
2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

Rainfall reported as 0.01 mm (trace) during the decade; however, clear skies remained all over decade. Average relative humidity recorded as 41%, mean day temperature was 38.3 °C while night temperature recorded as 23.6°C. Also, wind speed recorded as 4.0 km/hr with *south easterly* mean direction.

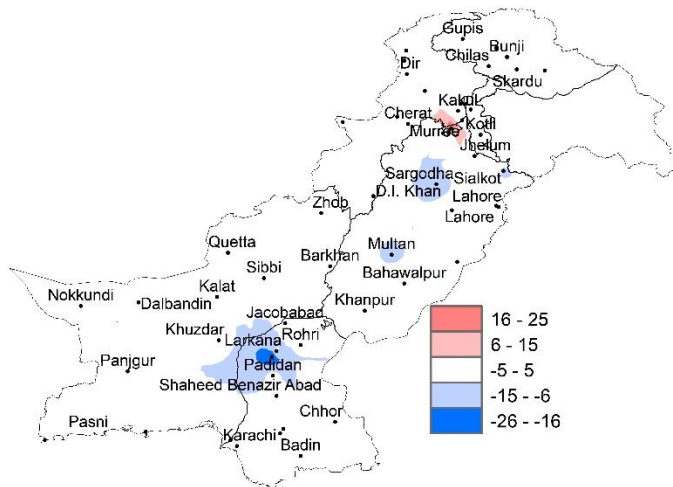
2.5 RAMC, Quetta (Northern Baluchistan)

Rainfall reported as 5.4 mm during the decade; however, weather remained partially cloudy for 6 days during the decade. Average relative humidity recorded as 31%, mean day temperature was 27.1°C while night temperature recorded as 10.5°C. Moreover, wind speed recorded as 6.0 km/hr with *North westerly* mean direction.

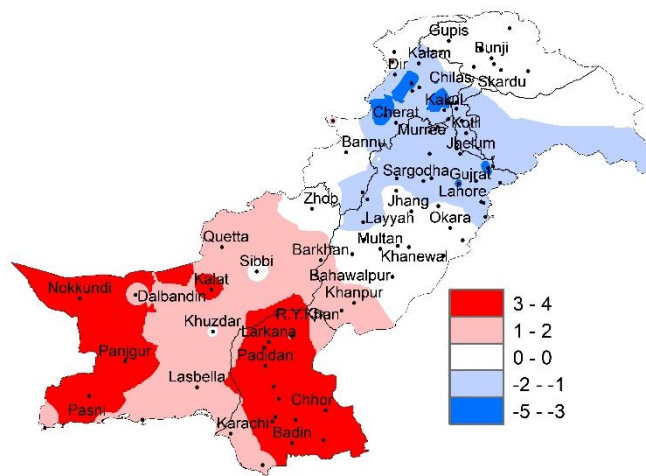
Wheat: variety Zardana: Good. Milk maturity stage.



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 May, 2023)

2.6 Jhelum

Rain reported as 40.5 mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 54%, mean day temperature was 31.9°C while night temperature recorded as 18.2°C with 81.1 hours bright sunshine duration. Wind speed recorded as 5.3 km/hr with *southerly mean* direction.

2.7 Lahore

Data not available.

2.8 Sargodha

Rain reported as 22.8 mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 52%, mean day temperature was 33.0°C while night temperature recorded as 19.4°C with 75.1 hours bright sunshine duration. Wind speed recorded as 2.5 km/hr with *easterly* wind direction.

2.9 Multan

Rain reported as 24.4 mm during the decade; however, weather remained partially cloudy for 7 days. Average relative humidity recorded as 48%, mean day temperature was 33.6°C while night temperature recorded as 21.1°C with 76.2 hours bright sunshine duration. Wind speed recorded as 5.3 km/hr with *northeastern* mean wind direction.

2.10 Khanpur

Dry weather prevailed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 42%, mean day temperature was 37.5°C while night temperature recorded as 21.9°C with 101.9 hours bright sunshine duration. Mean wind direction recorded as *in north easterly*.

2.11 Sakrand

Dry weather prevailed during the decade; however, clear skies were observed. Average relative humidity recorded as 40%, mean day temperature was 39.2 °C while night temperature recorded as 23.6°C with 112.0 hours bright sunshine duration. Wind speed recorded as 3.7 km/hr with *south easterly* mean direction.

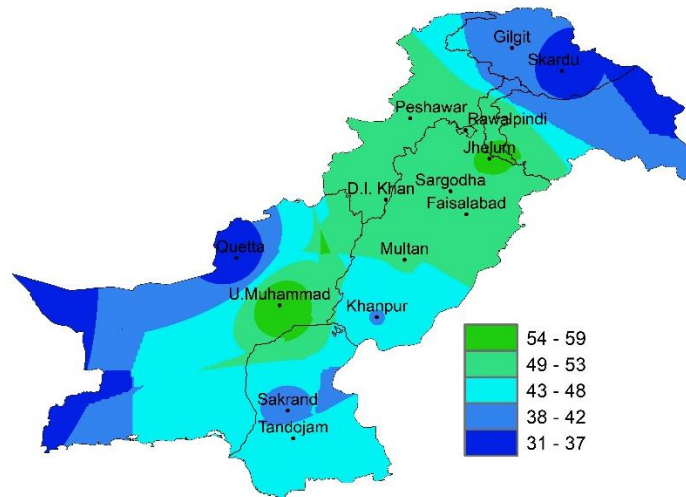


Figure.3: Relative Humidity (%)

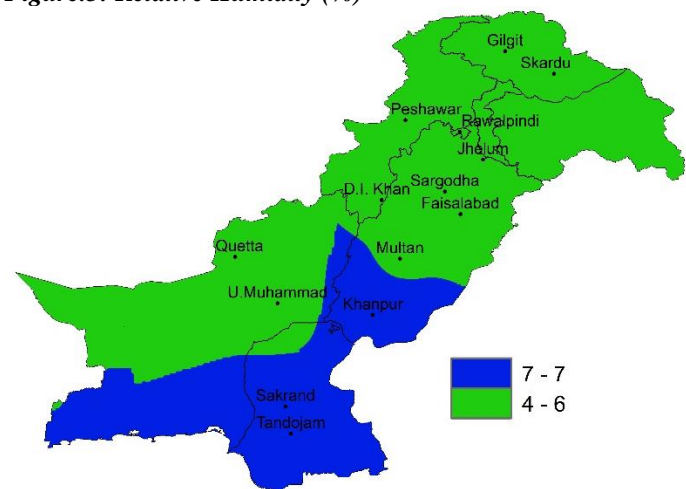


Figure.4: Reference Crop Evapotranspiration ET₀ (mm/day)

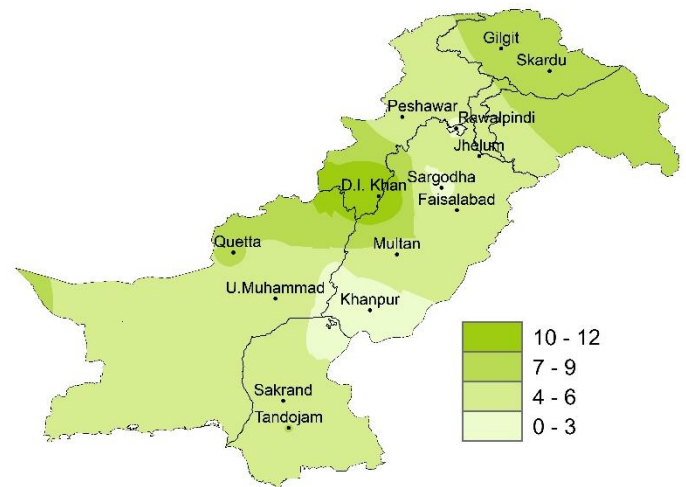


Figure 5: Wind Speed (km/h)

2.12 Rohri

Data not available.

2.13 D.I. Khan

Rain reported as 29.0 mm during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 53%, mean day temperature was 34.0°C while night temperature recorded as 20.2°C with 76.8 hours bright sunshine duration. Wind speed recorded as 11.7 km/hr with *southeasterly* mean direction.

2.14 Peshawar

Rain reported as 25.4 mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 53%, mean day temperature was 30.7°C while night temperature recorded as 18.5°C with 69.5 hours bright sunshine duration. Wind speed recorded as 5.0 km/hr with *noth easterly* mean wind direction.

2.15 Skardu

Rain reported as 2.7 during the decade; however, weather remained cloudy for 09 days during the decade. Average relative humidity recorded as 35%. Mean day temperature was 20.1°C while night temperature recorded as 6.6°C with 49.6 hours bright sunshine duration. Wind speed recorded as 8.4 km/hr with *south easterly* mean direction.

2.16 Gilgit

Precipitation reported as 5.9 mm during the decade; however, weather remained partially cloudy. Average relative humidity recorded as 37%, mean day temperature was 25.7°C while night temperature recorded as 10.6°C with 67.0 hours bright sunshine duration. Wind speed recorded as 6.0 km/hr with *easterly* mean wind direction.

**Ten Days Weather Advisory for Farmers
(10th to 20th May, 2023)****3.1 Temperature Forecast**

Day and night time temperatures are expected to remain slightly above normal over northern and southern parts whereas below normal over central parts of the country.

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 in most of parts of the province during the decade. However, Rain-wind thunderstorms may occur in the Potohar region at the start days of the decade while Very hot weather is expected in Southern Punjab.
- ❖ **Khyber Pakhtunkhwa:** Mainly hot and dry weather may prevail during the decade. However, rain-wind thunderstorms may occur in isolated parts of the upper KPK.
- ❖ **Sindh:** Mainly dry and very hot weather is expected in most parts of the province during the decade.
- ❖ **Baluchistan:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Gilgit-Baltistan:** Rain-wind thunderstorm is expected in isolated parts during the decade.
- ❖ **Kashmir:** Rain-wind thunderstorm is expected in isolated parts during the decade.

3.4 Advisory for Farmers

- ❖ Farmers are advised to view PMD website for forecast before any field activity.