

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Heavy rain was reported from Kashmir, and KP. Moderate to heavy amount of rainfall was reported from Punjab, Gilgit-Baltistan, and Baluchistan
- ❖ Light to moderate rainfall was reported from Sindh.
- ❖ The highest amount of rainfall recorded was 185.0 mm at Malam Jabba during the last decade.
- ❖ Lowest minimum temperature recorded as -12.5 °C at Kalam during the last decade.
- ❖ Rain thunderstorm is expected all over the country except Sindh during the first half of the decade while cold and dry weather is expected during the 2nd half.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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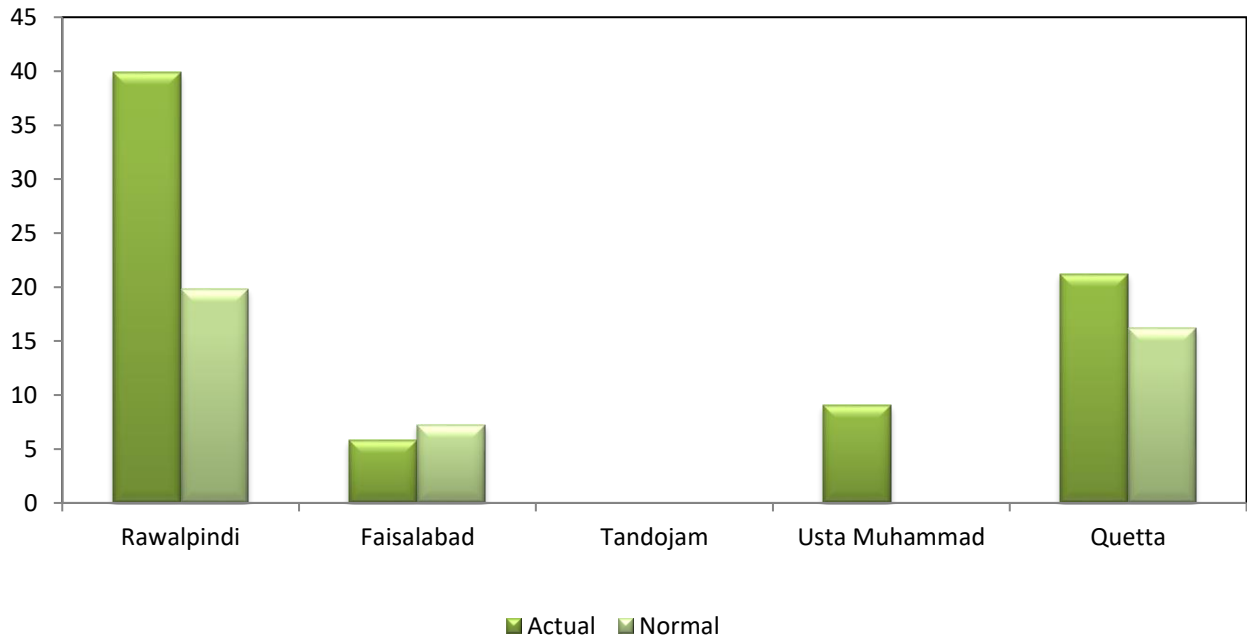
Meteorological Conditions during 1st Decade of March2024

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	19.8	39.9	20.1	-3.6	-3.5	13.1	15.2	14.5	14.0	14.1	14.6	15.3	60	57.1	2.7	2.2
2	Faisalabad	7.2	5.8	-1.4	-2.5	-2.3	15.8	18.1	17.5	17.0	17.0	***	18.7	50	70.4	2.7	2.6
3	Jhelum	11.4	27.3	15.9	-2.2	-2.0	16.2	16.9	16.3	16.1	16.0	16.5	***	60	70.5	8.8	3.4
4	Lahore	8.6	7.0	-1.6	-2.7	-2.4	17.1	16.4	17.4	16.8	16.2	***	18.1	50	63.9	2.9	2.7
5	Sargodha	10.4	7.3	-3.1	-2.4	-2.7	16.0	19.1	18.0	17.7	18.0	***	***	50	61.9	1.3	2.3
6	Multan	4.3	1.4	-2.9	-3.6	-1.8	16.9	***	***	***	***	***	***	50	59.6	4.1	2.9
7	Khanpur	1.8	0.0	-1.8	-2.9	-1.5	17.5	***	18.7	19.5	19.5	20.1	20.3	50	70.6	***	3.9
8	Tandojam	0.0	0.0	0.0	-5.8	-3.9	18.1	***	22.5	22.4	22.1	22.7	24.2	50	****	3.7	3.6
9	Sakrand	0.0	1.0	1.0	-5.5	-3.3	18.0	27.0	***	***	***	***	***	50	79.4	3.8	3.4
11	Rohri	39.1	0.0	-39.1	-4.7	-1.7	18.6	***	***	***	***	***	***	40	74.4	3.9	3.4
12	D.I Khan	6.1	11.0	4.9	-3.2	-1.6	16.1	16.0	15.8	13.1	***	6.5	***	50	53.3	***	3.4
13	Peshawar	20.1	85.8	65.7	-3.5	-2.8	13.6	13.7	14.1	13.7	14.4	14.9	15.8	60	49.0	5.1	2.5
14	Usta M.	0.0	9.0	9.0	0.0	0.0	16.5	22.5	20.8	20.1	***	***	22.1	61	***	***	3.6
15	Quetta	16.2	21.2	5.0	-7.5	-2.3	5.1	9.1	8.5	7.4	7.2	8.5	10.3	60	88.2	6.5	2.3
16	Skardu	10.1	32.1	22.0	-3.5	-0.7	3.2	***	***	***	***	***	***	60	36.7	0.1	1.3
17	Gilgit	2.4	14.3	11.9	-3.2	-0.5	8.5	***	***	***	***	***	***	50	31.1	2.8	1.8

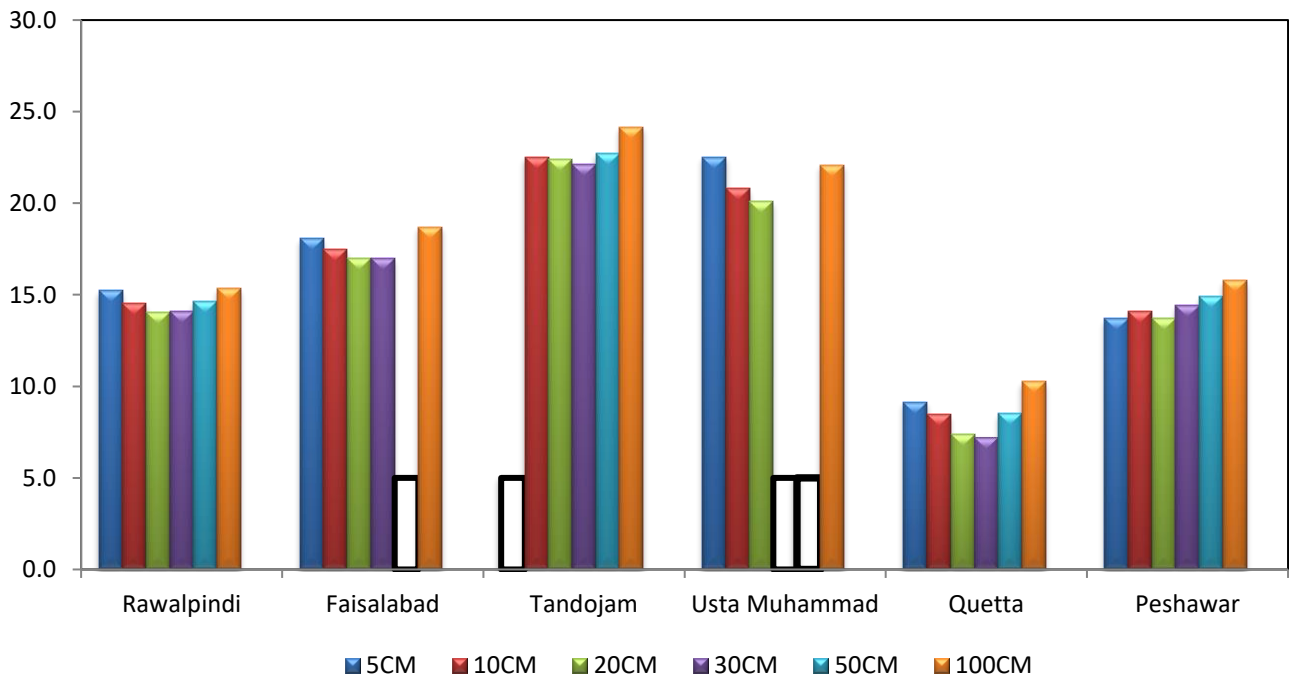
Table-1: Meteorological parameters for selected station of Pakistan. “Dep” in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. ‘ETo’ stands for reference crop Evapotranspiration***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

Graph at RAMCs during March, 2024

Precipitation(mm) during 1st 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 (1st to 10th March, 2024)

Heavy rain was reported from Kashmir, and KP. Moderate to heavy amount of rainfall was reported from Punjab, Gilgit-Baltistan, and Baluchistan while light to moderate rainfall was reported from Sindh.

1.1 Punjab

Moderate to heavy rainfall was reported in the province. The decadal maximum drooped below normal by 4.9 while the minimum temperature remained near normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 53%, 64.9hrs, 3.8km/hr and 2.9 mm/day respectively.

1.2 Sindh

Light to moderate rainfall was reported from the upper half of the province. The decadal maximum and minimum temperatures dropped below normal by 13.6 and 7.0 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 33%, 39.7hrs, 2.5km/hr and 3.4mm/day respectively.

1.3 Khyber Pakhtunkhwa

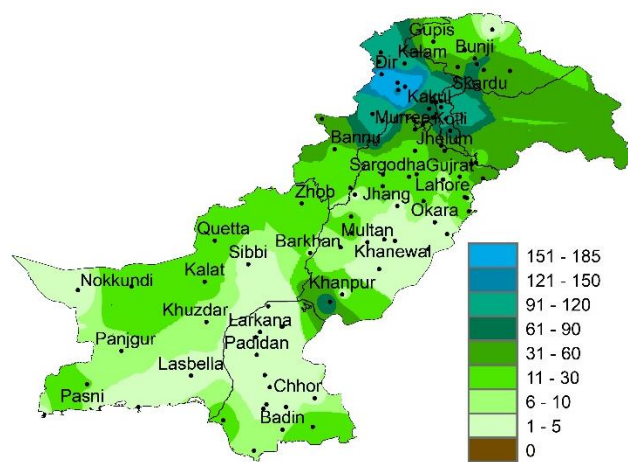
Heavy rainfall was reported from the province. The decadal maximum and minimum were reported below normal by 3.3 and 2.2 degrees centigrade in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 51.2 hr 5.1 km/hr and 3.0 mm/day respectively.

1.4 Baluchistan

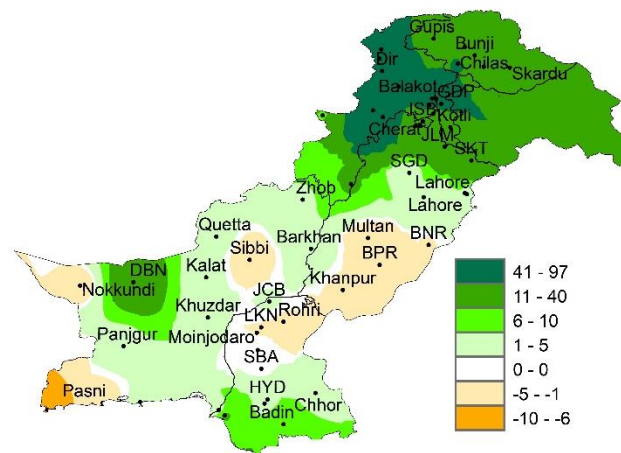
Moderate to heavy rain was reported from the province. Decadal maximum and minimum were reported below normal by 3.8 and 1.1degrees centigrade in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 61%, 88.2hrs, 6.5km/hr, and 3.0mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

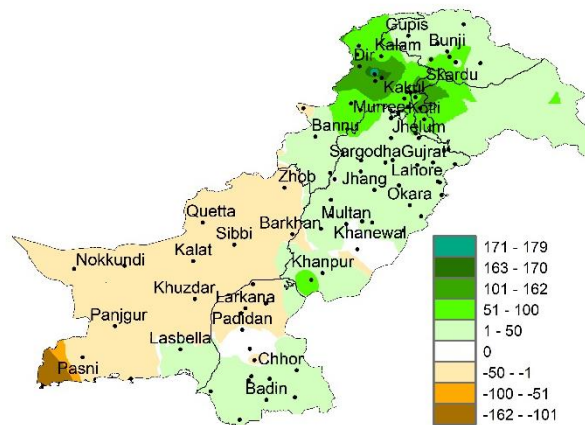
Moderate to heavy rain was reported from Gilgit while heavy rain was reported from Kashmir. Decadal maximum dropped below normal by 3.4 while the minimum remained near normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 33.9hrs, 1.5km/hr and 1.6 mm/day respectively



I. Actual rainfall



II. Departure of rainfall from Normal



III. Departure of rainfall from the Previous Decade

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

(a) Past Weather for Major Agricultural Plains (1st to 10th March, 2024)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 39.9 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 60%. Mean day temperature was 20.8°C while night temperature recorded as 5.4°C with 64.1 hours bright sunshine duration. Wind speed recorded as 2.7 km/hr with mean wind direction *south easterly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 5.8 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 50.0%. Mean day temperature was 23.1°C while night temperature recorded as 8.5°C. Wind speed recorded as 2.7 km/hr with mean wind direction *westerly*.

Wheat: very good Shooting stage completed

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade; however, weather remained cloudy for 0.6 days. Average relative humidity recorded as 50%. Mean day temperature was 26.3°C while night temperature recorded as 9.9°C. Wind speed recorded as 3.7 km/hr with mean wind direction *north easterly*.

Wheat: very good, flowering stage.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

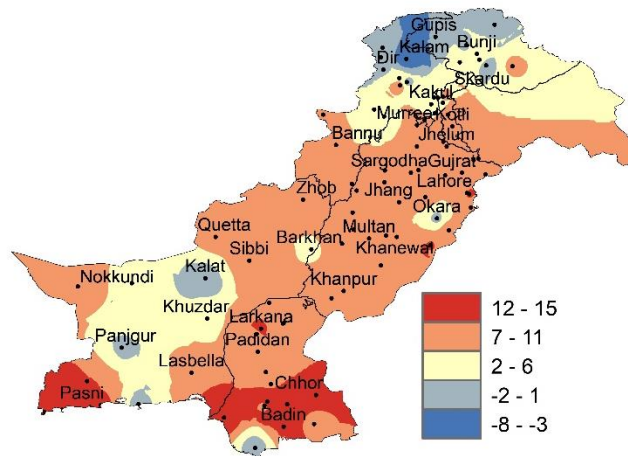
Rainfall reported as 9.0 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 61%. Mean day temperature was 24.3°C while night temperature recorded as 8.6°C. Mean wind direction was *north easterly*.

Wheat: good, Tillering stage.

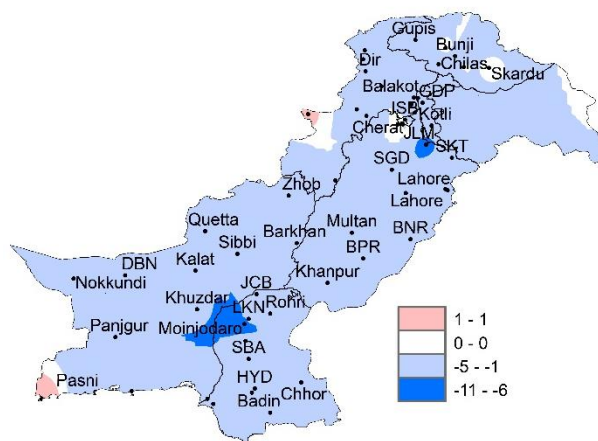
2.5 RAMC, Quetta (Northern Baluchistan)

Precipitation reported as 21.2 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 60%. Mean day temperature was 9.8°C while night temperature recorded as 0.4°C with 42.2 hours bright sunshine duration. Wind speed recorded as 6.5 km/hr with mean wind direction *southerly*.

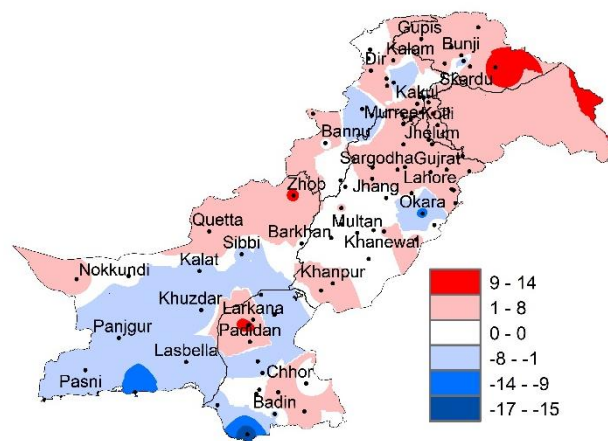
Wheat: good, Tillering stage.



I. Actual min-temp



II. Departure of min-temp from Normal



III. Departure of min-temp from Previous Decade

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

2(b) Past Weather or Sub-Regional Agricultural Plains (1st to 10th March,2024)

2.6 Jhelum

Rainfall reported as 27.30 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 60%. Mean day temperature was 23.3°C while night temperature recorded as 9.1°C with 64.1 hours bright sunshine duration. Wind speed recorded as 8.8 km/hr with mean wind direction *variable*.

2.7 Lahore

Rainfall reported as 7.00 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 50%. Mean day temperature was 23.1°C while night temperature recorded as 11.0°C. Wind speed recorded as 2.9 km/hr with mean wind direction *north westerly*.

2.8 Sargodha

Rainfall reported as 7.3 mm during the decade; however, weather remained cloudy for 09 days. Average relative humidity recorded as 50%. Mean day temperature was 23.1°C while night temperature recorded as 8.9°C with 53.6 hours bright sunshine duration. Wind speed recorded as 1.3 km/hr with mean wind direction *variable*.

2.9 Multan

Rainfall reported as 1.4 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 50%. Mean day temperature was 23.5°C while night temperature recorded as 10.3°C with 52.6 hours bright sunshine duration. Wind speed recorded as 4.1 km/hr with mean wind direction *north easterly*.

2.10 Khanpur

Dry weather reported during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 50%. Mean day temperature was 25.3°C while night temperature recorded as 9.7°C with 68.2 hours bright sunshine duration. Mean wind direction *north easterly*.

2.11 Sakrand

Rainfall reported as 1.0 mm during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 50%. Mean day temperature was 25.8°C while night temperature recorded as 10.1°C with 79 hours bright sunshine duration. Wind speed recorded as 3.8 km/hr with mean directions *north westerly*.

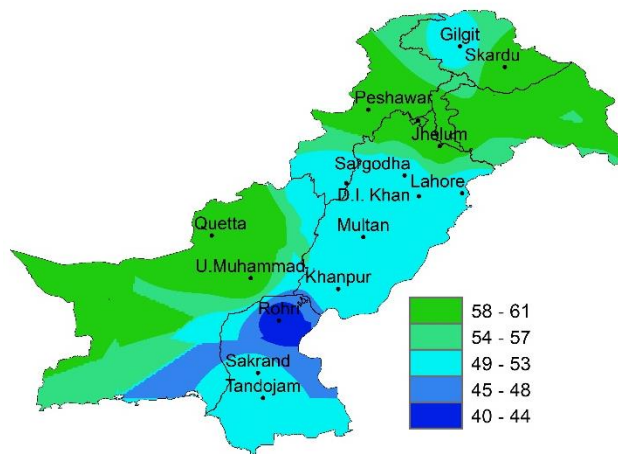


Figure.3: Relative Humidity in Percentage (%)

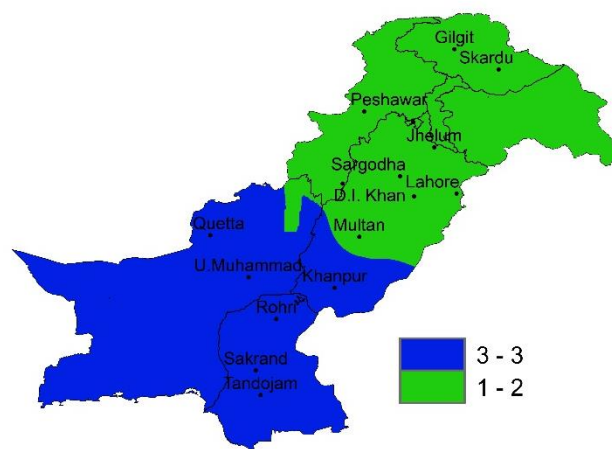


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

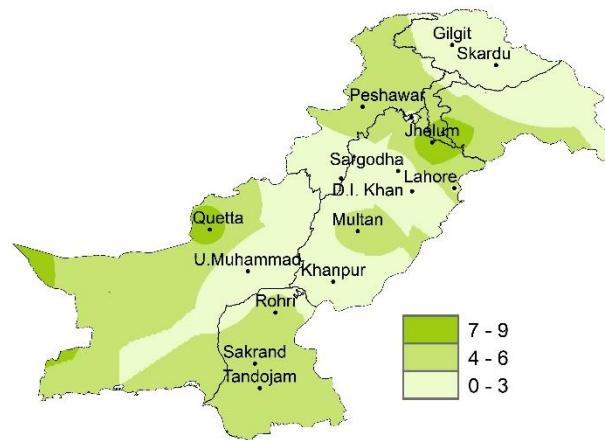


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 40%. Mean day temperature was 24.8°C while night temperature recorded as 12.3°C with 71.6hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean wind direction *north easterly*.

2.13 D.I. Khan

Rainfall reported as 11.0 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 50%. Mean day temperature was 22.7°C while night temperature recorded as 9.4°C with 40.9 hours bright sunshine duration. Mean wind direction is variable.

2.14 Peshawar

Rainfall reported as 85.8 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 60%. Mean day temperature was 19.8°C while night temperature recorded as 7.4°C with 37.7hours bright sunshine duration. Wind speed recorded as 5.1 km/hr with Mean wind directions *north westerly*.

2.15 Skardu

Precipitation reported as 32.1mm during the decade however, weather remained cloudy for 09 days during the decade. Average relative humidity recorded as 60%. Mean day temperature was 7.6°C while night temperature recorded as – 1.3°C with 39.8 hours bright sunshine duration Wind speed recorded as 0.1km/hr with Mean wind directions *north westerly*.

2.16 Gilgit

Rainfall reported as 14.3 mm during the decade; however, weather remained cloudy for 10 days. Average relative humidity recorded as 50%. Mean day temperature was 13.9°C while night temperature recorded as 3.0°C with 35 hours bright sunshine duration. Wind speed recorded as 2.8 km/hr with mean wind directions *south westerly*

Ten Days Weather Advisory for Farmers (11thto 20thMarch 2024)**3.1 Temperature Forecast**

Below normal mean temperature is likely over most parts of the country particularly over western Baluchistan and northern parts of the country including upper Khyber Pakhtunkhwa, 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:** Rain thunderstorm is expected in the first days of the decade while during the last days of the decade, mainly cold and dry weather is expected in plain areas of the country.
- ❖ **Khyber Pakhtunkhwa:** Rain thunderstorm is expected in the first days of the decade while during the last days of the decade, mainly cold and dry weather is expected in plain areas of the country.
- ❖ **Sindh:** Mainly cold and dry weather is expected in Sindh province during the decade.
- ❖ **Baluchistan:** Mainly cold and dry weather is expected in most parts of the province. However, rain is likely in Baluchistan during the first days of the decade.
- ❖ **Gilgit-Baltistan:** Rain (snow over mountains) is expected during the decade.
- ❖ **Kashmir:** Rain (snow over mountains) is expected during the decade.

3.4 Advisory for Farmers

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