

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Moderate to heavy precipitation was reported from the Potohar region, KPK, Kashmir, and Gilgit Baltistan while light to moderate rainfall was reported from the central and northeastern Punjab and Baluchistan.
- ❖ However, dry weather was observed over most parts of Sindh, South Punjab.
- ❖ Highest amount of rainfall recorded was 118.4 mm at Rawlakot during the last decade.
- ❖ Lowest minimum temperature recorded as -8.7 °C at Skardu during the last decade.
- ❖ Rain (snow over mountains) is expected all over the country in second half of decade while cold and dry weather is expected during the 1st half.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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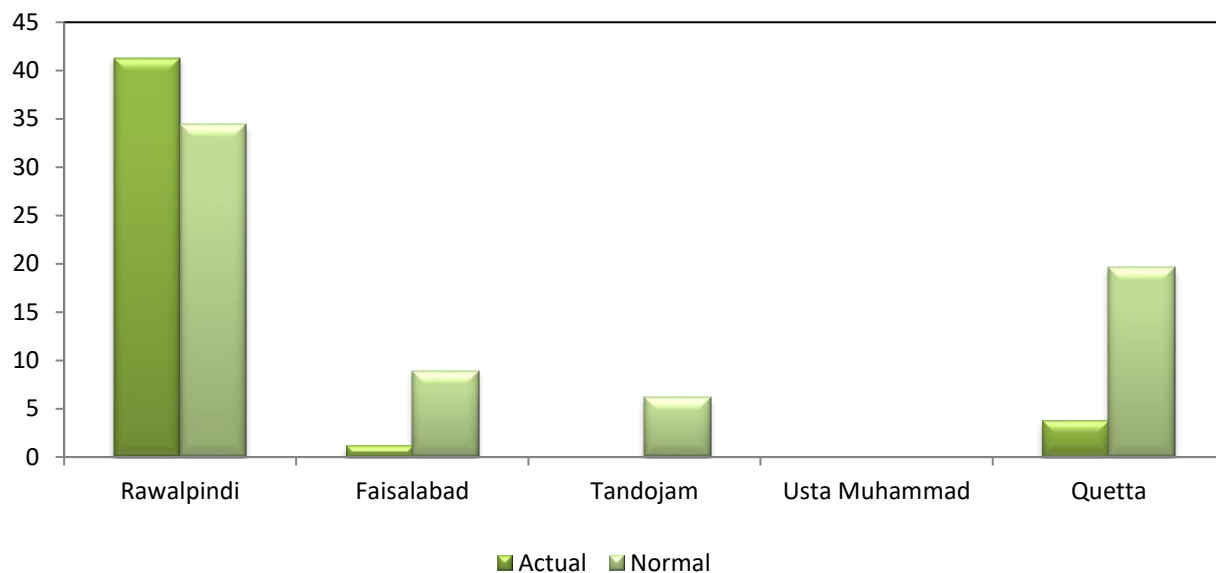
Meteorological Conditions during 2nd Decade of February 2024

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	34.4	41.3	6.9	3.5	-1.9	14.3	13.6	13.2	12.5	12.8	13.2	14.4	60	66.2	1.8	1.9
2	Faisalabad	8.9	1.2	-7.7	2.1	0.4	16.2	16.5	16.4	16.0	15.8	***	17.7	60	63.8	3.2	2.4
3	Jhelum	27.0	18.9	-8.1	1.2	-0.9	15.5	14.0	14.1	13.9	14.3	14.8	***	60	60.0	4.6	2.4
4	Lahore	18.1	0.0	-18.1	1.2	-0.5	16.9	15.3	15.2	15.1	15.0	***	17.1	67	49.4	3.7	2.2
5	Sargodha	13.0	0.4	-12.6	2.7	0.0	16.9	18.8	17.9	17.2	17.4	***	***	60	51.5	1.3	1.9
6	Multan	7.3	0.0	-7.3	2.7	1.0	17.3	***	***	***	***	***	***	52	66.3	3.5	2.7
7	Khanpur	4.2	0.0	-4.2	3.3	1.8	18.7	***	18.0	18.4	18.5	18.7	19.2	52	70.4	***	3.8
8	Tandojam	6.2	0.0	-6.2	0.3	-0.5	19.6	***	22.2	21.1	20.9	21.5	22.5	50	***	5.3	4.0
9	Sakrand	0.0	0.0	0.0	2.0	2.3	20.3	26.8	***	***	***	***	***	50	82.6	3.8	3.4
11	Rohri	2.1	0.0	-2.1	2.2	1.2	20.0	***	***	***	***	***	***	40	73.6	2.3	2.7
12	D.I Khan	9.1	0.0	-9.1	2.5	1.2	17.0	16.4	15.8	13.1	***	6.0	***	60	59.7	***	3.1
13	Peshawar	27.3	61.5	34.2	3.8	-4.6	13.2	13.7	13.9	14.0	14.7	15.1	16.2	60	52.3	2.3	1.9
14	Usta M.	0.0	0.0	0.0	0.0	0.0	17.9	24.5	21.6	20.8	***	***	21.9	50	***	***	4.0
15	Quetta	19.6	3.8	-15.8	4.0	2.6	10.1	14.4	13.0	10.5	10.3	10.9	11.5	40	80.9	5.2	2.7
16	Skardu	9.6	32.2	22.6	1.5	-1.4	1.9	***	***	***	***	***	***	50	46.8	1.2	1.2
17	Gilgit	2.6	6.8	4.2	2.6	-2.6	7.4	***	***	***	***	***	***	50	4.3	2.2	1.3

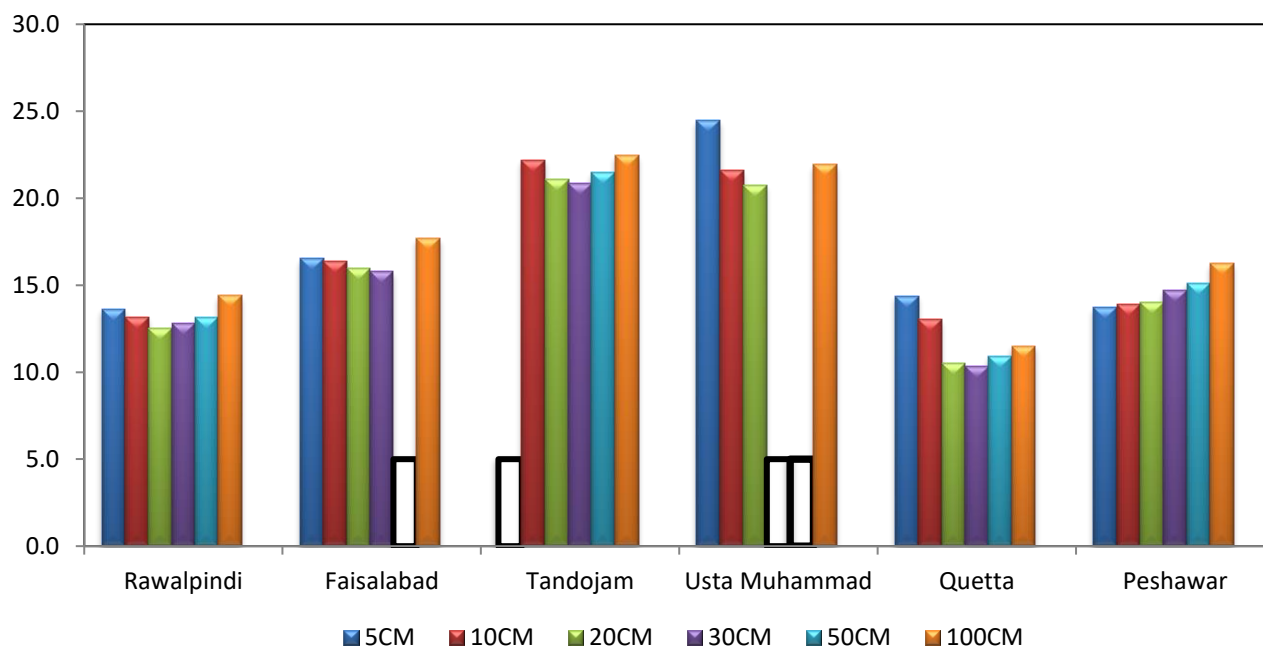
Table-1: Meteorological parameters for selected station of Pakistan. “Dep” in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. ‘ETo’ stands for reference crop Evapotranspiration***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

Graph at RAMCs during February, 2024

Precipitation(mm) during 2nd Decade



Soil Temperature(°C)



* Faisalabad 50 cm and Tandojam 5cm Usta Muhammad 30 cm , 50 cm soil temperature data is not available.

Past Weather (10th to 20th February 2024)

Moderate to heavy precipitation was reported from the Potohar region, KPK, Kashmir, Kashmir, and Gilgit Baltistan while light to moderate rainfall was reported from the central and northeastern Punjab and Baluchistan. However, dry weather was observed over most parts of Sindh, south Punjab.

1.1 Punjab

Moderate to heavy amounts of rainfall was reported from the Potohar region, light to moderate rainfall was reported from the central and northeastern Punjab while dry weather was reported from the south part of Punjab in the province. The decadal maximum rose above normal by 2.4 degree and minimum temperature remained normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 59%, 61.1 hrs, 3.0 km/hr and 2.5 mm/day respectively.

1.2 Sindh

Dry weather was reported from most of the province except Karachi where light rain was observed. The decadal maximum and minimum temperatures rose above normal by 1.5 and 1.0 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 47%, 78.1 hrs, 3.8 km/hr and 3.4 mm/day respectively.

1.3 Khyber Pakhtunkhwa

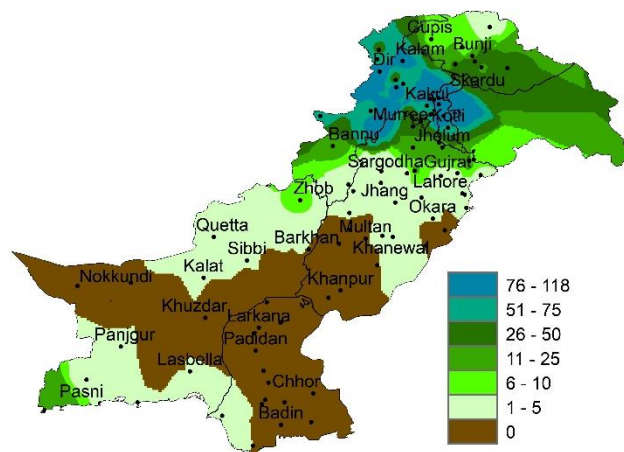
Moderate to heavy amounts of rainfall was reported from the province. The decadal maximum temperature rose above normal by 3.2 degree, while the minimum temperature drop below normal by 1.7 degrees in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 56.0 hrs, 2.3 km/hr and 2.5 mm/day respectively.

1.4 Baluchistan

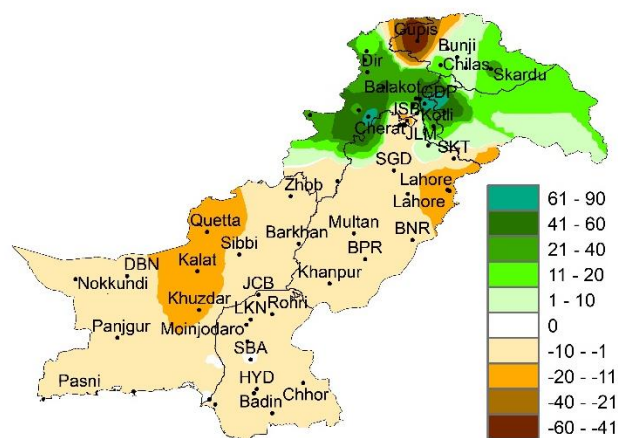
Light to moderate rain was reported from the province. Decadal maximum and minimum temperatures rose above normal by 2.0 and 1.3 degree in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 45%, 80.9 hrs, 5.2 km/hr and 3.4 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

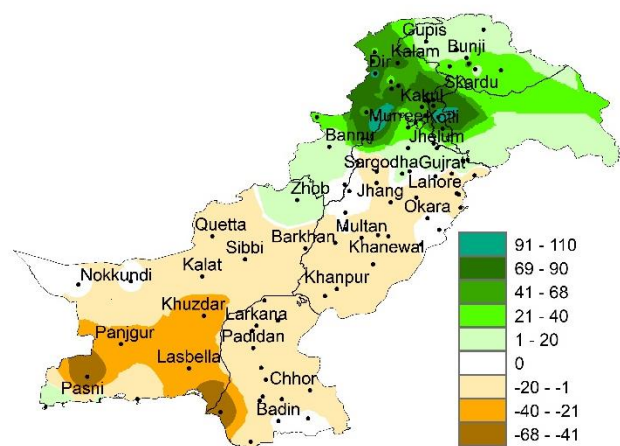
Moderate to heavy rain was reported from the province. Decadal maximum rose above normal by 2.1 degree and the minimum dropped below normal by 2.0 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 25.6 hrs, 1.7 km/hr and 1.3 mm/day respectively.



I. Actual rainfall



II. Departure of rainfall from Normal



III. Departure of rainfall from Previous Decade

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

(a) **Past Weather for Major Agricultural Plains**
(10th to 20th February 2024)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 41.3 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 56%. Mean day temperature was 23.7°C while night temperature recorded as 4.9°C with 66.2 hours bright sunshine duration. Wind speed recorded as 1.8 km/hr with mean wind direction *southwestern*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 1.2 mm during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 60.0%. Mean day temperature was 24.1°C while night temperature recorded as 8.3°C. Wind speed recorded as 3.2 km/hr with mean wind direction *southwesterly*.

Wheat: Very good, shooting completed.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 50%. Mean day temperature was 28.8°C while night temperature recorded as 10.3°C. Wind speed recorded as 5.3 km/hr with mean wind direction *northerly*.

Wheat: very good, flowering stage.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

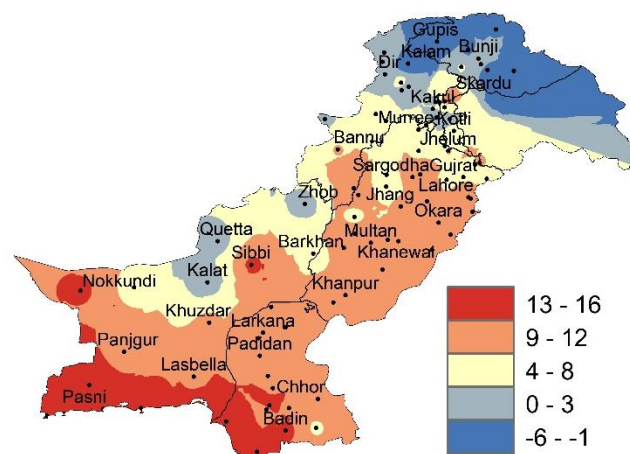
Dry weather reported during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 50%. Mean day temperature was 27.5°C while night temperature recorded as 8.3°C. Mean wind direction was *variable*.

Wheat: good, Third leaf stage.

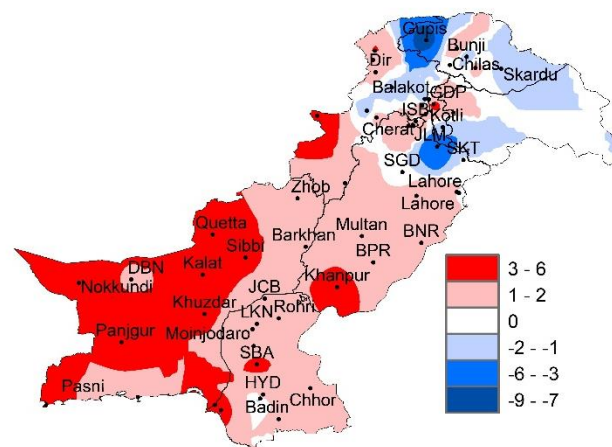
2.5 RAMC, Quetta (Northern Baluchistan)

Precipitation reported as 3.8 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 40%. Mean day temperature was 17.6°C while night temperature recorded as 2.5°C with 80.9 hours bright sunshine duration. Wind speed recorded as 5.2 km/hr with mean wind direction *north westerly*.

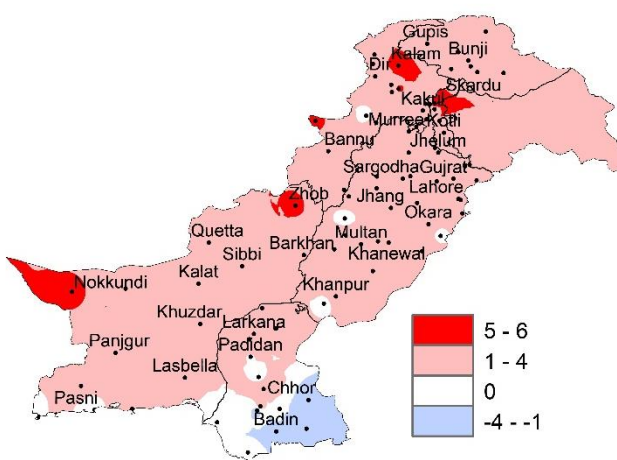
Wheat: good, shooting stage.



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 (10th to 20th February 2024)

2.6 Jhelum

Rainfall reported as 18.9 mm during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 60%. Mean day temperature was 23.1°C while night temperature recorded as 7.8°C with 60.0 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean wind direction *south westerly*.

2.7 Lahore

Rainfall reported as 0.01 (trace) mm during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 67%. Mean day temperature was 23.5°C while night temperature recorded as 10.2°C. Wind speed recorded as 3.7 km/hr with mean wind direction *north westerly*.

2.8 Sargodha

Rainfall reported as 0.4 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 60%. Mean day temperature was 24.9°C while night temperature recorded as 8.8°C with 51.2 hours bright sunshine duration. Wind speed recorded as 1.3 km/hr with mean wind direction *northeasterly*.

2.9 Multan

Dry weather reported during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 52%. Mean day temperature was 25.3°C while night temperature recorded as 9.3°C with 52.0 hours bright sunshine duration. Wind speed recorded as 3.5 km/hr with mean wind direction *southerly*.

2.10 Khanpur

Dry weather reported during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 52%. Mean day temperature was 27.6°C while night temperature recorded as 9.8°C with 70.4 hours bright sunshine duration. Mean wind direction is *western*.

2.11 Sakrand

Dry weather reported during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 50%. Mean day temperature was 29.1°C while night temperature recorded as 11.5°C with 82.6 hours bright sunshine duration. Wind speed recorded as 3.8 km/hr with mean direction as *variable*.

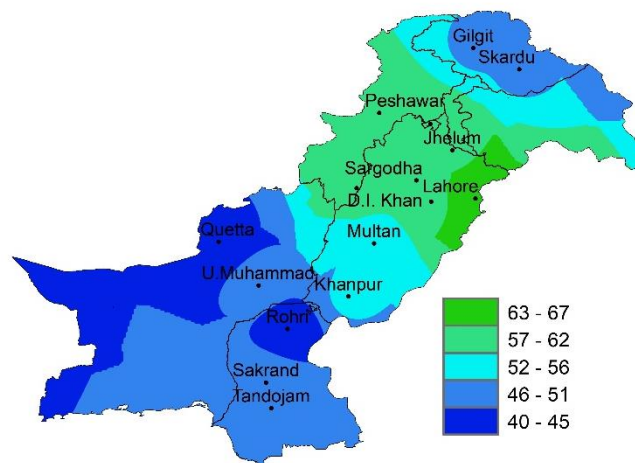


Figure.3: Relative Humidity in Percentage (%)

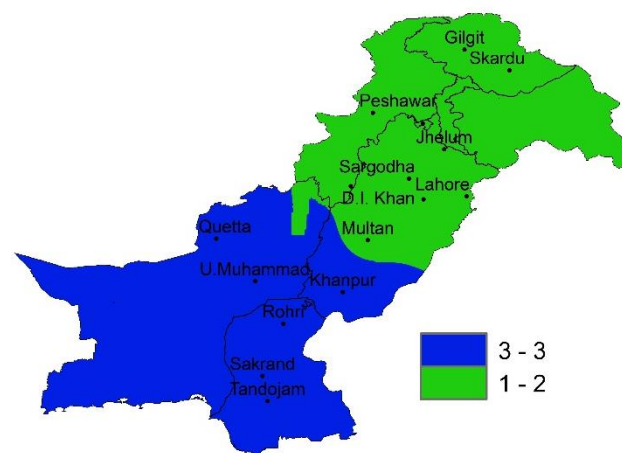


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

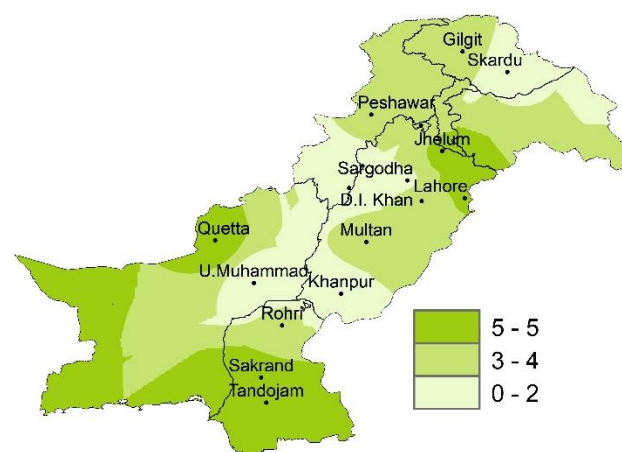


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 40%. Mean day temperature was 27.7°C while night temperature recorded as 12.2°C with 73.6 hours bright sunshine duration. Wind speed recorded as 2.3 km/hr with mean wind direction *northerly*.

2.13 D.I. Khan

Rainfall reported as 0.01 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 60%. Mean day temperature was 25.0°C while night temperature recorded as 9.0°C with 59.7 hours bright sunshine duration. Mean wind direction is *easterly*.

2.14 Peshawar

Rainfall reported as 61.5 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 60%. Mean day temperature was 23.7°C while night temperature recorded as 2.6°C with 52.3 hours bright sunshine duration. Mean wind direction is *northeasterly*.

2.15 Skardu

Precipitation reported as 32.2 mm during the decade however, weather remained cloudy for 06 days during the decade. Average relative humidity recorded as 50%. Mean day temperature was 8.5°C while night temperature recorded as -4.8°C with 46.8 hours bright sunshine duration. Wind was north *northeasterly*.

2.16 Gilgit

Precipitation reported as 6.8 mm during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 50%. Mean day temperature was 15.7°C while night temperature recorded as -0.9°C with 4.3 hours bright sunshine duration. Wind speed recorded as 2.2 km/hr with mean wind direction as *southeasterly*.

Ten Days Weather Advisory for Farmers
(20th to 30th February 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 (snow in Murree) is expected in the last days of the decade while during the first days of the decade mainly cold and dry weather is expected in plain areas of the country.
- ❖ **Khyber Pakhtunkhwa:** Rain thunderstorm (snow over Mountains) is expected in the last days of the decade while during the first days of the decade mainly cold and dry weather is expected in plain areas of the country, very cold in the upper parts.
- ❖ **Sindh:** Mainly cold and dry weather is expected in Sindh province while rain is expected during last days of the decade.
- ❖ **Baluchistan:** Mainly cold and dry weather is expected in most parts of the province. However, rain (snow over mountains) is likely in Baluchistan during the last days of the decade.
- ❖ **Gilgit-Baltistan:** Rain (snow over mountains) is expected during the decade.
- ❖ **Kashmir:** Rain (snow over mountains) is expected during the the decade.

3.4 Advisory for Farmers

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