# **Decadal Agromet Bulletin of Pakistan**



## Highlights...

- Light to moderate amount of rainfall was reported from Punjab, Gilgit-Baltistan, most of the areas of KP, and Sindh while moderate to heavy rainfall was reported from lower parts of Baluchistan, Coastal and adjoining areas of Sindh.
- Highest amount of rainfall recorded was 69.1 mm at Turbat during the last decade.
- ♦ Lowest minimum temperature recorded as -14.0 °C at Kalam during the last decade.
- Rain (snow over mountains) is expected in the last days of decade in Baluchistan, KP, Potohar region, GB and Kashmir while cold and dry weather is expected in the rest of the country.
- ✤ Farmers are advised to view the weather forecast before any field activity.

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

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## Volume No. 24, No. 04

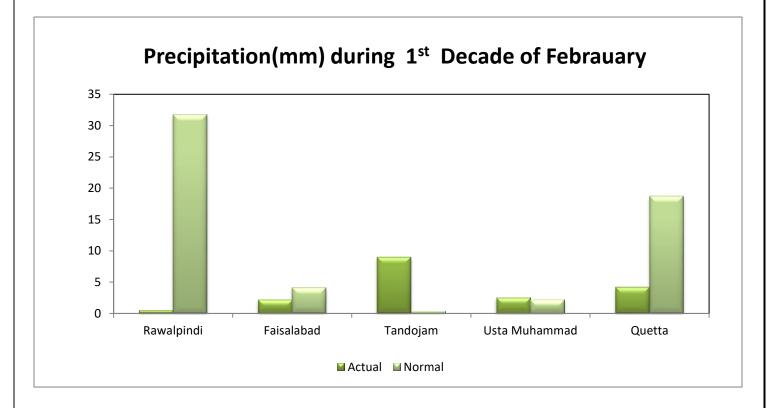
## 1<sup>st</sup> Decade of February, 2024

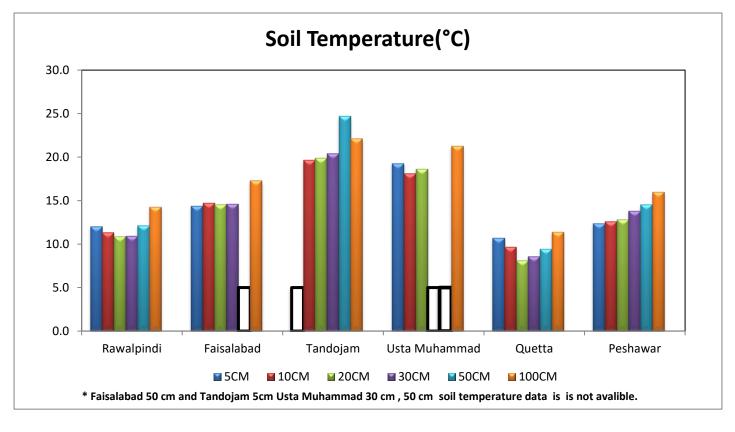
## Meteorological Conditions during 1st Decade of February 2024

Sr. No.	Station	Preci	oitation	(mm)	Air Temperature (°C)			Soil Temperatures (°C)						R.H	Gundit	Wind	ЕТо
		Normal	Actual	Dep	Tmx Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm	к.п (%)	Sunshine Duration(hours)	Speed (km/hr)	(mm/day)
1	Rawalpindi	31.7	0.5	-31.2	0.9	-2.1	11.2	12.0	11.3	10.8	10.9	12.1	14.3	55	71.0	1.7	1.6
2	Faisalabad	4.1	2.2	-1.9	0.0	1.4	14.4	14.4	14.7	14.5	14.6	***	17.3	57	66.9	2.1	1.9
3	Jhelum	12.3	6.2	-6.1	-1.0	-4.5	11.4	13.4	13.0	13.1	13.5	14.4	***	59	76.3	3.1	1.9
4	Lahore	6.0	24.0	18.0	-1.4	-1.1	14.1	13.1	13.4	13.3	14.1	***	16.9	66	67.8	3.7	2.0
5	Sargodha	8.9	1.5	-7.4	0.5	0.9	15.0	17.3	16.4	16.0	16.2	***	***	54	56.2	1.1	1.6
6	Multan	3.7	7.5	3.8	-0.5	1.3	14.7	***	***	***	***	***	***	61	6.3	2.7	1.6
7	Khanpur	2.7	5.7	3.0	0.5	2.7	16.6	***	16.5	17.9	17.1	17.3	18.4	62	71.6	***	3.0
8	Tandojam	0.4	9.0	8.7	-2.2	1.2	17.1	***	19.6	19.9	20.4	24.7	22.1	67	***	3.3	2.6
9	Sakrand	1.0	6.2	5.2	-1.3	4.4	17.5	22.4	***	***	***	***	***	62	58.4	3.9	2.5
11	Rohri	37.8	3.0	-34.8	-0.7	1.6	17.5	***	***	***	***	***	***	59	85.1	4.3	2.8
12	D.I Khan	6.9	0.0	-6.9	-0.3	1.8	14.9	14.9	14.6	13.1	***	5.0	***	67	60.0	3.1	1.9
13	Peshawar	16.1	0.5	-15.6	1.1	-1.8	12.4	12.3	12.6	12.8	13.8	14.5	16.0	55	59.7	3.1	2.3
14	Usta M.	2.2	2.5	0.3	0.0	0.0	17.0	19.3	18.1	18.6	***	***	21.3	56	***	9.9	4.0
15	Quetta	18.7	4.2	-14.5	0.3	1.2	6.9	10.7	9.7	8.1	8.6	9.4	11.4	46	81.7	4.8	2.1
16	Skardu	11.3	5.0	-6.3	-0.1	0.3	-0.4	***	***	***	***	***	***	56	49.7	1.0	1.0
17	Gilgit	2.2	0.0	-2.2	1.0	-2.2	4.9	***	***	***	***	***	***	46	49.4	2.0	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





## Past Weather (1st to 10th February 2024)

Light to moderate amount of rainfall was reported from Punjab, Gilgit-Baltistan, most of the areas of KP, and Sindh while moderate to heavy rainfall was reported from lower parts of Baluchistan, Coastal and adjoining areas of Sindh.

#### 1.1 Punjab

Light to moderate amount of rainfall was reported in the province. The decadal maximum and minimum temperatures remained near normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 59%,50.3 hrs,2.4 km/hr and 1.9 mm/day respectively.

### 1.2 Sindh

Light amount of rainfall was reported from the upper part of the province while moderate to heavy rainfall was observed in coastal belt and adjoining areas. The decadal maximum drop below normal by 1.4 degree and minimum temperatures rose above normal by 2.4 degree in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 63%, 71.8 hrs, 3.8 km/hr and 2.6 mm/day respectively.

### 1.3 Khyber Pakhtunkhwa

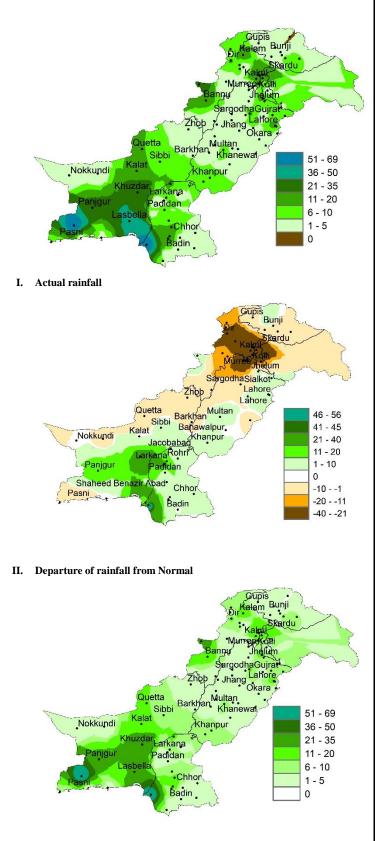
Light to moderate amount of rainfall was reported from most of the areas of the province. The decadal maximum and minimum temperatures remained normal in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 61%, 59.9 hrs, 3.1 km/hr and 2.1 mm/day respectively.

#### 1.4 Baluchistan

Light to moderate amount of rain was reported from most of the parts of the province. Decadal maximum and minimum remained near normal in the province. Values of relative humidity, sunshine hour, wind speed & ETo were recorded as 51%, 81.7 hrs, 7.4 km/hr and 3.1 mm/day respectively.

## 1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

Light rain was reported from Gilgit-Baltistan and moderate rainfall was reported from Azad Jammu & Kashmir. Decadal maximum remained near normal and the minimum drop below normal by 1.0 °C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 51%, 49.6 hrs, 1.5 km/hr and 1.2 mm/day respectively



III. Departure of rainfall from Previous Decade

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

### (a) <u>Past Weather for Major Agricultural Plains</u> (1<sup>st</sup> to 10<sup>th</sup> February 2024)

## 2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 0.5 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 55%. Mean day temperature was  $19.8^{\circ}$ C while night temperature recorded as  $2.5^{\circ}$ C with 71.0 hours bright sunshine duration. Wind speed recorded as 1.7 km/hr with mean wind direction *northwestern*.

## 2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 2.2 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 66.9%. Mean day temperature was  $21.2^{\circ}$ C while night temperature recorded as 7.5°C. Wind speed recorded as 2.1 km/hr with mean wind direction southwesterly.

Wheat: Very good, shooting stage.

## 2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 9.0 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 67%. Mean day temperature was  $24.2^{\circ}$ C while night temperature recorded as  $10.0^{\circ}$ . Wind speed recorded as 3.3 km/hr with mean wind direction northeasterly. *Wheat: very good, heading stage*.

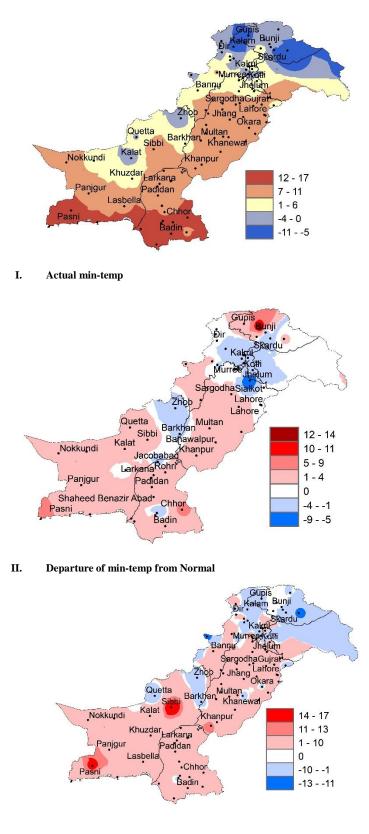
## 2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

Rainfall reported as 2.50 mm during the decade; however, weather remained cloudy for 02 days. Average relative humidity recorded as 56%. Mean day temperature was 26.5°C while night temperature recorded as 7.4°C. Mean wind direction was *Northeastern*. *Wheat: good, tillering stage*.

2.5 RAMC, Quetta (Northern Baluchistan)

Rainfall reported as 4.2 mm during the decade; however, weather remained cloudy for 07 days. Average relative humidity recorded as 46%. Mean day temperature was 13.3°C while night temperature recorded as 0.4°C with 81.7 hours bright sunshine duration. Wind speed recorded as 4.8 km/hr with mean wind direction *north easterly*.

Wheat: good, Tillering stage.



III. Departure of min-temp from Previous Decade

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

## 2(b) <u>Past Weather or Sub-Regional Agricultural</u> <u>Plains (1<sup>st</sup> to 10<sup>th</sup> February 2024)</u>

## 2.6 Jhelum

Rainfall reported as 6.2 mm during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 59%. Mean day temperature was 20.2°C while night temperature recorded as 2.6°C with 76.3 hours bright sunshine duration. Wind speed recorded as 3.1 km/hr with mean wind direction *westerly*.

## 2.7 Lahore

Rainfall reported as 24.0 mm during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 66%. Mean day temperature was  $20.1^{\circ}$ C while night temperature recorded as  $8.1^{\circ}$ C. Wind speed recorded as 3.7 km/hr with mean wind direction *north westerly*.

## 2.8 Sargodha

Rainfall reported as 1.5 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 54%. Mean day temperature was 21.9°C while night temperature recorded as 8.0°C with 56.2 hours bright sunshine duration. Wind speed recorded as 1.1 km/hr with mean wind direction *northeasterly*.

## 2.9 Multan

Rainfall reported as 7.5 mm during the decade; however, weather remained cloudy for 05 days. Average relative humidity recorded as 61%. Mean day temperature was 21.3°C while night temperature recorded as 8.1°C with 6.3 hours bright sunshine duration. Wind speed recorded as 2.7 km/hr with mean wind direction *northeasterly*.

## 2.10 Khanpur

Rainfall reported as 5.7 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 62%. Mean day temperature was 24.0°C while night temperature recorded as 9.2°C with 71.6 hours bright sunshine duration. Mean wind direction is *variable*.

## 2.11 Sakrand

Rainfall reported as 6.2 mm during the decade; however, weather remained cloudy for 06 days. Average relative humidity recorded as 62%. Mean day temperature was  $23.4^{\circ}$ C while night temperature recorded as  $11.6^{\circ}$ C with 58.4 hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean direction as *northwesterly*.

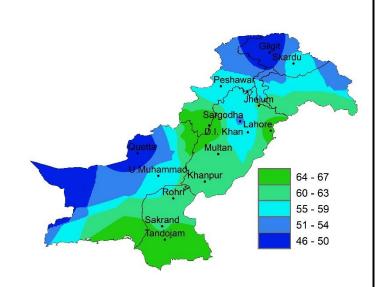


Figure.3: Relative Humidity in Percentage (%)



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

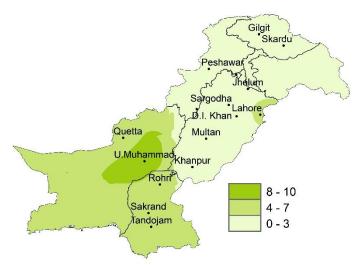


Figure 5: Wind Speed in kilometer per hour (km/h)

## 2.12 Rohri

Rainfall reported as 3.0 mm during the decade; however, weather remained cloudy for 04 days. Average relative humidity recorded as 59%. Mean day temperature was 23.8°C while night temperature recorded as 11.2°C with 85.1 hours bright sunshine duration. Wind speed recorded as 4.3 km/hr with mean wind direction *northeasterly*.

## 2.13 D.I. Khan

Dry weather reported during the decade; however, weather remained sunny. Average relative humidity recorded as 67%. Mean day temperature was 21.5°C while night temperature recorded as 8.2°C with 60.0 hours bright sunshine duration. Wind speed recorded as 3.1 km/hr with mean wind direction *northeasterly*.

### 2.14 Peshawar

Rainfall reported as 0.50 mm during the decade; however, weather remained cloudy for 03 days. Average relative humidity recorded as 55%. Mean day temperature was 20.7°C while night temperature recorded as 4.1°C with 59.7 hours bright sunshine duration. Wind speed recorded as 3.1 km/hr with mean wind direction *northwesterly*.

### 2.15 Skardu

Precipitation reported as 5.0 mm during the decade however, weather remained cloudy for 04 days during the decade. Average relative humidity recorded as 56%. Mean day temperature was 5.2°C while night temperature recorded as - 5.9°C with 49.7 hours bright sunshine duration. Wind was northerly.

## 2.16 Gilgit

Dry weather reported during the decade; however, weather remained cloudy for 08 days. Average relative humidity recorded as 46%. Mean day temperature was  $12.8^{\circ}$ C while night temperature recorded as  $-3.0^{\circ}$ C with 49.4 hours bright sunshine duration. Wind speed recorded as 2.0 km/hr with mean wind direction as *south*.

#### **Eight Days Weather Advisory for Farmers** (12<sup>th</sup> to 20<sup>th</sup> February 2024)

## 3.1 <u>Temperature Forecast</u>

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 start 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.
- 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 last days of the decade.
- Kashmir: Rain (snow over mountains) is expected during the last days of the decade.

## 3.4 Advisory for Farmers

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