# **Decadal Agromet Bulletin of Pakistan**



## Highlights...

- Light to moderate rain with snowfall over the hills occurred in most parts, while isolated heavy falls in upper Khyber Pakhtunkhwa, however cold (very cold in hilly areas) and dry weather also prevailed elsewhere in the country. Moderate to dense fog persisted in plain areas of Punjab and upper Sindh.
- Highest amount of rainfall recorded was 120 mm at Chitral during the last decade.
- Lowest minimum temperature recorded was -7.8 °C at Gupis during the last decade.
- Cold and dry weather is likely in most parts of the country, while very cold in hilly areas. However, rain wind-thunderstorm with snowfall over the hills is expected in north Balochistan, Khyber Pakhtunkhwa, upper Punjab, Gilgit-Baltistan and Kashmir.
- ✤ 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. 25, No. 1

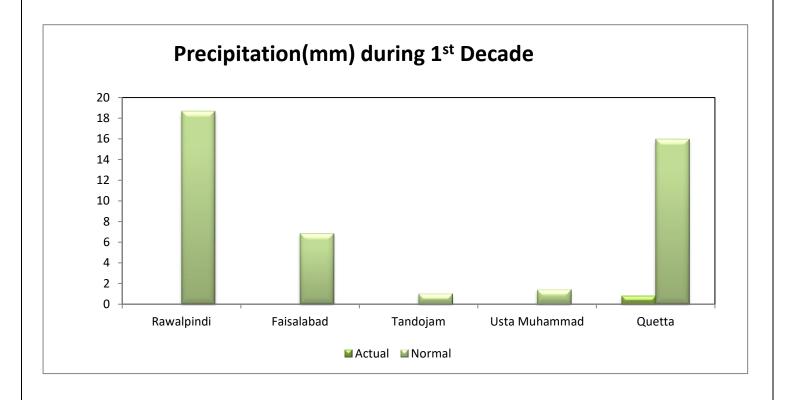
1<sup>st</sup> Decade of January 2025

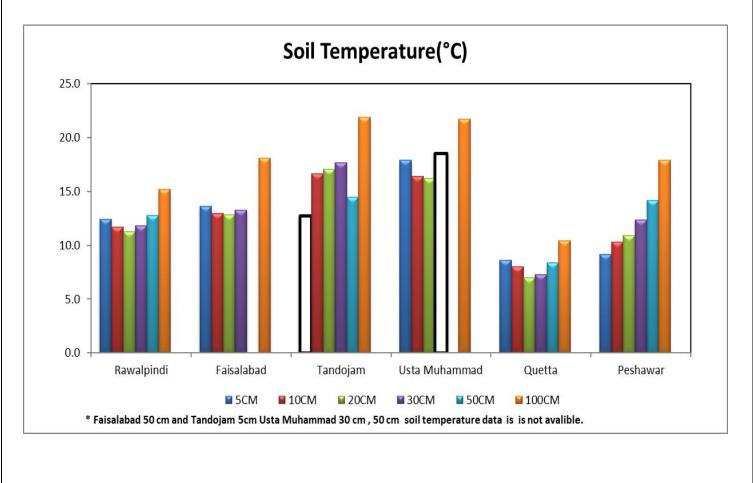
## **Meteorological Conditions during 1st Decade of January 2025**

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H	Sunshine	Wind	ЕТо
		Normal	Actual	Dep	Tmx Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm	(%)	Duration(hours)	Speed (km/hr)	(mm/day)
1	Rawalpindi	18.7	0.0	-18.7	4.9	1.1	13.0	12.4	11.7	11.3	11.8	12.8	15.2	60.4	57.9	0.8	0.8
2	Faisalabad	6.8	0.0	-6.8	2.6	1.1	12.5	13.6	13.0	12.9	13.3	***	18.1	68.0	53.4	1.1	1.0
3	Jhelum	10.8	0.0	-10.8	2.0	1.1	13.0	12.7	12.3	12.6	13.2	14.5	***	67.0	54.2	1.5	0.9
4	Lahore	7.0	2.6	-4.4	-0.1	-0.1	12.1	13.3	13.6	13.8	14.2	***	18.2	68.0	29.6	0.2	0.8
5	Sargodha	8.3	0.0	-8.3	3.4	0.5	13.1	14.9	14.6	14.8	15.6	***	***	62.0	51.5	1.3	0.9
6	Multan	4.4	0.0	-4.4	2.2	1.7	13.7	***	***	***	***	***	***	54.0	84.8	2.0	1.1
7	Khanpur	1.0	0.0	-1.0	2.6	0.5	14.0	***	14.3	14.7	15.1	15.7	18.2	63.0	61.9	1.4	1.2
8	Tandojam	1.0	0.0	-1.0	0.7	0.2	15.9	***	16.6	17.1	17.7	20.2	21.9	56.0	73.0	3.1	1.5
9	Sakrand	1.1	0.0	-1.1	5.1	1.2	14.6	20.8	17.5	17.2	18.5	20.2	***	54.0	84.8	3.3	1.4
11	Rohri	1.1	0.0	-1.1	1.4	-1.0	14.9	***	***	***	***	***	***	54.8	78.6	3.6	1.3
12	D.I Khan	7.6	0.0	-7.6	3.2	1.7	13.6	12.9	12.7	13.5	***	5.0	* * *	59.0	59.5	2.7	0.9
13	Peshawar	11.9	0.0	-11.9	2.2	-2.7	10.5	9.1	10.3	10.9	12.4	14.2	17.9	61.0	61.5	1.2	0.7
14	Usta M.	1.4	0.0	-1.4	-0.9	-2.9	13.0	17.9	16.4	16.2	***	***	21.7	48.0	0.0	1.5	1.1
15	Quetta	16.0	0.8	-15.2	1.5	2.1	6.3	8.6	8.0	7.0	7.3	8.4	10.4	48.5	67.3	5.1	0.9
16	Skardu	10.4	5.2	-5.2	-0.6	3.6	-0.7	***	***	***	***	***	* * *	73.0	22.9	0.0	0.6
17	Gilgit	1.8	0.0	-1.7	1.4	1.7	4.9	***	***	***	***	***	* * *	55.8	27.3	2.6	0.6

**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 January 2025





#### Volume No. 25, No. 1

#### Past Weather (1<sup>st</sup> to 10<sup>th</sup> January 2025)

Light to moderate rain with snowfall over the hills occurred in most parts, while isolated heavy falls in upper Khyber Pakhtunkhwa, however cold (very cold in hilly areas) and dry weather also prevailed elsewhere in the country. Moderate to dense fog persisted in plain areas of Punjab and upper Sindh.

#### 1.1 Punjab

Cold and dry weather prevailed over most areas, however, light rain was reported from northeast parts, moderate to dense fog also persisted in most plain areas of the province. The decadal maximum and minimum temperatures were observed above normal by 2.5°C and 0.8°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 63.2%, 56.2hrs, 1.2km/hr and 1.0mm/day respectively.

#### 1.2 Sindh

Cold and dry weather prevailed, moderate to dense fog also persisted in upper areas of the province. The decadal maximum and minimum temperatures were observed above normal by 2.4°C and 0.1°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 54.9%, 78.8hrs, 3.3km/hr and 1.4mm/day respectively.

#### 1.3 Khyber Pakhtunkhwa

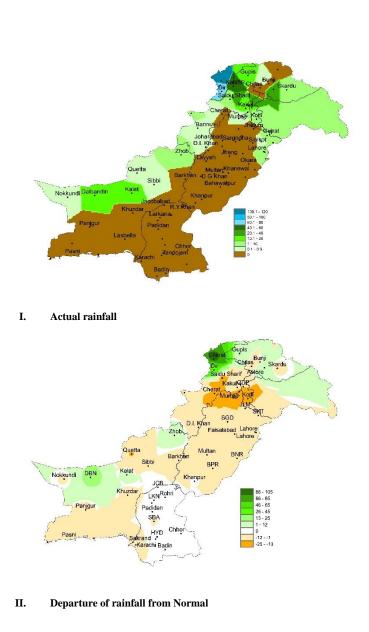
Light to moderated rain with isolated heavy falls was reported from the province. The decadal maximum temperature was observed above normal by 2.7 and minimum temperature was observed below normal by  $-0.5^{\circ}$ C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 60.5hrs, 2.0km/hr and 0.8mm/day respectively.

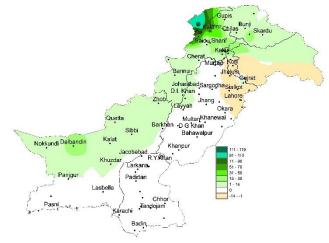
#### 1.4 Baluchistan

Mainly cold and dry weather prevailed, while very cold in upper parts, however light rain was also reported from western parts of the province. The decadal maximum temperature was observed above normal by 0.3 and minimum temperature were observed below normal by -0.4°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 48.3%, 67.3hrs, 3.3km/hr and 1.0mm/day respectively.

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

Very cold weather with light rain/snow was reported from Gilgit Baltistan and Kashmir. The decadal maximum and minimum temperatures were observed above normal by  $0.4^{\circ}$ C and  $2.6^{\circ}$ C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 64.0%, 25.1hrs, 1.3km/hr and 0.6mm/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> January 2025)

## 2.1 RAMC, Rawalpindi (Potohar region)

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 60%. Mean day temperature was  $22.5^{\circ}$ C while night temperature recorded as  $3.4^{\circ}$ C with 57.9 hours bright sunshine duration. Wind speed recorded as 0.8km/hr with mean wind direction *south easterly*.

## 2.2 RAMC, Faisalabad (Central Punjab)

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 68%. Mean day temperature was 19.9°C while night temperature recorded as  $5.0^{\circ}$ C with 53.4 hours bright sunshine duration. Wind speed recorded as 1.1km/hr with mean wind direction westerly. *Wheat:* Very good, tillering completed.

## 2.3 RAMC, Tandojam (Lower Sindh)

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 02 days. Average relative humidity recorded as 56%. Mean day temperature was 23.8°C while night temperature recorded as  $7.9^{\circ}$ C with 73.0hours bright sunshine duration. Wind speed recorded as 3.1km/hr with mean wind direction *north-north easterly* 

Wheat: Good, shooting/heading.

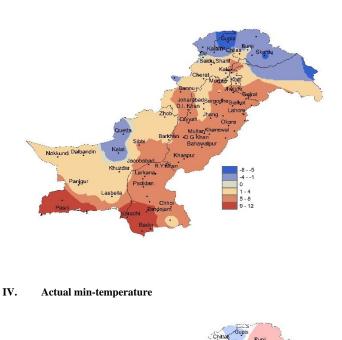
## 2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

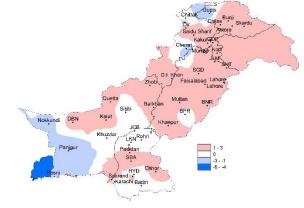
Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 48%. Mean day temperature was 22.5°C while night temperature recorded as 3.5°C. Wind speed recorded as 1.5 km/hr with mean wind direction *north easterly*.

Rice: Good, Emergent.

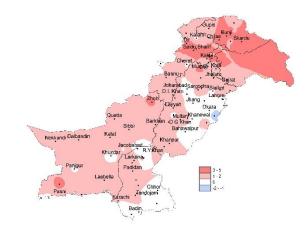
## 2.5 RAMC, Quetta (Northern Baluchistan)

Rain was reported 0.8 mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 49%. Mean day temperature was 12.8°C while night temperature recorded as -0.2°C with 67.3 hours bright sunshine duration. Wind speed recorded as 5.1 km/hr with mean wind direction *southerly*. *Wheat: Good, third leaf.* 





V. Departure of min-temperature from Normal



VI. Departure of min-temperature from Previous Decade

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

# 2(b)Past Weather or Sub-Regional AgriculturalPlains (1<sup>st</sup> to 10<sup>th</sup> January 2025)

#### 2.6 Jhelum

Cold and dry weather was observed during the decade; weather remained partially cloudy for 06 days. Average relative humidity recorded as 67%. Mean day temperature was 19.8°C while night temperature recorded as 6.1°C with 54.2 hours bright sunshine duration. Wind speed recorded as 1.5km/hr with mean wind direction variable.

#### 2.7 Lahore

Rain was reported 2.6mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 68%. Mean day temperature was 16.9°C while night temperature recorded as 7.2°C with 29.6 hours bright sunshine duration. Wind speed recorded as 0.2 km/hr with mean wind direction *north westerly*.

#### 2.8 Sargodha

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 62%. Mean day temperature was 20.7°C while night temperature recorded as  $5.4^{\circ}$ C with 51.5 hours bright sunshine duration. Wind speed recorded as 1.3km/hr with mean wind direction *variable*.

#### 2.9 Multan

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 56%. Mean day temperature was 20.5°C while night temperature recorded as 5.8°C with 64.6 hours bright sunshine duration. Wind speed recorded as 2.0 km/hr with mean wind direction *north easterly*.

#### 2.10 Khanpur

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 63%. Mean day temperature was 22.3°C while night temperature recorded as 5.6°C with 61.9 hours bright sunshine duration. Wind speed recorded as 1.4 km/hr with mean wind direction *north easterly*.

#### 2.11 Sakrand

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 54%. Mean day temperature was 22.4°C while night temperature recorded as 6.8 °C with 84.8 hours bright sunshine duration. Wind speed recorded as 3.3 km/hr with mean direction *north-north westerly* 

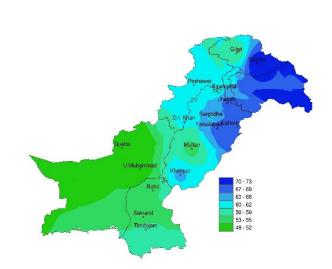


Figure.3: Relative Humidity in Percentage (%)

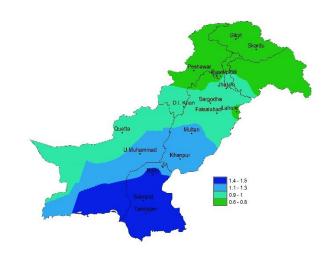


Figure.4: Reference Crop Evapotranspiration ETO (mm/day)



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

#### 2.12 Rohri

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 55%. Mean day temperature was 22.2°C while night temperature recorded as 7.5°C with 78.6 hours bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction as *north easterly*.

#### 2.13 D.I. Khan

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 59%. Mean day temperature was 21.3°C while night temperature recorded as 5.9°C with 59.5 hours bright sunshine duration. Wind speed recorded as 2.7km/hr with mean wind direction as north westerly.

#### 2.14 Peshawar

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 09 days. Average relative humidity recorded as 61%. Mean day temperature was 19.6°C while night temperature recorded as 1.3°C with 61.5 hours bright sunshine duration. Wind speed recorded as 1.2km/hr with mean wind direction as south westerly.

#### 2.15 Skardu

Rain was reported 5.2mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 73%. Mean day temperature was 3.9°C while night temperature recorded as 5.2°C with 22.9 hours bright sunshine duration. Wind speed recorded as 0.0km/hr with mean wind direction as variable.

#### 2.16 Gilgit

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as55.8%. Mean day temperature was 11.8°C while night temperature recorded as -2.1°C with 27.3 hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction as *south westerly*.

#### Ten Days Weather Advisory for Farmers (11<sup>th</sup> to 20<sup>th</sup> January 2025)

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

Normal mean temperature is likely over most parts of the county.

#### 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 cold and dry weather is expected in most parts; however, rain/wind-thunderstorm is likely in upper parts on 16<sup>th</sup>, 18<sup>th</sup> to 20<sup>th</sup> January, while foggy conditions may prevail in plain areas of the province during the decade.

#### Khyber Pakhtunkhwa:

Mainly cold and dry weather is expected in most parts, while very cold in hilly areas. However, rain wind-thunderstorm is likely during 2<sup>nd</sup> half of the decade. Foggy conditions may prevail in plain areas of the province.

#### Sindh:

Mainly cold and dry weather is expected in most parts, while fog is likely in upper areas of province during the decade.

#### Baluchistan:

Mainly cold and dry weather is expected in most parts, while very cold in upper areas. However, rain/wind-thunderstorm is likely during 2<sup>nd</sup> half of the decade.

### **&** Gilgit-Baltistan:

Mainly very cold and dry weather is expected, while rain/wind-thunderstorm is likely during  $2^{nd}$  half of the decade.

#### \* Kashmir:

Mainly very cold and dry weather is expected, while rain/wind-thunderstorm is likely during  $2^{nd}$  half of the decade.

#### 3.4 Advisory for Farmers

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