

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Cold and dry weather prevailed in most parts of the country, while very cold in hilly areas. Light to moderate rain occurred in Khyber Pakhtunkhwa, whereas light rain in central & south Punjab, upper Sindh, Balochistan, Gilgit Baltistan and Kashmir. Frost also occurred in plain areas of Khyber Pakhtunkhwa and upper Punjab during morning hours.
- ❖ Highest amount of rainfall recorded was 29.5 mm at Kalam during the last decade.
- ❖ Lowest minimum temperature recorded was -5.5 °C at Skardu during the last decade.
- ❖ Mainly cold and dry weather may prevail in most parts of the country. However, rain-wind/thunderstorm (snowfall over mountains) is expected in upper Khyber Pakhtunkhwa, Gilgit Baltistan and Kashmir during first half of the decade. Frost is likely to occur in plain areas of Khyber Pakhtunkhwa and upper Punjab during morning hours. Shallow fog is also likely to prevail in south Punjab and upper Sindh during morning hours.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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

Patron-in-Chief: *Mr. Sahibzad Khan, Director General*

Editor-in-Chief: *Ms. Asma Jawad Hashmi, Director*

Editor: *Mr. Irshad Ali, Assistant Meteorologist*

Phone: [+92-51-9250592](tel:+92-51-9250592) Email: dirnamc@yahoo.com

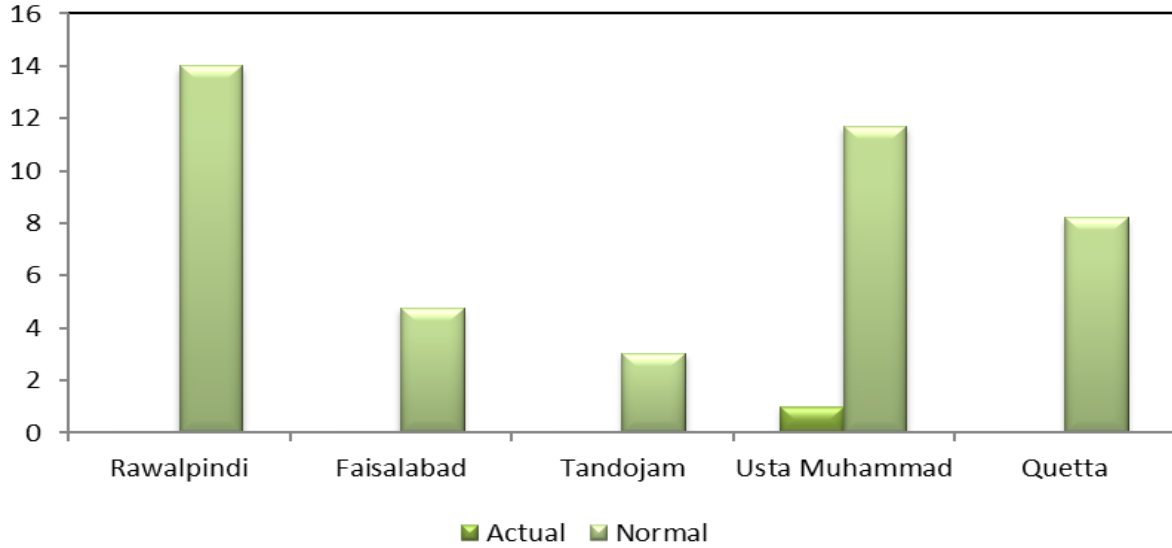
Meteorological Conditions during 1st Decade of December 2024

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	14.0	0.0	-14.0	1.0	1.9	14.7	14.3	14.3	14.2	15.0	16.5	19.5	57.5	65.5	3.5	1.7
2	Faisalabad	4.8	0.0	-4.8	0.8	1.6	16.5	17.9	17.4	17.6	18.1	***	23.1	56.0	72.6	1.5	1.5
3	Jhelum	10.7	0.0	-10.7	-1.5	-0.2	14.8	14.7	14.4	15.1	16.1	17.7	***	61.0	70.2	1.2	1.2
4	Lahore	1.2	0.0	-1.2	0.5	-0.4	17.1	***	***	***	***	***	***	43.0	81.8	0.3	1.1
5	Sargodha	8.7	2.7	-6.0	0.1	1.1	16.4	18.6	18.5	19.3	20.3	***	***	59.0	55.7	1.1	1.2
6	Multan	5.4	1.0	-4.4	-0.2	5.7	18.7	***	***	***	***	***	***	56.0	78.1	1.8	1.7
7	Khanpur	0.5	0.0	-0.5	3.3	1.9	18.8	***	20.6	21.3	22.1	22.9	25.0	61.0	56.4	1.0	1.6
8	Tandojam	3.0	0.0	-3.0	0.8	1.8	19.9	***	21.6	22.8	24.7	25.9	27.5	60.0	69.1	2.6	2.2
9	Sakrand	14.7	0.0	-14.7	3.0	4.3	20.0	25.6	23.4	23.2	24.5	26.5	***	56.0	78.1	2.6	2.2
11	Rohri	11.2	0.0	-11.2	2.2	2.0	20.1	***	***	***	***	***	***	51.3	78.4	3.9	2.5
12	D.I Khan	2.5	1.0	-1.5	0.9	3.7	17.2	18.4	18.4	19.3	***	11.1	***	60.0	66.1	2.7	1.6
13	Peshawar	9.1	0.0	-9.1	1.7	-1.7	14.2	13.3	14.6	15.1	16.5	18.2	21.3	51.0	71.5	2.6	1.5
14	Usta M.	11.7	1.0	-10.7	1.6	3.6	18.6	23.7	22.1	22.0	***	***	27.5	59.0	**	1.2	1.6
15	Quetta	8.2	0.0	-8.2	-1.9	2.4	7.3	10.9	10.4	9.9	10.7	12.5	15.3	36.3	90.8	5.7	2.1
16	Skardu	6.2	0.0	-6.2	-0.7	9.8	6.9	***	***	***	***	***	***	49.0	42.8	0.4	0.7
17	Gilgit	3.1	0.0	-3.1	0.1	-0.5	6.1	***	***	***	***	***	***	53.2	31.2	1.1	0.8

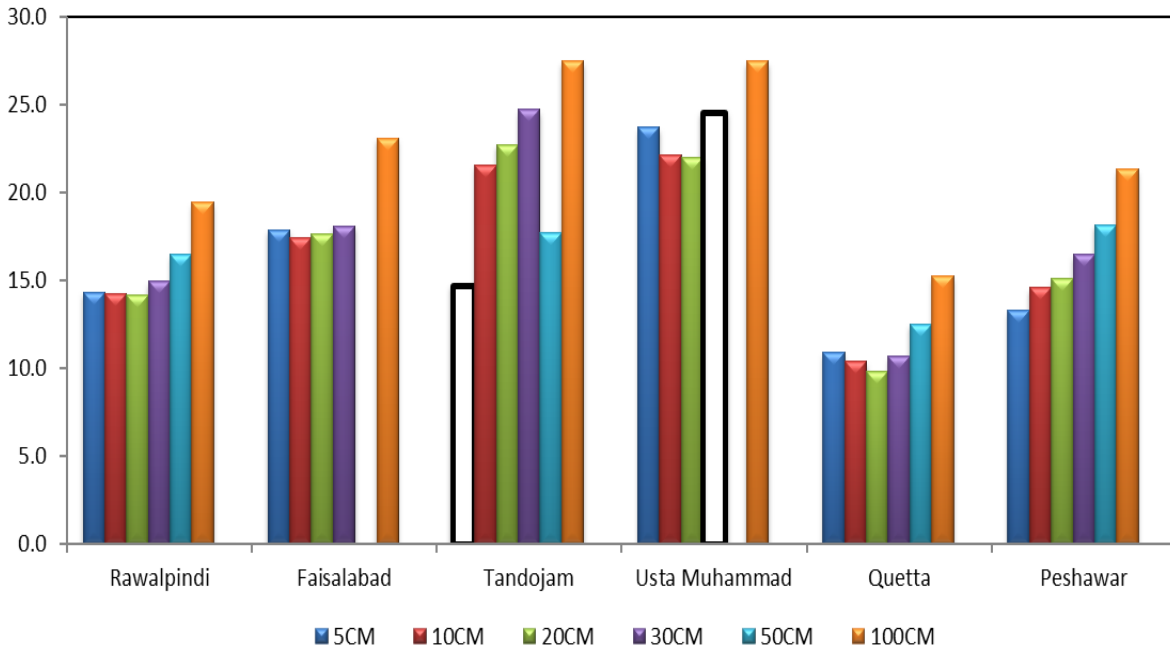
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETO' stands for reference crop Evapotranspiration***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

Graph at RAMCs during December 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 December 2024)

Cold and dry weather prevailed in most parts of the country, while very cold in hilly areas. Light to moderate rain occurred in Khyber Pakhtunkhwa, whereas light rain in central & south Punjab, upper Sindh, Balochistan, Gilgit Baltistan and Kashmir. Frost also occurred in plain areas of Khyber Pakhtunkhwa and upper Punjab during morning hours.

1.1 Punjab

Mainly cold and dry weather prevailed in most parts while light rain was also reported from central and southern parts of the province. Frost also occurred in plain areas of the province during morning hours. The decadal maximum and minimum temperatures rose above normal by 0.6°C and 1.7°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 56.2%, 68.6hrs, 1.5km/hr and 1.4mm/day respectively.

1.2 Sindh

Mainly dry weather prevailed in most parts while light rain was also reported from the upper parts of the province. The decadal maximum and minimum temperatures rose above normal by 2.0°C and 2.7°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55.8%, 75.2hrs, 3.0km/hr and 2.3mm/day respectively.

1.3 Khyber Pakhtunkhwa

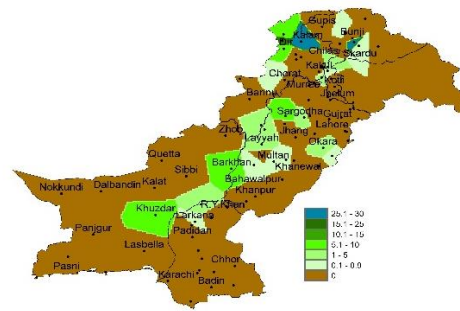
Light to moderate rain reported from most parts of the province. The decadal maximum and minimum temperatures rose above normal by 1.3°C and 1.0°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55.5%, 68.8hrs, 2.7km/hr and 1.6mm/day respectively.

1.4 Baluchistan

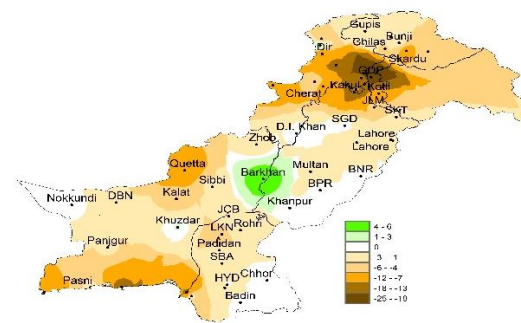
Light rain reported from northeastern parts of the province. The decadal maximum temperature was observed below normal by -0.2 and minimum temperature rose above normal by 3.0°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 47.7%, 90.8hrs, 3.5km/hr and 1.9mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

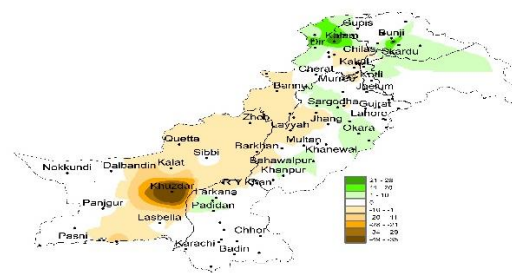
Light rain reported from Kashmir and Gilgit-Baltistan. The decadal maximum temperature was recorded as -0.3°C below normal and minimum temperature rose above normal by 4.7°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 51.0%, 37.0hrs, 0.8km/hr and 0.9mm/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**
(1st to 10th December 2024)

2.1 RAMC, Rawalpindi (Potohar region)

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 57.5%. Mean day temperature was 22.7°C while night temperature recorded as 6.7°C with 65.5 hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *south westerly*.

2.2 RAMC, Faisalabad (Central Punjab)

Dry weather was observed during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 56%. Mean day temperature was 24.4°C while night temperature recorded as 8.6°C with 72.6 hours bright sunshine duration. Wind speed recorded as 1.5km/hr with mean wind direction westerly.

Wheat: Very good, third leaf completed.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather with clear sky was observed during the decade. Average relative humidity recorded as 60%. Mean day temperature was 27.2°C while night temperature recorded as 12.6°C with 69.1 hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *north easterly*.

Wheat: Good, Tillering.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

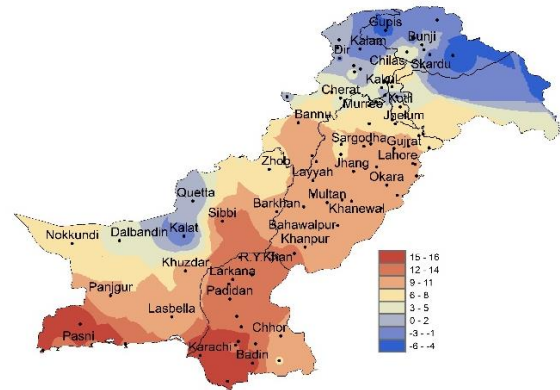
Rain was reported 10.0mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 59%. Mean day temperature was 25.5°C while night temperature recorded as 11.6°C. Wind speed recorded as 1.2 km/hr with mean wind direction *north westerly*.

Rice: Good, harvesting

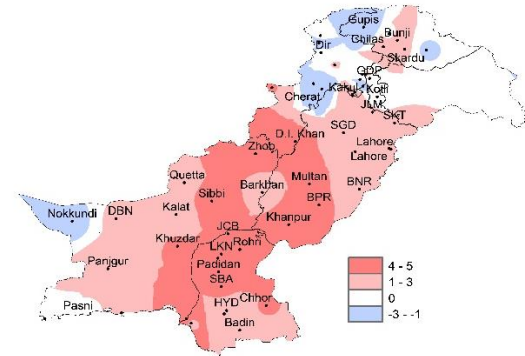
2.5 RAMC, Quetta (Northern Baluchistan)

Dry weather was observed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 36.3%. Mean day temperature was 12.9°C while night temperature recorded as 1.6°C with 90.8 hours bright sunshine duration. Wind speed recorded as 5.7km/hr with mean wind direction *north westerly*.

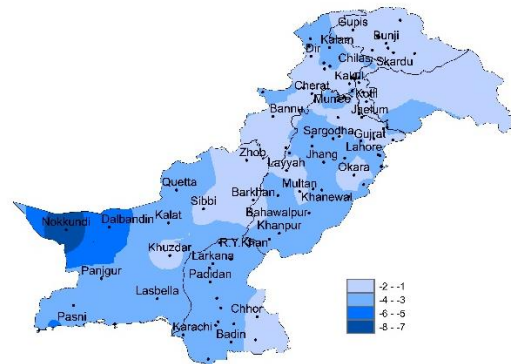
Wheat: Good, emergence.



I. Actual min-temperature



II. Departure of min-temperature from Normal



III. Departure of min-temperature from Previous Decade

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

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

2.6 Jhelum

Dry weather was observed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 61%. Mean day temperature was 22.2°C while night temperature recorded as 7.3°C with 70.2 hours bright sunshine duration. Wind speed recorded as 1.2km/hr with mean wind direction *north westerly*.

2.7 Lahore

Dry weather was observed during the decade; however, weather remained partially cloudy for 03 day. Average relative humidity recorded as 43%. Mean day temperature was 24.0°C while night temperature recorded as 10.2°C with 81.8 hours bright sunshine duration. Wind speed recorded as 0.3 km/hr with mean wind direction *north westerly*.

2.8 Sargodha

Rain was reported 2.7mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 59%. Mean day temperature was 23.7°C while night temperature recorded as 9.0°C with 55.7hours bright sunshine duration. Wind speed recorded as 1.1km/hr with mean wind direction *variable*.

2.9 Multan

Rain was reported 1.0mm during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 60%. Mean day temperature was 24.1°C while night temperature recorded as 10.6°C with 60.6 hours bright sunshine duration. Wind speed recorded as 1.8 km/hr with mean wind direction *north easterly*.

2.10 Khanpur

Dry weather was observed during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 61%. Mean day temperature was 27.1 °C while night temperature recorded as 10.4°C with 56.4 hours bright sunshine duration.

2.11 Sakrand

Dry weather with clear skies was reported during the decade. Average relative humidity recorded as 56%. Mean day temperature was 26.8°C while night temperature recorded as 13.2 °C with 78.1 hours bright sunshine duration. Wind speed recorded as 2.6 km/hr with mean direction *north westerly*

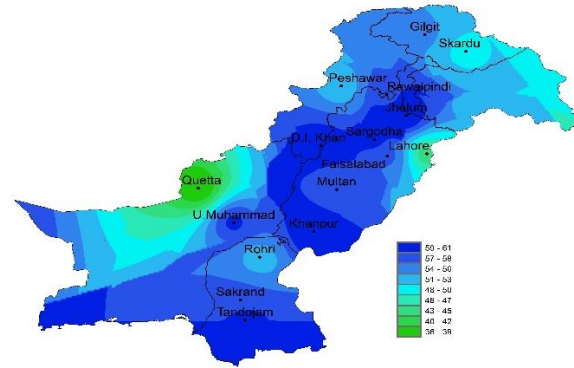


Figure.3: Relative Humidity in Percentage (%)

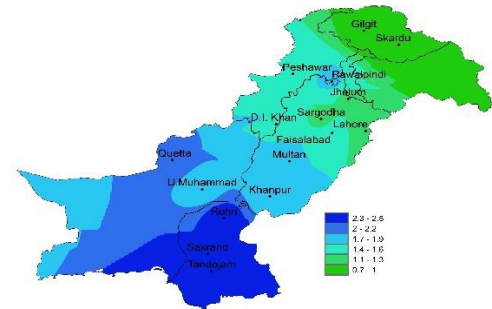


Figure.4: Reference Crop Evapotranspiration ETO (mm/day)

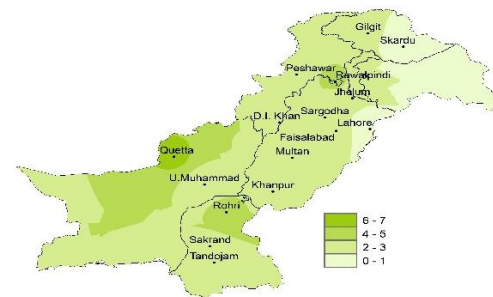


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather was reported weather during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 51.3%. Mean day temperature was 26.0°C while night temperature recorded as 14.1°C with 78.4 hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction as *north westerly*.

2.13 D.I. Khan

Rain was reported 1.0mm during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 60%. Mean day temperature was 24.1°C while night temperature recorded as 10.3°C with 66.1 hours bright sunshine duration. Wind speed recorded as 2.7km/hr with mean wind direction as *easterly*.

2.14 Peshawar

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 51%. Mean day temperature was 23.3°C while night temperature recorded as 5.1°C with 71.5 hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction as *north westerly*.

2.15 Skardu

Dry weather was reported weather during the decade. however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 49%. Mean day temperature was 8.3°C while night temperature recorded as 5.5°C with 42.8 hours bright sunshine duration. Wind speed recorded as 0.4km/hr with mean wind direction as *northerly*.

2.16 Gilgit

Dry weather was reported weather during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 53.2%. Mean day temperature was 13.9°C while night temperature recorded as -1.8°C with 31.2 hours bright sunshine duration. Wind speed recorded as 1.1km/hr with mean wind direction as *south easterly*.

**Ten Days Weather Advisory for Farmers
(11th to 20th December 2024)****3.1 Temperature Forecast**

Normal mean temperature is likely over most 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 cold and dry weather is expected in most parts, while shallow fog is likely to prevail in southern parts, whereas frost is also likely in upper parts of the province in morning hours during the decade.

❖ Khyber Pakhtunkhwa:

Mainly cold and dry weather is expected in most parts, while rain-wind/thunderstorm is expected in upper Khyber Pakhtunkhwa on 11th, 12 and 17th December. Frost is likely in upper parts of the province in morning hours during the decade.

❖ Sindh:

Mainly cold and dry weather is expected in most parts, while shallow fog is likely to prevail in the upper parts of the province in the morning hours during the decade.

❖ Baluchistan:

Mainly cold and dry weather is expected in most parts of the province during the decade.

❖ Gilgit-Baltistan:

Mainly cold and dry weather is expected in most parts, while rain-wind/thunderstorm is likely in Gilgit Baltistan on 11th, 12, 17th and 18th December during the decade.

❖ Kashmir:

Mainly cold and dry weather is expected in most parts, whereas rain-wind/thunderstorm is likely in Kashmir on 11th, 12, 17th and 18th December during the decade.

3.4 Advisory for Farmers

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