Decadal Agromet Bulletin of Pakistan



Highlights...

- Cold and dry weather prevailed over most parts of the country, while very cold in hilly areas. However, light to moderate rain was reported from Northeast Punjab, Gilgit Baltistan and Kashmir. Moderate to dense fog persisted in most districts of Punjab and upper Sindh.
- ❖ Highest amount of rainfall recorded was 21.9 mm at Narowal during the last decade.
- ❖ Lowest minimum temperature recorded was -10.6 °C at Skardu during the last decade.
- Rain wind-thunderstorm with snowfall over the hills is expected in Balochistan, Khyber Pakhtunkhwa, upper Punjab, Gilgit-Baltistan and Kashmir. Cold and dry weather is likely elsewhere in 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

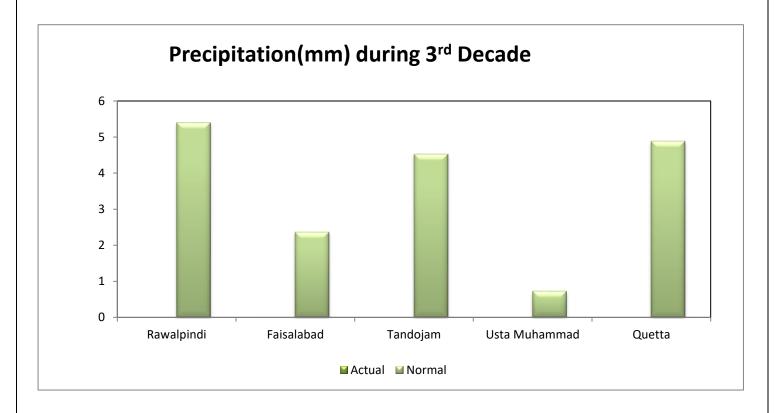
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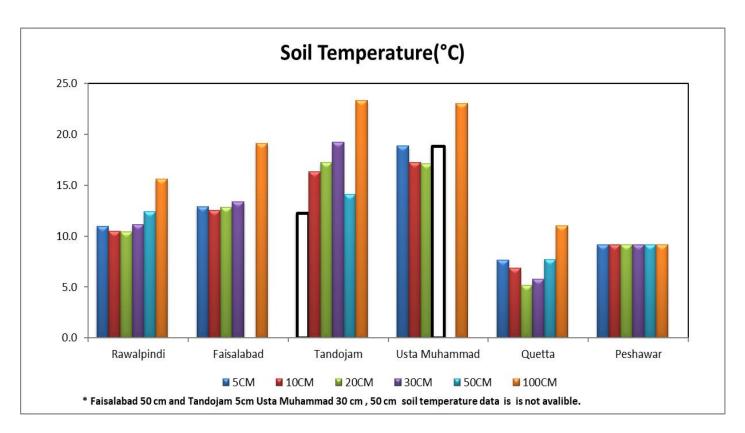
Meteorological Conditions during 3rd Decade of December 2024

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	5.4	0.0	-5.4	1.4	-1.3	11.3	11.0	10.5	10.4	11.1	12.4	15.6	63.8	65.9	0.7	0.9
2	Faisalabad	2.4	0.0	-2.4	-3.1	0.7	11.5	12.9	12.6	12.8	13.4	***	19.1	74.0	39.3	1.4	1.0
3	Jhelum	4.3	2.0	-2.3	-3.2	-0.8	11.3	12.2	11.2	0.0	12.5	14.1	***	69.0	42.2	1.9	1.0
4	Lahore	3.1	7.2	4.1	-1.9	-1.3	12.5	***	***	***	***	***	***	71.0	22.5	0.2	0.9
5	Sargodha	4.3	0.0	-4.3	-2.5	-0.5	11.8	14.4	14.2	15.1	16.0	***	***	74.0	37.6	0.9	0.9
6	Multan	1.4	0.0	-1.4	-3.5	1.1	12.4	***	***	***	***	***	***	56.0	81.1	2.3	1.4
7	Khanpur	0.6	0.0	-0.6	-2.4	-1.0	12.5	***	14.9	15.3	15.7	16.7	19.4	73.0	27.2	0.5	1.0
8	Tandojam	4.5	0.0	-4.5	-1.9	-1.6	15.0	***	16.4	17.2	19.2	21.7	23.3	59.0	70.2	3.4	2.1
9	Sakrand	0.0	0.0	0.0	-0.8	-0.4	14.3	19.3	17.1	17.2	18.8	21.0	***	56.0	81.1	3.3	0.6
11	Rohri	0.0	0.0	0.0	-2.4	-1.9	14.0	***	***	***	***	***	***	60.5	70.1	3.7	1.9
12	D.I Khan	3.9	0.0	-3.9	-2.4	-1.5	11.8	13.6	13.7	14.3	***	6.3	***	69.0	46.5	2.2	1.2
13	Peshawar	6.7	0.0	-6.7	0.1	-3.7	10.5	9.1	9.1	9.1	9.1	9.1	9.1	61.0	61.5	1.2	0.9
14	Usta M.	0.7	0.0	-0.7	-0.9	-4.5	12.2	18.9	17.2	17.1	***	***	23.1	63.0	**	0.9	1.3
15	Quetta	4.9	0.0	-4.9	0.8	-0.4	5.6	7.7	6.9	5.2	5.8	7.7	11.1	30.0	85.9	4.0	1.8
16	Skardu	5.0	5.5	0.5	-1.9	-4.1	-3.4	***	***	***	***	***	***	59.0	38.1	0.0	0.5
17	Gilgit	4.3	0.0	-4.3	0.8	-4.5	2.5	***	***	***	***	***	***	49.1	45.5	1.8	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





Past Weather (21st to 31st December 2024)

Cold and dry weather prevailed over most parts of the country, while very cold in hilly areas. However, light to moderate rain was reported from Northeast Punjab, Gilgit Baltistan and Kashmir. Moderate to dense fog persisted in most districts of Punjab and upper Sindh.

1.1 Punjab

Cold and dry weather prevailed over most areas, however, light to moderate rain was reported from northeast parts, moderate to dense fog also persisted in most districts of the province. The decadal maximum and minimum temperatures were observed below normal by -2.2°C and -0.4°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 68.7%, 45.1hrs, 1.1km/hr and 1.0mm/day respectively.

1.2 Sindh

Cold and dry weather prevailed over most areas, moderate to dense fog also persisted in upper districts of the province. The decadal maximum and minimum temperatures were observed below normal by -1.7°C and -1.3°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 58.5%, 73.8hrs, 3.5km/hr and 1.5mm/day respectively.

1.3 Khyber Pakhtunkhwa

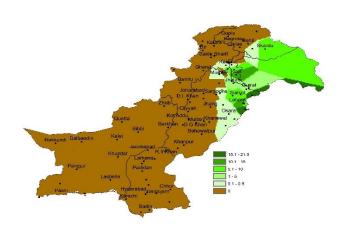
Mainly cold and dry weather prevailed, with very cold conditions in the upper parts. The decadal maximum and minimum temperatures were observed below normal by -1.2°C and -2.6°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 65.0%, 54.0hrs, 1.7km/hr and 1.1mm/day respectively.

1.4 Baluchistan

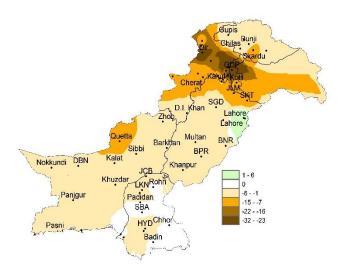
Mainly cold and dry weather prevailed, while very cold in upper parts. The decadal maximum temperature was observed normal by 0.0 and minimum temperature were observed below normal by -2.4°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 46.5%, 85.9hrs, 2.5km/hr and 1.6mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

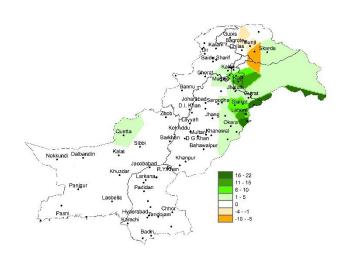
Mainly very cold and dry weather prevailed, while light rain reported from some areas of Gilgit Baltistan and Kashmir. The decadal maximum and minimum temperatures were observed below normal by -0.5°C and -4.3°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 54.0%, 41.8hrs, 0.9km/hr and 0.7mm/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) <u>Past Weather for Major Agricultural Plains</u> (21st to 31st December 2024)

2.1 RAMC, Rawalpindi (Potohar region)

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 63.8%. Mean day temperature was 20.6°C while night temperature recorded as 2.0°C with 65.9 hours bright sunshine duration. Wind speed recorded as 0.7km/hr with mean wind direction *south westerly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 74%. Mean day temperature was 17.4°C while night temperature recorded as 5.6°C with 39.3 hours bright sunshine duration. Wind speed recorded as 1.4km/hr with mean wind direction westerly.

Wheat: Very good, tillering.

2.3 RAMC, Tandojam (Lower Sindh)

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 59%. Mean day temperature was 22.4°C while night temperature recorded as 7.5°C with 70.2hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction *north-north westerly*.

Wheat: Good, tillering.

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

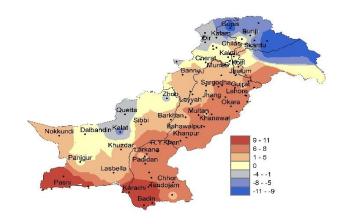
Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 03 days. Average relative humidity recorded as 63%. Mean day temperature was 21.0°C while night temperature recorded as 3.4°C. Wind speed recorded as 0.9 km/hr with mean wind direction *variable*.

Rice: Good, Threshing.

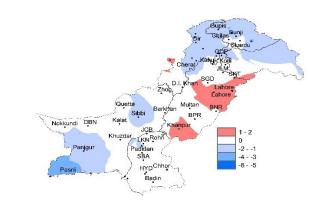
2.5 RAMC, Quetta (Northern Baluchistan)

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 30.0%. Mean day temperature was 13.6°C while night temperature recorded as -2.5°C with 85.9 hours bright sunshine duration. Wind speed recorded as 4.0 km/hr with mean wind direction *southerly*.

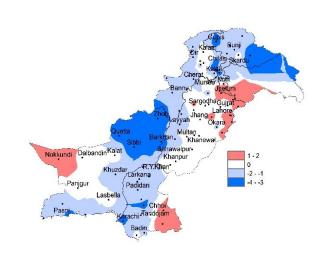
Wheat: Good, third leaf.



IV. Actual min-temperature



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) <u>Past Weather or Sub-Regional Agricultural</u> Plains (21st to 31st December 2024)

2.6 Jhelum

Rain was reported 2.0mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 69%. Mean day temperature was 17.8°C while night temperature recorded as 4.8°C with 42.2 hours bright sunshine duration. Wind speed recorded as 1.9km/hr with mean wind direction *north westerly*.

2.7 Lahore

Rain was reported 7.2mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 71%. Mean day temperature was 17.8°C while night temperature recorded as 7.1°C with 22.5 hours bright sunshine duration. Wind speed recorded as 0.2 km/hr with mean wind direction *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 74%. Mean day temperature was 18.2°C while night temperature recorded as 5.4°C with 37.6 hours bright sunshine duration. Wind speed recorded as 0.9km/hr with mean wind direction *variable*.

2.9 Multan

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 04 days. Average relative humidity recorded as 71%. Mean day temperature was 17.9°C while night temperature recorded as 5.8°C with 40.9 hours bright sunshine duration. Wind speed recorded as 2.3 km/hr with mean wind direction *north easterly*.

2.10 Khanpur

Cold and dry weather with clear skies was reported during the decade. Average relative humidity recorded as 73%. Mean day temperature was 19.7°C while night temperature recorded as 5.3°C with 27.2 hours bright sunshine duration. Wind speed recorded as 0.0 km/hr with mean wind direction *north easterly*.

2.11 Sakrand

Cold and dry weather with clear skies was reported during the decade. Average relative humidity recorded as 56%. Mean day temperature was 21.8°C while night temperature recorded as 6.8 °C with 81.1 hours bright sunshine duration. Wind speed recorded as 3.3 km/hr with mean direction *north westerly*

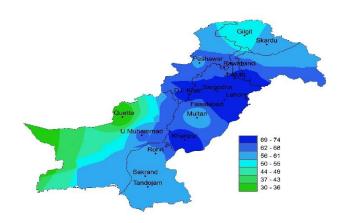


Figure.3: Relative Humidity in Percentage (%)

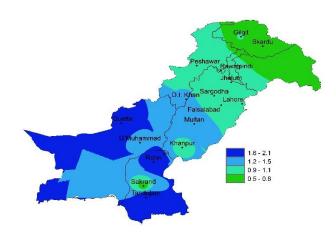


Figure.4: Reference Crop Evapotranspiration ETO (mm/day)



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

2.12 Rohri

Cold and dry weather with clear skies was reported weather during the decade. Average relative humidity recorded as 48%. Mean day temperature was 22.2°C while night temperature recorded as 8.2°C with 86.7 hours bright sunshine duration. Wind speed recorded as 2.9km/hr with mean wind direction as *north easterly*.

2.13 D.I. Khan

Cold and dry weather was observed during the decade; however, weather remained partially cloudy for 02 days. Average relative humidity recorded as 69%. Mean day temperature was 18.9°C while night temperature recorded as 4.6°C with 46.5 hours bright sunshine duration. Wind speed recorded as 2.2km/hr with mean wind direction as northerly.

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 5.5mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 59%. Mean day temperature was 3.9°C while night temperature recorded as -10.6°C with 38.1 hours bright sunshine duration. Wind speed recorded as 0.0km/hr with mean wind direction as variable.

2.16 Gilgit

Very cold and dry weather was observed during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 49.1%. Mean day temperature was 12.1°C while night temperature recorded as 7.1°C with 45.5 hours bright sunshine duration. Wind speed recorded as 1.8km/hr with mean wind direction as *south easterly*.

Ten Days Weather Advisory for Farmers (1st to 10th January 2025)

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:

Rain wind-thunderstorm is likely in upper parts until 6th January, however cold and dry weather is expected in most parts, while foggy conditions may prevail in plain areas of the province during rest of the decade.

Khyber Pakhtunkhwa:

❖ Rain wind-thunderstorm is likely in most parts until 6th January, however cold and dry weather is expected in most parts, while foggy conditions may prevail in plain areas of the province during rest of the decade.

❖ Sindh:

Mainly cold and dry weather is expected in most parts. However light rain-thunderstorm is likely in upper parts on 3rd and 4th January. Fog is likely in upper areas of province during the decade.

❖ Baluchistan:

Rain wind-thunderstorm is likely in western parts until 4th January. However, cold and dry weather is expected, with very cold conditions in the upper parts of the province during rest of the decade.

❖ Gilgit-Baltistan:

Rain wind-thunderstorm is likely until 6th January. However, very cold and dry weather is expected in Gilgit Baltistan during rest of the decade.

***** Kashmir:

Rain wind-thunderstorm is likely until 6th January. However, very cold and dry weather is expected in Kashmir during rest of the decade.

3.4 Advisory for Farmers

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