# **Decadal Agromet Bulletin of Pakistan**



# Highlights...

- Dry weather prevailed in most parts of the country. Smoggy/foggy condition persisted at plain areas of Punjab. However, rain occurred in Khyber Pakhtunkhwa, Kashmir, while light rain was also reported from Gilgit Baltistan, Punjab and Balochistan.
- ❖ Highest amount of rainfall recorded was 101 mm at Dir during the last decade.
- ❖ Highest maximum temperature recorded was 35.0°C at Mithi during the last decade.
- Mainly dry weather may prevail in most parts of the country. Smog/fog is likely to prevail in plain areas of Punjab. Rain-wind/thunderstorm (snowfall over mountains) is expected in Khyber Pakhtunkhwa, Gilgit Baltistan, Kashmir, Potohar region and west Balochistan.
- Farmers are advised to view the weather forecast before any field activity.

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

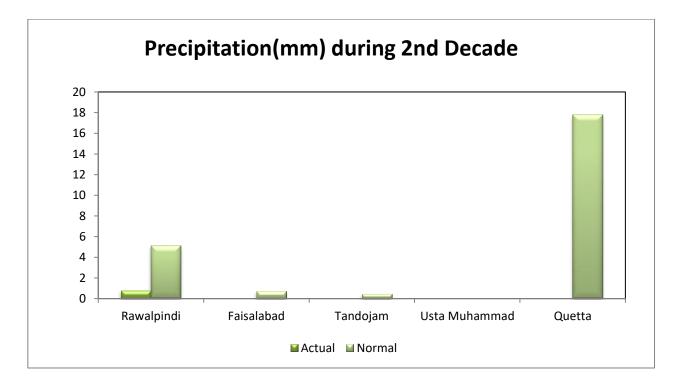
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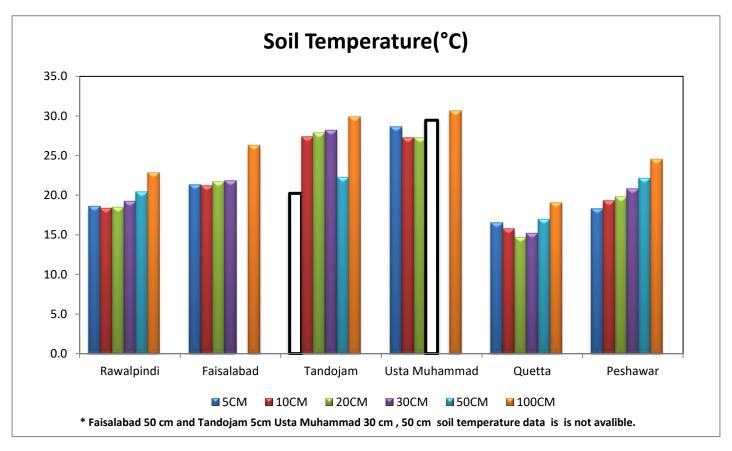
# Meteorological Conditions during 2<sup>nd</sup> Decade of November 2024

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	5.1	0.8	-4.3	0.4	1.4	17.7	18.6	18.4	18.5	19.3	20.4	22.9	66.1	41.9	0.5	1.2
2	Faisalabad	0.7	0.0	-0.7	-2.4	4.3	19.9	21.4	21.2	21.7	21.8	***	26.3	76.0	31.8	1.2	1.5
3	Jhelum	5.0	0.0	-5.0	-1.9	2.0	19.1	20.2	19.9	22.4	21.0	22.3	***	70.0	41.0	0.3	1.4
4	Lahore	2.2	0.0	-2.2	-2.1	0.6	20.2	***	***	***	***	***	***	72.0	30.1	0.7	1.5
5	Sargodha	4.2	0.0	-4.2	-0.9	3.3	20.6	23.4	23.2	23.8	24.4	***	***	72.0	37.3	1.0	1.5
6	Multan	0.2	0.0	-0.2	-2.1	6.0	22.0	***	***	***	***	***	***	55.0	80.4	1.9	2.8
7	Khanpur	0.0	0.0	0.0	1.3	3.6	22.7	***	25.0	25.6	26.3	27.0	28.5	68.0	33.9	1.5	3.2
8	Tandojam	0.4	0.0	-0.4	2.9	1.6	25.0	***	27.4	27.9	28.2	29.7	29.9	56.0	76.9	1.8	3.2
9	Sakrand	0.0	0.0	0.0	3.5	5.7	25.3	32.2	28.8	28.5	29.5	30.9	***	55.0	80.4	2.3	3.3
11	Rohri	0.0	0.0	0.0	2.0	3.5	24.8	***	***	***	***	***	***	57.3	72.7	3.5	2.9
12	D.I Khan	3.7	0.0	-3.7	-0.9	4.0	20.6	22.3	22.2	22.8	***	14.0	***	69.0	36.4	2.2	1.5
13	Peshawar	7.2	7.0	-0.2	0.7	0.9	18.4	18.3	19.3	19.8	20.8	22.2	24.6	67.0	52.6	1.1	1.6
14	Usta M.	0.0	0.0	0.0	0.0	0.0	22.2	28.7	27.3	27.3	***	***	30.7	70.0	***	1.5	2.0
15	Quetta	17.8	0.0	-17.8	0.7	3.2	12.2	16.6	15.8	14.7	15.2	17.0	19.0	39.8	92.3	3.8	2.6
16	Skardu	0.6	0.0	-0.5	-0.5	2.6	6.7	***	***	***	***	***	***	52.0	36.5	3.8	0.9
17	Gilgit	0.9	1.3	0.5	-0.7	4.4	11.5	***	***	***	***	***	***	52.8	28.9	2.7	1.2

**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 November 2024**





# Past Weather (11th to 20th November 2024)

Dry weather prevailed in most parts of the country. Smoggy/foggy condition persisted at plain areas of Punjab. However, rain occurred in Khyber Pakhtunkhwa, Kashmir, while light rain was also reported from Gilgit Baltistan, Punjab and Balochistan.

#### 1.1 Sindh

Mainly dry weather prevailed in most parts, while smoggy/foggy condition persisted at plain areas of Punjab. Isolated light rain was also reported from the province. The decadal maximum temperature was recorded as -1.1°C below normal 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 68%, 38.5hrs, 1.0km/hr and 1.9mm/day respectively.

#### 1.2 Sindh

Mainly dry weather prevailed in most parts of the province. The decadal maximum and minimum temperatures rose above normal by 2.8°C and 3.6°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 56%, 76.7hrs, 2.5km/hr and 3.1mm/day respectively.

#### 1.3 Khyber Pakhtunkhwa

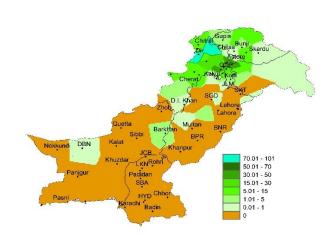
Light to moderate rainfall (with isolated heavy falls in the upper parts) was reported from the province. The decadal maximum temperature was recorded as -0.1°C slightly below normal and minimum temperature rose above normal by 2.5°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 68%, 44.5hrs, 1.7km/hr and 1.6mm/day respectively.

# 1.4 Baluchistan

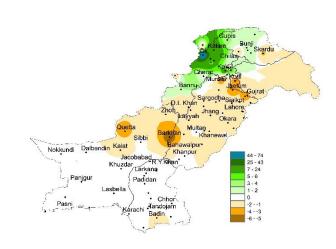
Mainly dry weather prevailed in most parts, while isolated light rain was also reported from the province. The decadal maximum and minimum temperatures rose above normal by 0.3°C and 1.6°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 46.2hrs, 2.7km/hr and 2.3mm/day respectively.

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

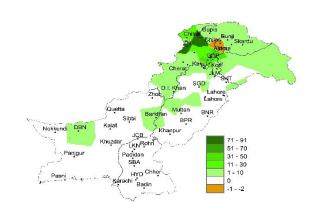
Light to moderate rain was reported from Kashmir, while light rain in Gilgit-Baltistan. The decadal maximum temperature was recorded as -0.6°C below normal and minimum temperature rose above normal by 3.5°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 52%, 32.7hrs, 3.3km/hr and 1.1mm/day respectively.



#### . 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> (11<sup>th</sup> to 20<sup>th</sup> November 2024)

# 2.1 RAMC, Rawalpindi (Potohar region)

Rain was reported 0.8mm during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 66%. Mean day temperature was 25.3°C while night temperature recorded as 10.0°C with 41.9 hours bright sunshine duration. Wind speed recorded as 0.5km/hr with mean wind direction northerly.

# 2.2 RAMC, Faisalabad (Central Punjab)

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 76%. Mean day temperature was 24.5°C while night temperature recorded as 15.2°C with 31.8 hours bright sunshine duration. Wind speed recorded as 1.2km/hr with mean wind direction west-north westerly.

Wheat: Sowing on 20-11-2024

# 2.3 RAMC, Tandojam (Lower Sindh)

Dry weather with clear sky was observed during the decade. Average relative humidity recorded as 56%. Mean day temperature was 34.0°C while night temperature recorded as 15.9°C with 76.9 hours bright sunshine duration. Wind speed recorded as 1.8km/hr with mean wind direction *south westerly*. *Wheat: Good, Germination*.

# 2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

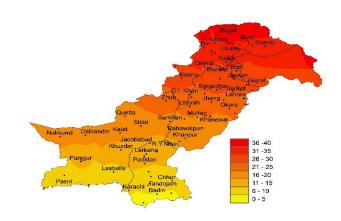
Dry weather with clear sky was observed during the decade. Average relative humidity recorded as 70%. Mean day temperature was 29.0°C while night temperature recorded as 15.4°C. Wind speed recorded as 1.5 km/hr with mean wind direction *variable*.

Rice: Good, full maturity.

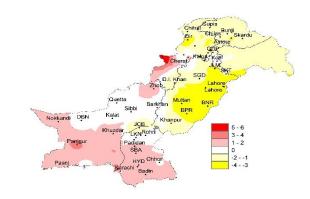
# 2.5 RAMC, Quetta (Northern Baluchistan)

Dry weather was observed during the decade; however, weather remained partially cloudy for 05 days. Average relative humidity recorded as 40%. Mean day temperature was 19.3°C while night temperature recorded as 5.1°C. Wind speed recorded as 3.8km/hr with mean wind direction *north* westerly.

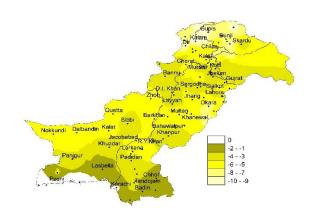
Crop: Nil.



#### I. Actual max-temperature



#### II. Departure of max-temperature from Normal



# III. Departure of max-temperature from Previous Decade

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

# 2(b) <u>Past Weather or Sub-Regional Agricultural</u> Plains (11<sup>th</sup> to 20<sup>th</sup> November 2024)

#### 2.6 Jhelum

Dry weather was observed during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 70%. Mean day temperature was 25.0°C while night temperature recorded as 13.1°C with 41.0 hours bright sunshine duration. Wind speed recorded as 0.3 km/hr with mean wind direction *variable*.

#### 2.7 Lahore

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 72%. Mean day temperature was 24.9°C while night temperature recorded as 15.4°C with 30.1 hours bright sunshine duration. Wind speed recorded as 0.7 km/hr with mean wind direction north *westerly*.

# 2.8 Sargodha

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 72%. Mean day temperature was 25.9°C while night temperature recorded as 15.3°C with 37.3hours bright sunshine duration. Wind speed recorded as 1.0km/hr with mean wind direction *variable*.

#### 2.9 Multan

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 73%. Mean day temperature was 25.7°C while night temperature recorded as 16.3°C with 33.7 hours bright sunshine duration. Wind speed recorded as 1.9 km/hr with mean wind direction *north easterly*.

#### 2.10 Khanpur

Dry weather was observed during the decade; however, weather remained partially cloudy for 01 day. Average relative humidity recorded as 88%. Mean day temperature was 29.4  $^{\circ}\text{C}$  while night temperature recorded as 16.0  $^{\circ}\text{C}$  with 33.9 hours bright sunshine duration.

# 2.11 Sakrand

Dry weather with clear skies was reported during the decade. Average relative humidity recorded as 55%. Mean day temperature was  $32.4^{\circ}$ C while night temperature recorded as  $18.2^{\circ}$ C with 80.4 hours bright sunshine duration. Wind speed recorded as 2.3 km/hr with mean direction north westerly.

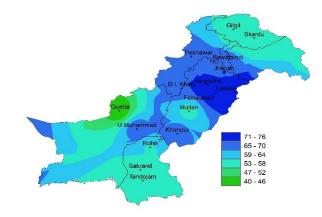


Figure.3: Relative Humidity in Percentage (%)



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



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

## 2.12 Rohri

Dry weather with clear skies was reported weather during the decade. Average relative humidity recorded as 57.3%. Mean day temperature was 30.7°C while night temperature recorded as 18.9°C with 72.7 hours bright sunshine duration. Wind speed recorded as 3.5km/hr with Mean wind direction as *easterly*.

#### 2.13 D.I. Khan

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 02 days. Average relative humidity recorded as 69%. Mean day temperature was 26.2°C while night temperature recorded as 15.0°C with 36.4 hours bright sunshine duration. Wind speed recorded as 2.2km/hr with mean wind direction as *north easterly*.

# 2.14 Peshawar

Rain was reported 7.0mm during the decade; however, weather remained partially cloudy for 07 days. Average relative humidity recorded as 67%. Mean day temperature was 25.4°C while night temperature recorded as 11.4 °C with 52.6 hours bright sunshine duration. Wind speed recorded as 1.1km/hr with mean wind direction as *north westerly*.

#### 2.15 Skardu

Rain was reported 0.01mm during the decade; however, weather remained partially cloudy for 06 days. Average relative humidity recorded as 52%. Mean day temperature was 12.9°C while night temperature recorded as 0.5°C with 36.5 hours bright sunshine duration. Wind speed recorded as 3.8km/hr with mean wind direction as north-north westerly.

# 2.16 Gilgit

Rain was reported 1.3mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 52.8%. Mean day temperature was 18.0°C while night temperature recorded as 5.0°C with 28.9hours bright sunshine duration. Wind speed recorded as 2.7km/hr with mean wind direction as *south easterly*.

# Ten Days Weather Advisory for Farmers (21st to 30th November 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 dry weather is expected in most parts of the province. However, rain-wind/thunderstorm is likely in Potohar region on 23<sup>rd</sup> and 30<sup>th</sup> November. Smog/fog is likely to prevail in plain areas of Punjab during the decade.

# **\*** Khyber Pakhtunkhwa:

Rain-wind/thunderstorm is expected in Khyber Pakhtunkhwa at the start and end of the decade.

#### **❖** Sindh:

Mainly dry weather is expected in the province during the decade.

# **&** Baluchistan:

Mainly dry weather is expected in most parts. While rain-wind/thunderstorm is likely in western parts of the province during second half of the decade.

# **❖** Gilgit-Baltistan:

❖ Mainly dry weather is expected in most parts, while rain-thunderstorm (snowfall over mountains) is expected in Gilgit Baltistan from 21<sup>st</sup> to 24<sup>th</sup> and 30<sup>th</sup> November.

# **\*** Kashmir:

❖ Mainly dry weather is expected in most parts, while rain-thunderstorm (snowfall over mountains) is expected in Kashmir on 22<sup>nd</sup>, 23<sup>rd</sup>, 29<sup>th</sup> and 30<sup>th</sup> November.

# 3.4 Advisory for Farmers

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