

Decadal Agromet Bulletin of Pakistan



Highlights...

- ❖ Light to moderate amount of rainfall was reported from different parts of the country. While hot and dry weather also prevailed in the country.
- ❖ Highest amount of rainfall recorded was 49.0 mm at Shorkot during the last decade.
- ❖ Highest maximum temperature recorded as 39.0°C at Rohri and Khanpur during the last decade. Mainly hot and dry weather is expected in most parts of the country during first half the decade. However, rain-wind/thunderstorm is likely in upper Punjab, Southeastern Sindh, KPK, Eastern parts of Balochistan GB and Kashmir during second half of the decade.
- ❖ Farmers are advised to view the weather forecast before any field activity.

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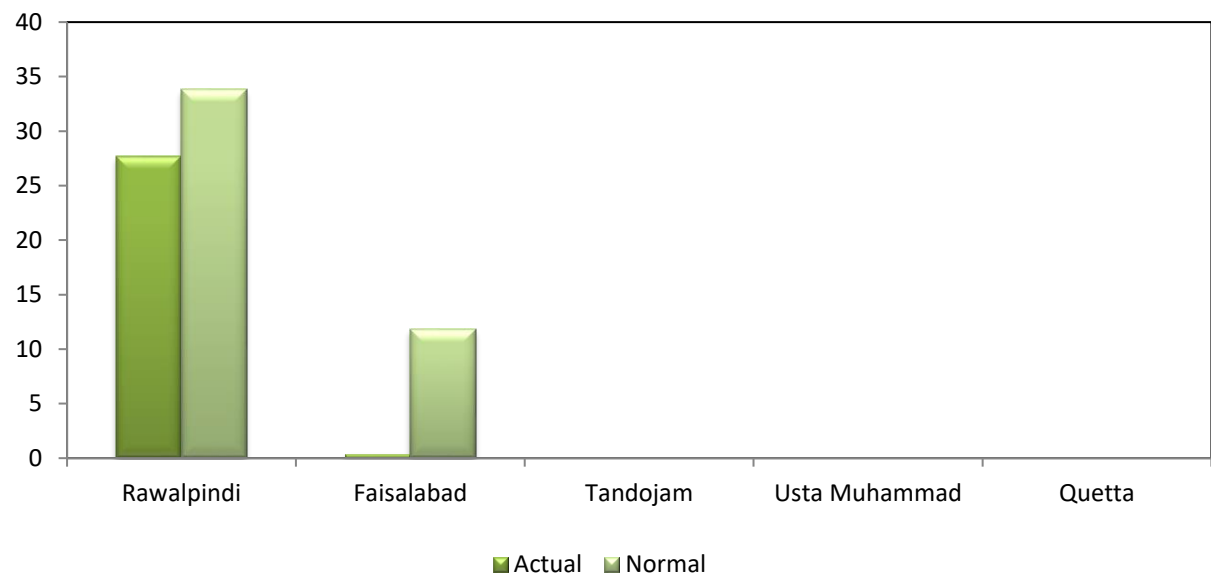
Meteorological Conditions during 2nd Decade of September 2024

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	33.8	27.7	-6.1	2.540	-0.7	28.3	30.4	29.7	29.1	29.0	29.2	29.3	60	89.5	1.4	3.7
2	Faisalabad	11.8	0.4	-11.4	2.1	2.6	31.8	34.2	33.7	32.9	32.5	***	31.9	60	87.4	2.3	4.0
3	Jhelum	13.4	0.0	-13.4	1.6	0.9	30.7	32.1	31.3	30.8	30.4	30.6	***	67	89.5	1.4	4.3
4	Lahore	13.7	2.0	-11.7	2.2	0.6	31.0	31.4	31.5	30.9	30.6	***	30.4	58	77.1	1.3	3.4
5	Sargodha	20.0	0.0	-20.0	2.0	2.2	32.3	35.5	34.3	33.1	32.7	***	***	60	83.7	2.8	4.2
6	Multan	8.1	0.0	-8.1	1.3	-0.1	31.4	***	***	***	***	***	***	58	101.3	4.6	5.0
7	Khanpur	0.0	0.0	0.0	1.7	1.6	32.5	***	35.4	35.6	35.6	35.4	34.6	62	92.3	0.0	5.8
8	Tandojam	0.0	0.0	0.0	0.4	-1.1	29.6	***	34.2	33.0	35.0	32.1	32.1	69	86.9	8.6	4.6
9	Sakrand	0.0	0.0	0.0	1.2	1.8	31.7	44.1	***	***	***	***	***	58	101.3	4.6	5.2
11	Rohri	1.4	0.0	-1.4	0.4	-0.2	32.7	***	***	***	***	***	***	55	94.9	3.4	5.2
12	D.I Khan	23.2	0.0	-23.2	1.9	2.8	32.1	32.1	31.4	13.1	***	0.0	***	59	84.1	3.4	4.4
13	Peshawar	11.2	1.0	-10.2	2.1	-1.0	29.8	31.3	31.5	30.9	30.9	30.6	30.3	54	75.7	2.9	4.1
14	Usta M.	0.0	0.0	0.0	0.0	0.0	30.0	35.1	34.1	33.2	***	***	34.9	68	0.0	2.6	4.2
15	Quetta	0.0	0.0	0.0	-1.0	1.4	22.4	28.8	27.5	25.4	25.1	25.7	25.7	27	104.5	4.3	4.8
16	Skardu	1.9	0.0	-1.9	-0.03	0.0	18.6	***	***	***	***	***	***	42	44.8	1.9	2.4
17	Gilgit	1.4	0.0	-1.4	-20.90	19.2	19.9	0.0	***	0.0	0.0	0.0	0.0	0	1.9	1.5	3.8

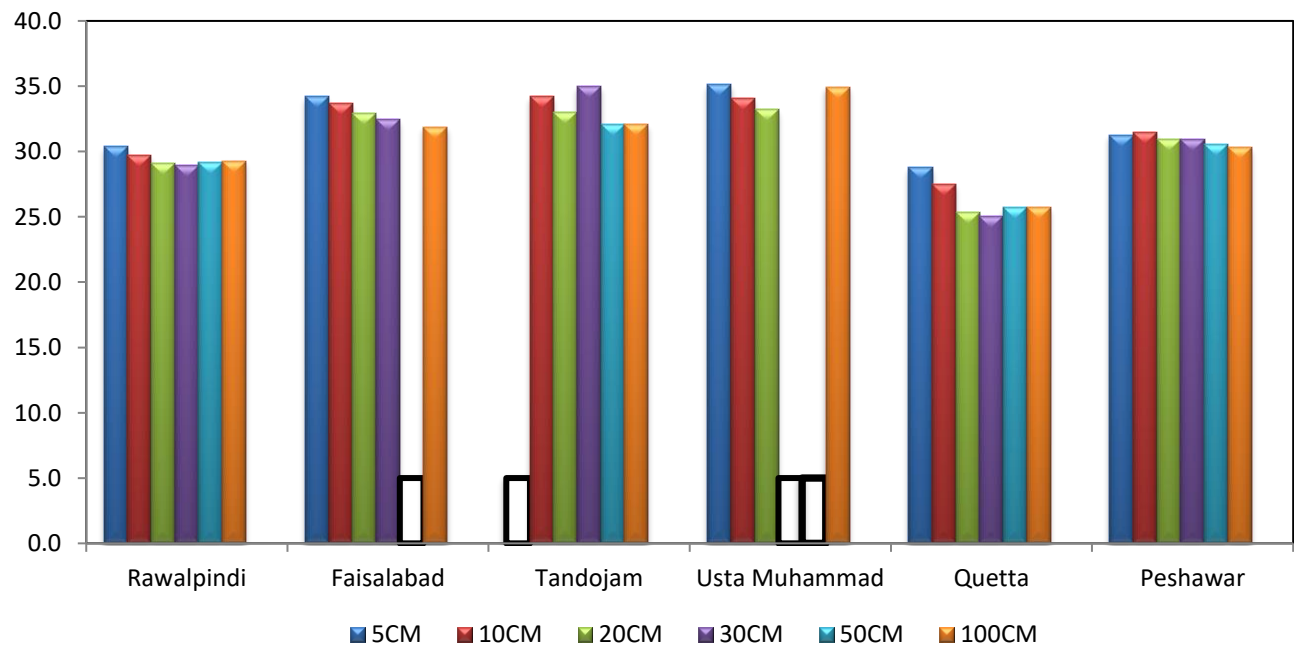
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. The climatic normally used in the Bulletin is extracted from the 2007 - 2016 observed data. 'ETo' stands for reference crop Evapotranspiration***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

Graph at RAMCs during September 2024

Precipitation(mm) during 2nd 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 (11th to 20th September 2024)

Light to moderate amount of rainfall was reported from different parts of the country. While hot and dry weather also prevailed in the country.

1.1 Punjab

Light to moderate rain observed from different parts of the province. The decadal maximum and minimum temperatures rose above normal by 2.0°C and 1.0°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded 61%, 88.7hrs, 2.0km/hr and 4.3mm/day respectively.

1.2 Sindh

Isolated light rain observed from southeast of the province. The decadal maximum and minimum temperatures were observed slightly above normal by 0.6°C and 0.3°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 61%, 94.4hrs, 5.5km/hr and 5.0mm/day respectively.

1.3 Khyber Pakhtunkhwa

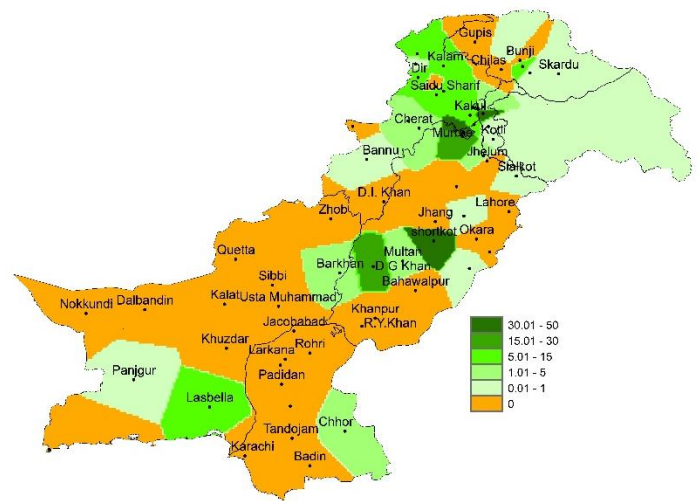
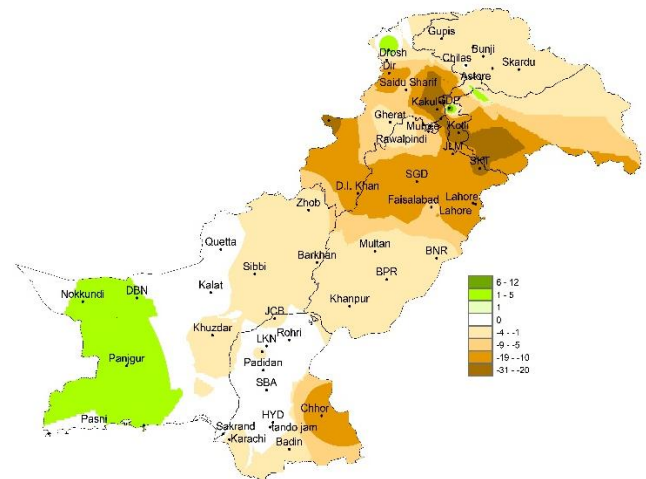
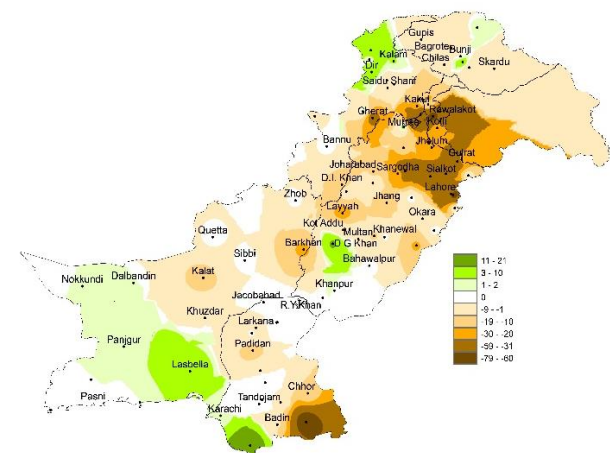
Light to moderate rain was reported from the Province. The decadal maximum and minimum temperatures rose above normal by 2.0°C and 0.9°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 57%, 79.9hrs, 3.2km/hr and 4.3mm/day respectively.

1.4 Baluchistan

Light rain was reported from the province. The decadal maximum was observed slightly below normal by -0.5°C and minimum temperatures rose slightly above normal by 0.7°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 47%, 104.5hrs, 3.5km/hr and 4.5 mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir.

Light rain was reported from Kashmir and Gilgit-Baltistan. The decadal maximum and minimum temperatures rose above normal by 1.0°C and 2.4°C in the province. Whereas values of relative humidity, sunshine hour, wind speed & ETo were recorded as 42%, 59.2hrs, 1.9km/hr and 3.1mm/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**
(11th to 20th September 2024)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 27.7mm during the decade; however, weather remained partially cloudy for 05days. Average relative humidity recorded as 60%. Mean day temperature was 35.9°C while night temperature recorded as 20.7°C with 89.5 hours bright sunshine duration. Wind speed recorded as 1.4 km/hr with mean wind direction *south easterly*

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 0.4mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 60%. Mean day temperature was 37.4°C while night temperature recorded as 26.2°C with 87.4 hours bright sunshine duration. Wind speed recorded as 2.3km/hr with mean wind direction *west south easterly*.

Cotton: *Very good, Maturity.*

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather was observed during the decade; however, Average relative humidity recorded as 73%. Mean day temperature was 34.8°C while night temperature recorded as 24.3°C with 75.2hours bright sunshine duration. Wind speed recorded as 5.4km/hr with mean wind direction *south westerly*.

Cotton: *Good, Ball opening.*

2.4 RAMC, Usta Muhammad (Eastern Baluchistan)

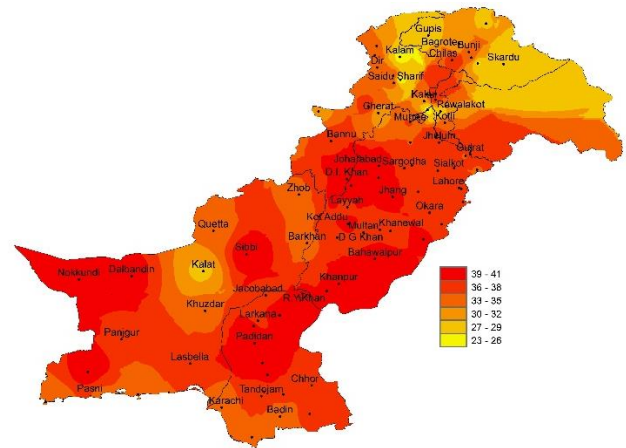
Dry weather was observed during the decade; however, weather remained partially cloudy during three days of the decade. Average relative humidity recorded as 68%. Mean day temperature was 36.0°C while night temperature recorded as 24.0°C. Wind speed recorded as 2.6 km/hr with mean wind direction *south easterly*.

Rice: *Good, shooting.*

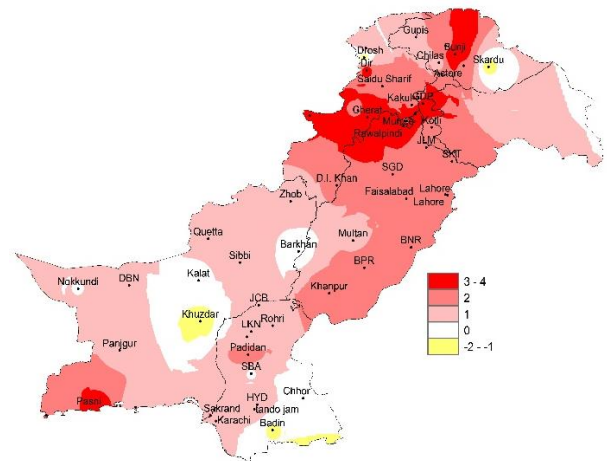
2.5 RAMC, Quetta (Northern Baluchistan)

Dry weather was observed during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 26.8%. Mean day temperature was 30.7°C while night temperature recorded as 14.0°C with 104.5hours bright sunshine duration. Wind speed recorded as 4.3km/hr with mean wind direction *north westerly*.

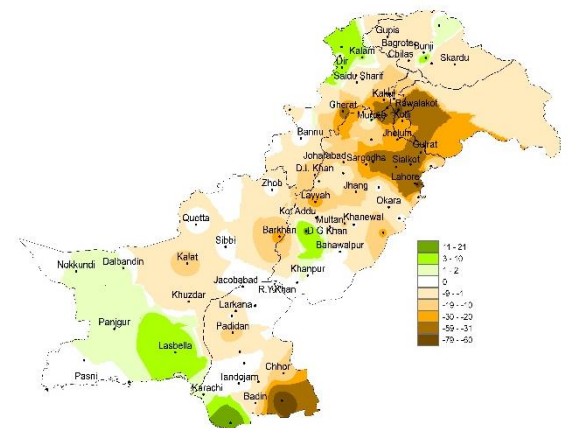
Wheat: *Nil.*



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) Past Weather or Sub-Regional Agricultural Plains (11th to 20th September 2024)

2.6 Jhelum

Dry weather was reported during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 67%. Mean day temperature was 36.2°C while night temperature recorded as 25.1°C with 89.5 hours bright sunshine duration. Wind speed recorded as 1.4 km/hr with mean wind direction *variable*.

2.7 Lahore

Rainfall reported as 2.0 mm during the decade; however, weather remained partially cloudy for 10 days. Average relative humidity recorded as 58%. Mean day temperature was 35.9°C while night temperature recorded as 26.1°C with 77.1 hours bright sunshine duration. Wind speed recorded as 1.3 km/hr with mean wind direction *south westerly*.

2.8 Sargodha

Dry weather was reported during the decade; however, weather remained partially cloudy for 08 days. Average relative humidity recorded as 60%. Mean day temperature was 37.6°C while night temperature recorded as 26.9°C with 83.7 hours bright sunshine duration. Wind speed recorded as 2.8 km/hr with mean wind direction *variable*.

2.9 Multan

Dry weather was reported during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 57%. Mean day temperature was 37.3°C while night temperature recorded as 27.6°C with 70 hours bright sunshine duration. Wind speed recorded as 5.5 km/hr with mean wind direction *south westerly*.

2.10 Khanpur

Dry weather was reported during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 62%. Mean day temperature was 38.5 °C while night temperature recorded as 26.5°C with 92.3 hours bright sunshine duration. Mean wind direction *south westerly*.

2.11 Sakrand

Dry weather was reported during the decade; however, Average relative humidity recorded as 58%. Mean day temperature was 38.0°C while night temperature recorded as 25.4 °C with 101.3 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean direction *south easterly*.

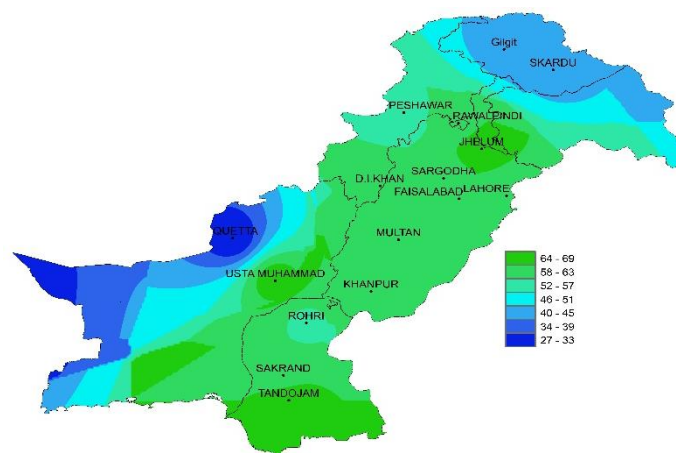


Figure.3: Relative Humidity in Percentage (%)

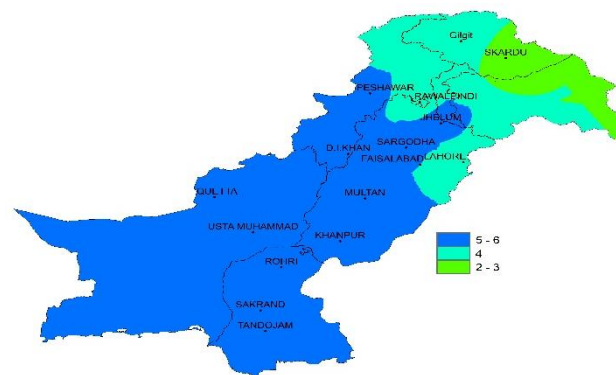


Figure.4: Reference Crop Evapotranspiration ETo (mm/day)

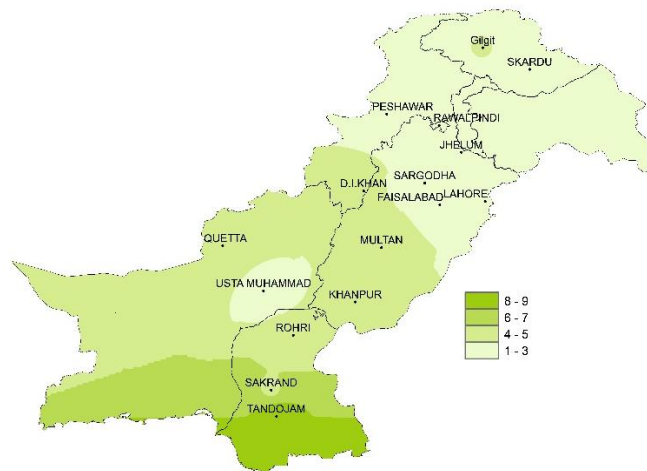


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather was reported weather during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 55.2%. Mean day temperature was 38.5 °C while night temperature recorded as 26.9°C with 94.9 hours bright sunshine duration. Wind speed recorded as 3.4km/hr with Mean wind direction as *south westerly*.

2.13 D.I. Khan

Dry weather was reported during the decade; however, weather remained partially cloudy for 01days. Average relative humidity recorded as 59%. Mean day temperature was 37.9°C while night temperature recorded as 26.3°C with 84.1hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction as *north easterly*.

2.14 Peshawar

Rainfall reported as 1.0 mm during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 54%. Mean day temperature was 36.7°C while night temperature recorded as 22.8 °C with 75.7hours bright sunshine duration. Wind speed recorded as 2.9km/hr with mean wind direction as *north easterly*.

2.15 Skardu

Dry weather was reported during the decade; however, weather remained partially cloudy for 05 days during the decade. Average relative humidity recorded as 42%. Mean day temperature was 26.8°C while night temperature recorded as 10.4°C with 44.8hours bright sunshine duration. Wind speed recorded as 1.9 km/hr with mean wind direction as *west north westerly*.

2.16 Gilgit

Dry weather was reported during the decade; however, weather remained partially cloudy during the decade. Average relative humidity recorded as 56.9%. Mean day temperature was 31.2°C while night temperature recorded as 15.9°C with 67.6hours bright sunshine duration. Wind speed recorded as 3.1km/hr with mean wind direction as *south easterly*.

**Ten Days Weather Advisory for Farmers
(21st to 30th September 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 hot and dry weather is expected in most parts of the province during first half of the decade. However, rain-wind/thundershower is likely in upper parts of the Province during second half of the decade.

❖ Khyber Pakhtunkhwa:

Mainly hot and dry is likely during the first half of the decade. However, rain-wind/thundershower is likely in the Province during second half of the decade.

Sindh:

Mainly hot and dry weather is expected in most parts of the province during the decade. However, rain-wind/thundershower is likely in southeastern parts of the Province during second half of the decade.

❖ Baluchistan:

Mainly hot and dry weather is expected in most parts of the province during first half of the decade. However, rain-wind/thundershower is likely in eastern parts of the Province during second half of the decade.

❖ Gilgit-Baltistan:

Mainly hot and dry weather is expected in most parts of Gilgit Baltistan during first half of the decade. However, rain-wind/thundershower is expected during second half of the decade.

❖ Kashmir:

Mainly hot and dry weather is expected in most parts of Kashmir during the first half of the decade. However, rain-wind/thundershower is expected during second half of the decade.

3.4 Advisory for Farmers

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