

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- ❖ Light to moderate rainfall reported from Punjab, KP, G.B & Kashmir however dry weather reported from Sindh & Balochistan during the last decade.
- ❖ Highest amount of rainfall recorded as 172.1mm at Parachinar during the last decade.
- ❖ Highest maximum temperature recorded 44°C at Chorr during the last decade.
- ❖ Light to moderate rainfall is expected from Punjab, KP, G.B & Kashmir.
- ❖ Normal to below normal temperature is expected in most of the agricultural plains of the country during the decade.
- ❖ Normal to gusty wind pattern may prevail in most of the agricultural plains of the country during the decade.
- ❖ Farmers are advised to cultivate winter vegetables in time so that present soil moisture may fully be utilized.
- ❖ Farmers of wheat growing areas are advised to sow their crops in time to get the optimum yield. The best suitable time for wheat cultivation is 1st November to 20th November.
- ❖ Farmers of rainfed areas are advised to sow their rabi crops during the period 15th October to 15th November. After this time the yield of wheat crop decreases gradually.
- ❖ Farmers of cotton crop areas are advised to prepare their field for incoming rabi crops and complete sowing in time.

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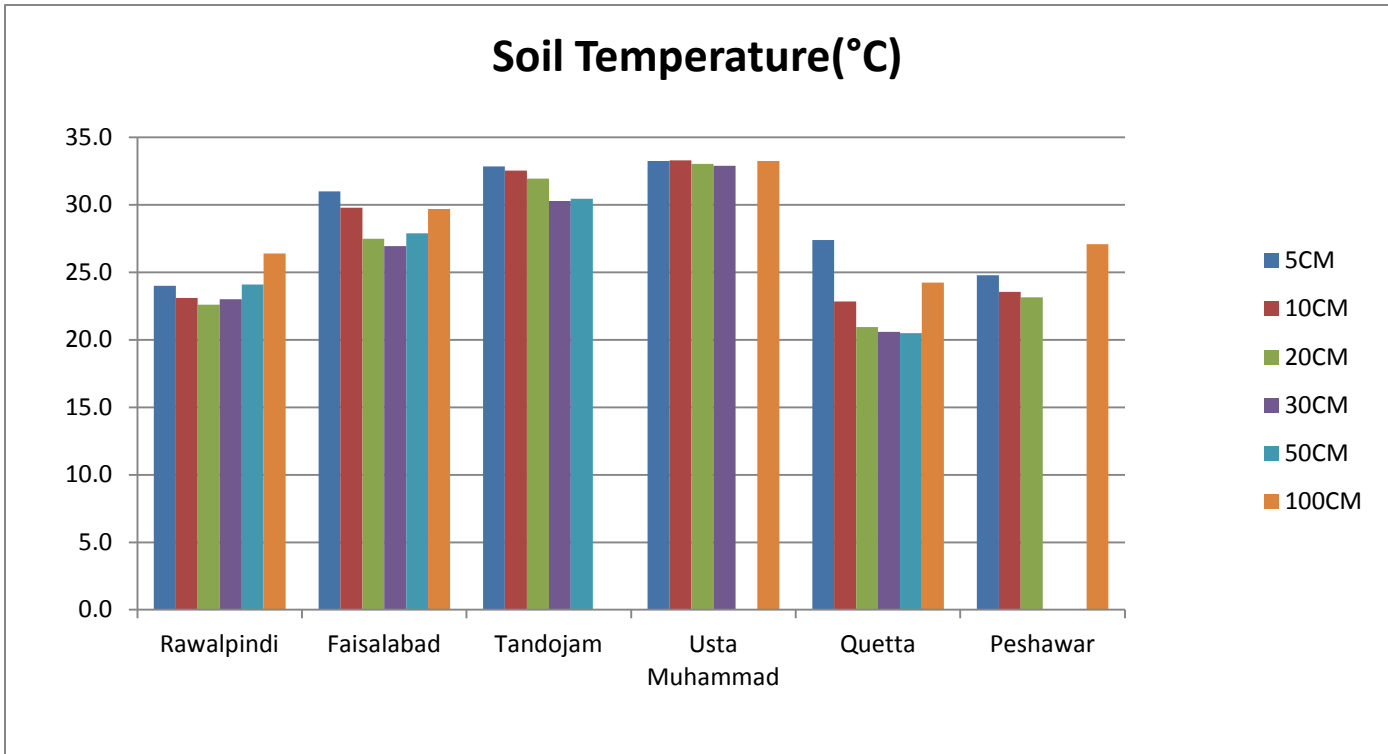
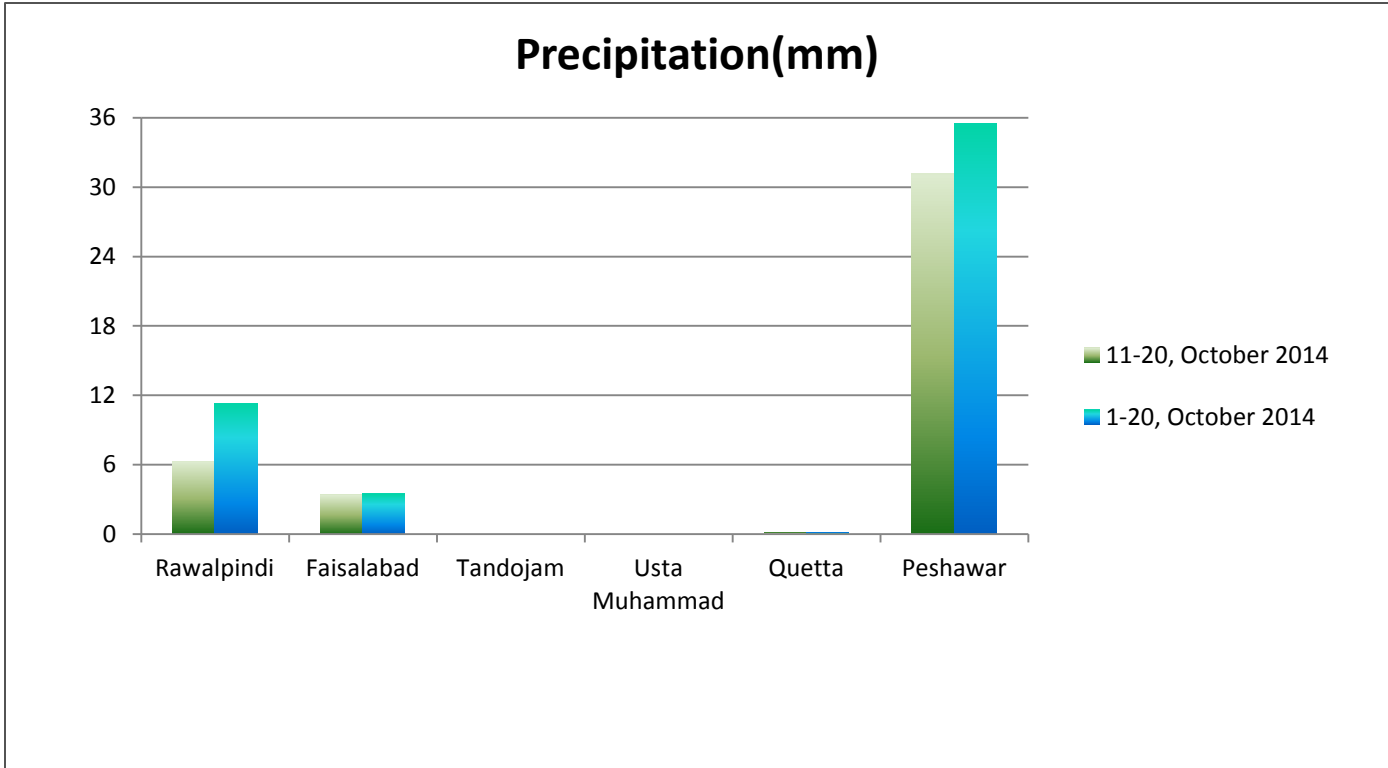
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Meteorological conditions during 2<sup>nd</sup> decade of October, 2014

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	Tmax	Tmin	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	1.9	6.3	4.4	-3.4	-2.5	20.3	24.0	23.1	22.6	23.0	24.1	26.4	62	70.5	0.9	2.2
2	FAISALABAD	0.1	3.4	3.3	-2.1	-0.6	23.9	31.0	29.8	27.5	27.0	27.9	29.7	55	82.5	1.8	2.9
3	JHELUM	1.1	2.6	1.5	-2.5	-1.2	23.1	25.4	24.5	24.0	24.0	25.3	***	64	76.0	3.0	2.9
4	LAHORE	0.6	0.1	-0.5	-1.9	-0.9	25.2	28.0	27.8	26.1	25.9	***	28.3	62	86.1	2.6	3.2
5	SARGODHA	0.4	4.8	4.4	-1.9	-0.7	24.9	29.9	28.1	27.0	27.3	28.4	29.1	63	84.2	0.6	2.7
6	MULTAN	0.0	23.0	23.0	-3.3	0.1	25.2	***	***	***	***	***	***	52	77.3	3.7	3.5
7	KHANPUR	0.0	0.0	0.0	-2.1	-1.5	25.5	***	29.9	30.1	30.9	31.7	32.2	64	89.7	3.2	3.7
8	TANDOJAM	0.0	0.0	0.0	-0.9	-1.7	26.9	32.9	32.6	32.0	30.3	30.5	***	42	95.9	0.9	3.2
9	SAKRAND ☆	0.0	0.0	0.0	-1.6	-5.1	24.3	35.9	34.7	***	***	***	34.4	57	98.9	2.0	3.7
10	ROHRI	0.0	0.0	0.0	-2.2	3.4	29.7	37.0	34.5	31.7	33.8	31.1	33.8	45	101.0	3.0	4.1
11	DI KHAN	0.2	8.0	7.8	-2.7	-2.1	23.6	***	***	***	***	***	***	56	83.8	***	4.2
12	PESHAWAR	0.5	31.2	30.7	-3.4	-1.2	21.7	24.8	23.6	23.2	***	***	27.1	67	57.2	1.5	2.2
13	USTA MUHAMMAD	0.0	0.0	0.0	-0.4	-1.6	27.3	33.3	33.3	33.1	32.9	***	33.3	54	***	***	4.7
14	QUETTA	0.0	0.1	0.1	-3.3	1.9	17.1	27.4	22.9	21.0	20.6	20.5	24.3	27	91.1	5.4	3.8
15	SKARDU	0.2	0.1	-0.1	-2.3	0.5	11.0	***	***	***	***	***	***	47	40.1	2.9	2.0
16	GILGIT	0.1	20.3	20.2	-0.7	2.5	15.6	***	***	***	***	***	***	52	40.8	2.6	2.2

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. And "% Dep" is calculated by the formula;  $\text{Dep} \div \text{Normal} \times 100$ . Tmin & Tmax stands for minimum and maximum temperatures respectively. ETo stands for reference crop evapotranspiration. \*\*\* stands for no data and (☆) indicates the station with five years climatic (normal) data for computing departures.

## Graph at RAMC's during October, 2014



**Past Weather (11<sup>th</sup> to 20<sup>th</sup> October, 2014)**

Light to moderate rainfall reported from Punjab, KP, G.B & Kashmir however dry weather reported from Sindh & Balochistan during the last decade.

**1.1 Punjab**

Light to moderate rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Bhakkar, Multan & Mianwali. Decadal maximum & minimum temperature both dropped below normal by 2.5°C & 1.0°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 80.9hrs, 2.3km/hr and 3.0mm/day respectively.

**1.2 Sindh**

Dry weather reported in the agricultural plains of Sindh. Decadal maximum & minimum temperature both dropped below normal by 1.6°C & 1.1 respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 48%, 98.6hrs, 2.0km/hr and 3.7mm/day respectively.

**1.3 Khyber Pakhtunkhwa (KP)**

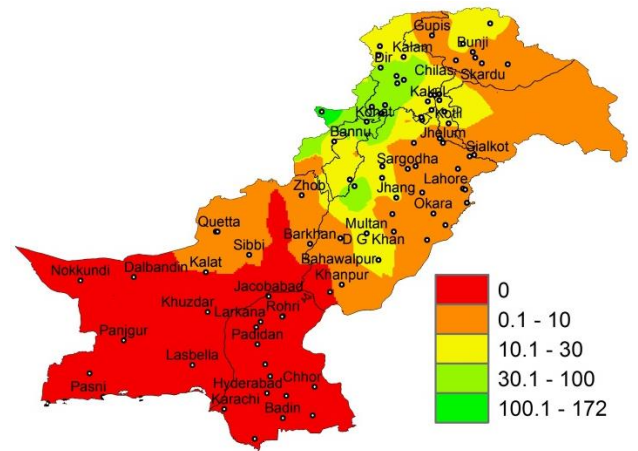
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Parachinar, Malam Jabba & Saidu Sharif. Decadal maximum & minimum temperature both dropped below normal by 3.1°C & 1.7°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 62%, 70.5hrs, 1.5km/hr and 3.2mm/day respectively.

**1.4 Balochistan**

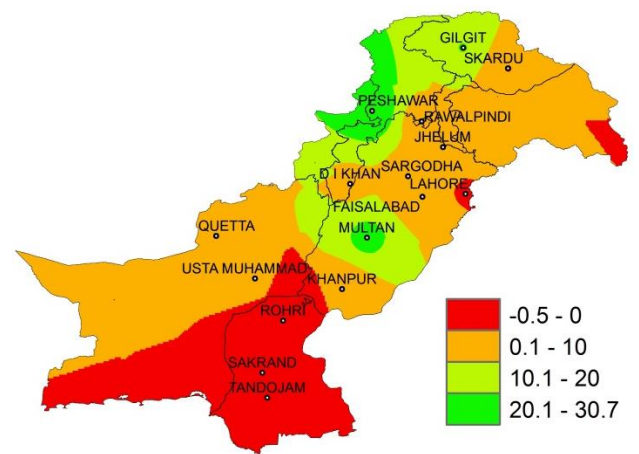
Rainfall reported as Trace (not measurable) at one station i.e Quetta. Decadal maximum dropped below normal by 1.9°C & minimum temperature raised above normal by 0.1°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 41%, 91.1hrs, 5.4km/hr and 4.3mm/day respectively.

**1.5 Gilgit-Baltistan and Azad Jammu & Kashmir**

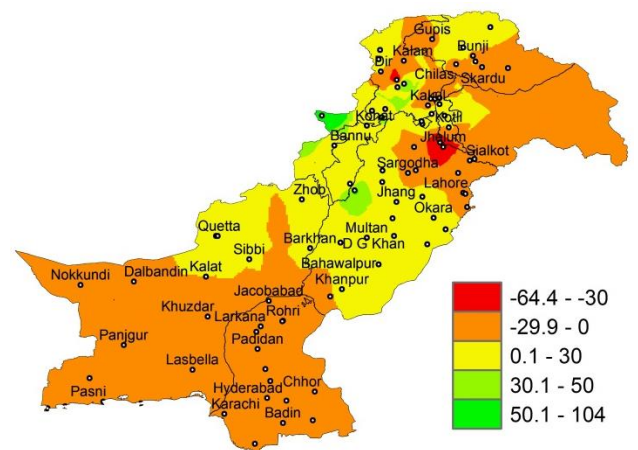
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Rawalakot, Chilas & Garhi Doppatta. Decadal maximum dropped below normal by 1.5°C & minimum temperature raised above normal by 1.5°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 40.5hrs, 2.8km/hr and 2.1mm/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 in "mm"

2(a) **Past Weather for Major Agricultural Plains  
(11<sup>th</sup> to 20<sup>th</sup> October, 2014)**

2.1 **RAMC, Rawalpindi (Potohar region)**

Rainfall reported as 6.3mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 62%. Mean day temperature was 27°C while night temperature recorded as 13°C with 70.5hours bright sunshine duration. Wind speed recorded as 0.9km/hr with mean wind direction *westerly*.

**Maize:** Good condition, milk maturity Stage

2.2 **RAMC, Faisalabad (Central Punjab)**

Rainfall reported as 3.4mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 55%. Mean day temperature was 31°C while night temperature recorded as 17°C with 82.5hours bright sunshine duration. Wind speed recorded as 1.8km/hr with mean wind direction *north westerly*.

**Cotton:** Normal condition, picking stage.

2.3 **RAMC, Tandojam (Lower Sindh)**

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 42%. Mean day temperature was 36°C while night temperature recorded as 18°C with 95.9hours bright sunshine duration. Wind speed recorded as 0.9km/hr with mean wind direction *north easterly*.

**Cotton (BT-3701):** Good condition, maturity stage.

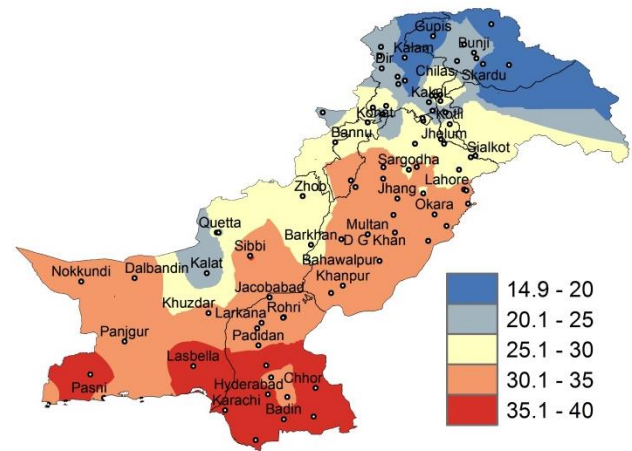
2.4 **RAMC, Usta Muhammad (Eastern Balochistan)**

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 54%. Mean day temperature was 34°C while night temperature recorded as 20°C.

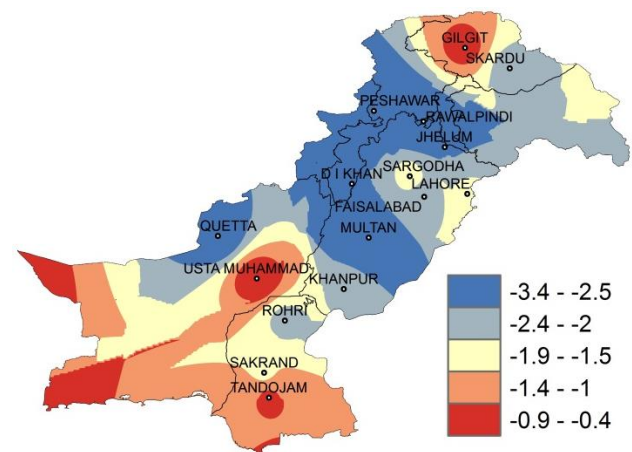
**Rice:** Good condition, full maturity stage.

2.5 **RAMC, Quetta (Northern Balochistan)**

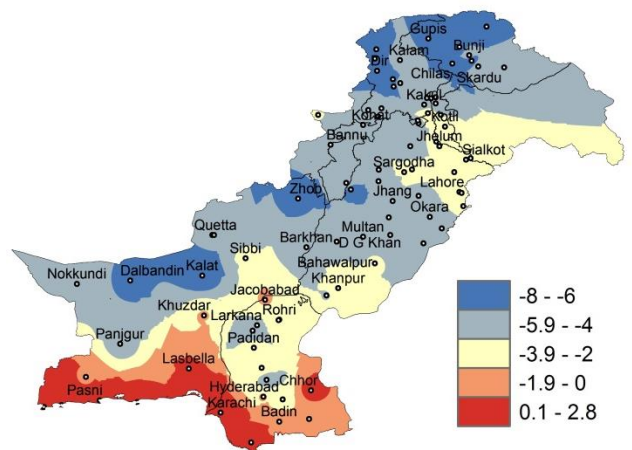
Rainfall reported as Trace (not measurable) during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 27%. Mean day temperature was 24°C while night temperature recorded as 10°C with 91.1hours bright sunshine duration and wind speed recorded as 5.4km/hr with mean wind direction *north westerly*.



I. Actual max-temp



II. Departure of max-temp from Normal



III. Departure of max-temp from Previous Decade

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

2(b) **Past Weather for Sub-Regional Agricultural Plains (11<sup>th</sup> to 20<sup>th</sup> October, 2014)**

2.6 **Jhelum**

Rainfall reported as 2.6 during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 64%. Mean day temperature was 30°C while night temperature recorded as 16°C with 76.0hours bright sunshine duration. Wind speed recorded 3.0km/hr with mean wind direction *westerly*.

2.7 **Lahore**

Rainfall reported as Trace (not measurable) during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 62%. Mean day temperature was 30°C while night temperature recorded as 20°C with 86.1hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Rainfall reported as 4.8mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 63%. Mean day temperature was 31°C while night temperature recorded as 18°C with 84.2hours bright sunshine duration. Wind speed recorded as 0.6km/hr with mean wind direction *northerly*.

2.9 **Multan**

Rainfall reported as 23.0mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 52%. Mean day temperature was 31°C while night temperature recorded as 19°C with 77.3hours bright sunshine duration. Wind speed recorded 3.7km/hr with mean wind direction *southerly*.

2.10 **Khanpur**

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 64%. Mean day temperature was 33°C while night temperature recorded as 18°C with 89.6hours bright sunshine duration. Wind speed recorded 3.2km/hr with mean wind direction *north easterly*.

2.11 **Sakrand**

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 57%. Mean day temperature was 34°C while night temperature recorded as 14°C with 98.9hours bright sunshine duration. Wind speed recorded 2.03km/hr with mean wind direction *northerly*.

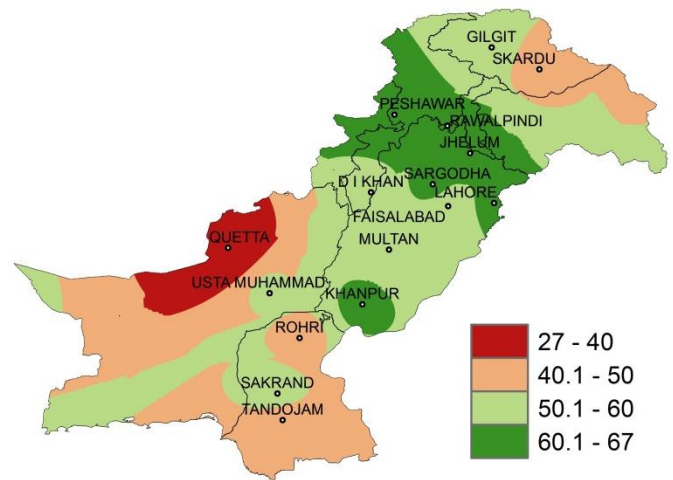


Figure.3: Relative Humidity in percentage (%)

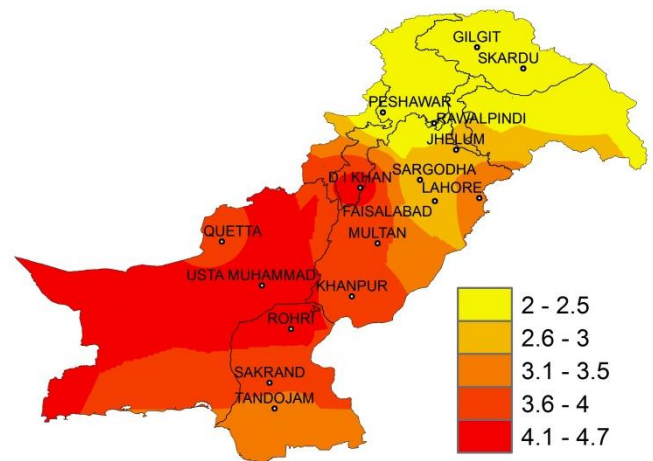


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

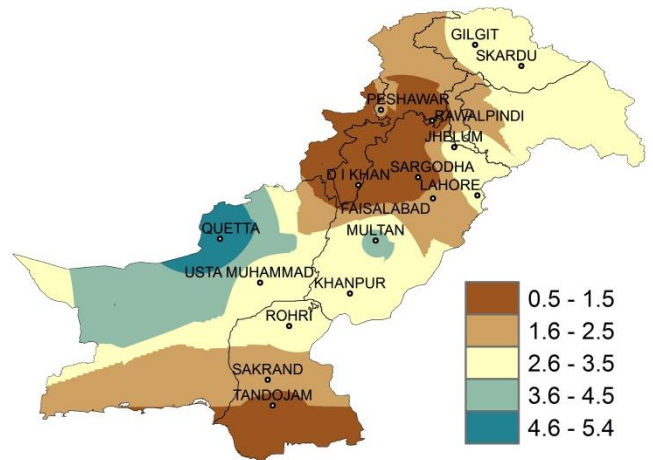


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 45%. Mean day temperature was 34°C while night temperature recorded as 26°C with 101hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *north easterly*.

**2.13 D.I. Khan**

Rainfall reported as 8.0mm during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 56%. Mean day temperature was 31°C while night temperature recorded as 16°C with 83.8hours bright sunshine duration.

**2.14 Peshawar**

Rainfall reported as 31.2mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 67%. Mean day temperature was 27°C while night temperature recorded as 16°C with 57.2hours bright sunshine duration. Wind speed recorded as 1.5km/hr with mean wind direction *north westerly*.

**2.15 Skardu**

Rainfall reported as Trace (not measurable) during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 47%. Mean day temperature was 18°C while night temperature recorded as 4°C with 40.1hours bright sunshine duration. Wind speed recorded as 2.9km/hr with mean wind direction *south easterly*.

**2.16 Gilgit**

Rainfall reported as 20.3mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 52%. Mean day temperature was 23°C while night temperature recorded as 8°C with 40.8hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *westerly*.

**3. Ten Days Weather Advisory for Farmers  
(21<sup>st</sup> to 31<sup>st</sup> October, 2014)****3.1 Temperature Forecast**

Normal to below normal temperature is expected in most of the agricultural plains of the country during the decade.

**3.2 Wind Forecast**

Normal to gusty wind pattern may prevail in most of the agricultural plains of the country during the decade.

**3.3 Rain Forecast**

- ❖ **Punjab:** Mostly dry weather is expected during the decade. However light to moderate rainfall is expected over most of the agricultural plains of the Northern Belt of province (23th & 24th October).
- ❖ **Khyber Pakhtunkhwa:** Mostly cloudy & cold weather with light to moderate rainfall over hills is expected at K.P during the decade.
- ❖ **Sindh:** Dry weather expected in most of the parts of Sindh during the decade.
- ❖ **Balochistan:** Mainly dry weather is expected in the province.
- ❖ **Gilgit Baltistan:** Mostly partially cloudy with light to moderate rainfall over hills is expected over most parts of GB during the decade.
- ❖ **Kashmir:** Mostly partially cloudy/cloudy weather is expected however light to moderate rainfall is expected over most parts of Kashmir during the decade.

**3.4 Advisory for Farmers**

- ❖ Farmers are advised to cultivate winter vegetables in time so that present soil moisture may fully be utilized.
- ❖ Farmers of wheat growing areas are advised to sow their crops in time to get the optimum yield. The best suitable time for wheat cultivation is 1st November to 20th November.
- ❖ Farmers of rainfed areas are advised to sow their rabi crops during the period 15th October to 15th November. After this time the yield of wheat crop decreases gradually.
- ❖ Farmers of cotton crop areas are advised to prepare their field for incoming rabi crops and complete sowing in time.