

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of country during the last decade.
- ❖ Highest amount of rainfall recorded as 65.0mm at Kalam during the last decade.
- ❖ Lowest minimum temperature recorded -6.2 °C at Kalat during the last decade.
- ❖ Mainly cold and dry weather is expected in most parts of the country however, partly cloudy weather conditions with light rain is expected at one or two places in K.P, G.B & Kashmir.
- ❖ 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 cotton crop areas are advised to prepare their field for incoming rabi crops and complete sowing in time.
- ❖ Farmers of irrigated plains of Punjab, Sindh & K.P are advised to complete sowing of wheat crop before 15th December to get maximum yield. In case of late sowing, the recommended varieties should be cultivated to minimize the loss in yield.

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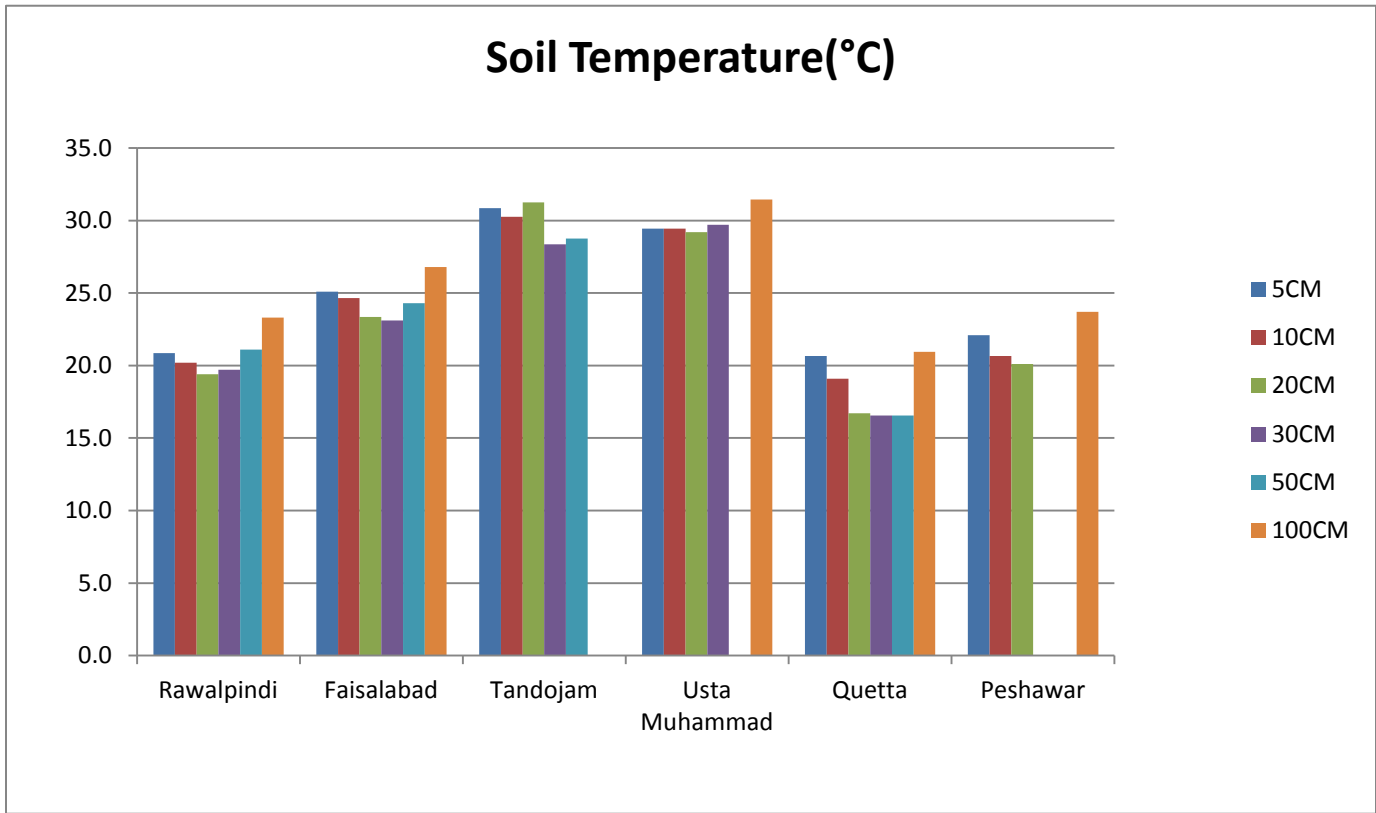
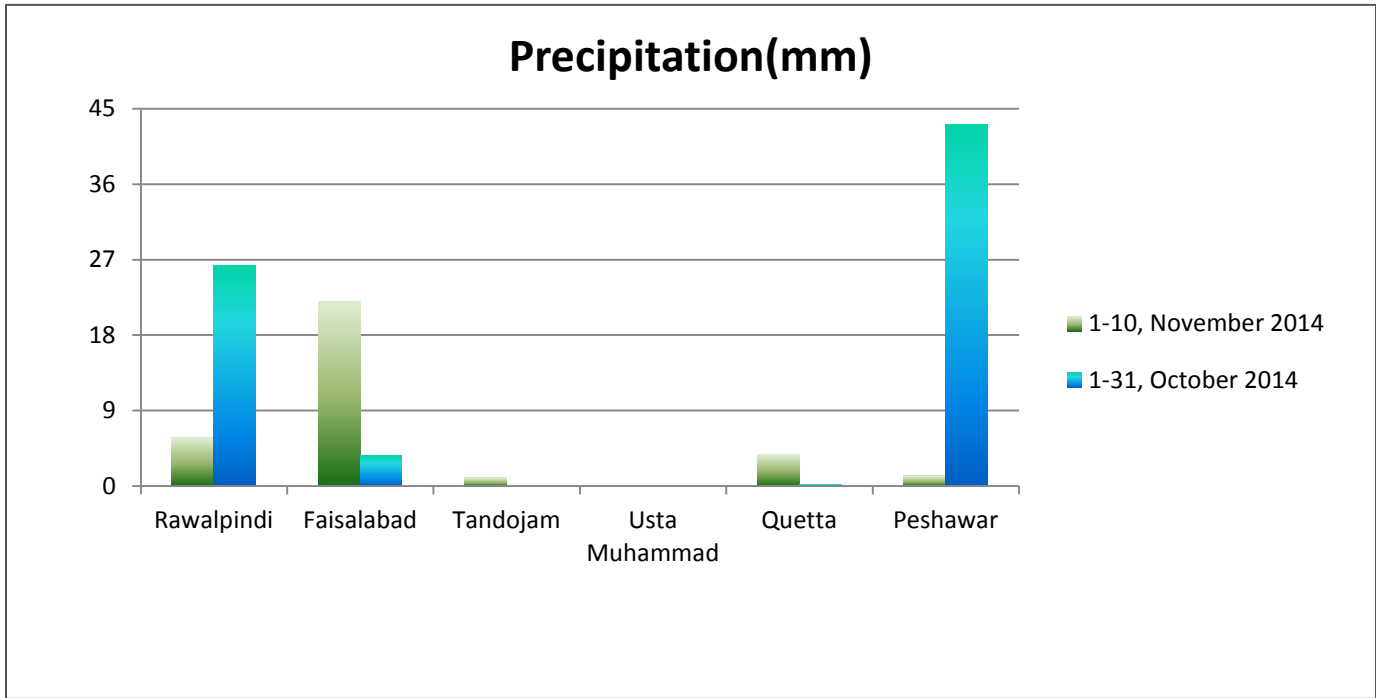
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Meteorological conditions during 1st decade of November, 2014

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 Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	0.3	5.8	5.5	-2.1	0.0	18.1	20.9	20.2	19.4	19.7	21.1	23.3	59	56.5	1.9	1.8
2	FAISALABAD	0.0	22.0	22.0	-1.9	9.4	25.4	25.1	24.7	23.4	23.1	24.3	26.8	60	64.0	1.4	2.2
3	JHELUM	0.1	1.5	1.4	-2.2	-0.2	20.5	21.6	20.9	20.5	20.7	21.9	***	64	67.8	1.7	2.0
4	LAHORE	0.0	29.2	29.2	-1.7	-0.7	21.9	23.3	22.9	22.4	22.5	***	25.4	63	59.4	2.9	2.3
5	SARGODHA	0.0	7.8	7.8	-1.6	0.9	21.8	23.5	22.4	22.1	22.7	24.0	25.9	66	63.2	0.0	1.7
6	MULTAN	0.0	0.1	0.1	-2.5	1.5	22.4	***	***	***	***	***	***	56	64.5	3.9	2.7
7	KHANPUR	0.0	0.0	0.0	-2.2	1.2	23.2	***	25.9	26.5	27.1	28.0	29.0	57	67.3	2.8	2.7
8	TANDOJAM	0.0	1.0	1.0	0.8	2.5	26.9	30.9	30.3	31.3	28.4	28.8	***	51	76.6	1.6	2.9
9	SAKRAND ☆	0.0	0.0	0.0	-1.6	-1.6	23.1	33.0	30.5	***	***	***	32.0	59	90.0	3.5	3.3
10	ROHRI	0.0	9.0	9.0	-2.0	-6.5	21.5	32.3	30.7	28.6	29.5	28.5	32.0	47	94.2	3.8	3.4
11	DI KHAN	0.0	6.0	6.0	-2.0	-1.1	20.3	***	***	***	***	***	***	54	66.6	***	3.4
12	PESHAWAR	0.4	1.2	0.8	-1.5	-1.0	18.8	22.1	20.7	20.1	***	***	23.7	58	30.6	1.2	1.5
13	USTA MUHAMMAD	0.0	0.0	0.0	-0.2	-0.5	24.5	29.5	29.5	29.2	29.7	***	31.5	53	***	***	4.0
14	QUETTA	0.1	3.8	3.7	-3.7	2.1	12.7	20.7	19.1	16.7	16.6	16.6	21.0	43	59.0	5.8	2.6
15	SKARDU	0.1	7.0	6.9	-3.2	1.8	7.6	***	***	***	***	***	***	53	56.4	0.9	1.2
16	GILGIT	0.2	3.8	3.6	-3.6	2.5	11.8	***	***	***	***	***	***	70	34.0	0.7	1.4

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 November, 2014



Past Weather (1st to 10th November, 2014)

Light to moderate rainfall reported in the agricultural plains of country during the last decade.

1.1 Punjab

Light to moderate rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Lahore, Murree & Faisalabad. Decadal maximum dropped below normal by 2.0°C & minimum temperature raised above normal by 1.7°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 61%, 63.2hrs, 2.1km/hr and 2.2mm/day respectively.

1.2 Sindh

Dry weather reported in the agricultural plains of Sindh. Decadal maximum & minimum temperature both dropped below normal by 0.9°C & 1.9 respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 52%, 86.9hrs, 3.0km/hr and 3.2mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

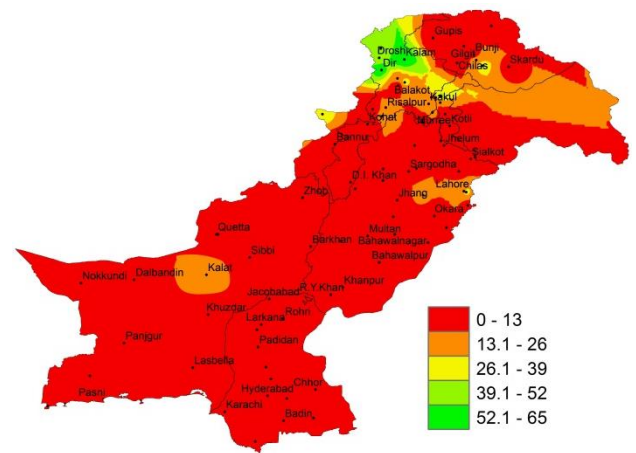
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Kalam, Dir & Drosh. Decadal maximum & minimum temperature both dropped below normal by 1.8°C & 1.1°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 56%, 48.6hrs, 1.2km/hr and 2.5mm/day respectively.

1.4 Balochistan

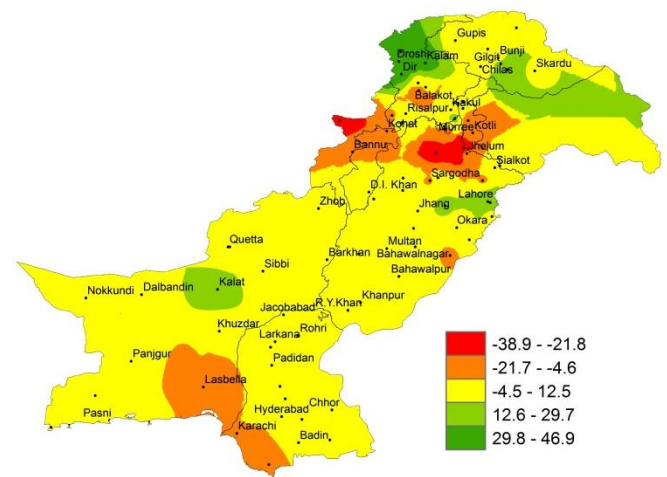
Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Kalat, Zhob & Panjgur. Decadal maximum dropped below normal by 2.0°C & minimum temperature raised above normal by 0.8°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 48%, 59.0hrs, 5.8km/hr and 3.3mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

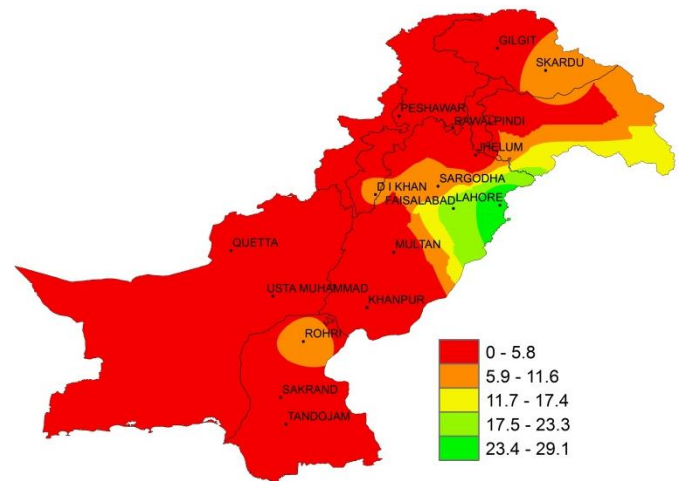
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Astore, Muzaffarabad & Rawalakot. Decadal maximum dropped below normal by 3.4°C & minimum temperature raised above normal by 2.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 62%, 45.2hrs, 0.8km/hr and 1.3mm/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
(1st to 10th November, 2014)**

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

Rainfall reported as 5.8mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 59%. Mean day temperature was 26°C while night temperature recorded as 11°C with 56.5hours bright sunshine duration. Wind speed recorded as 1.9km/hr with mean wind direction *westerly*.

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

Rainfall reported as 22.0mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 60%. Mean day temperature was 28°C while night temperature recorded as 22°C with 64.0hours bright sunshine duration. Wind speed recorded as 1.4km/hr with mean wind direction *north westerly*.

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

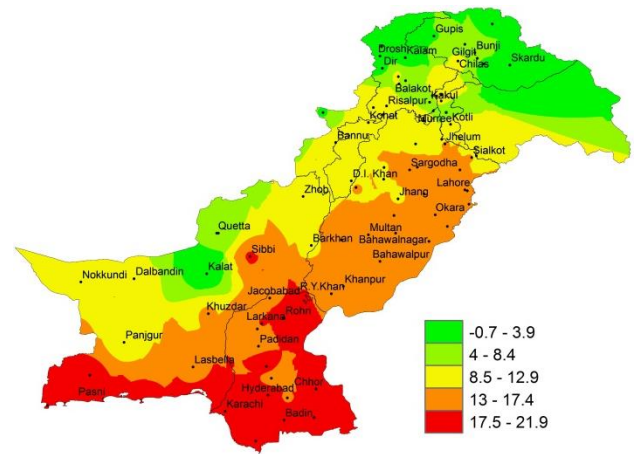
Rainfall reported as 1.0mm during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 51%. Mean day temperature was 35°C while night temperature recorded as 19°C with 76.6hours bright sunshine duration. Wind speed recorded as 1.6km/hr with mean wind direction *north westerly*.

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

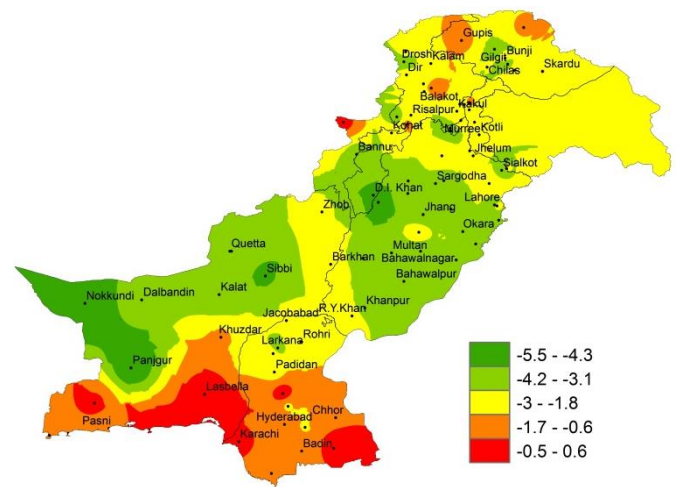
Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 53%. Mean day temperature was 32°C while night temperature recorded as 17°C.

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

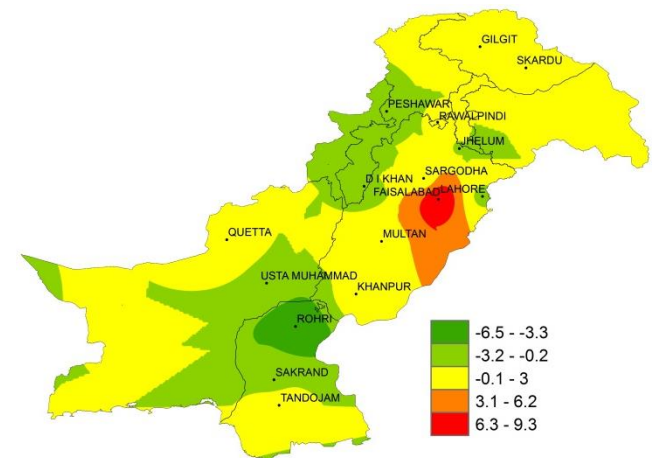
Rainfall reported as 3.8mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 43%. Mean day temperature was 19°C while night temperature recorded as 7°C with 59.0hours bright sunshine duration and wind speed recorded as 5.8km/hr with mean wind direction *southerly*.



I. Actual min-temp



II. Departure of min-temp from Normal



III. Departure of min-temp from Previous Decade

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

2(b) **Past Weather for Sub-Regional Agricultural Plains (1st to 10th November, 2014)**

2.6 **Jhelum**

Rainfall reported as 1.5 during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 64%. Mean day temperature was 27°C while night temperature recorded as 13°C with 67.8hours bright sunshine duration. Wind speed recorded 1.7km/hr with mean wind direction *north westerly*.

2.7 **Lahore**

Rainfall reported as 29.2mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 63%. Mean day temperature was 28°C while night temperature recorded as 16°C with 59.4hours bright sunshine duration. Wind speed recorded as 2.9km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Rainfall reported as 7.8mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 66%. Mean day temperature was 28°C while night temperature recorded as 16°C with 63.2hours bright sunshine duration. Wind speed remains Calm.

2.9 **Multan**

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 56%. Mean day temperature was 28°C while night temperature recorded as 16°C with 64.5hours bright sunshine duration. Wind speed recorded 3.9km/hr with mean wind direction *north easterly*.

2.10 **Khanpur**

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 57%. Mean day temperature was 30°C while night temperature recorded as 16°C with 67.3hours bright sunshine duration. Wind speed recorded 2.8km/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 59%. Mean day temperature was 32°C while night temperature recorded as 15°C with 90.0hours bright sunshine duration. Wind speed recorded 3.5km/hr with mean wind direction *northerly*.

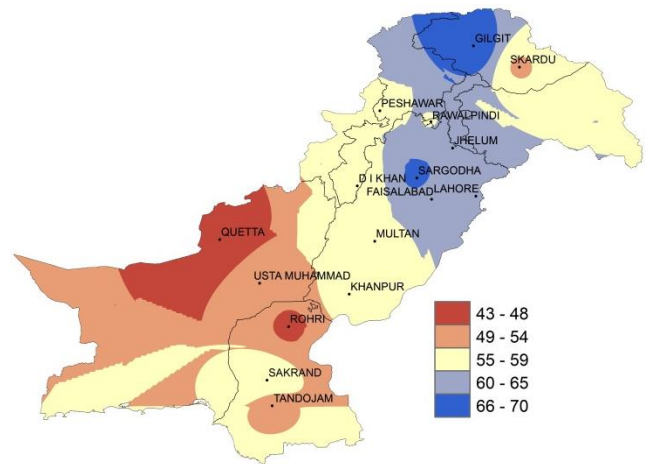


Figure.3: Relative Humidity in percentage (%)

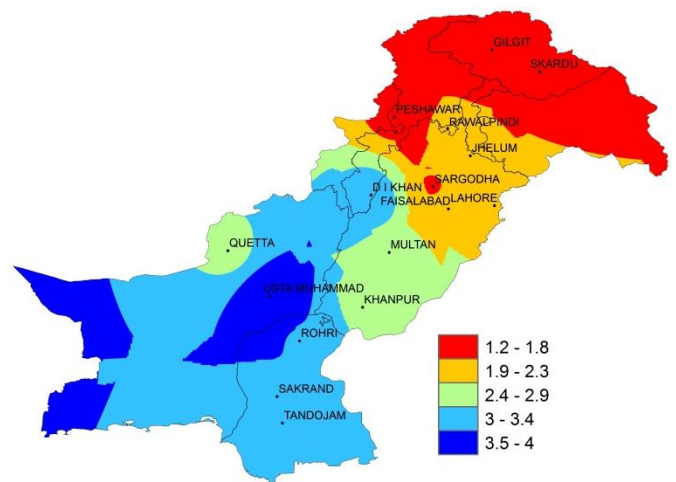


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

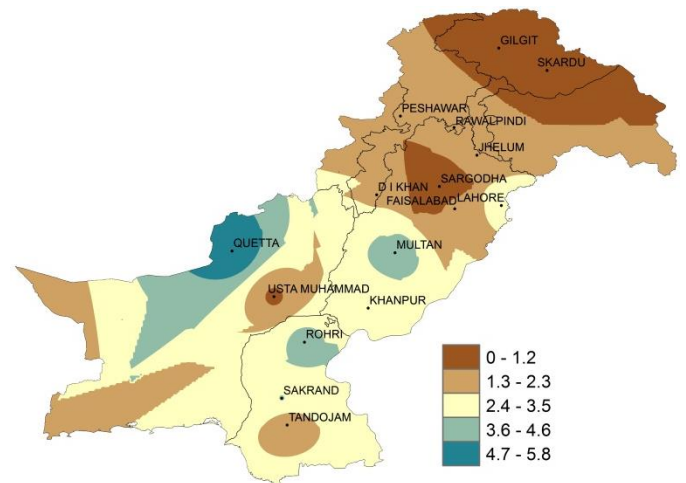


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as 9.0mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 47%. Mean day temperature was 31°C while night temperature recorded as 20°C with 94.2hours bright sunshine duration. Wind speed recorded as 3.8km/hr with mean wind direction *northerly*.

2.13 D.I. Khan

Rainfall reported as 6.0mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 54%. Mean day temperature was 28°C while night temperature recorded as 13°C with 66.6hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 1.2mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 58%. Mean day temperature was 25°C while night temperature recorded as 12°C with 30.6hours bright sunshine duration. Wind speed recorded as 1.2km/hr with mean wind direction *westerly*.

2.15 Skardu

Rainfall reported as 7.0mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 53%. Mean day temperature was 14°C while night temperature recorded as 1°C with 56.4hours bright sunshine duration. Wind speed recorded as 0.9km/hr with mean wind direction *south westerly*.

2.16 Gilgit

Rainfall reported as 3.8mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 70%. Mean day temperature was 19°C while night temperature recorded as 5°C with 34.0hours bright sunshine duration. Wind speed recorded as 0.74km/hr with mean wind direction *south westerly*.

**3. Ten Days Weather Advisory for Farmers
(11th to 20th November, 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 wind pattern may prevail in most of the agricultural plains of the country during the decade.

3.3 Rain Forecast

- ❖ **Punjab:** Mostly cold and dry weather is expected during the decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly cold and dry weather is expected in the province. However light rainfall is expected over few parts end of this decade.
- ❖ **Sindh:** Dry weather expected in most of the parts of Sindh during the decade.
- ❖ **Balochistan:** Mainly cold and dry weather is expected in the province. However light rainfall is expected over few parts of Baluchistan including kalat, Quetta & Zhob on in 2nd half of decade.
- ❖ **Gilgit Baltistan:** Mainly cold and dry weather is expected in most parts of the G.B however, partly cloudy weather conditions with light rain is expected at one or two places in 2nd half of decade.
- ❖ **Kashmir:** Mainly cold and dry weather is expected in most parts of the Kashmir.

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.
- ❖ Farmers of irrigated plains of Punjab, Sindh & K.P are advised to complete sowing of wheat crop before 15th December to get maximum yield. In case of late sowing, the recommended varieties should be cultivated to minimize the loss in yield.