

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of the Punjab, K.P, G.B and Kashmir and dry weather reported in Balochistan and Sindh during the last decade.
- ❖ Highest amount of rainfall reported as 76.6mm at Peshawar during the last decade.
- ❖ Highest maximum temperature recorded 43.5°C at Shaheed Benzairabad during the last decade.
- ❖ Rain-thunderstorm is expected in the agricultural plains of the Punjab, K.P, G.B & Kashmir & dry weather is expected in Sindh and Balochistan during the next decade.
- ❖ Wheat crop is in different maturity stages. Farmers are advised to stop irrigation the crops keeping in view the occurred and expected rain in the agricultural plains of the country.
- ❖ Weeds are expected to shoot in excess after recent rains. Farmers should control weeds growth soon after rains.
- ❖ Farmers are advised to control further weeds growth at the present growing stages to stop any negative impact over the crops. Weeds removing practices should be started soon after expected rains in the mentioned areas.
- ❖ Farmers of upper half and northwest Balochistan should be careful about irrigation and spraying chemicals on the crops during or before expected rains during the decade.

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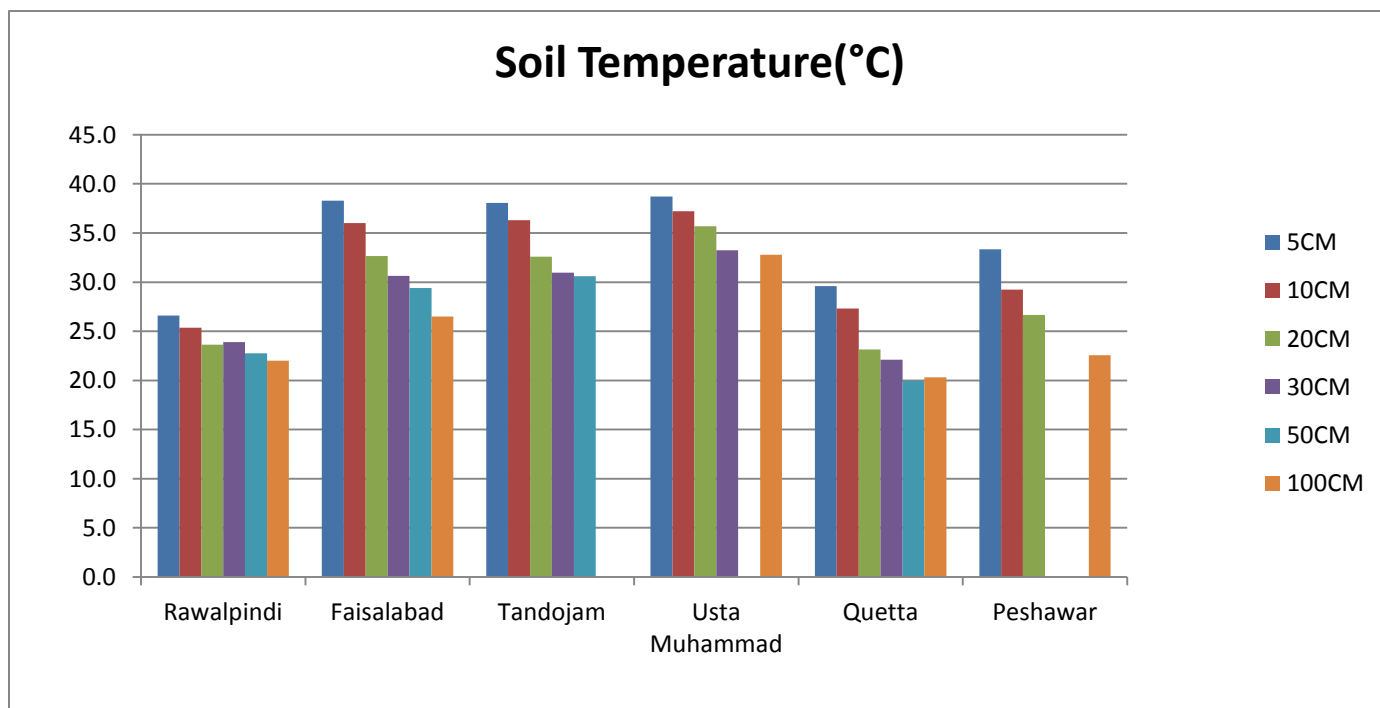
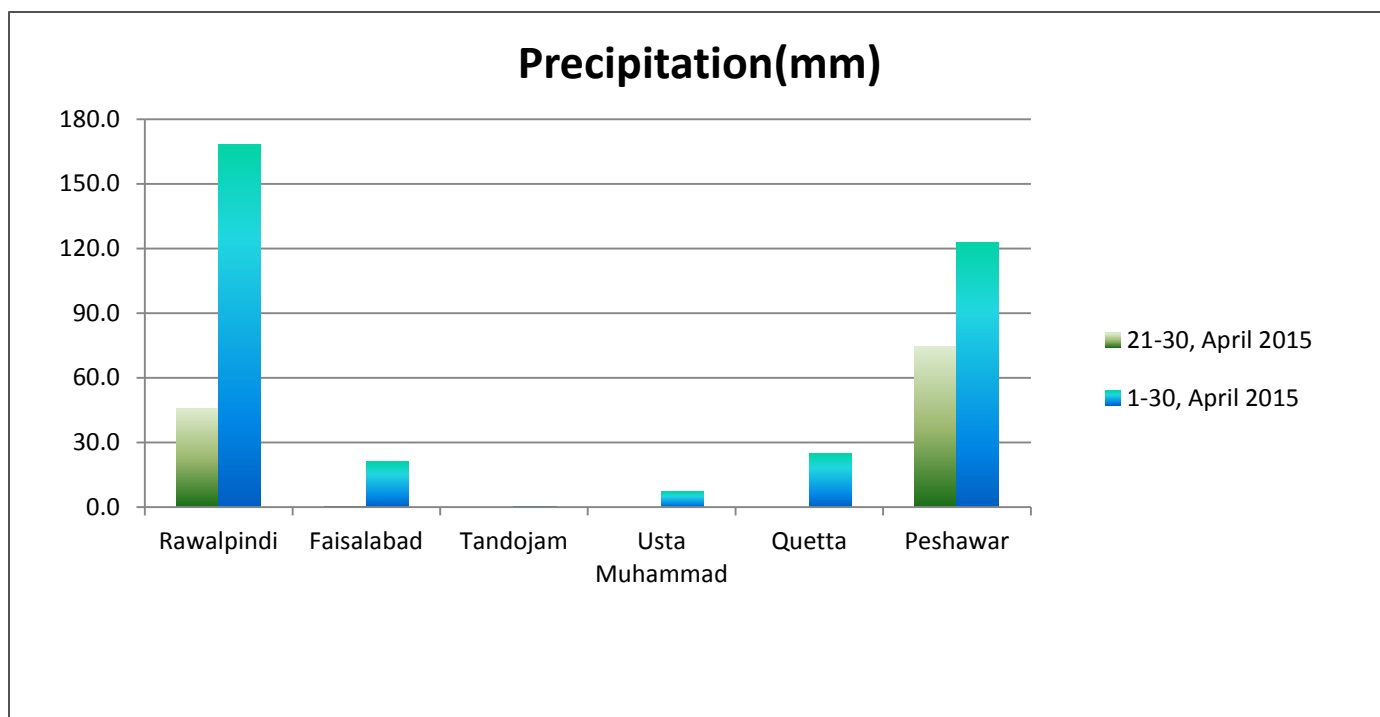
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Meteorological conditions during 3rd decade of April, 2015

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	1.9	45.9	44.0	-1.9	0.3	24.9	26.6	25.4	23.7	23.9	22.8	22.0	51	95.9	6.4	5.6
2	FAISALABAD	0.5	0.1	-0.4	0.4	1.3	30.8	38.3	36.0	32.7	30.7	29.4	26.5	32	102.0	3.8	6.0
3	JHELUM	1.0	6.6	5.6	-2.4	-0.8	27.4	30.6	28.5	26.4	25.3	25.2	***	49	95.6	3.6	5.2
4	LAHORE	0.3	2.0	1.7	-0.1	-1.1	30.0	29.8	28.8	27.5	26.9	***	24.3	39	91	4.6	5.9
5	SARGODHA	0.7	0.7	0.0	-0.8	0.4	30.0	35.5	33.0	28.9	27.7	27.0	24.3	48	95.1	6.3	6.3
6	MULTAN	0.2	0.0	-0.2	0.2	1.2	32.1	***	***	***	***	***	***	28	95.8	5.2	6.6
7	KHANPUR	0.1	0.0	-0.1	0.3	0.2	32.5	***	33.7	33.4	33.2	28.3	30.5	32	91.3	4.3	6.3
8	TANDOJAM	0.1	0.0	-0.1	0.9	0.9	32.3	38.1	36.3	32.6	31.0	30.6	***	43	97.9	2.2	5.5
9	SAKRAND ☆	0.0	0.0	0.0	0.9	-2.0	31.6	48.5	40.1	***	***	***	31.2	28	103.3	2.4	5.7
10	ROHRI	0.0	0.0	0.0	1.0	1.7	35.4	43.8	39.5	34.7	33.1	30.5	31.4	24	121.0	4.5	7.1
11	DI KHAN	0.3	0.0	-0.3	0.8	-0.9	29.4	***	***	***	***	***	***	40	88.5	***	6.8
12	PESHAWAR	1.0	74.6	73.6	-0.1	-1.0	26.2	33.4	29.3	26.7	***	***	22.6	60	81.9	2.7	4.5
13	USTA MUHAMMAD	0.2	0.0	-0.2	2.1	-1.0	33.5	38.7	37.2	35.7	33.3	***	32.8	21	***	***	9.0
14	QUETTA	0.3	0.0	-0.3	1.1	3.2	22.5	29.6	27.3	23.2	22.1	20.0	20.3	15	108.2	6.0	6.1
15	SKARDU	0.7	2.4	1.7	1.0	-0.1	14.6	***	***	***	***	***	***	40	78.6	2.9	3.8
16	GILGIT	0.7	1.5	0.8	0.4	1.0	19.4	***	***	***	***	***	***	43	76.5	3.6	4.5

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. ET 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 April, 2015



Past Weather (21st to 30th April, 2015)

Light to moderate rainfall reported in the agricultural plains of the Punjab, K.P, G.B and Kashmir and dry weather reported in Balochistan and Sindh during the last decade.

1.1 Punjab

Light to moderate rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Murree, Islamabad & Sialkot. Decadal maximum dropped below normal by 0.6°C & minimum temperature departure raised above normal by 0.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 40%, 95.3hrs, 4.9km/hr and 6.0mm/day respectively.

1.2 Sindh

Dry weather reported in the agricultural plains of Sindh. Decadal maximum & minimum temperature departure both raised above normal by 0.9°C & 0.2°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 32%, 107.4hrs, 3.0km/hr and 6.1mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

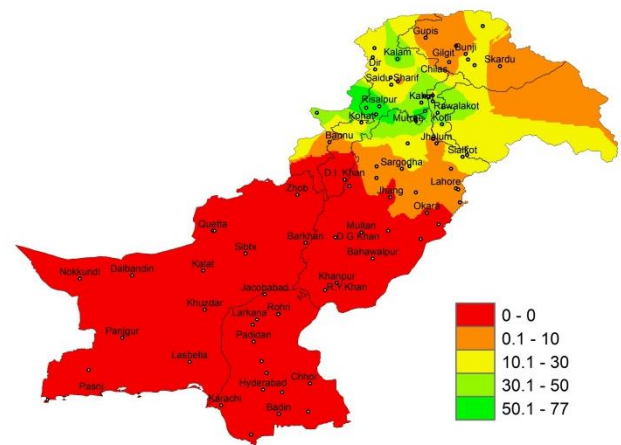
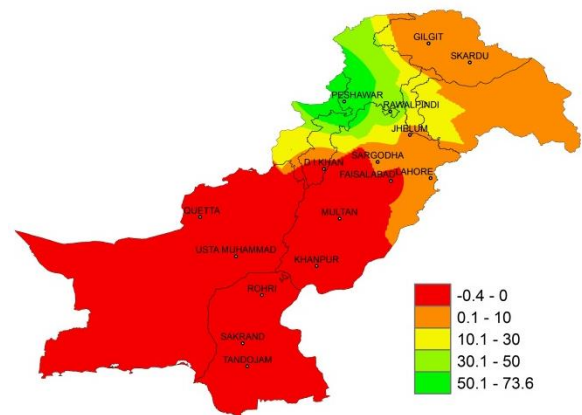
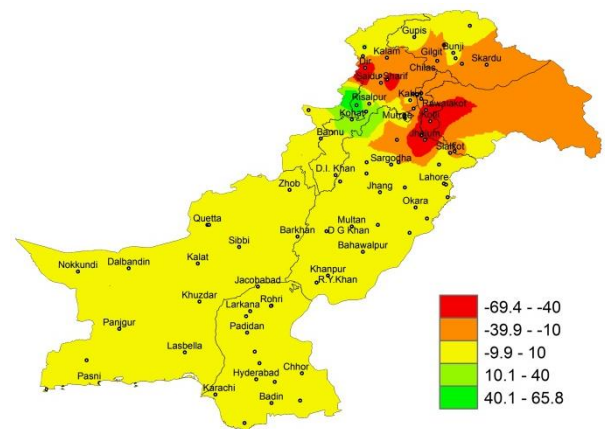
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Peshawar, Kalam & Risalpur. Decadal maximum raised above normal by 0.3°C & minimum temperature departure dropped below normal by 1.0°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 85.2hrs, 7.7km/hr and 5.7mm/day respectively.

1.4 Balochistan

Dry weather reported in the agricultural plains of Balochistan. Decadal maximum & minimum temperature departure both raised above normal by 1.6°C & 1.1°C respectively, in the province. Whereas mean values relative humidity, sunshine hour, wind speed & ETo were recorded as 18%, 108.2hrs, 6.0km/hr and 7.6mm/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 Garhi Doppatta, Muzaffarabad & Kotli. Decadal maximum & minimum temperature departure both raised above normal by 0.7°C & 0.5°C respectively, in the province. Relative humidity, sunshine hour, wind speed & ETo were recorded as 42%, 77.6hrs, 3.3km/hr and 4.2mm/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 (21st to 30th April, 2015)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 45.9mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 51%. Mean day temperature was 31.7°C while night temperature recorded as 18.0°C with 95.9 hours bright sunshine duration. Wind speed recorded as 6.4km/hr with mean wind direction *westerly*.

Wheat (Chakwal-97): Fair condition, milk maturity.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 32%. Mean day temperature was 38.6°C while night temperature recorded as 22.9°C with 102.0 hours bright sunshine duration. Wind speed recorded as 3.8km/hr with mean wind direction *variable*.

Wheat: Good condition, milk maturity completed.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade, weather remained cloudy for 01day. Average relative humidity recorded as 43%. Mean day temperature was 41.5°C while night temperature recorded as 23.0°C with 97.9hours bright sunshine duration. Wind speed recorded as 2.2 km/hr with mean wind direction *westerly*.

Note: Land is preparing for Kharif crop.

2.4 RAMC, Usta Muhammad (Eastern Balochistan)

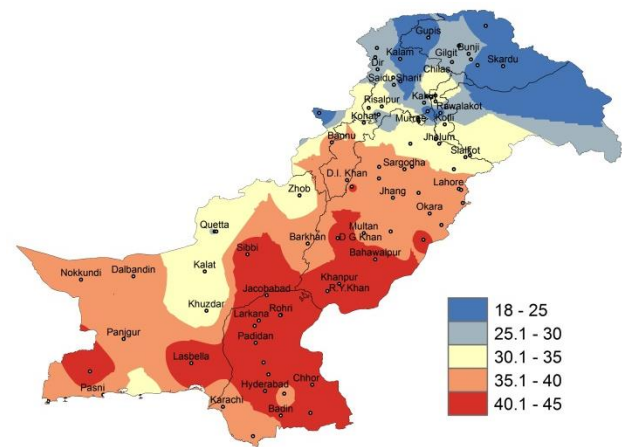
Dry weather reported during the decade. Sky remained clear. Average relative humidity recorded as 21%. Mean day temperature was 45.3°C while night temperature recorded as 21.6°C.

Wheat (Zardana): Harvested.

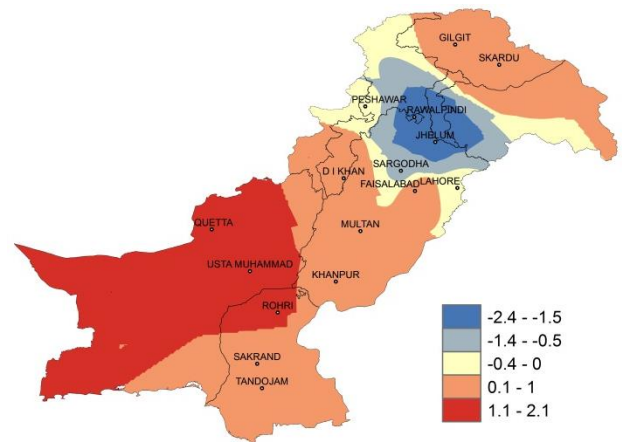
2.5 RAMC, Quetta (Northern Balochistan)

Dry weather reported during the decade, however weather remained cloudy for 03days. Average relative humidity recorded as 15%. Mean day temperature was 29.9°C while night temperature recorded as 15.1°C with 108.2 hours bright sunshine duration and wind speed recorded as 6.0 km/hr with mean wind direction *north westerly*.

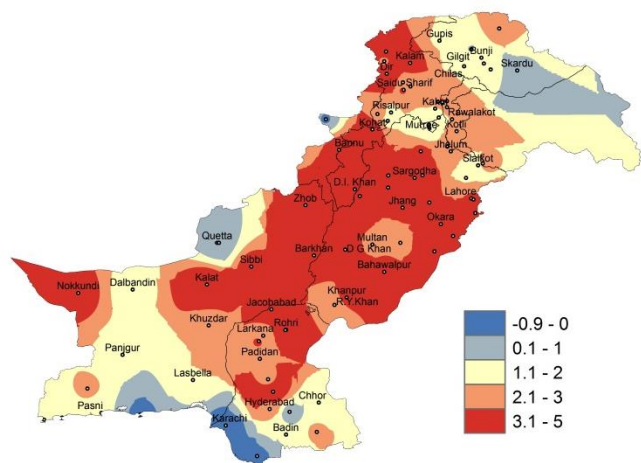
Wheat: Good condition, milk maturity.



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 (21st to 30th April, 2015)

2.6 Jhelum

Rainfall reported as 6.6mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 49%. Mean day temperature was 34.6°C while night temperature recorded as 20.1°C with 95.6hours bright sunshine duration and wind speed recorded as 3.6km/hr with mean wind direction *north westerly*.

2.7 Lahore

Rainfall reported as 2.0mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 39%. Mean day temperature was 37.0°C while night temperature recorded as 23.0°C with 91.4 hours bright sunshine duration. Wind speed recorded as 4.6 km/hr with mean wind direction *westerly*.

2.8 Sargodha

Rainfall reported as 0.7mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 48%. Mean day temperature was 37.3°C while night temperature recorded as 22.7°C with 95.1hours bright sunshine duration. Wind speed recorded as 6.3 km/h with mean wind direction *north easterly*.

2.9 Multan

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 28%. Mean day temperature was 39.7°C while night temperature recorded as 24.5°C with 89.2hours bright sunshine duration. Wind speed recorded 5.2km/hr with mean wind direction *north easterly*.

2.10 Khanpur

Dry weather reported during the decade .Sky remained clear. Average relative humidity recorded as 32%. Mean day temperature was 41.6°C while night temperature recorded as 23.3°C with 91.3 hours bright sunshine duration. Wind speed recorded 4.3 km/hr with mean wind direction *westerly*.

2.11 Sakrand

Dry weather reported during the decade however weather remains cloudy for 01day. Average relative humidity recorded as 28%. Mean day temperature was 42.7°C while night temperature recorded as 20.4°C with 103.3 hours bright sunshine duration. Wind speed recorded 2.4km/hr with wind direction *variable*.

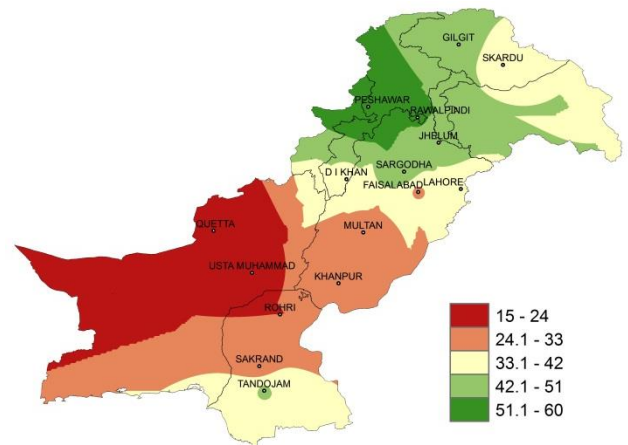


Figure.3: Relative Humidity in percentage (%)

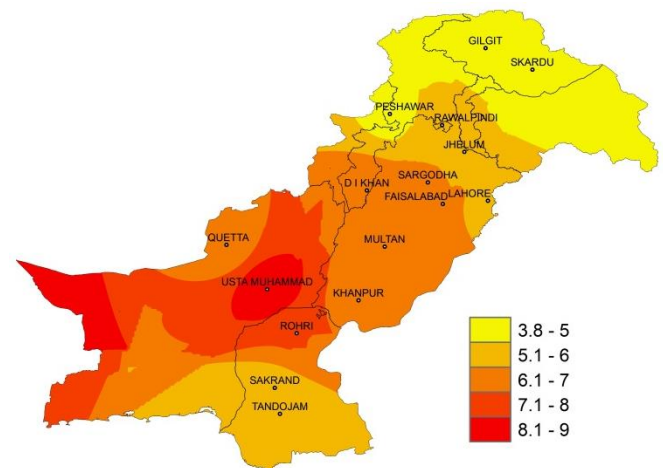


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

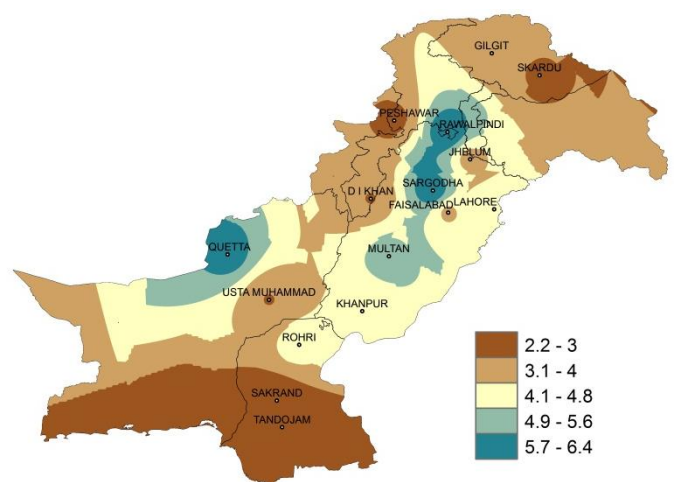


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade, however weather remained cloudy for 01day. Average relative humidity recorded as 24%. Mean day temperature was 43.0°C while night temperature recorded as 27.8°C with 121.0 hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *easterly*.

2.13 D.I. Khan

Dry weather reported during the decade, however weather remained cloudy for 01day. Average relative humidity recorded as 40%. Mean day temperature was 38.3°C while night temperature recorded as 20.4°C with 88.5 hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 74.6mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 60%. Mean day temperature was 38.0°C while night temperature recorded as 17.4°C with 81.9hours bright sunshine duration. Wind speed recorded as 2.7km/hr with mean wind direction *north easterly*.

2.15 Skardu

Rainfall reported as 2.4 mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 40%. Mean day temperature was 21.9°C while night temperature recorded as 7.3°C with 78.6 hours bright sunshine duration. Wind speed recorded as 2.9 km/hr with mean wind direction *easterly*.

2.16 Gilgit

Rainfall reported as 1.5mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 43%. Mean day temperature was 28.2°C while night temperature recorded as 10.6°C with 76.5hours bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction *westerly*.

3. Ten Days Weather Advisory for Farmers (1st to 10th May, 2015)

3.1 Temperature Forecast

Temperatures are likely to be normal/slightly above normal 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:** Mainly hot and dry weather is expected in most parts of the Punjab however light to moderate rainfall is expected in the province from 9th of decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected in the province. However light to moderate rainfall is expected in during 2nd half decade.
- ❖ **Sindh:** Mostly hot and dry weather is expected in most parts of the Sindh.
- ❖ **Balochistan:** Mostly hot and dry weather is expected in most parts of the Balochistan however light to moderate rain is expected at few places of the province including Kalat, Khuzdar, Zhob, Quetta on 8th to 10th of decade.
- ❖ **Gilgit Baltistan:** Mainly dry weather is expected in most parts of the G.B however rain-thunderstorm is expected in 2nd half of decade.
- ❖ **Kashmir:** Mainly dry weather is expected in most of the parts of the Kashmir however rain-thunderstorm is expected in 2nd half of this decade.

3.4 Advisory for Farmers

- ❖ Wheat crop is growing at Wax/full maturity stages. Farmers are advised to stop irrigation the crops keeping the occurred and expected rain in the agricultural plains of the country.
- ❖ Weeds are expected to shoot in excess after recent rains. Farmers should control weeds growth soon after rains.
- ❖ Farmers are advised to control further weeds growth at the present growing stages to stop any negative impact over the crops. Weeds removing practices should be started soon after expected rains in the mentioned areas.
- ❖ Farmers of upper half and northwest Balochistan should be careful about irrigation and spraying chemicals on the crops during or before expected rains during the decade.
- ❖ Wheat crop is growing at very crucial development stages of Wax/Full maturity stages in Punjab. Farmers of these areas are advised to harvest wheat crop keeping in view weather information in mind.
- ❖ During the harvesting process, farmers are advised to be aware about the weather conditions & keep listening & watching carefully the weather advisories issued through radio & television.
- ❖ Farmers of Southern Punjab & Sindh are advised to prepare land for cotton in time so that best grains conditions may be fully utilized during the whole crop life.