

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 light rainfall reported in Balochistan and Sindh during the last decade.
- ❖ Highest amount of rainfall reported as 89.7mm at Kotli during the last decade.
- ❖ Highest maximum temperature recorded 48.0°C at Larkana during the last decade.
- ❖ Light to moderate rainfall 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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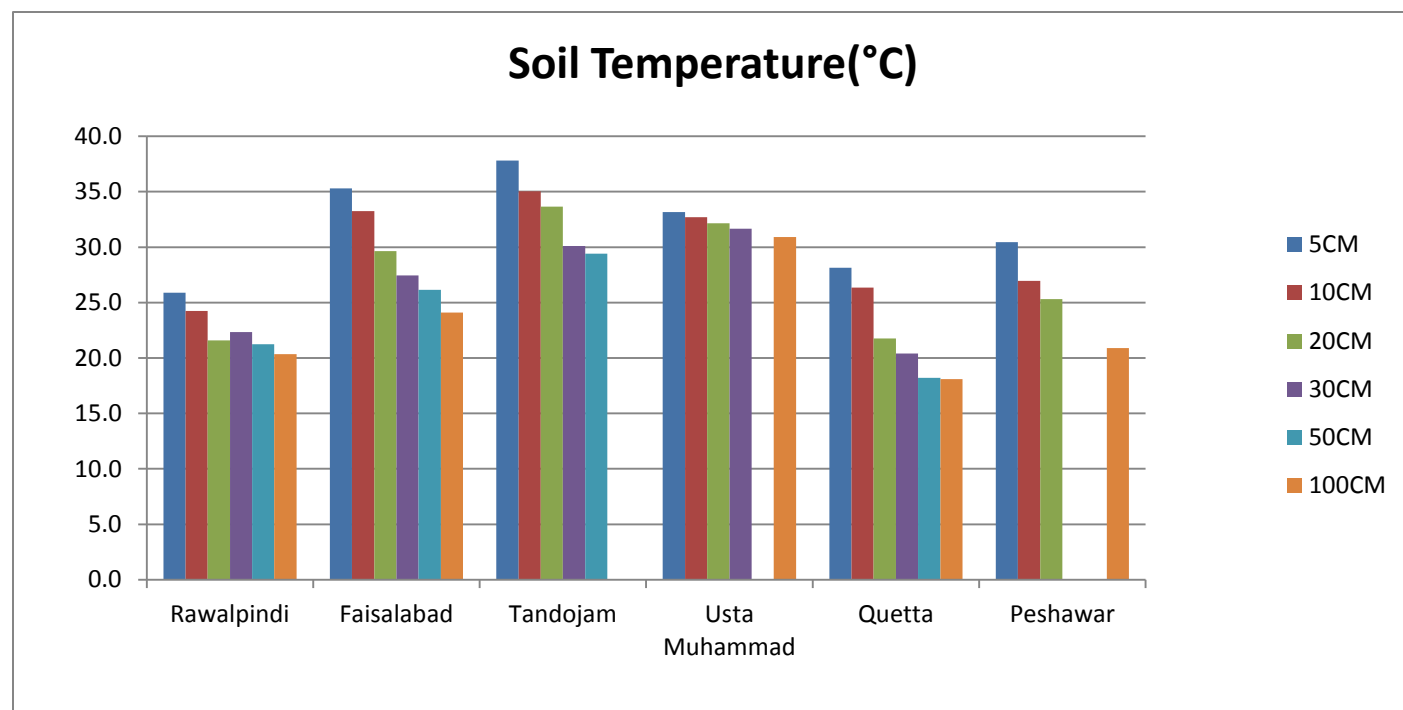
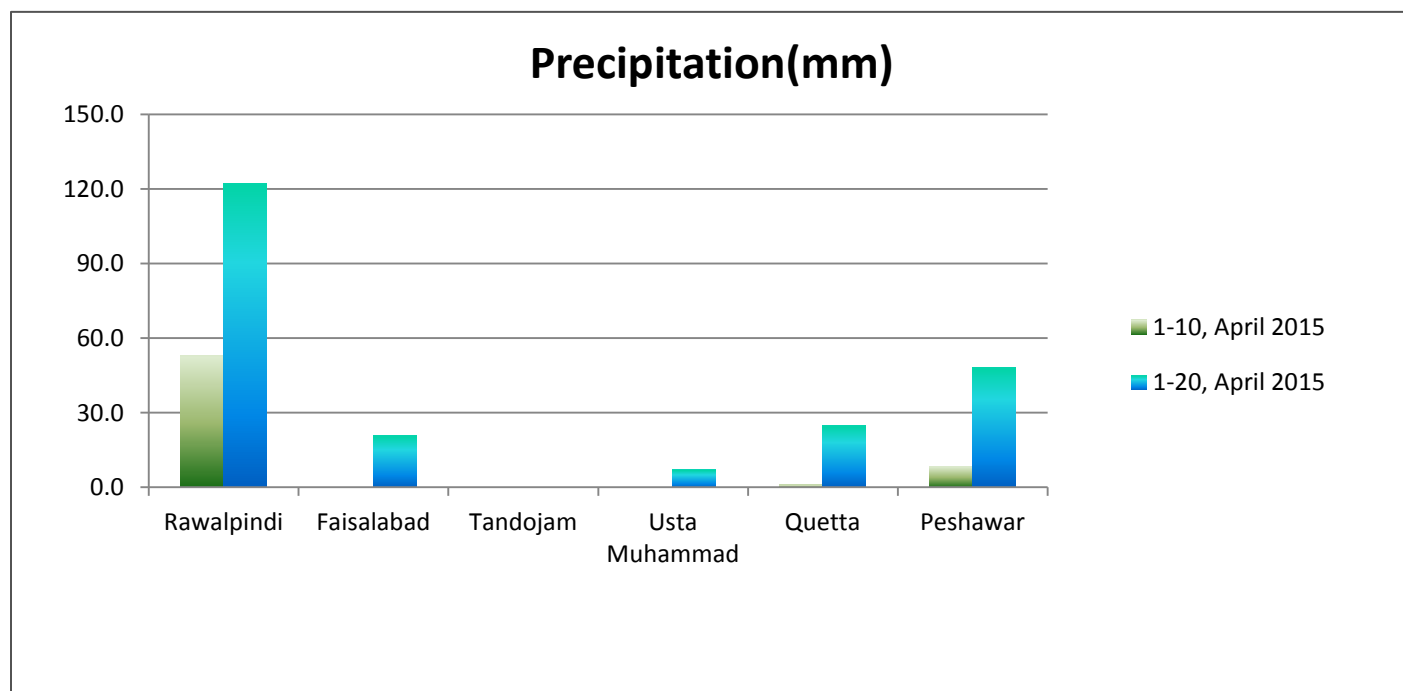
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Meteorological conditions during 2nd decade of April, 2015

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	0.6	53.1	52.5	-1.6	2.1	24.3	25.9	24.3	21.6	22.4	21.3	20.4	56	79.7	5.3	4.7
2	FAISALABAD	0.4	0.0	-0.4	-0.8	1.9	28.4	35.3	33.3	29.7	27.5	26.2	24.1	43	83.0	3.5	5.0
3	JHELMUM	0.8	58.9	58.1	-2.6	0.1	25.8	28.9	27.1	25.2	23.8	23.3	***	58	83.5	3.5	4.6
4	LAHORE	0.2	1.0	0.8	-1.3	-0.5	27.8	32.3	30.9	27.2	25.2	***	23.3	50	71.8	3.8	4.7
5	SARGODHA	0.5	4.0	3.5	-1.4	0.8	28.0	30.4	28.8	25.7	24.8	23.9	22.2	57	94.4	5.6	5.5
6	MULTAN	0.6	0.0	-0.6	-0.5	2.5	30.2	***	***	***	***	***	***	38	89.2	5.3	6.0
7	KHANPUR	0.0	0.0	0.0	-0.9	1.6	30.8	***	30.7	30.2	30.0	29.6	28.0	45	93.9	3.8	5.7
8	TANDOJAM	0.0	0.1	0.1	-2.5	1.1	31.1	37.8	35.1	33.7	30.1	29.4	***	37	93.0	2.3	5.1
9	SAKRAND ☆	0.0	0.0	0.0	-0.5	-0.3	29.9	43.6	37.9	***	***	***	29.5	41	104.2	4.6	6.3
10	ROHRI	0.0	0.0	0.0	-0.4	2.8	33.2	40.7	37.8	33.1	31.3	28.1	28.7	31	104.0	4.8	6.5
11	DI KHAN	0.8	0.1	-0.7	0.4	-0.1	27.3	***	***	***	***	***	***	53	91.5	***	5.9
12	PESHAWAR	2.6	8.6	6.0	-0.4	1.1	25.2	30.5	27.0	25.3	***	***	20.9	61	59.2	3.5	3.9
13	USTA MUHAMMAD	0.0	0.0	0.0	0.4	1.1	30.9	33.2	32.7	32.2	31.7	***	30.9	39	***	***	7.3
14	QUETTA	0.4	1.2	0.8	1.1	3.4	20.5	28.2	26.4	21.8	20.4	18.2	18.1	30	103.5	6.2	5.4
15	SKARDU	0.8	29.3	28.5	0.9	0.4	13.8	***	***	***	***	***	***	39	63.7	6.7	4.0
16	GILGIT	0.6	14.4	13.8	2.4	-0.3	18.3	***	***	***	***	***	***	50	61.7	3.2	3.9

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 (11th to 20th April, 2015)

Light to moderate rainfall reported in the agricultural plains of the Punjab, K.P, G.B and Kashmir and light rainfall 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, Mangla & Jhelum. Decadal maximum dropped below normal by 1.3°C & minimum temperature departure raised above normal by 1.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 50%, 85.1hrs, 4.4km/hr and 5.2mm/day respectively.

1.2 Sindh

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Mithi, Chorr & Jacobabad. Decadal maximum dropped below normal by 1.1°C & minimum temperature departure raised above normal by 1.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 36%, 100.4hrs, 3.9km/hr and 6.0mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

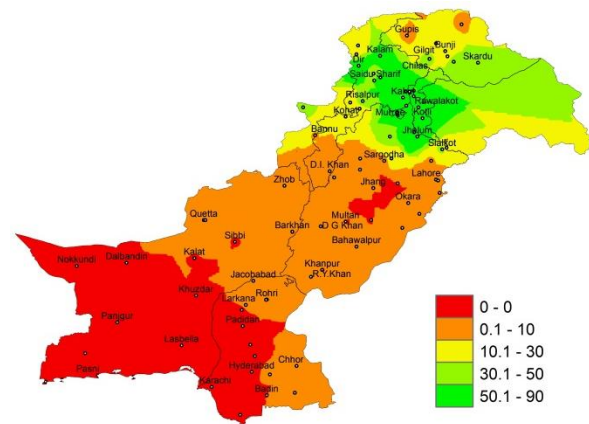
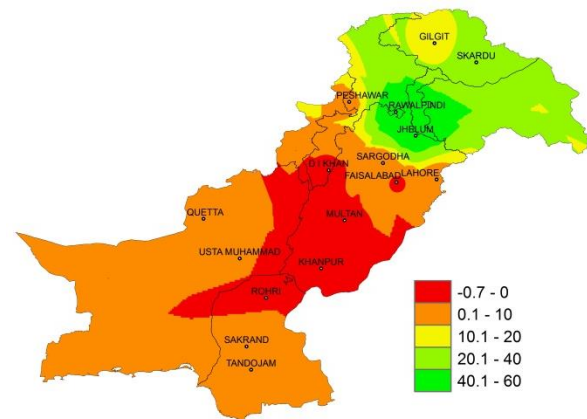
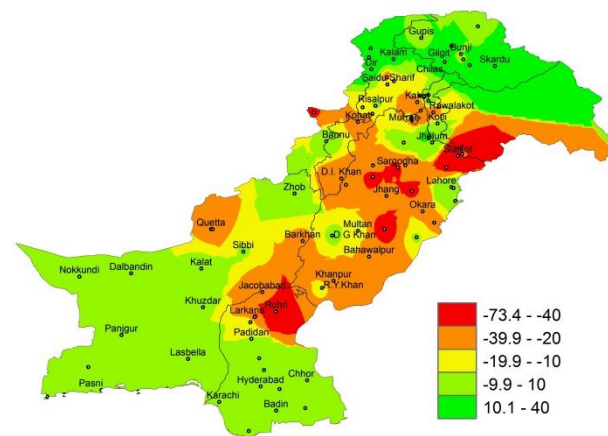
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Dir, Kalam & Malam Jabba. Decadal maximum remains normal & minimum temperature departure raised above normal by 0.5°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 57%, 75.4hrs, 3.5km/hr and 4.9mm/day respectively.

1.4 Balochistan

Light rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Zhob & Quetta. Decadal maximum & minimum temperature departure both raised above normal by 0.8°C & 2.3°C respectively, in the province. Whereas mean values relative humidity, sunshine hour, wind speed & ETo were recorded as 35%, 103.5hrs, 6.2km/hr and 6.4mm/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 Kotli, Rawalakot & Garhi Doppatta. Decadal maximum & minimum temperature departure both raised above normal by 1.7°C & 0.1°C respectively, in the province. Relative humidity, sunshine hour, wind speed & ETo were recorded as 45%, 62.7hrs, 5.0km/hr and 4.0mm/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 (11th to 20th April, 2015)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 53.1mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 56%. Mean day temperature was 30.3°C while night temperature recorded as 18.3°C with 79.7hours bright sunshine duration. Wind speed recorded as 5.3km/hr with mean wind direction *westerly*.

Wheat (Chakwal-97): Fair condition, flowering stage.

2.2 RAMC, Faisalabad (Central Punjab)

Dry weather reported during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 43%. Mean day temperature was 35.4°C while night temperature recorded as 21.4°C with 83.00hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *north westerly*.

Wheat: Good condition, full maturity stage.

2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 02day. Average relative humidity recorded as 37%. Mean day temperature was 40.0°C while night temperature recorded as 22.1°C with 93.0hours bright sunshine duration. Wind speed recorded as 2.3km/hr with mean wind direction *south westerly*.

Note: Land is preparing for Kharif crop.

2.4 RAMC, Usta Muhammad (Eastern Balochistan)

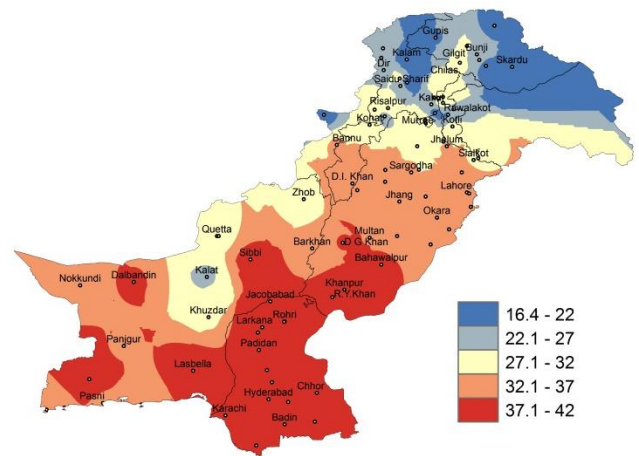
Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 39%. Mean day temperature was 39.7°C while night temperature recorded as 22.0°C.

Wheat (Zardana): Harvested.

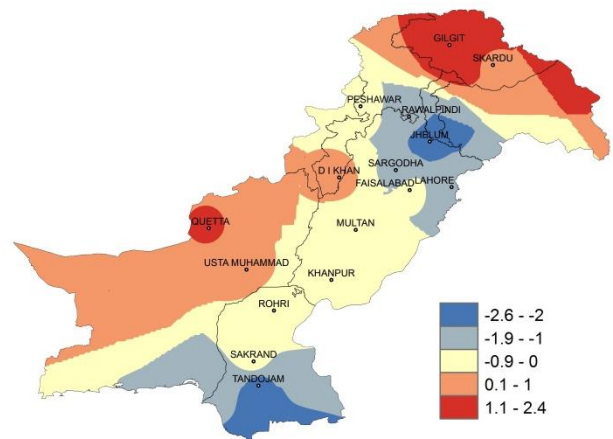
2.5 RAMC, Quetta (Northern Balochistan)

Rainfall reported as 1.2mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 30%. Mean day temperature was 27.1°C while night temperature recorded as 13.9°C with 103.5hours bright sunshine duration and wind speed recorded as 6.2km/hr with mean wind direction *north westerly*.

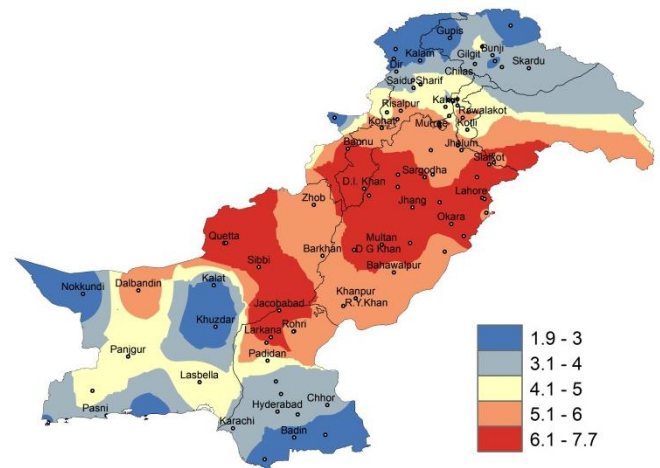
Wheat: Good condition, flowering stage.



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 (11th to 20th April, 2015)

2.6 Jhelum

Rainfall reported as 58.9mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 58%. Mean day temperature was 32.3°C while night temperature recorded as 19.2°C with 83.5hours bright sunshine duration and wind speed recorded as 3.5km/hr with mean wind direction *north westerly*.

2.7 Lahore

Rainfall reported as 1.0mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 50%. Mean day temperature was 33.9°C while night temperature recorded as 21.6°C with 71.8hours bright sunshine duration. Wind speed recorded as 3.8km/hr with mean wind direction *westerly*.

2.8 Sargodha

Rainfall reported as 4.0mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 57%. Mean day temperature was 34.6°C while night temperature recorded as 21.3°C with 94.4hours bright sunshine duration. Wind speed recorded as 5.6km/h with mean wind direction *variable*.

2.9 Multan

Dry weather reported during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 38%. Mean day temperature was 36.9°C while night temperature recorded as 23.4°C with 89.2hours bright sunshine duration. Wind speed recorded 5.3km/hr with mean wind direction *south easterly*.

2.10 Khanpur

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 45%. Mean day temperature was 38.4°C while night temperature recorded as 23.1°C with 93.9hours bright sunshine duration. Wind speed recorded 3.8km/hr with mean wind direction *north easterly*.

2.11 Sakrand

Dry weather reported during the decade however weather remains cloudy for 01day. Average relative humidity recorded as 41%. Mean day temperature was 39.5°C while night temperature recorded as 20.3°C with 104.2hours bright sunshine duration. Wind speed recorded 4.6km/hr with wind direction *southerly*.

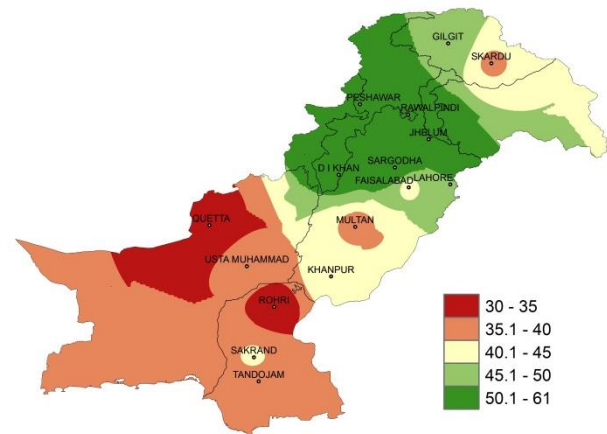


Figure.3: Relative Humidity in percentage (%)

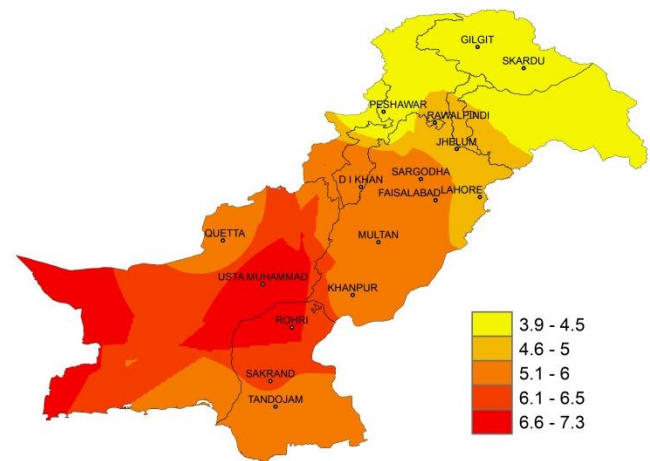


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

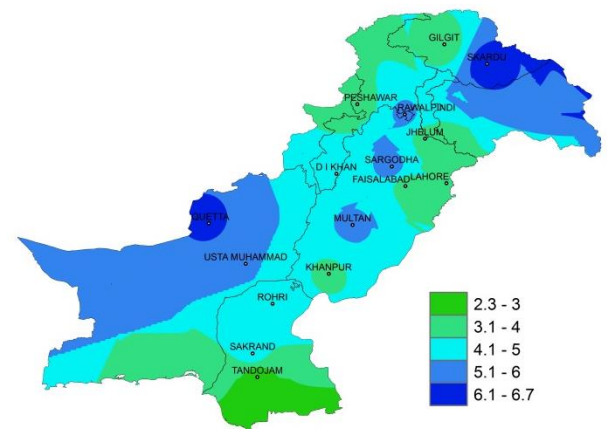


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade, however weather remained cloudy for 01day. Average relative humidity recorded as 31%. Mean day temperature was 39.6°C while night temperature recorded as 26.8°C with 104.0hours bright sunshine duration. Wind speed recorded as 4.8km/hr with mean wind direction *north easterly*.

2.13 D.I. Khan

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 53%. Mean day temperature was 35.3°C while night temperature recorded as 19.2°C with 91.5hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 8.6mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 61%. Mean day temperature was 31.1°C while night temperature recorded as 19.2°C with 59.2hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *northerly*.

2.15 Skardu

Rainfall reported as 29.3mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 39%. Mean day temperature was 20.7°C while night temperature recorded as 6.8°C with 63.7hours bright sunshine duration. Wind speed recorded as 6.7km/hr with mean wind direction *southerly*.

2.16 Gilgit

Rainfall reported as 14.4mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 50%. Mean day temperature was 27.3°C while night temperature recorded as 9.3°C with 61.7hours bright sunshine duration. Wind speed recorded as 3.2km/hr with mean wind direction *easterly*.

3. Ten Days Weather Advisory for Farmers

(21st to 30th April, 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 during the 2nd half 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:** Mainly 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 25th to 26th of decade.
- ❖ **Gilgit Baltistan:** Mainly dry weather is expected in most parts of the G.B however light to moderate rain is expected from 26th of decade.
- ❖ **Kashmir:** Mainly dry weather is expected in most of the parts of the Kashmir however light to moderate rainfall is expected in 2nd half of this decade.

3.4 Advisory for Farmers

- ❖ 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.
- ❖ 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.