

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of the country during the last decade.
- ❖ Highest amount of rainfall reported as 117.4mm at Murree during the last decade.
- ❖ Highest maximum temperature recorded 42.0°C at Chorr during the last decade.
- ❖ Light to moderate rainfall expected in the agricultural plains of the Punjab, K.P, Balochistan, G.B & Kashmir & dry weather is expected in Sindh during the decade.
- ❖ Wheat crop is in different 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.
- ❖ 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.

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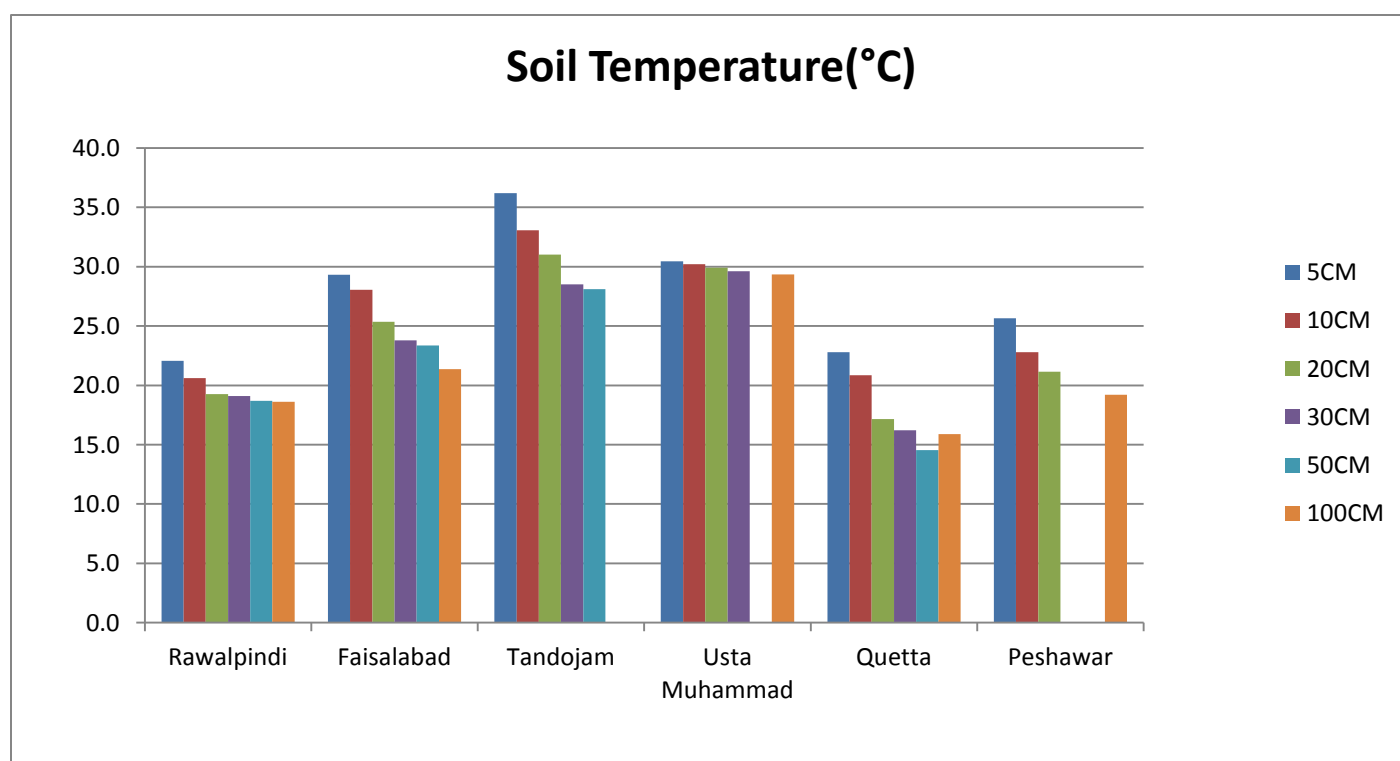
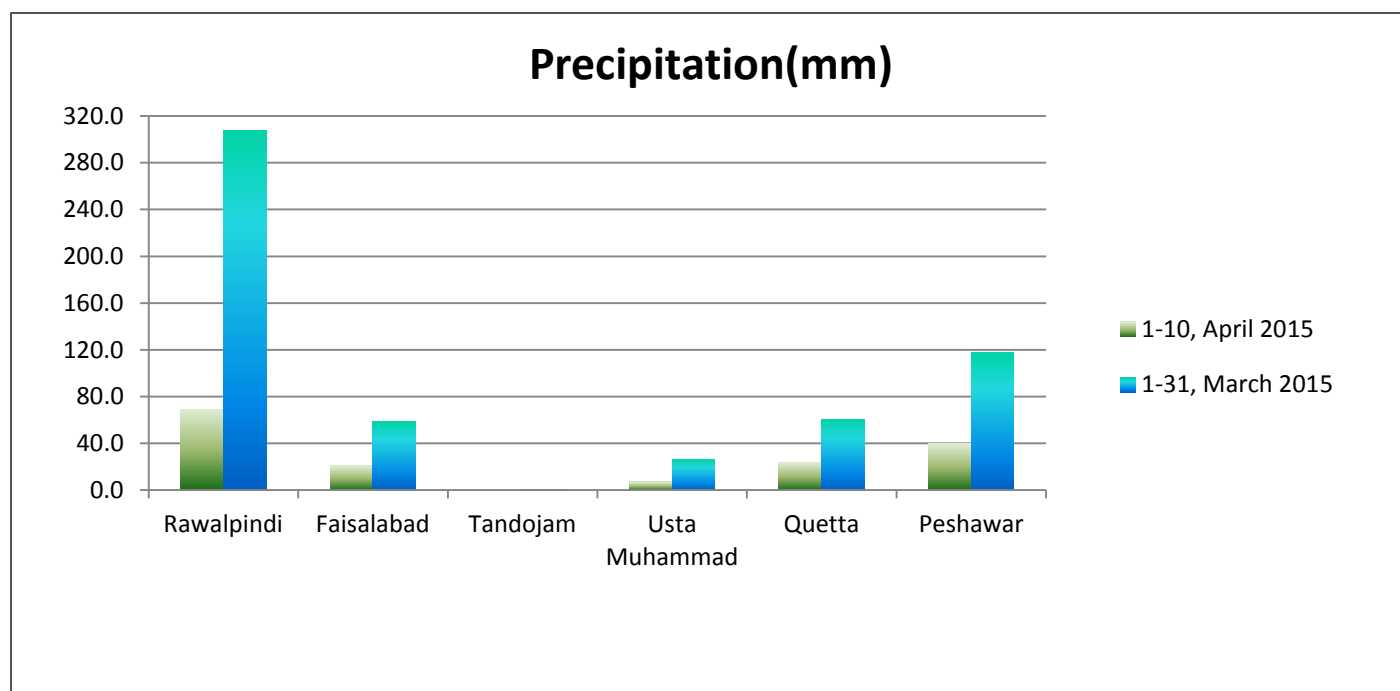
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Meteorological conditions during 1st decade of April, 2015

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration(hours)	Wind Speed (km/hr)	ET _o (mm/day)
		Normal	Actual	Dep	T _{max} Dep	T _{min} Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	2.6	69.3	66.7	-4.8	0.9	20.2	22.1	20.6	19.3	19.1	18.7	18.6	68	57.2	1.8	3.0
2	FAISALABAD	0.4	20.8	20.4	-4.5	-0.1	23.2	29.3	28.1	25.4	23.8	23.4	21.4	61	71.3	3.2	3.8
3	JHELUM	1.7	69.5	67.8	-5.4	-0.9	21.6	24.5	23.3	21.8	20.9	21.1	***	65	60.8	2.6	3.3
4	LAHORE	0.5	2.2	1.7	-5.2	-2.5	22.8	26.7	25.5	23.1	22.0	***	21.8	63	66.0	3.9	3.8
5	SARGODHA	1.3	63.0	61.7	-6.0	-0.8	22.5	25.5	24.1	22.1	21.6	21.5	21.1	75	76.8	5.0	3.8
6	MULTAN	0.3	10.0	9.7	-14.6	-0.5	19.2	***	***	***	***	***	***	57	74.8	5.4	3.8
7	KHANPUR	0.6	59.4	58.8	-3.2	0.3	25.9	***	27.5	27.5	27.7	27.9	26.9	59	81.8	5.2	4.8
8	TANDOJAM	0.1	0.0	-0.1	-1.1	2.0	29.3	36.2	33.1	31.0	28.5	28.1	***	49	85.7	2.6	4.8
9	SAKRAND ☆	0.1	38.0	37.9	-1.2	-1.8	26.6	41.0	35.1	***	***	***	28.4	47	90.3	5.6	5.6
10	ROHRI	0.6	45.0	44.4	-2.7	-0.5	27.7	36.5	32.3	28.3	27.6	25.6	26.9	51	91.6	6.8	5.8
11	DI KHAN	0.7	37.8	37.1	-5.0	-2.5	21.4	***	***	***	***	***	***	70	74.8	***	4.1
12	PESHAWAR	2.9	39.5	36.6	-2.8	-1.8	20.5	25.7	22.8	21.2	***	***	19.2	68	62.0	2.9	3.2
13	USTA MUHAMMAD	0.0	7.1	7.1	-3.5	-1.3	25.8	30.5	30.2	29.9	29.6	***	29.4	55	***	***	5.5
14	QUETTA	0.2	23.6	23.4	-2.4	1.1	15.8	22.8	20.9	17.2	16.2	14.6	15.9	43	87.7	5.3	4.1
15	SKARDU	2.7	6.3	3.6	-0.6	0.1	11.1	***	***	***	***	***	***	43	60.5	3.3	2.9
16	GILGIT	1.4	1.3	-0.1	0.4	0.1	15.9	***	***	***	***	***	***	37	78.1	4.6	4.1

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; **Dep divided by Normal multiplied by 100**. T_{min} & T_{max} stands for minimum and maximum temperatures respectively. ET_o 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 (1st to 10th April, 2015)

Light to moderate rainfall reported in the agricultural plains of the 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 Murree, Sialkot & Islamabad. Decadal maximum & minimum temperature departure both dropped below normal by 6.2°C & 0.5°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 64%, 69.8hrs, 3.9km/hr and 3.8mm/day respectively.

1.2 Sindh

Light to moderate rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Sukkur, Larkana & Jacobabad. Decadal maximum & minimum temperature departure both dropped below normal by 1.7°C & 0.1°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 49%, 89.3hrs, 5.0km/hr and 5.4mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Kakul, Parachinar & Malam Jabba. Decadal maximum & minimum temperature departure both dropped below normal by 3.9°C & 2.2°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 69%, 68.4hrs, 2.9km/hr and 3.7mm/day respectively.

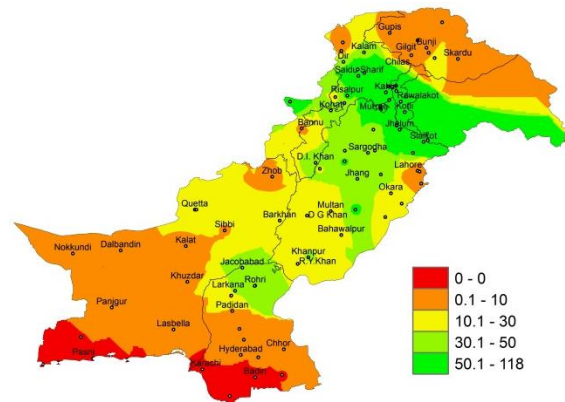
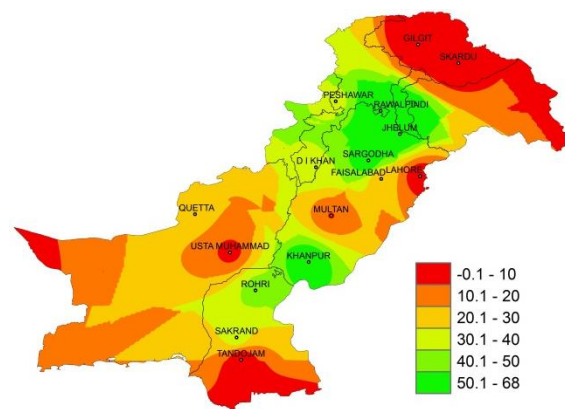
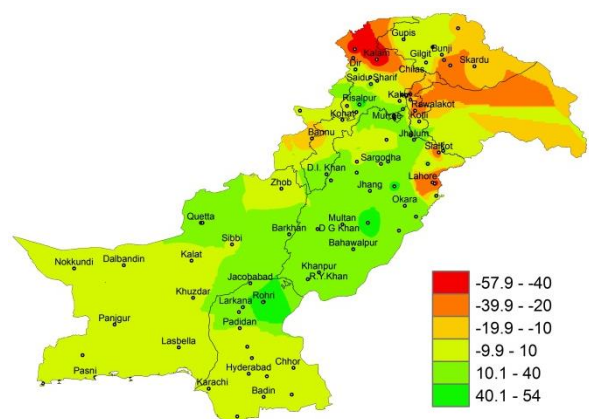
1.4 Balochistan

Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Quetta, Barkhan & Khuzdar. Decadal maximum & minimum temperature departure both dropped below normal by 3.0°C & 0.1°C respectively, in the province. Whereas mean values relative humidity, sunshine hour, wind speed & ETo were recorded as 49%, 87.7hrs, 5.3km/hr and 4.8mm/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, Kotli & Muzaffarabad. Decadal maximum dropped below normal by 0.1°C & minimum temperature departure raised above normal by 0.1°C, in the province. Relative humidity, sunshine hour, wind speed & ETo were

recorded as 40%, 69.3hrs, 4.0km/hr and 3.5mm/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 April, 2015)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 69.3mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 68%. Mean day temperature was 25.1°C while night temperature recorded as 15.3°C with 57.2hours bright sunshine duration. Wind speed recorded as 1.8km/hr with mean wind direction *westerly*.

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

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 20.8mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 61%. Mean day temperature was 29.0°C while night temperature recorded as 17.3°C with 71.25hours bright sunshine duration. Wind speed recorded as 3.2km/hr with mean wind direction *north easterly*.

Wheat: Good condition, wax maturity stage.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 49%. Mean day temperature was 37.2°C while night temperature recorded as 21.3°C with 85.7hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *south westerly*.

Note: Land is preparing for Kharif crop.

2.4 RAMC, Usta Muhammad (Eastern Balochistan)

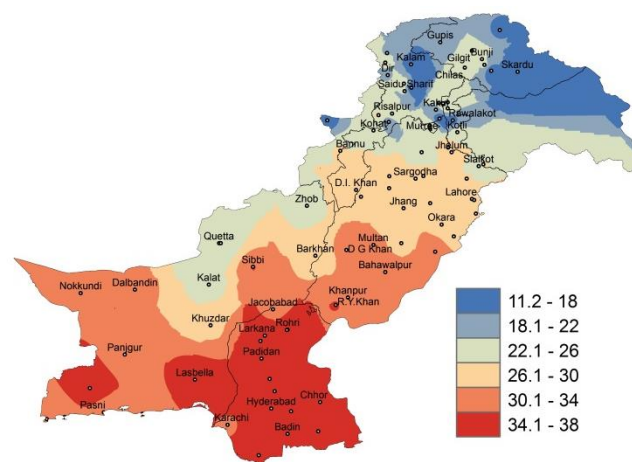
Rainfall reported as 7.1mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 55%. Mean day temperature was 33.0°C while night temperature recorded as 18.5°C.

Wheat (Zardana): Harvested.

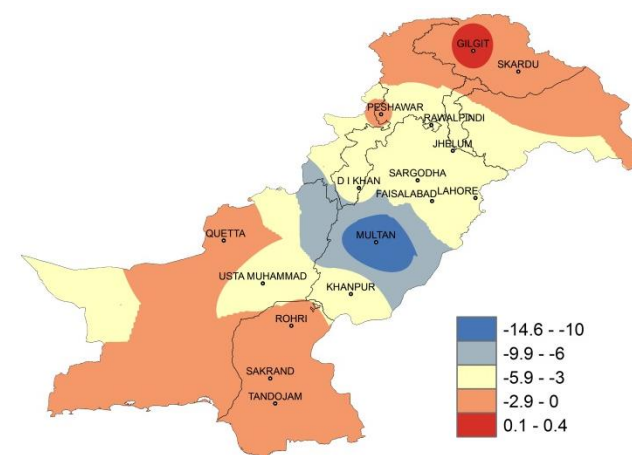
2.5 RAMC, Quetta (Northern Balochistan)

Rainfall reported as 23.6mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 43%. Mean day temperature was 21.8°C while night temperature recorded as 9.7°C with 87.7hours bright sunshine duration and wind speed recorded as 5.3km/hr with mean wind direction *north westerly*.

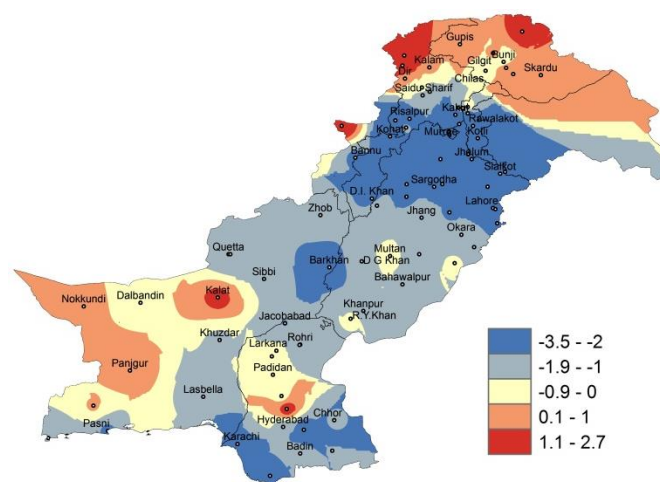
Wheat: Good condition, Heading stage.



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 (1st to 10th April, 2015)

2.6 Jhelum

Rainfall reported as 69.5mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 65%. Mean day temperature was 26.9°C while night temperature recorded as 16.3°C with 60.8hours bright sunshine duration and wind speed recorded as 2.6km/hr with mean wind direction *westerly*.

2.7 Lahore

Rainfall reported as 2.2mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 63%. Mean day temperature was 27.6°C while night temperature recorded as 18.0°C with 66.0hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *north westerly*.

2.8 Sargodha

Rainfall reported as 63.0mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 75%. Mean day temperature was 27.4°C while night temperature recorded as 17.5°C with 76.8hours bright sunshine duration. Wind speed recorded as 5.0km/h with mean wind direction *variable*.

2.9 Multan

Rainfall reported as 10.0mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 57%. Mean day temperature was 20.2°C while night temperature recorded as 18.2°C with 74.8hours bright sunshine duration. Wind speed recorded as 5.4km/hr with mean wind direction *north easterly*.

2.10 Khanpur

Rainfall reported as 59.4mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 59%. Mean day temperature was 32.6°C while night temperature recorded as 19.1°C with 81.8hours bright sunshine duration. Wind speed recorded as 5.2km/hr with mean wind direction *north easterly*.

2.11 Sakrand

Rainfall reported as 38.0mm during the decade however weather remains cloudy for 03days. Average relative humidity recorded as 47%. Mean day temperature was 35.9°C while night temperature recorded as 17.2°C with 90.3hours bright sunshine duration. Wind speed recorded as 5.6km/hr with wind direction *variable*.

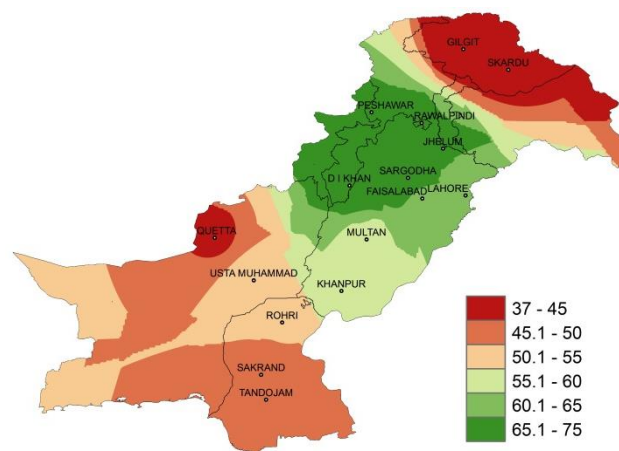


Figure.3: Relative Humidity in percentage (%)

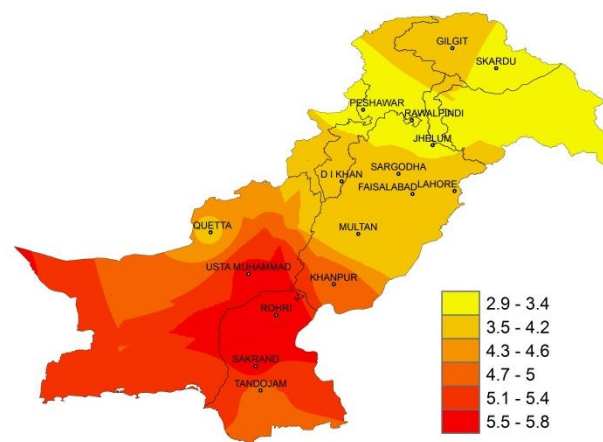


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

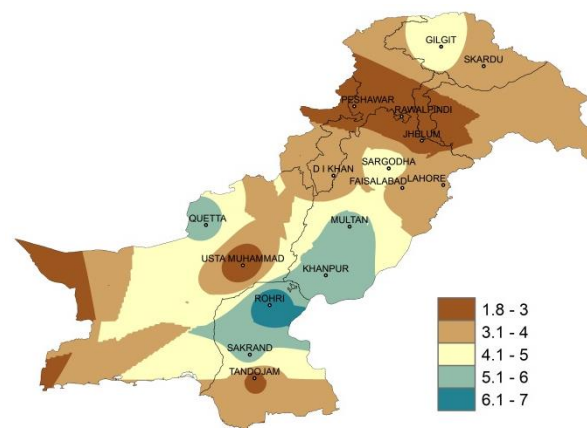


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as 45.0mm during the decade, however weather remained cloudy for 07days. Average relative humidity recorded as 51%. Mean day temperature was 33.8°C while night temperature recorded as 21.6°C with 91.6hours bright sunshine duration. Wind speed recorded as 6.8km/hr with mean wind direction *easterly*.

2.13 D.I. Khan

Rainfall reported as 37.8mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 70%. Mean day temperature was 28.0°C while night temperature recorded as 14.8°C with 74.8hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 39.5mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 68%. Mean day temperature was 26.4°C while night temperature recorded as 14.6°C with 62.0hours bright sunshine duration. Wind speed recorded as 2.9km/hr with mean wind direction *north westerly*.

2.15 Skardu

Rainfall reported as 6.3mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 43%. Mean day temperature was 17.2°C while night temperature recorded as 5.0°C with 60.5hours bright sunshine duration. Wind speed recorded as 3.3km/hr with mean wind direction *south easterly*.

2.16 Gilgit

Rainfall reported as 1.3mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 37%. Mean day temperature was 23.5°C while night temperature recorded as 8.2°C with 78.1hours bright sunshine duration. Wind speed recorded as 4.6km/hr with mean wind direction *easterly*.

- ❖ **Punjab:** Mainly 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 cloudy weather is expected in the province. However light to moderate rainfall is expected in during 2nd half decade.
- ❖ **Sindh:** Dry weather is expected in most parts of the Sindh.
- ❖ **Balochistan:** Mainly cold/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 during the end of decade.
- ❖ **Gilgit Baltistan:** Mainly cold and cloudy weather is expected in most parts of the G.B however light to moderate rain is expected from 15th of decade.
- ❖ **Kashmir:** Mainly dry weather is expected in most of the parts of the Kashmir however light to moderate rainfall is expected on 14th to 16th and 19th to 21st of this decade.

3.4 Advisory for Farmers

- ❖ Wheat crop is in different 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.
- ❖ 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.

3. Ten Days Weather Advisory for Farmers
(11th to 20th 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