

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported from Punjab, KP, Baluchistan, G.B & Kashmir however dry weather reported from Sindh during the last decade.
- ❖ Highest amount of rainfall recorded as 50mm at Parachinar during the last decade.
- ❖ Highest maximum temperature recorded 43°C at Dalbandin during the last decade.
- ❖ Light to moderate rainfall are expected in Kashmir, K.P, G.B different parts of Punjab, central parts of Sindh and a few in Balochistan in 2nd half of the decade.
- ❖ Day time temperatures are expected normal 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.
- ❖ Monsoon rains have accelerated pest/viral attacks and more weeds growth in cotton, sugarcane and other standing crops. Viral/pests attacks on cotton and sugarcane crops have been reported in agricultural plains of the country. Farmers should take in time precautionary measures through manual methods or chemical spraying to control weeds on time.
- ❖ Due to dry weather in most of the central and southern part of the country during the decade, farmers of cotton and sugarcane crops are advised to irrigate the crops as per requirement.

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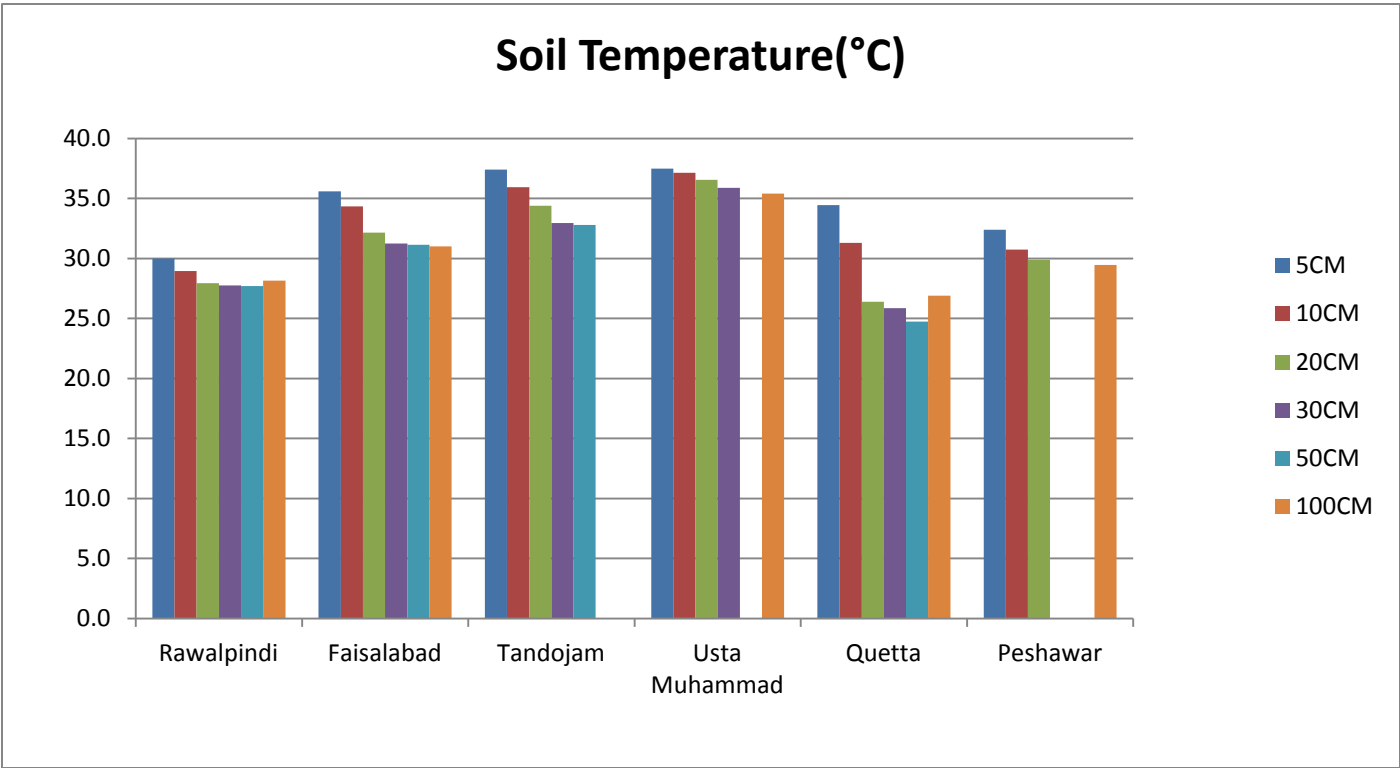
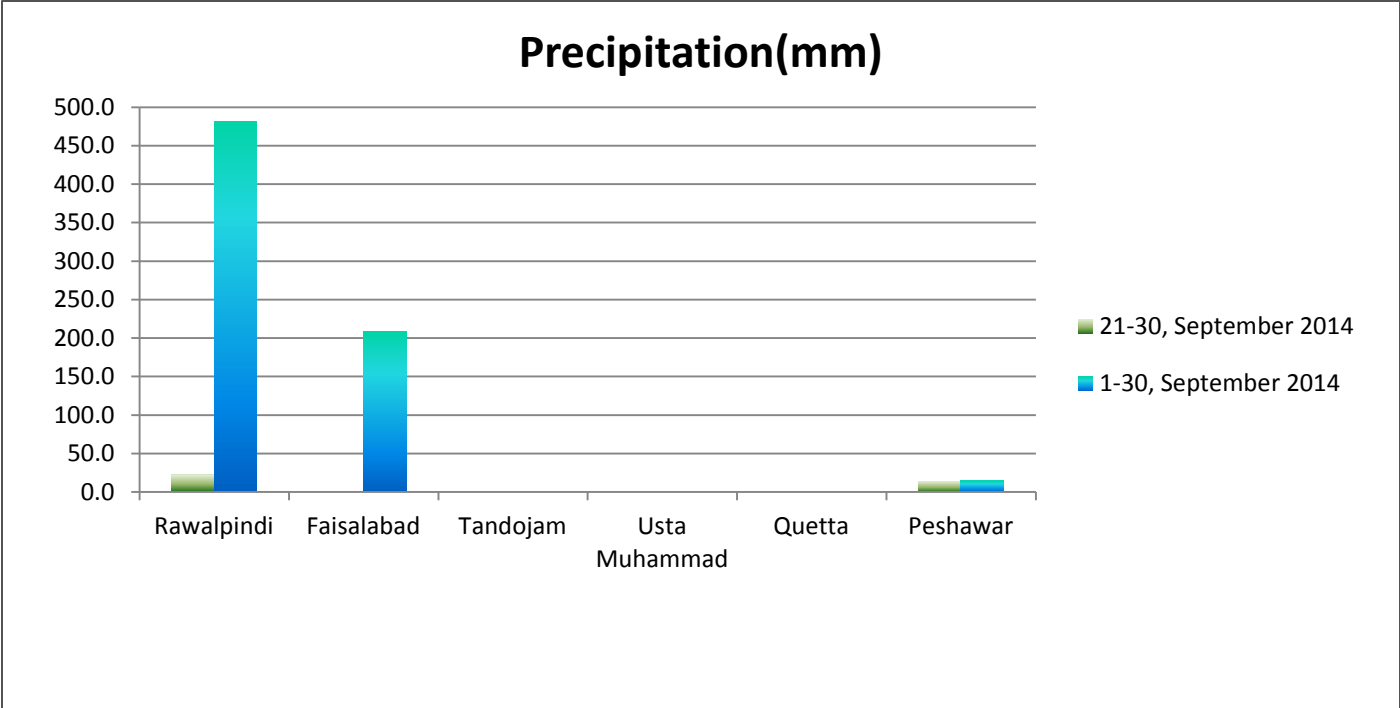
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Meteorological conditions during 3rddecadeof September, 2014

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	1.9	22.1	20.2	0.4	-0.2	26.2	30.0	29.0	28.0	27.8	27.7	28.2	68	86.4	0.9	3.4
2	FAISALABAD	2.1	0.0	-2.1	0.8	1.9	30.1	35.6	34.4	32.2	31.3	31.2	31.0	54	92.3	2.7	4.3
3	JHELUM	0.9	0.0	-0.9	0.5	1.2	29.3	31.5	30.6	29.3	28.5	29.0	***	64	32.0	2.3	2.9
4	LAHORE	1.1	0.0	-1.1	-0.6	1.1	29.8	32.9	32.7	30.8	30.1	***	28.8	74	86.8	2.2	4.0
5	SARGODHA	0.9	0.0	-0.9	-0.1	1.4	30.2	35.1	33.0	30.7	30.2	30.2	29.6	67	80.2	0.6	3.7
6	MULTAN	0.1	0.0	-0.1	-0.4	1.2	30.8	***	***	***	***	***	***	56	70.7	5.4	4.7
7	KHANPUR	0.0	0.0	0.0	0.0	0.3	30.1	***	34.6	34.4	34.9	35.2	34.5	57	97.3	5.1	5.2
8	TANDOJAM	0.0	0.0	0.0	-0.6	0.3	29.7	37.4	36.0	34.4	33.0	32.8	***	64	97.6	4.0	5.0
9	SAKRAND ☆	0.0	0.0	0.0	0.0	-2.9	28.3	44.7	39.9	***	***	***	36.0	62	111.4	4.9	5.4
10	ROHRI	0.0	0.0	0.0	0.1	-0.1	31.7	42.3	39.5	35.5	35.2	34.0	35.6	52	102.0	3.6	5.2
11	DI KHAN	0.7	0.0	-0.7	1.4	0.8	30.2	***	***	***	***	***	***	57	91.0	***	5.5
12	PESHAWAR	1.1	14.0	12.9	1.3	1.0	28.7	32.4	30.8	29.9	***	***	29.5	59	77.3	2.2	3.7
13	USTA MUHAMMAD	0.0	0.0	0.0	-3.6	-0.6	30.4	37.5	37.2	36.6	35.9	***	35.4	63	***	***	4.8
14	QUETTA	0.0	1.0	1.0	1.7	5.2	22.9	34.5	31.3	26.4	25.9	24.8	26.9	24	101.2	4.0	4.5
15	SKARDU	0.1	2.4	2.3	-1.6	-0.1	15.0	***	***	***	***	***	***	45	77.5	0.5	2.4
16	GILGIT	0.2	0.5	0.3	1.9	2.7	21.4	***	***	***	***	***	***	46	85.5	2.1	3.6

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 September, 2014



Past Weather (21st to 30th September, 2014)

Light to moderate rainfall reported from Punjab, KP, Baluchistan, G.B & Kashmir however dry weather reported from 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 Islamabad, Murree & Mangla. Decadal maximum & minimum temperature both raised above normal by 0.1°C & 1.0°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 63%, 78.0hrs, 2.7km/hr and 4.0mm/day respectively.

1.2 Sindh

Dry weather reported in the agricultural plains of Sindh. Decadal maximum & minimum temperature both dropped below normal by 0.2°C & 0.9°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 59%, 103.7hrs, 4.2km/hr and 5.2mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

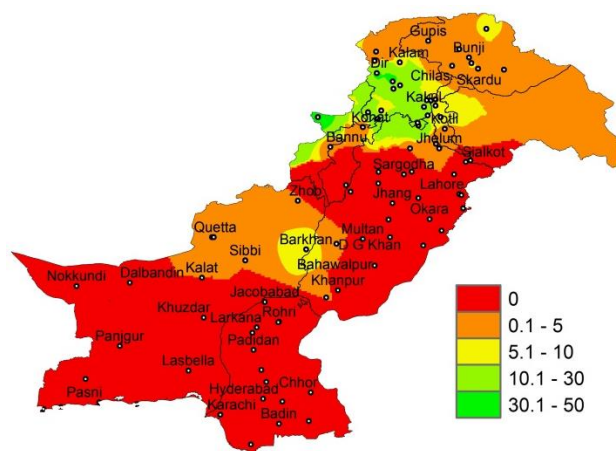
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Parachinar, lower Dir & Malam Jabba. Decadal maximum & minimum temperature both raised above normal by 1.4°C & 0.9°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 58%, 84.2hrs, 2.2km/hr and 4.6mm/day respectively.

1.4 Balochistan

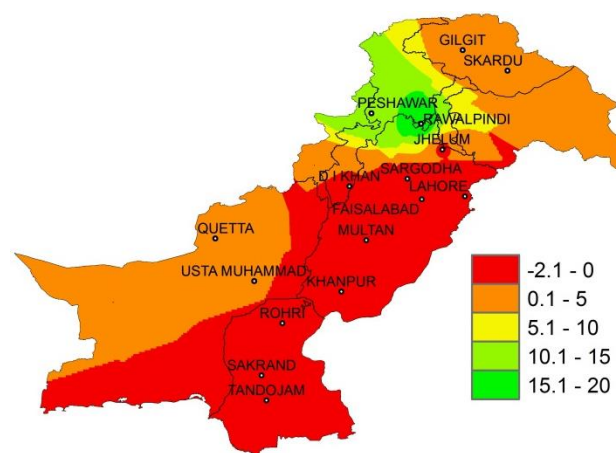
Light to moderate rainfall reported at one station of Balochistan i.e Barkhan. Decadal maximum dropped below normal by 1.0°C & minimum temperature raised above normal by 2.3°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 44%, 101.2hrs, 4.0km/hr and 4.7mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

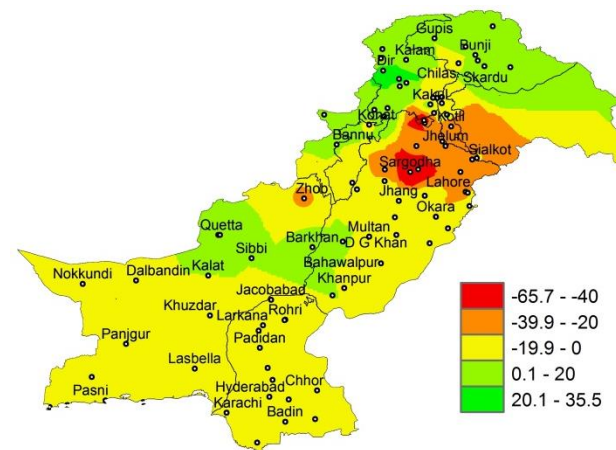
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Muzaffarabad, Garhi dopatt & Rawalakot. Decadal maximum & minimum temperature both raised above normal by 0.2°C & 1.3°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 46%, 81.5hrs, 1.3km/hr and 3.0mm/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**
(21st to 30th September, 2014)

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

Rainfall reported as 22.1mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 68%. Mean day temperature was 33°C while night temperature recorded as 19°C with 86.4hours bright sunshine duration. Wind speed recorded as 0.9km/hr with mean wind direction *south easterly*.

Maize: Good condition, tesseling Stage

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

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 54%. Mean day temperature was 36°C while night temperature recorded as 24°C with 92.3hours bright sunshine duration. Wind speed recorded as 2.7km/hr with mean wind direction *south easterly*.

Cotton: Normal condition, boll opening stage.

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

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 64%. Mean day temperature was 36°C while night temperature recorded as 24°C with 97.6hours bright sunshine duration. Wind speed recorded as 4.0km/hr with mean wind direction *south westerly*.

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

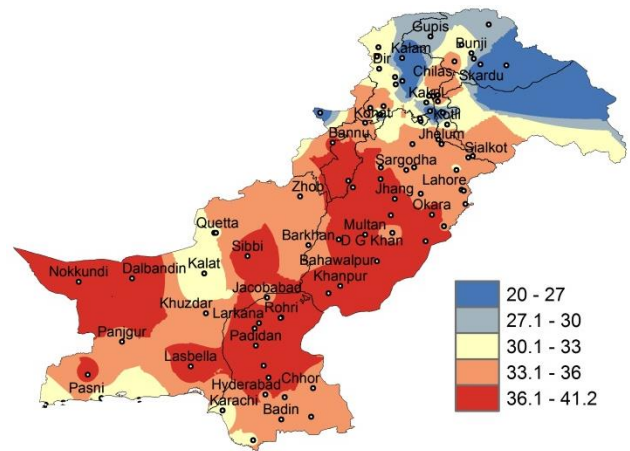
2.4 **RAMC, Usta Muhammad (Eastern Balochistan)**

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 63%. Mean day temperature was 36°C while night temperature recorded as 25°C.

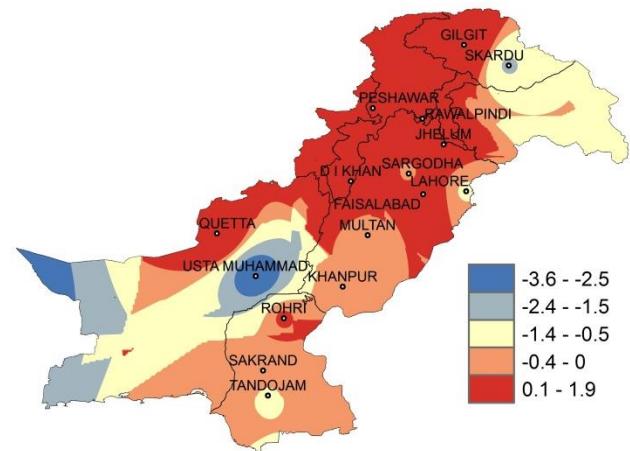
Rice: Good condition, flowering stage.

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

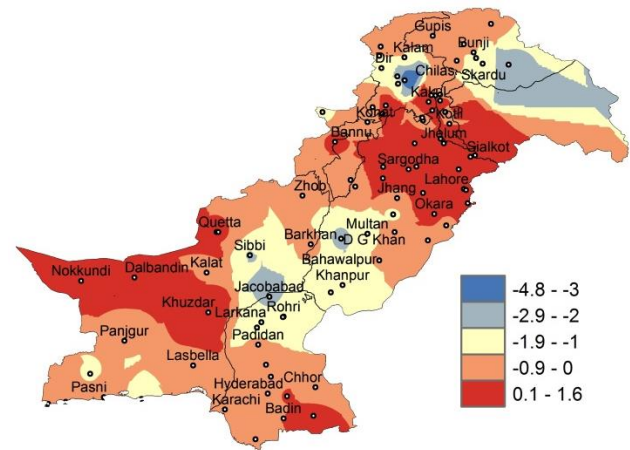
Rainfall reported as 1.0mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 24%. Mean day temperature was 31°C while night temperature recorded as 15°C with 101.2hours bright sunshine duration and wind speed recorded as 4.0km/hr with mean wind direction *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 (21st to 30th September, 2014)**

2.6 **Jhelum**

Dry weather reported during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 64%. Mean day temperature was 35°C while night temperature recorded as 24°C with 32.0hours bright sunshine duration. Wind speed recorded 2.3km/hr with mean wind direction *south westerly*.

2.7 **Lahore**

Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 74%. Mean day temperature was 34°C while night temperature recorded as 26°C with 86.8hours bright sunshine duration. Wind speed recorded as 2.2km/hr with mean wind direction *south westerly*.

2.8 **Sargodha**

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 67%. Mean day temperature was 35°C while night temperature recorded as 25°C with 80.2hours bright sunshine duration. Wind speed recorded as 0.5km/hr with mean wind direction *north westerly*.

2.9 **Multan**

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 56%. Mean day temperature was 36°C while night temperature recorded as 25°C with 85.4hours bright sunshine duration. Wind speed recorded as 8.2km/hr with mean wind direction *south westerly*.

2.10 **Khanpur**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 57%. Mean day temperature was 37°C while night temperature recorded as 24°C with 97.3hours bright sunshine duration. Wind speed recorded 5.1km/hr with mean wind direction *south westerly*.

2.11 **Sakrand**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 62%. Mean day temperature was 37°C while night temperature recorded as 20°C with 111.4hours bright sunshine duration. Wind speed recorded 4.9km/hr with mean wind direction *south easterly*.

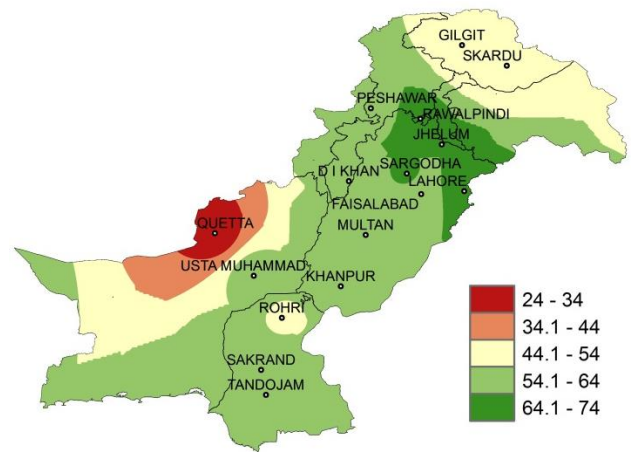


Figure.3: Relative Humidity in percentage (%)

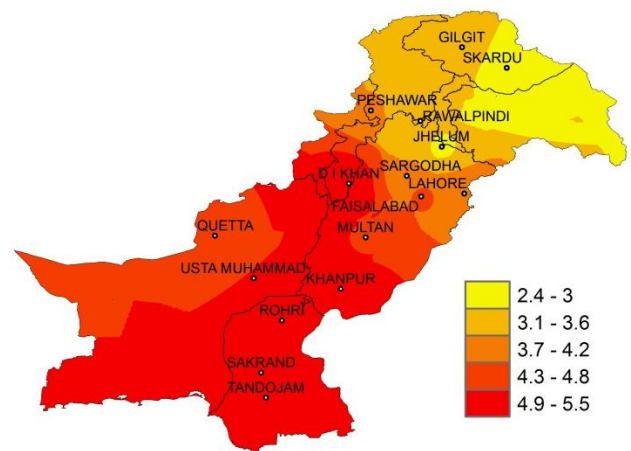


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

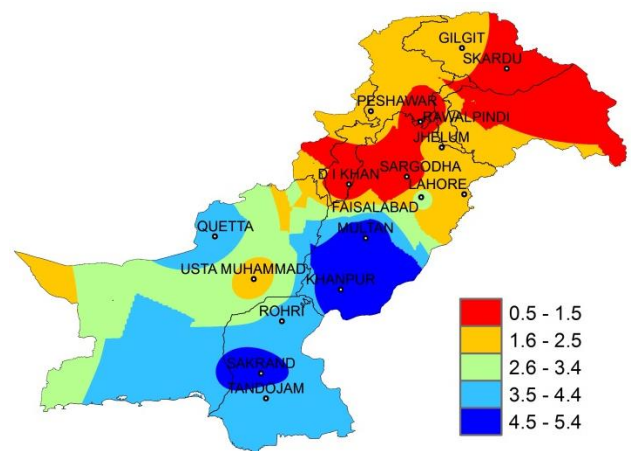


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 52%. Mean day temperature was 38°C while night temperature recorded as 25°C with 102.0hours bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction *northerly*.

2.13 D.I. Khan

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 57%. Mean day temperature was 37°C while night temperature recorded as 23°C with 91.0hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 14.0mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 59%. Mean day temperature was 35°C while night temperature recorded as 22°C with 77.3hours bright sunshine duration. Wind speed recorded as 2.2km/hr with mean wind direction *north westerly*.

2.15 Skardu

Rainfall reported as 2.4mm during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 45%. Mean day temperature was 22°C while night temperature recorded as 8°C with 77.5hours bright sunshine duration. Wind speed recorded as 0.5km/hr with mean wind direction *south easterly*.

2.16 Gilgit

Rainfall reported as 0.5mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 46%. Mean day temperature was 31°C while night temperature recorded as 11°C with 85.5bright sunshine duration. Wind speed recorded as 2.1km/hr with mean wind direction *easterly*.

3. Ten Days Weather Advisory for Farmers (1st to 10th October, 2014)

3.1 Temperature Forecast

Day time temperatures are expected normal 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 rain thunder showers are expected over most of the agricultural plains of the province during 2nd half (from 7th of October) of the decade.
- ❖ **Khyber Pakhtunkhwa:** Mostly dry weather with light to moderate rainfall over hills is expected at a few parts of K.P during 2nd half of the decade.
- ❖ **Sindh:** : Dry weather expected with light rainfall at few places (Larkana, sukkur) during the 2nd half of the decade 8th to 10th October.
- ❖ **Balochistan:** Mainly dry weather is expected in the province. However light rainfall expected at a few places at northwest Balochistan (Zhob) during end of 2nd half of the decade.
- ❖ **Gilgit Baltistan:** Mostly dry weather with light to moderate rainfall over hills is expected at few parts of GB during 2nd half of the decade.
- ❖ **Kashmir:** Mainly dry weather is expected however light to moderate rainfall is expected over most parts of Kashmir during 2nd half of the decade.

3.4 Advisory for Farmers

- ❖ Monsoon rains have accelerated pest/viral attacks and more weeds growth in cotton, sugarcane and other standing crops. Viral/pests attacks on cotton and sugarcane crops have been reported in agricultural plains of the country. Farmers should take in time precautionary measures through manual methods or chemical spraying to control weeds on time.
- ❖ Due to dry weather in most of the central and southern part of the country during the decade, farmers of cotton and sugarcane crops are advised to irrigate the crops as per requirement.
- ❖ Due to dry weather in most of the upper parts of the country during the decade, farmers of rainfed areas are advised to harvest Kharif crops in time and prepare their fields for incoming Rabi crops.
- ❖ Farmers of rainfed areas obtaining water through tube wells and irrigated areas in upper parts are advised to schedule the irrigation according to the expected weather mentioned during the decade. Rainfall/gusty winds after irrigation cause water logging of standing crops like maize, sugarcane and cotton. Farmers should be very careful in this regard.