

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- ❖ Light to moderate rainfall reported from agricultural plains of the country during the last decade.
- ❖ Highest amount of rainfall recorded as 90mm at Islamabad during the last decade.
- ❖ Highest maximum temperature recorded 44°C at Dalbandin during the last decade.
- ❖ Light to moderate rainfall with isolated heavy falls are expected in Kashmir, K.P, G.B different parts of Punjab, coastal areas of Sindh and at few in Balochistan.
- ❖ Normal temperatures are expected in most of the agricultural plains of the country during the decade.
- ❖ Dust storm/ gusty wind conditions likely to prevail in the country during the decade.
- ❖ Due to expected monsoon rains during the decade farmers are advised to take in time precautionary measures to protect their crops, livestock and other property from any expected rain.
- ❖ Farmers of cotton belt are advised to be aware of the adverse effects of stagnant water in the fields during monsoon. Mechanism for drainage of stagnant water from fields should be evolved on priority basis and necessary requirements in this regard should be taken.

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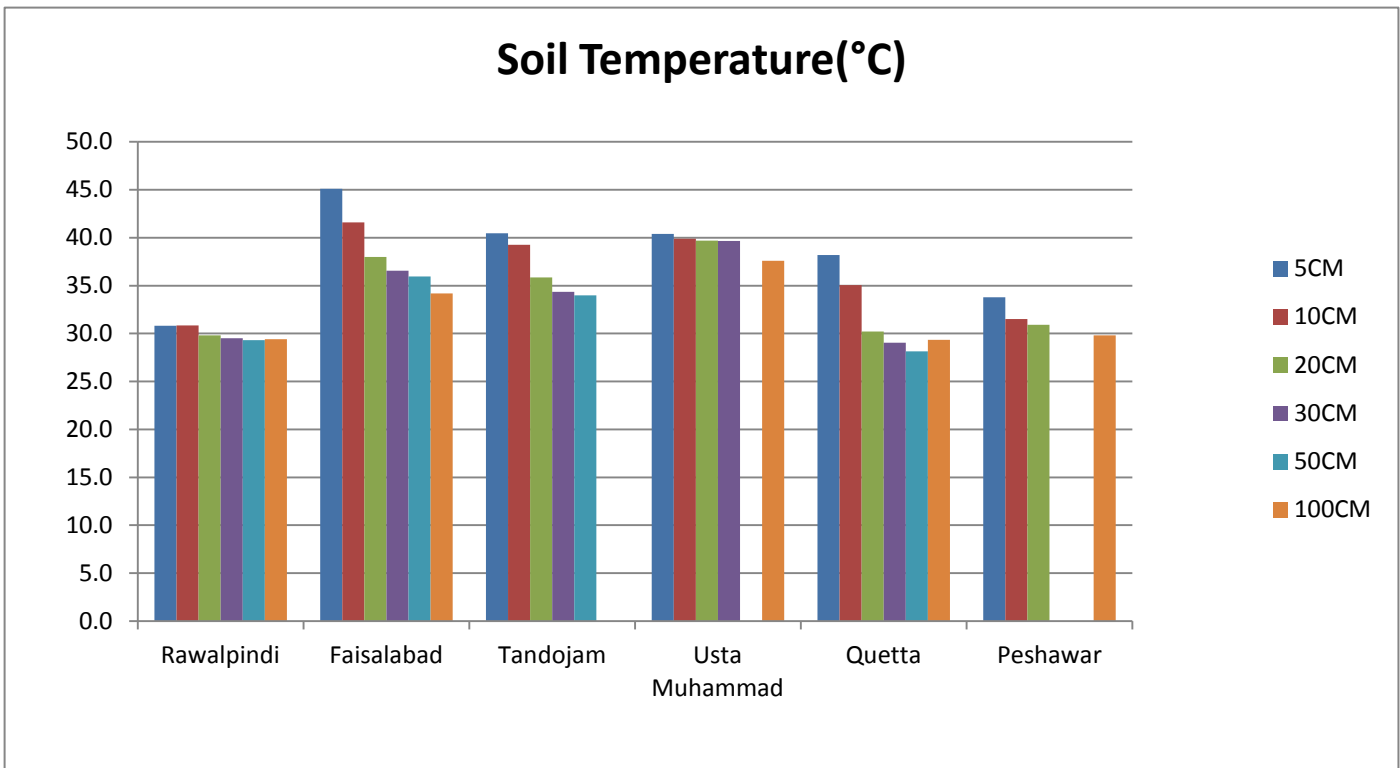
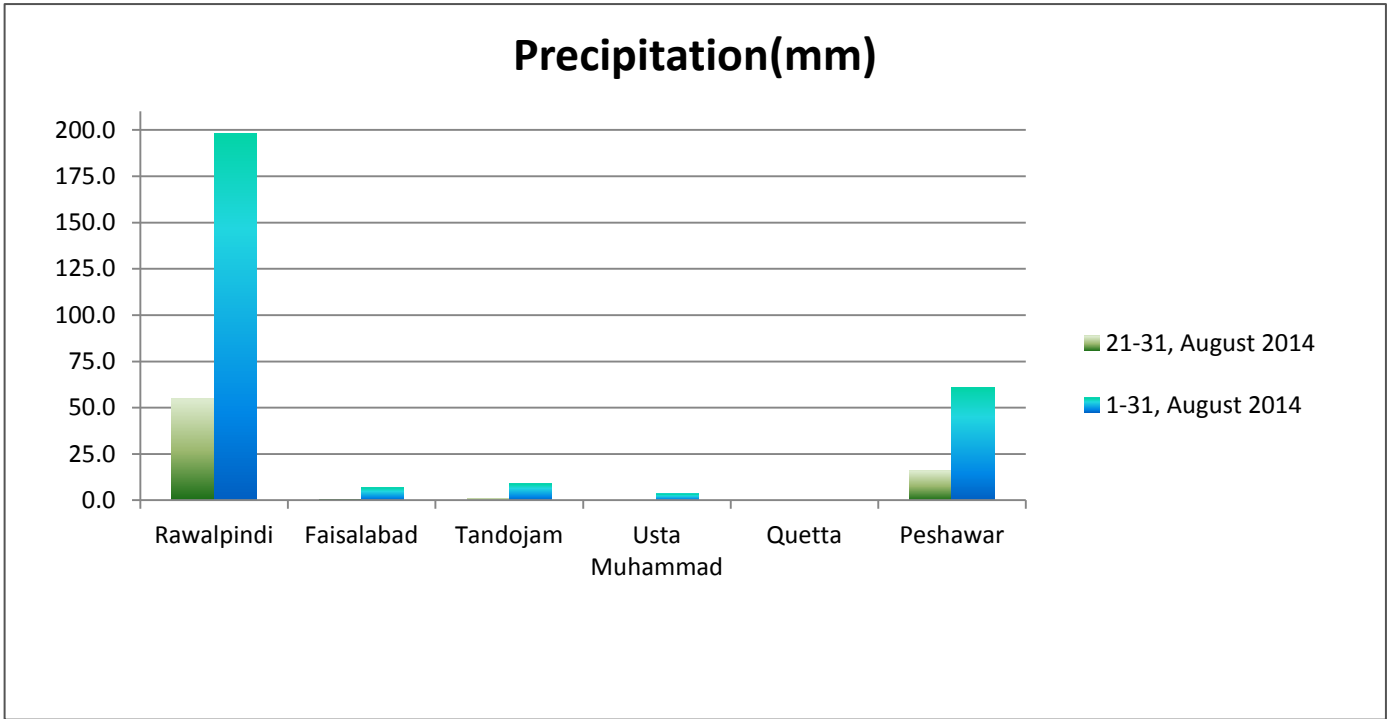
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Meteorological conditions during 3<sup>rd</sup> decade of August, 2014

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration (hours)	Wind Speed (km/hr)	ET <sub>0</sub> (mm/day)
		Normal	Actual	Dep	Tmin	Tmax	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAIWALPINDI	5.9	54.8	48.9	-1.7	2.4	20.1	30.8	30.9	29.8	29.5	29.3	29.4	60	59.8	4.8	4.5
2	PAISALABAD	2.9	0.1	-2.8	-0.4	2.2	32.2	45.1	41.6	38.0	36.8	36.0	34.2	47	104.5	3.1	3.7
3	JHELUM	4.4	16.0	11.6	-0.9	1.1	30.7	35.1	33.6	31.7	30.8	30.9	***	62	97.3	2.1	6.0
4	LAHORE	3.7	2.2	-1.5	-1.4	1.9	31.3	37.5	36.0	33.1	32.0	***	31.0	58	90.0	3.3	5.2
5	SARGODHA	2.3	4.8	2.5	-0.3	0.0	31.5	36.0	34.1	32.4	31.5	31.5	30.8	63	94.1	0.9	4.8
6	MULTAN	0.7	22.0	21.3	-0.7	1.4	32.8	***	***	***	***	***	***	50	99.7	8.1	6.9
7	KHANPUR	0.0	1.8	1.8	-1.1	1.2	32.2	***	38.0	37.3	37.2	37.4	36.0	56	115.7	5.0	6.5
8	TANDOJAM	1.5	1.0	-0.5	0.1	2.9	31.3	40.5	39.3	35.9	34.4	34.0	***	61	117.3	3.9	6.2
9	SAKRAND ☆	0.7	6.0	4.3	-1.3	1.0	29.6	44.7	42.1	***	***	***	35.8	57	133.0	***	7.6
10	ROHRI	0.7	0.0	-0.7	-0.2	0.8	33.5	30.1	44.4	37.7	36.8	35.3	36.1	46	124.0	5.6	7.1
11	DILKHAH	1.8	1.0	-0.8	-1.2	1.5	31.4	***	***	***	***	***	***	55	***	***	6.3
12	PESHAWAR	0.8	16.0	15.2	-1.2	1.2	30.7	33.8	31.5	30.9	***	***	29.8	58	88.2	3.3	5.0
13	USTA MUMAHMAD	0.1	0.0	-0.1	0.2	-1.4	32.3	40.4	38.9	38.7	38.7	***	37.8	53	***	***	6.0
14	QUETTA	0.4	0.0	-0.4	-0.1	-1.7	25.4	38.2	35.1	30.2	29.1	28.2	29.4	31	96.8	5.9	5.8
15	SKARDU	0.4	3.0	2.6	-2.8	0.2	19.8	***	***	***	***	***	***	40	60.9	3.0	3.8
16	QUILT	0.4	4.1	3.7	1.1	-2.1	34.3	***	***	***	***	***	***	59	63.8	2.5	4.1

Table-1: Meteorological parameters for selected stations 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. Tmin & Tmax stands for minimum and maximum temperatures respectively. ET<sub>0</sub> stands for reference crop evapotranspiration. \*\*\* stands for no data and (☆) indicates the station with five years climatic (normal) data for computing departures.

# Precipitation at RAMC's during August, 2014



**Past Weather (21<sup>st</sup> to 31<sup>st</sup> August, 2014)**

Light to moderate rainfall reported from 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 Islamabad, Joharabad & T.T Singh. Decadal minimum dropped below normal by 0.9°C & maximum temperature raised above normal by 1.5°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 94.4hrs, 3.9km/hr, 57% and 5.5mm/day respectively.

**1.2 Sindh**

Light to moderate rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Mithi, Karachi & Benazairabad. Decadal minimum dropped below normal by 1.1°C & maximum temperature raised above normal by 1.4°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 124.8hrs, 4.8km/hr, 55% and 6.8mm/day respectively.

**1.3 Khyber Pakhtunkhwa (KP)**

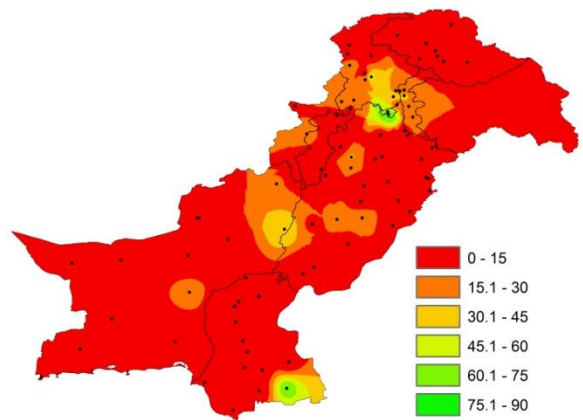
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Malamjabba, Kakul & Dir. Decadal minimum dropped below normal 1.2°C & maximum temperature raised above normal by 1.4°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 88.2hrs, 3.3km/hr, 57% and 5.7mm/day respectively.

**1.4 Balochistan**

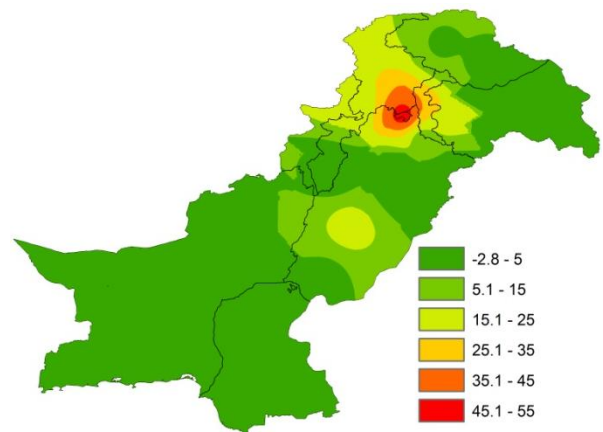
Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Barkhan, Khuzdar & Zhob. Decadal minimum remains normal & maximum temperature dropped below normal by 1.6°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were 96.8hrs, 5.9km/hr, 42% and 5.9mm/day respectively.

**1.5 Gilgit-Baltistan and Azad Jammu & Kashmir**

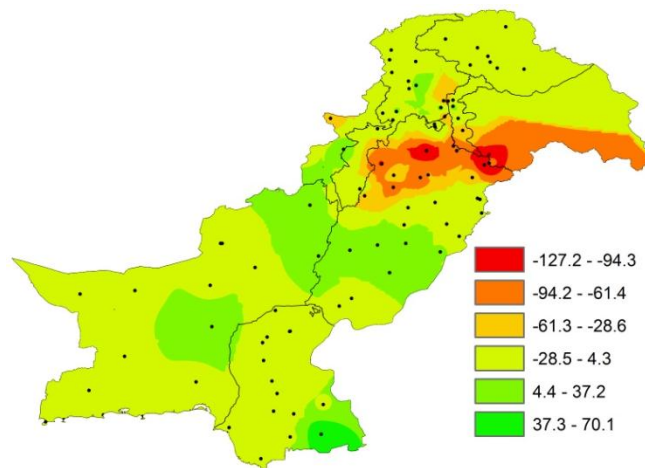
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Garhi Dopatta, Rawalakot & Kotli Decadal minimum & maximum temperature both dropped below normal by 0.9°C & 1.0°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity and ETo were recorded 62.4hrs, 2.8km/hr, 47% 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**  
**(21<sup>st</sup> to 31<sup>st</sup> August, 2014)**

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

Rainfall reported as 54.8mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 60%. Mean night temperature was 21.3°C while day temperature recorded as 34.9°C with 59.6hours bright sunshine duration. Wind speed recorded as 4.8km/h with mean wind direction *westerly*.

**Maize:** Good condition, 9<sup>th</sup> Leaf Stage

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

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 47%. Mean night temperature was 25.9°C while day temperature recorded as 38.5°C with 104.5hours bright sunshine duration. Wind speed recorded as 3.1km/hr with mean wind direction *south westerly*.

**Cotton:** Normal condition, Boll opening stage.

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

Rainfall reported as 1.0mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 61%. Mean night temperature was 25.2°C while day temperature recorded as 37.4°C with 117.3hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *south westerly*.

**Cotton (BT-3701):** Good condition, boll opening stage.

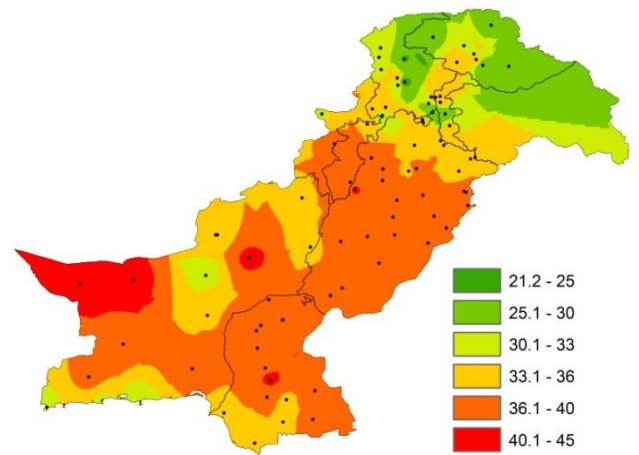
2.4 **RAMC, Usta Muhammad (Eastern Balochistan)**

Dry weather reported during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 53%. Mean night temperature was 26.8°C, while day temperature recorded as 37.7°C.

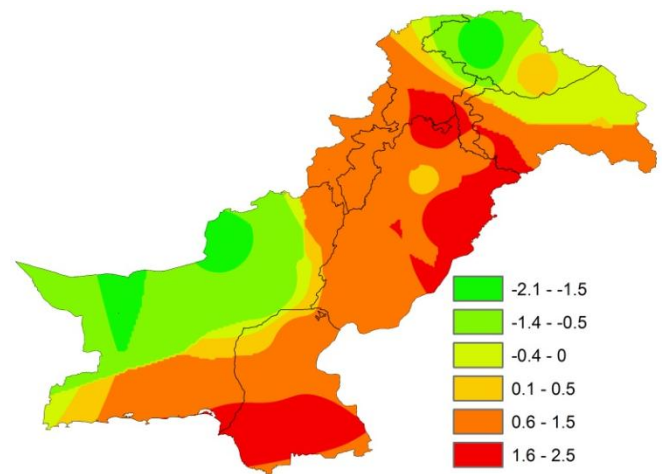
**Rice:** Good condition, Tillering stage.

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

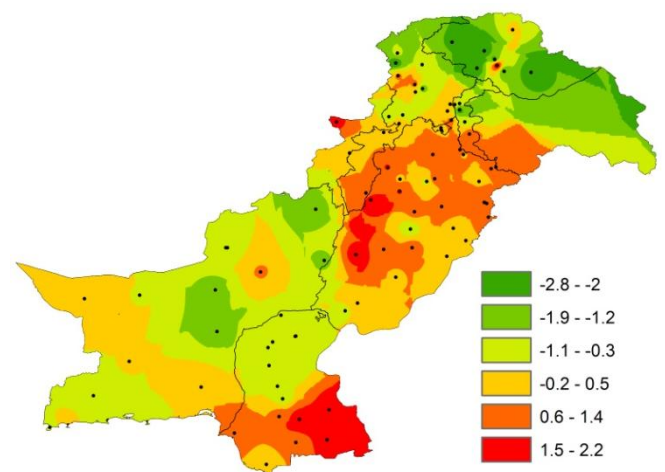
Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 31%. Mean night temperature was 18.0°C while day temperature recorded as 32.7°C with 96.8hours bright sunshine duration and wind speed recorded as 5.9km/hr with mean wind direction *southerly*.



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 (21<sup>st</sup> to 31<sup>st</sup> August, 2014)**

**2.6 Jhelum**

Rainfall reported as 15.0mm during the decade however weather remained cloudy for 11days. Average relative humidity recorded as 62%. Mean night temperature was 25.1°C while day temperature recorded as 36.2°C with 97.3hours bright sunshine duration. Wind speed recorded 2.1km/hr with mean wind direction *south westerly*.

**2.7 Lahore**

Rainfall reported as 2.2mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 58%. Mean night temperature was 25.7°C while day temperature recorded as 36.8°C with 90.0hours bright sunshine duration. Wind speed recorded as 3.3km/hr with mean wind direction *north westerly*.

**2.8 Sargodha**

Rainfall reported as 4.8mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 63%. Mean night temperature was 26.4°C while day temperature recorded as 36.5°C with 94.1hours bright sunshine duration. Wind speed recorded as 0.92km/hr with mean wind direction *variable*.

**2.9 Multan**

Rainfall reported as 22.0mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 50%. Mean night temperature was 26.9°C while day temperature recorded as 38.3°C with 99.7hours bright sunshine duration. Wind speed recorded as 8.1km/hr with mean wind direction *south westerly*.

**2.10 Khanpur**

Rainfall reported as 1.8 during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 56%. Mean night temperature was 26.0°C while day temperature recorded as 38.3°C with 115.7hours bright sunshine duration. Wind speed recorded 5.0km/hr with mean wind direction *south westerly*.

**2.11 Sakrand**

Rainfall reported as 5.0mm during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 57%. Mean night temperature was 21.8°C while day temperature recorded as 37.4°C with 133.0hours bright sunshine duration.

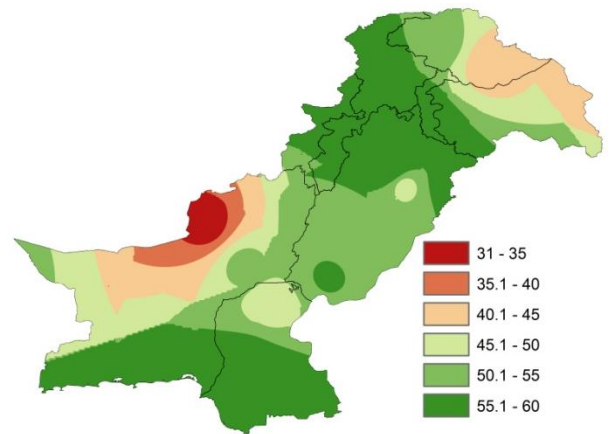


Figure.3: Relative Humidity in percentage (%)

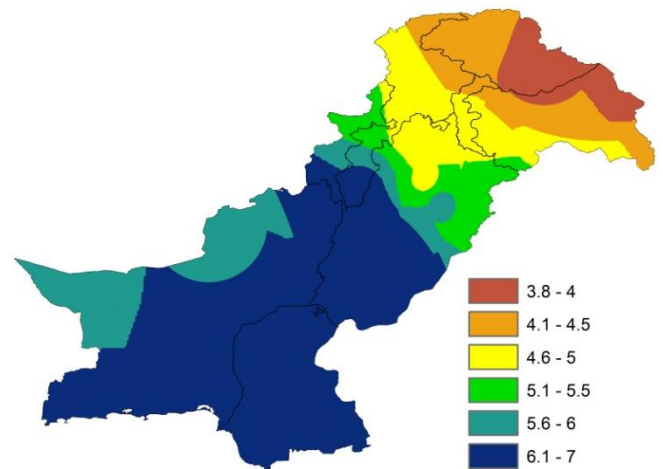


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

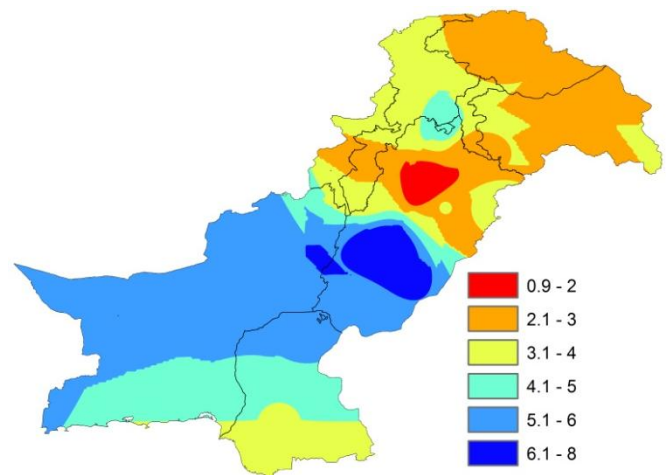


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 46%. Mean night temperature was 27.8°C while day temperature recorded as 39.1°C with 124.0hours bright sunshine duration. Wind speed recorded as 5.6km/hr with mean wind direction *easterly*.

**2.13 D.I. Khan**

Rainfall reported as 1.0mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 55%. Mean night temperature was 24.3°C while day temperature recorded as 38.5°C.

**2.14 Peshawar**

Rainfall reported as 16.0mm during the decade however weather remained cloudy for 11days. Average relative humidity recorded as 58%. Mean night temperature was 24.6°C while day temperature recorded as 36.7°C with 88.2hours bright sunshine duration. Wind speed recorded as 3.3km/hr with mean wind direction *north westerly*.

**2.15 Skardu**

Rainfall reported as 3.0mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 40%. Mean night temperature was 11.7°C while day temperature recorded as 27.9°C with 60.9hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *south south-easterly*.

**2.16 Gilgit**

Rainfall reported as 4.1mm during the decade however weather remained cloudy for 11days. Average relative humidity recorded as 53%. Mean night temperature was 16.2°C while day temperature recorded as 32.3°C with 63.8bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *easterly*.

### **3. Ten Days Weather Advisory for Farmers (1<sup>st</sup> to 10<sup>th</sup> Septemeber, 2014)**

**3.1 Temperature Forecast**

Normal temperatures are expected in most of the agricultural plains of the country during the decade.

**3.2 Wind Forecast**

Dust storm/ gusty wind conditions likely to prevail in the country during the decade.

**3.3 Rain Forecast**

- ❖ **Punjab:** Light to moderate rainfalls at isolated places is expected over most of the agricultural plains of the province during the decade.
- ❖ **Khyber Pakhtunkhwa:** Heavy falls at isolated places is expected over most of the agricultural plains of the province during the decade.
- ❖ **Sindh:** Light rainfall expected at isolated places of lower Sindh during the 1st half of decade of the decade.
- ❖ **Balochistan:** Mainly dry weather is expected in the province. However light rainfall expected in North western parts of Balochistan during the 1st half of decade.
- ❖ **Gilgit Baltistan:** Mostly cloudy weather with light to moderate rainfall over hills is expected in most parts of GB during 1st half of decade.
- ❖ **Kashmir:** Mainly cloudy weather with light to moderate rainfall over hills is expected in isolated parts of Kashmir during the 1st half of decade.

**3.4 Advisory for Farmers**

- ❖ Pest/viral attacks and more weeds growth are expected during current and expected monsoon rains in sugarcane and other standing crops in upper parts of the country. Farmers are therefore advised to take in time precautionary measures in this regard.
- ❖ 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.
- ❖ Due to expected monsoon rains during the decade farmers are advised to take in time precautionary measures to protect their crops, livestock and other property from any expected rain.
- ❖ Farmers of cotton belt are advised to be aware of the adverse effects of stagnant water in the fields during monsoon. Mechanism for drainage of stagnant water from fields should be evolved on priority basis and necessary requirements in this regard should be taken.
- ❖ Viral/pests attacks on cotton and sugarcane crops have been reported in agricultural plains of the country. These attacks may further enhance due to coming monsoon rains. Farmers should be careful to control these attacks in time.