

# 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 81.3mm at Rawalakot during the last decade.
- ❖ Highest maximum temperature recorded 49°C at Pasni during the last decade.
- ❖ Light to moderate rainfall is expected in the agricultural plains of Punjab, K.P, Balochistan, Gilgit Baltistan & Kashmir and light rainfall is expected in Sindh during the next 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.
- ❖ 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.
- ❖ Due to prevailing dry weather and rising day time temperature, cotton and sugarcane farmers should irrigate the crops as per requirement.
- ❖ Pest/viral attacks and more weeds growth are expected after recent rains on sugarcane crop. Farmers are therefore advised to take in time precautionary measures in this regard.

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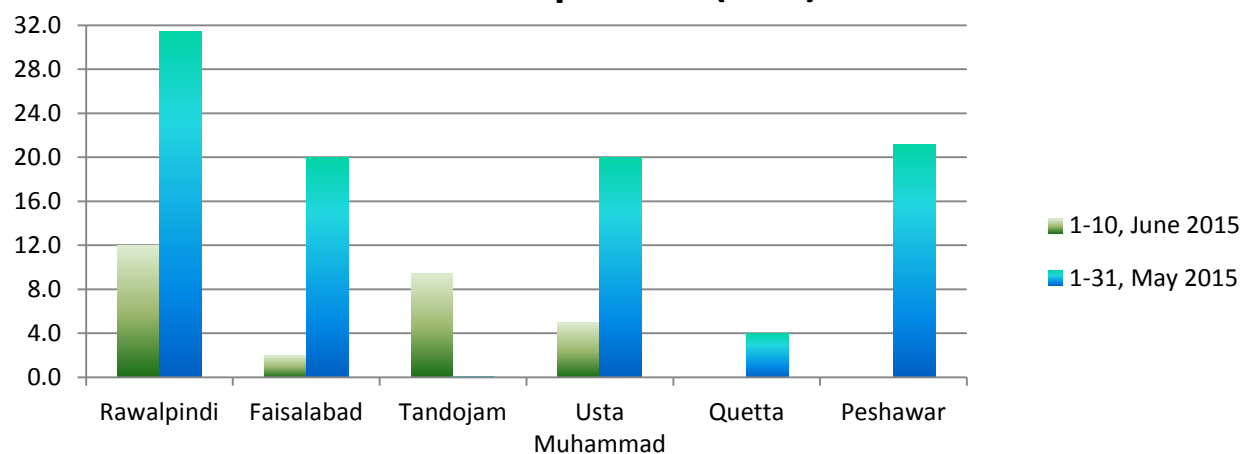
Meteorological conditions during 1<sup>st</sup> decade of June, 2015

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	1.6	12.0	10.4	-4.7	0.5	28.5	27.9	29.2	27.9	27.6	26.9	25.8	40	81.5	4.2	5.6
2	FAISALABAD	1.1	2.0	0.9	-1.3	-0.6	32.5	44.5	41.1	37.2	35.1	34.1	31.6	38	99.2	4.0	6.4
3	JHELUM	2.1	12.6	10.5	-3.4	-2.5	30.2	33.1	31.3	29.6	28.5	28.8	***	45	74.0	3.4	5.3
4	LAHORE	1.2	6.9	5.7	-1.2	-2.2	31.8	35.6	34.9	31.5	30.0	***	28.1	39	89.9	4.2	6.2
5	SARGODHA	0.3	28.7	28.4	-2.0	-1.5	32.8	40.2	37.9	34.4	33.4	33.0	29.7	42	94.8	5.6	6.9
6	MULTAN	0.1	0.1	0.0	-2.4	-0.9	33.6	***	***	***	***	***	***	31	96.5	8.0	8.1
7	KHANPUR	0.6	0.0	-0.6	-0.5	-0.9	33.3	***	37.3	36.8	36.6	36.5	34.2	47	96.3	6.1	7.1
8	TANDOJAM	0.9	9.4	8.5	-0.1	-0.4	32.7	42.9	40.6	37.1	35.1	34.1	***	56	89.4	7.3	6.8
9	SAKRAND ☆	0.9	31.0	30.1	-2.1	-4.0	30.8	46.0	41.1	***	***	***	35.0	50	100.7	8.4	7.5
10	ROHRI	0.0	7.0	7.0	-1.1	0.7	35.7	42.8	41.1	36.8	35.5	33.3	33.0	36	106.0	5.6	7.6
11	D I KHAN	0.3	0.1	-0.2	-0.9	-2.6	31.4	***	***	***	***	***	***	43	94.0	***	7.4
12	PESHAWAR	0.6	0.0	-0.6	-1.3	-1.9	30.7	37.7	33.2	31.9	***	***	***	46	98.2	2.2	5.6
13	USTA MUHAMMAD	0.5	5.0	4.5	-1.3	-3.5	34.1	40.5	38.7	37.2	35.4	***	32.8	33	***	***	8.9
14	QUETTA	0.5	0.0	-0.5	-1.4	1.0	25.5	36.7	33.1	27.9	27.0	24.8	25.0	21	100.6	6.1	6.6
15	SKARDU	0.3	7.3	7.0	-3.4	-1.7	17.4	***	***	***	***	***	***	48	52.3	4.7	4.1
16	GILGIT	0.6	0.4	-0.2	-1.4	1.1	23.1	***	***	***	***	***	***	37	81.5	3.9	5.4

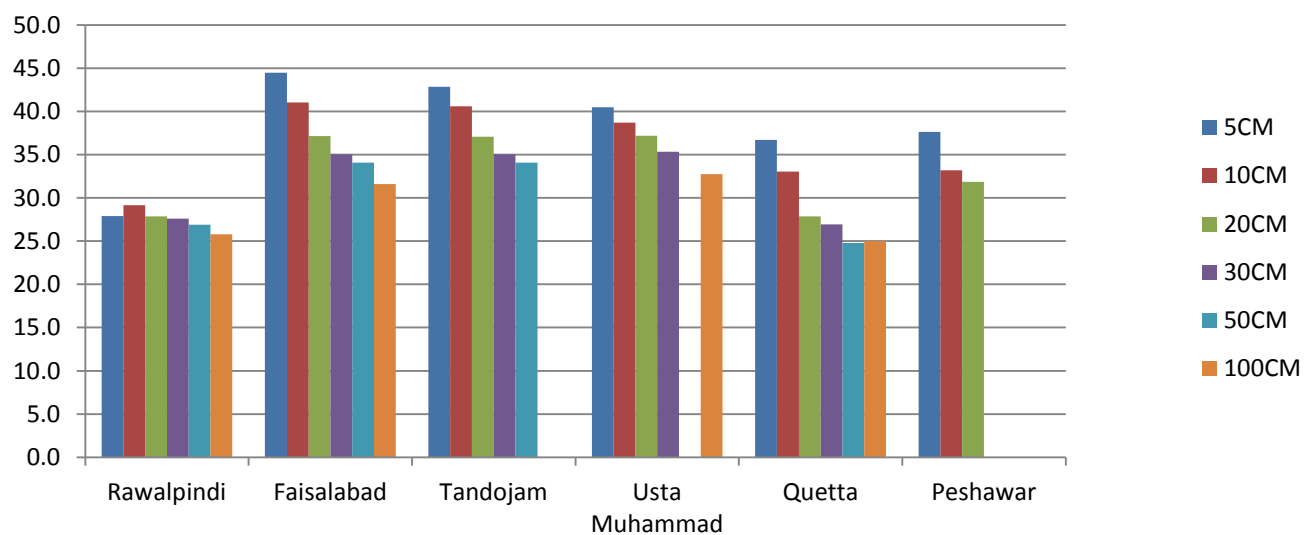
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. And "% Dep" is calculated by the formula; *Dep divided by Normal multiplied by 100*. Tmin & Tmax stands for minimum and maximum temperatures respectively. ETo stands for reference crop evapotranspiration. \*\*\* stands for no data and (☆) indicates the station with five years climatic (normal) data for computing departures.

## Graphs of RAMC's during June, 2015

### Precipitation(mm)



### Soil Temperature(°C)



**Past Weather (1<sup>st</sup> to 10<sup>th</sup> June, 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, Okara & Gujranwala. Decadal maximum & minimum temperature both dropped below normal by 2.2°C & 1.2°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 40%, 90.3hrs, 5.1km/hr and 6.5mm/day respectively.

**1.2 Sindh**

Light to moderate rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Sukkur, Dadu & Shaheed Benazirabad. Decadal maximum & minimum temperature both dropped below normal by 1.1°C & 1.2°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 47%, 98.7hrs, 7.1km/hr and 7.3mm/day respectively.

**1.3 Khyber Pakhtunkhwa (KP)**

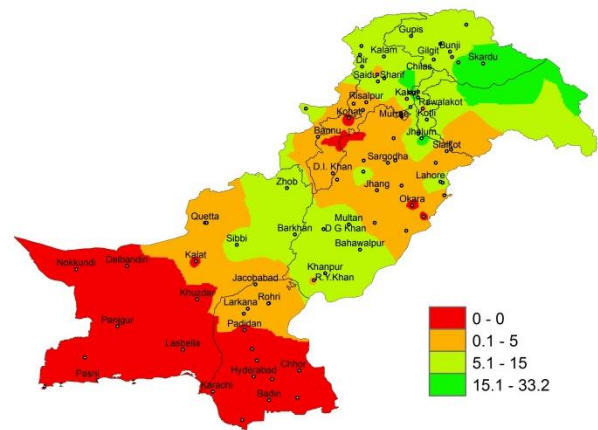
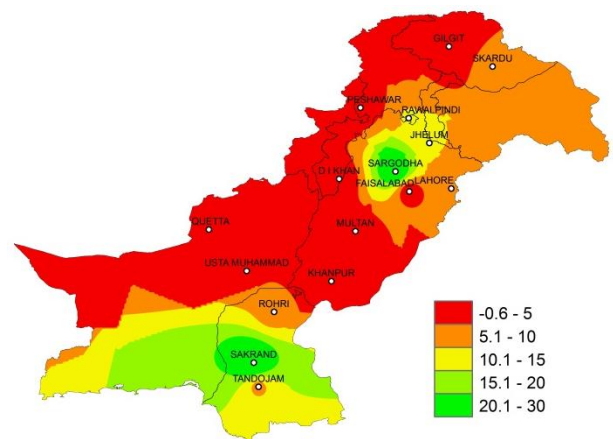
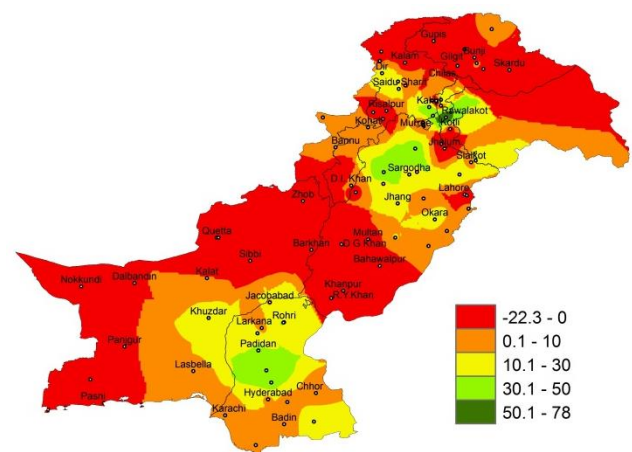
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Kakul, Pattan & Saidu Sharif. Decadal maximum & minimum temperature both dropped below normal by 1.1°C & 2.3°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 45%, 96.1hrs, 2.2km/hr and 6.5mm/day respectively.

**1.4 Balochistan**

Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Khuzdar, Lasbella & Brakhan. Decadal maximum & minimum temperature both dropped below normal by 1.4°C & 1.3°C respectively, in the province. Whereas mean values relative humidity, sunshine hour, wind speed & ETO were recorded as 27%, 100.6hrs, 6.1km/hr and 7.8mm/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, Astore & Garhi Dopatta. Decadal maximum & minimum temperature both dropped below normal by 2.4°C & 0.3°C respectively, in the province. Relative humidity, sunshine hour, wind speed & ETO were recorded as 43%, 66.9hrs, 4.3km/hr and 4.8mm/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 (1<sup>st</sup> to 10<sup>th</sup> June, 2015)

### 2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 12.0mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 40%. Mean day temperature was 33.9°C while night temperature recorded as 23.1°C with 81.5hours bright sunshine duration. Wind speed recorded as 4.2km/hr with mean wind direction *easterly*.

### 2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 2.0mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 38%. Mean day temperature was 39.5°C while night temperature recorded as 25.5°C with 99.15hours bright sunshine duration. Wind speed recorded as 4.0km/hr with mean wind direction *north easterly*.

**Cotton:** Excellent condition, Third leaf stage.

### 2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 9.4mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 56%. Mean day temperature was 39.3°C while night temperature recorded as 26.0°C with 89.4hours bright sunshine duration. Wind speed recorded as 7.3km/hr with mean wind direction *south westerly*.

**Cotton (Sindh-I):** Good condition, Third leaf Stage.

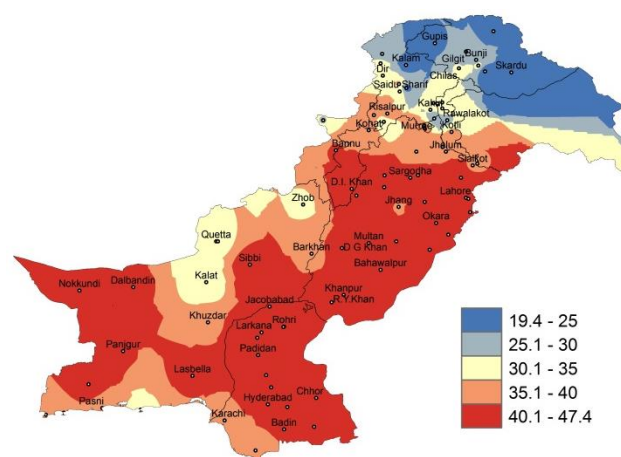
### 2.4 RAMC, Usta Muhammad (Eastern Balochistan)

Rainfall reported as 5.0mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 33%. Mean day temperature was 44.0°C while night temperature recorded as 24.2°C.

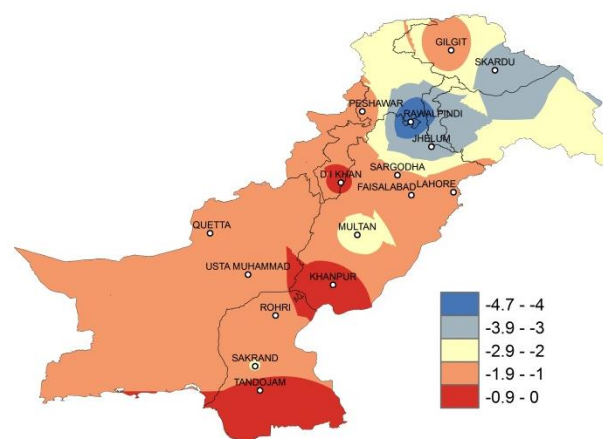
**Rice (Paniri):** Good Condition, Germination stage.

### 2.5 RAMC, Quetta (Northern Balochistan)

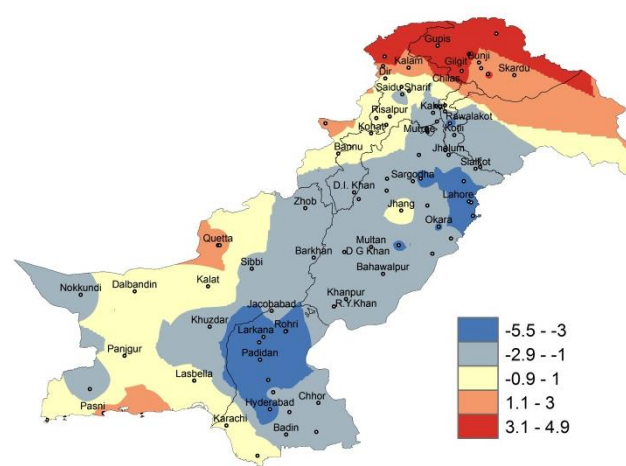
Dry weather reported during the decade, however weather remained cloudy for 09days. Average relative humidity recorded as 21%. Mean day temperature was 32.4°C while night temperature recorded as 18.6°C with 100.6hours bright sunshine duration and wind speed recorded as 6.1km/hr with mean wind direction *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 (1<sup>st</sup> to 10<sup>th</sup> June, 2015)

### 2.6 Jhelum

Rainfall reported as 12.6mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 45%. Mean day temperature was 37.2°C while night temperature recorded as 23.1°C with 74.0hours bright sunshine duration and wind speed recorded as 3.4km/hr with mean wind direction *variable*.

### 2.7 Lahore

Rainfall reported as 6.9mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 39%. Mean day temperature was 38.0°C while night temperature recorded as 25.5°C with 89.9hours bright sunshine duration. Wind speed recorded as 4.2km/hr with mean wind direction *north westerly*.

### 2.8 Sargodha

Rainfall reported as 28.7mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 42%. Mean day temperature was 39.7°C while night temperature recorded as 25.8°C with 94.8hours bright sunshine duration. Wind speed recorded as 5.6km/h with mean wind direction *north easterly*

### 2.9 Multan

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 31%. Mean day temperature was 39.7°C while night temperature recorded as 27.5°C with 96.5hours bright sunshine duration. Wind speed recorded 8.0km/hr with mean wind direction *south westerly*.

### 2.10 Khanpur

Dry weather reported during the decade however weather remained cloudy for 04day. Average relative humidity recorded as 47%. Mean day temperature was 40.3°C while night temperature recorded as 26.2°C with 96.3hours bright sunshine duration. Wind speed recorded 6.1km/hr with mean wind direction *westerly*.

### 2.11 Sakrand

Rainfall reported as 31.0mm during the decade however weather remains cloudy for 06days. Average relative humidity recorded as 50%. Mean day temperature was 39.5°C while night temperature recorded as 22.0°C with 100.7hours bright sunshine duration. Wind speed recorded 8.1km/hr with wind direction *south easterly*.

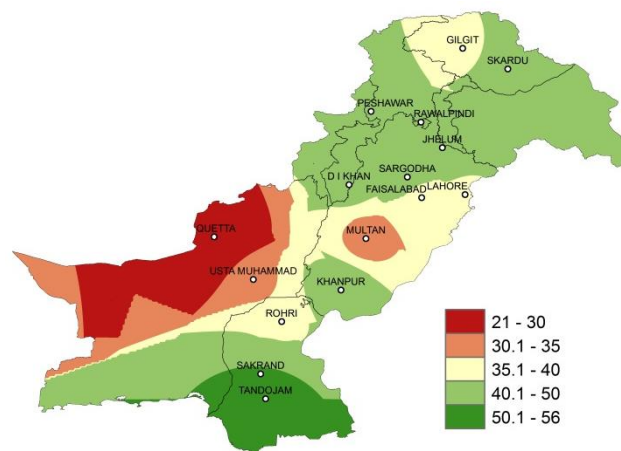


Figure.3: Relative Humidity in percentage (%)

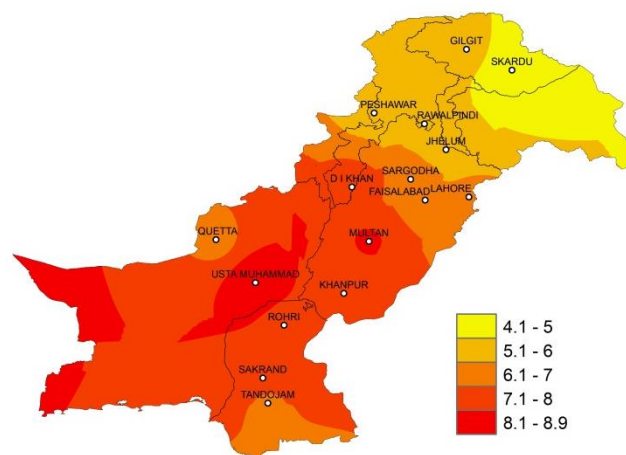


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

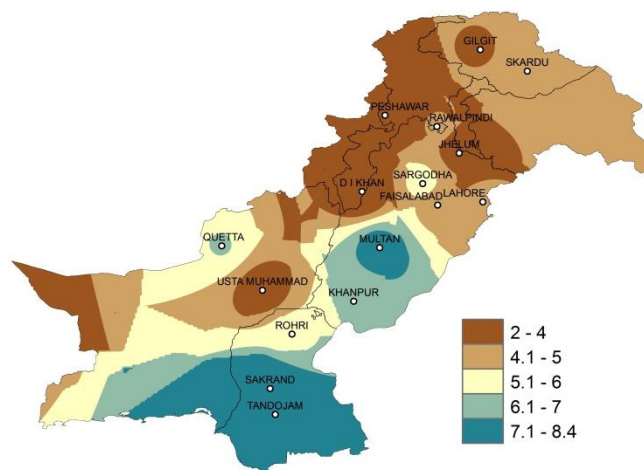


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Rainfall reported as 7.0mm during the decade; however weather remained cloudy for 06days. Average relative humidity recorded as 36%. Mean day temperature was 41.5°C while night temperature recorded as 29.8°C with 106.0hours bright sunshine duration. Wind speed recorded as 5.6km/hr with mean wind direction *south westerly*.

**2.13 D.I. Khan**

Rainfall reported as Trace (not measureable) during the decade, however weather remained cloudy for 03days. Average relative humidity recorded as 43%. Mean day temperature was 40.2°C while night temperature recorded as 22.6°C with 94.0hours bright sunshine duration.

**2.14 Peshawar**

Dry weather reported during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 46%. Mean day temperature was 38.1°C while night temperature recorded as 23.3°C with 98.2hours bright sunshine duration. Wind speed recorded as 2.2km/hr with mean wind direction *north easterly*.

**2.15 Skardu**

Rainfall reported as 7.3mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 48%. Mean day temperature was 24.3°C while night temperature recorded as 10.4°C with 52.3hours bright sunshine duration. Wind speed recorded as 4.7km/hr with mean wind direction *south easterly*.

**2.16 Gilgit**

Rainfall reported as 0.4mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 37%. Mean day temperature was 31.8°C while night temperature recorded as 14.3°C with 81.5hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *easterly*.

### **3. Ten Days Weather Advisory for Farmers (11<sup>th</sup> to 20<sup>th</sup> June, 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 while during dust/thunderstorm it will rise up to 30-50 knots.

**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 including Rawalpindi, Gujranwala, in 1st half of decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected in the province. However light to moderate rainfall is expected at few place including Hazara, Dera Ismail Khan, Peshawar Division during the decade.
- ❖ **Sindh:** Mostly hot and dry weather is expected in most parts of the Sindh however light rain is expected at few places of the province including Sukkur, Jacobabad in 1st half of decade.
- ❖ **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 in 1st half of decade.
- ❖ **Gilgit Baltistan:** Rain-thunderstorm is expected in most parts of the G.B during the decade.
- ❖ **Kashmir:** Mainly dry weather is expected in most of the parts of the Kashmir however rain-thunderstorm is expected at Muzaffarabad, Rawalakot during this decade.

**3.4 Advisory for Farmers**

- ❖ 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.
- ❖ 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.
- ❖ Due to prevailing dry weather and rising day time temperature, cotton and sugarcane farmers should irrigate the crops as per requirement.
- ❖ Pest/viral attacks and more weeds growth are expected after recent rains on sugarcane crop. Farmers are therefore advised to take in time precautionary measures in this regard.
- ❖ Farmers of rainfed areas in upper parts are advised to cultivate maize crop due to recent rains. Farmers obtaining crop water through tube wells are also advised to schedule the irrigation according to the expected weather mentioned during the decade.
- ❖ 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.