

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of K.P, Balochistan & light rainfall reported in the agricultural plains of Punjab, Sindh, G.B and Kashmir and during the last decade.
- ❖ Highest amount of rainfall reported as 93.7mm at Parachinar during the last decade.
- ❖ Highest maximum temperature recorded 47.0°C at Larkana during the last decade.
- ❖ Rain-thunderstorm is expected in the agricultural plains of Punjab, K.P, G.B & Kashmir & light to moderate rainfall 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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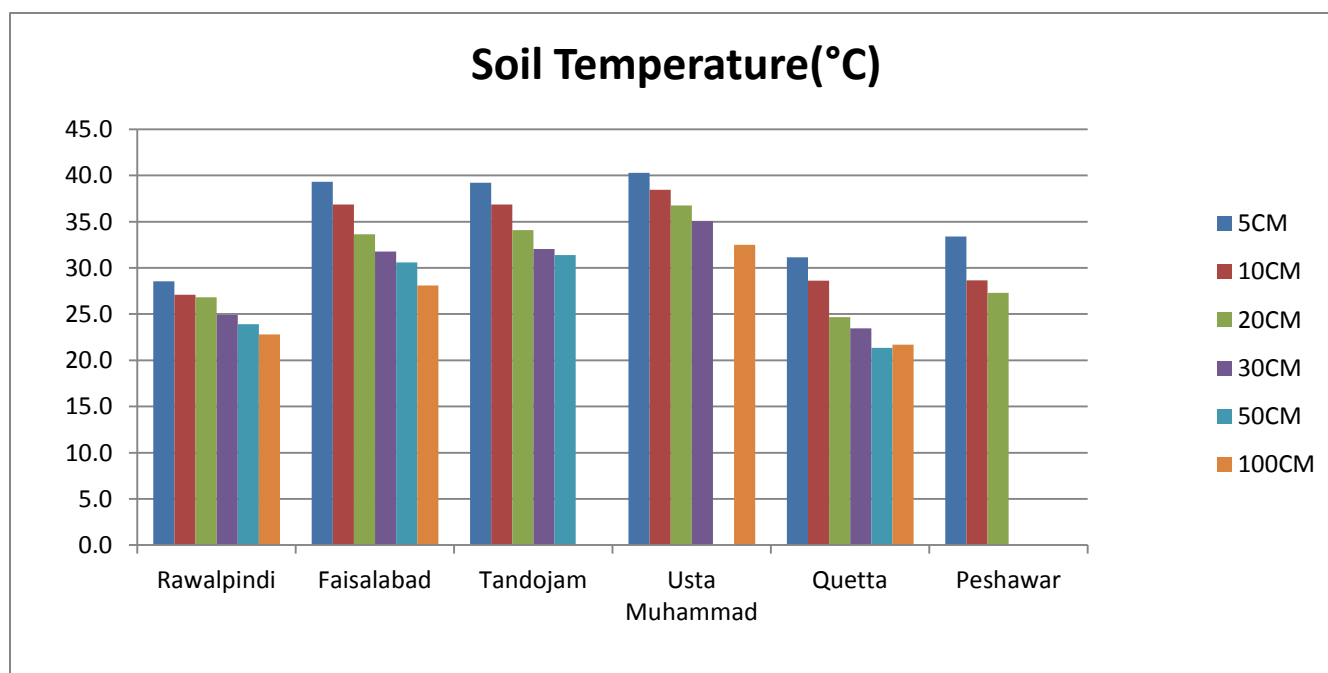
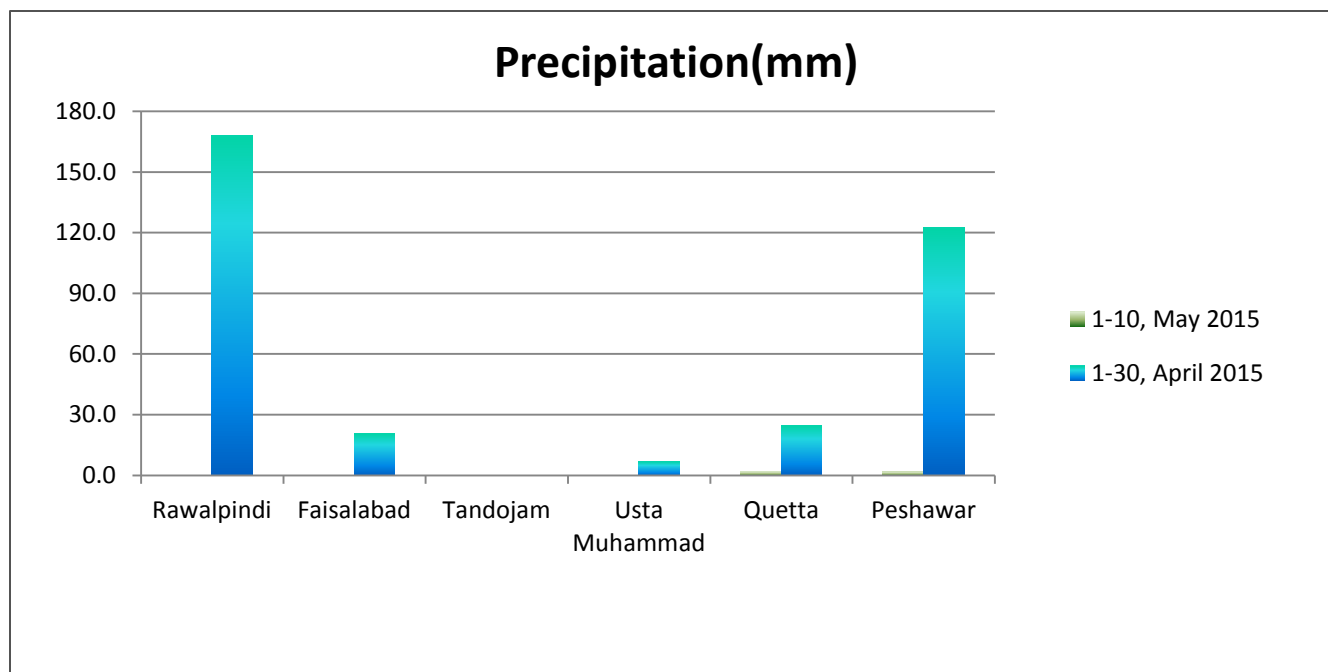
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Meteorological conditions during 1<sup>st</sup> decade of May, 2015

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	1.0	0.0	-1.0	0.6	1.1	28.3	28.6	27.1	26.8	24.9	23.9	22.8	39	100.2	5.6	6.3
2	FAISALABAD	0.7	0.0	-0.7	2.0	0.7	32.3	39.3	36.9	33.7	31.8	30.6	28.1	28	95.3	2.8	5.7
3	JHELUM	1.5	0.0	-1.5	0.0	-1.8	29.4	34.0	31.6	30.3	28.7	27.0	26.9	46	97.0	3.0	5.5
4	LAHORE	0.7	0.0	-0.7	1.8	-1.0	32.0	35.6	33.2	29.6	28.0	***	25.8	30	87.4	3.0	5.5
5	SARGODHA	0.5	0.0	-0.5	1.0	1.2	32.5	37.2	34.8	31.1	29.8	29.0	25.8	45	92.7	3.5	5.9
6	MULTAN	0.4	0.0	-0.4	1.2	0.9	33.7	***	***	***	***	***	***	26	92.6	6.1	7.3
7	KHANPUR	0.2	0.0	-0.2	1.6	0.3	33.5	***	35.2	34.7	34.5	34.3	31.8	41	94.8	3.9	6.4
8	TANDOJAM	0.0	0.0	0.0	-0.3	-0.5	32.1	39.2	36.9	34.1	32.1	31.4	***	49	102.0	2.5	5.8
9	SAKRAND ☆	0.0	0.0	0.0	-1.0	-4.4	30.8	46.7	40.2	***	***	***	32.4	39	109.2	4.5	6.7
10	ROHRI	0.0	6.0	6.0	-0.3	-0.4	35.0	44.8	39.9	34.9	33.6	31.0	30.7	27	121.0	3.8	7.0
11	DI KHAN	0.1	0.1	0.0	2.2	-0.2	31.5	***	***	***	***	***	***	36	79.0	***	7.1
12	PESHAWAR	0.9	2.0	1.1	1.5	-0.7	28.5	33.4	28.7	27.3	***	***	***	45	76.9	1.8	4.5
13	USTA MUHAMMAD	0.1	0.0	-0.1	0.9	-2.6	34.0	40.3	38.5	36.8	35.1	***	32.5	20	***	***	9.1
14	QUETTA	0.3	2.1	1.8	0.2	2.5	23.0	31.2	28.6	24.7	23.5	21.4	21.7	24	85.6	5.9	5.7
15	SKARDU	1.1	0.0	-1.1	0.7	-0.5	16.5	***	***	***	***	***	***	30	79.5	3.6	4.3
16	GILGIT	0.8	0.9	0.1	0.8	0.4	21.0	***	***	***	***	***	***	34	72.0	3.0	4.6

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; **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.

## Graph at RAMC's during May, 2015



**Past Weather (1<sup>st</sup> to 10<sup>th</sup> May, 2015)**

Light to moderate rainfall reported in the agricultural plains of the K.P, Balochistan & light rainfall reported in the agricultural plains of the Punjab, Sindh, G.B and Kashmir and during the last decade.

**1.1 Punjab**

Light rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Lahore, Islamabad & D.G Khan. Decadal maximum & minimum temperature departure both raised above normal by 1.2°C & 0.2°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 36%, 94.3hrs, 4.0km/hr and 6.1mm/day respectively.

**1.2 Sindh**

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Rohri, Moen Jo Daro & Larkana. Decadal maximum & minimum temperature departure both dropped below normal by 0.5°C & 1.8°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 38%, 110.7hrs, 3.6km/hr and 6.5mm/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, Chitral & Dir. Decadal maximum raised above normal by 1.9°C & minimum temperature departure dropped below normal by 0.4°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 41%, 78.0hrs, 1.8km/hr and 5.8mm/day respectively.

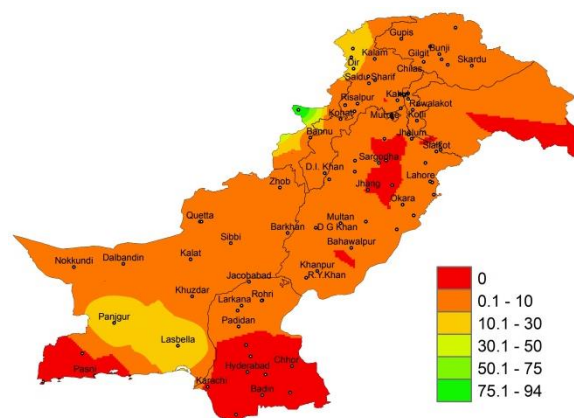
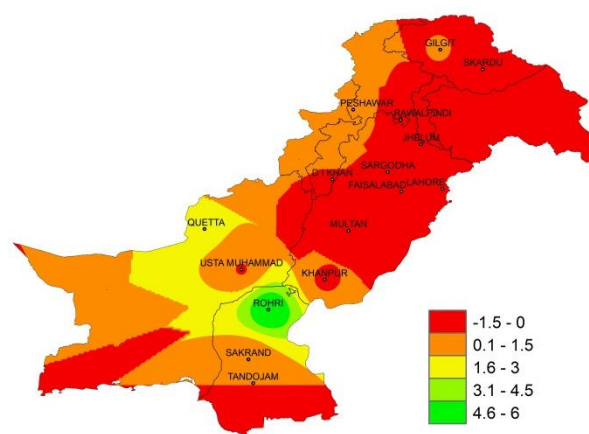
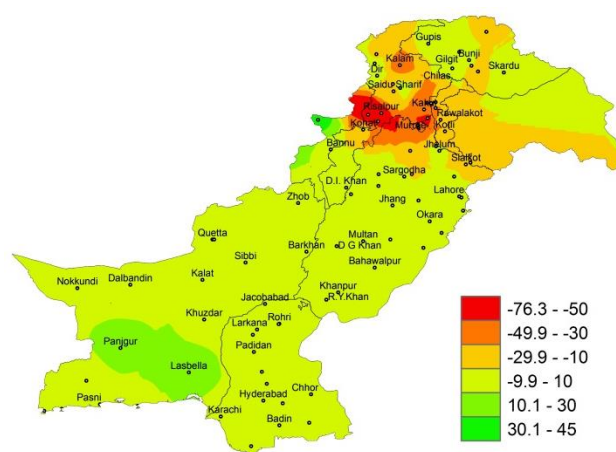
**1.4 Balochistan**

Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Lasbella, Panjgur & Zhob. Decadal maximum raised above normal by 0.5°C & minimum temperature departure dropped below normal by 0.1°C, in the province. Whereas mean values relative humidity, sunshine hour, wind speed & ETO were recorded as 22%, 85.6hrs, 5.9km/hr and 7.4mm/day respectively.

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

Light rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Garhi Doppatta, Rawalakot & Muzaffarabad. Decadal maximum raised above normal by 0.8°C & minimum temperature

departure remains normal by 0.0°C, in the province. Relative humidity, sunshine hour, wind speed & ETO were recorded as 32%, 75.8hrs, 3.3km/hr and 4.5mm/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 (1<sup>st</sup> to 10<sup>th</sup> May, 2015)

### 2.1 RAMC, Rawalpindi (Potohar region)

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 39%. Mean day temperature was 35.9°C while night temperature recorded as 20.7°C with 100.2hours bright sunshine duration. Wind speed recorded as 5.6km/hr with mean wind direction *westerly*.

**Wheat (Chakwal-97):** Good condition, wax maturity.

### 2.2 RAMC, Faisalabad (Central Punjab)

Dry weather during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 28%. Mean day temperature was 40.9°C while night temperature recorded as 23.6°C with 95.25hours bright sunshine duration. Wind speed recorded as 2.8km/hr with mean wind direction *easterly*.

**Wheat:** Harvested.

### 2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 49%. Mean day temperature was 40.8°C while night temperature recorded as 23.3°C with 102.0hours bright sunshine duration. Wind speed recorded as 2.5km/hr with mean wind direction *westerly*.

**Cotton (BT-3701):** Good condition, Germination Stage.

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

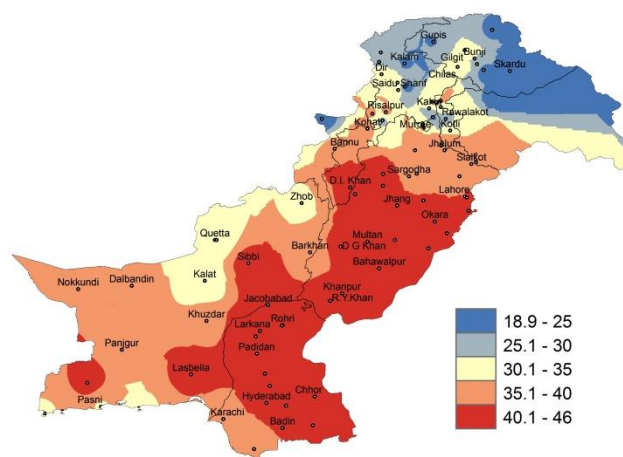
Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 20%. Mean day temperature was 45.0°C while night temperature recorded as 23.0°C.

**Rice (Paniri):** Good Condition.

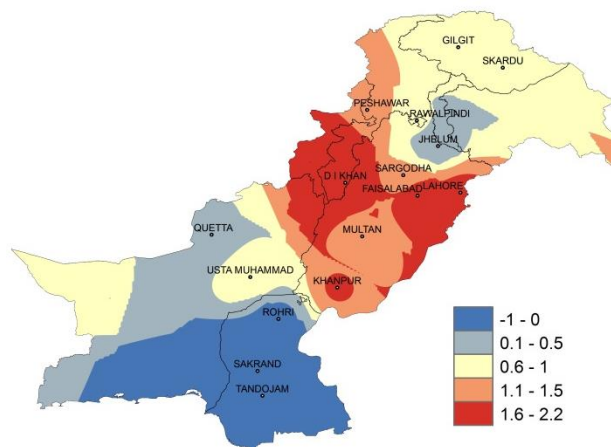
### 2.5 RAMC, Quetta (Northern Balochistan)

Rainfall reported as 2.1mm during the decade, however weather remained cloudy for 08days. Average relative humidity recorded as 24%. Mean day temperature was 30.0°C while night temperature recorded as 15.9°C with 85.6hours bright sunshine duration and wind speed recorded as 5.9km/hr with mean wind direction *southerly*.

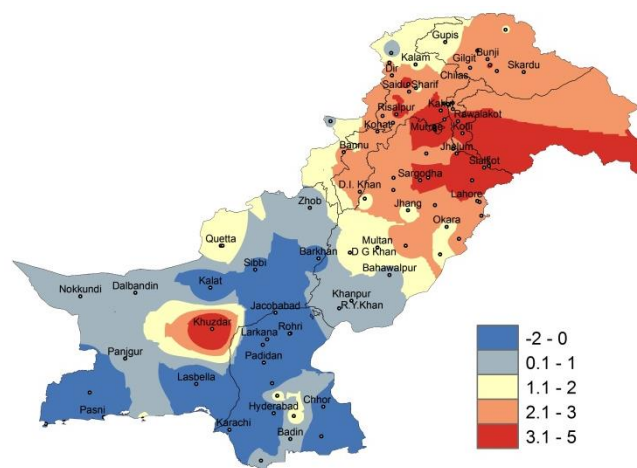
**Wheat:** Good condition, wax maturity.



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> May, 2015)

### 2.6 Jhelum

Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 46%. Mean day temperature was 37.9°C while night temperature recorded as 20.9°C with 97.0hours bright sunshine duration and wind speed recorded as 3.0km/hr with mean wind direction *northerly*.

### 2.7 Lahore

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 30%. Mean day temperature was 39.8°C while night temperature recorded as 24.2°C with 87.4hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *north westerly*.

### 2.8 Sargodha

Dry weather reported during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 45%. Mean day temperature was 40.1°C while night temperature recorded as 24.9°C with 92.7hours bright sunshine duration. Wind speed recorded as 3.5km/h with mean wind direction *north easterly*.

### 2.9 Multan

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 26%. Mean day temperature was 41.5°C while night temperature recorded as 25.8°C with 92.6hours bright sunshine duration. Wind speed recorded 6.1km/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 41%. Mean day temperature was 42.1°C while night temperature recorded as 24.9°C with 94.8hours bright sunshine duration. Wind speed recorded 3.9km/hr with mean wind direction *westerly*.

### 2.11 Sakrand

Dry weather reported during the decade however weather remains cloudy for 05days. Average relative humidity recorded as 39%. Mean day temperature was 41.5°C while night temperature recorded as 20.0°C with 109.2hours bright sunshine duration. Wind speed recorded 4.5km/hr with wind direction *south easterly*.

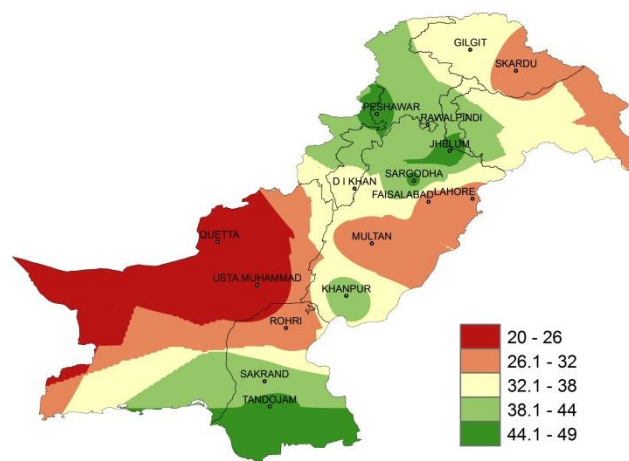


Figure.3: Relative Humidity in percentage (%)

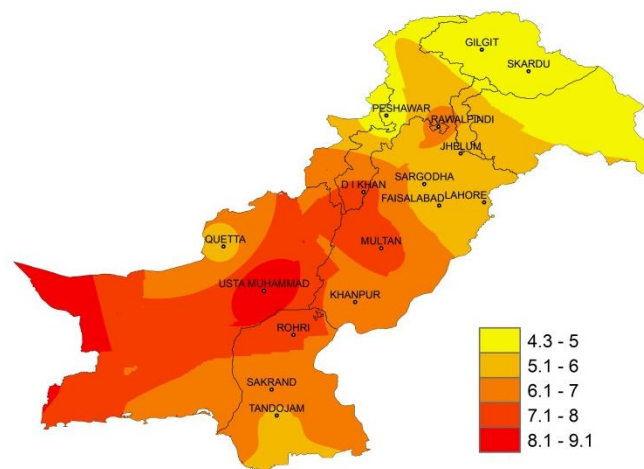


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

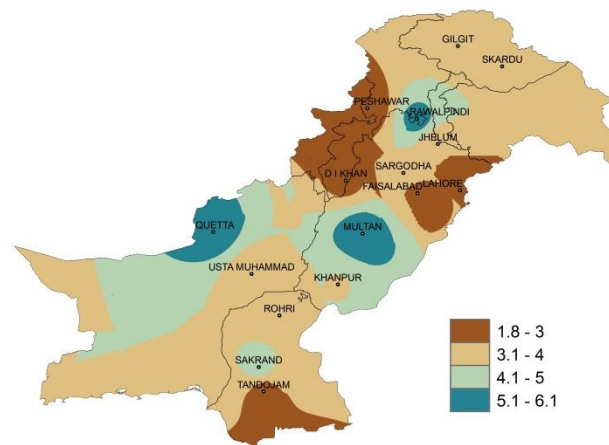


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Dry weather reported during the decade, however weather remained cloudy for 07days. Average relative humidity recorded as 27%. Mean day temperature was 42.7°C while night temperature recorded as 27.3°C with 121.0hours bright sunshine duration. Wind speed recorded as 3.8km/hr with mean wind direction *northerly*.

**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 36%. Mean day temperature was 40.6°C while night temperature recorded as 22.3°C with 79.0hours bright sunshine duration.

**2.14 Peshawar**

Rainfall reported as 2.0mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 45%. Mean day temperature was 36.3°C while night temperature recorded as 20.7°C with 76.9hours bright sunshine duration. Wind speed recorded as 1.8km/hr with mean wind direction *northerly*.

**2.15 Skardu**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 30%. Mean day temperature was 24.7°C while night temperature recorded as 8.2°C with 79.5hours bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction *southerly*.

**2.16 Gilgit**

Rainfall reported as 0.9mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 34%. Mean day temperature was 30.6°C while night temperature recorded as 11.4°C with 72.0hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *easterly*.

### **3. Ten Days Weather Advisory for Farmers (11<sup>th</sup> to 20<sup>th</sup> May, 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 including Lahore, Rawalpindi, Gujranwala, Bahawalpur division from 11th to 14th of decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected in the province. However light to moderate rainfall is expected from 11th to 14th and from 19th of 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, Larkana division on 11th & 19th of this 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 on 11th and from 18th to 19th of this 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 from 11th to 14th and from 18th of this decade.

**3.4 Advisory for Farmers**

- ❖ Wheat crop is growing at Wax/full 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.
- ❖ Wheat crop is growing at very crucial development stages of Wax/Full maturity stages in Punjab. Farmers of these areas are advised to harvest wheat crop keeping in view weather information in mind.
- ❖ During the harvesting process, farmers are advised to be aware about the weather conditions & keep listening & watching carefully the weather advisories issued through radio & television.
- ❖ 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.