

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- ❖ Heavy rainfall reported in the agricultural plains of K.P, G.B & Kashmir however light to moderate rainfall reported in the agricultural plains of Punjab & Balochistan and light rainfall reported in Sindh during the last decade.
- ❖ Highest amount of rainfall reported 304.0mm at Malam Jabba during the last decade.
- ❖ Highest Maximum temperature recorded 42.5°C at Shaheed Benzairabad during the last decade.
- ❖ Mainly cloudy weather is expected in most parts of the country however light to moderate rainfall (snowfall over the hills) is expected in most of the country from 11<sup>th</sup> to 13<sup>th</sup> and 16<sup>th</sup> to 19<sup>th</sup> of the decade.
- ❖ Wheat crop is in flowering/milk maturity/wax maturity stages in most of the agricultural plains of the country. Farmers are advised to stop irrigation the crops by keeping in view the expected rain in the agricultural plains of the country.
- ❖ At this stage of wheat crop, farmers should control weeds further growth by manual practices or any recommended spray.
- ❖ Farmers of irrigated/barani areas are advised to remove weeds from the fields, so that the present soil moisture may fully be utilized.
- ❖ Farmers of upper half and northwest Balochistan should be careful about irrigation and spraying chemicals on the crop.
- ❖ 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.

**NATIONAL AGROMET CENTRE (NAMC)  
PAKISTAN METEOROLOGICAL DEPARTMENT  
SECTOR H-8/2, ISLAMABAD**

Patron-in-Chief: *Dr. Ghulam Rasul, Director General*

Editor-in-Chief: *Muhammad Aslam, Director*

Editor: *Asma Jawad Hashmi, Deputy Director*

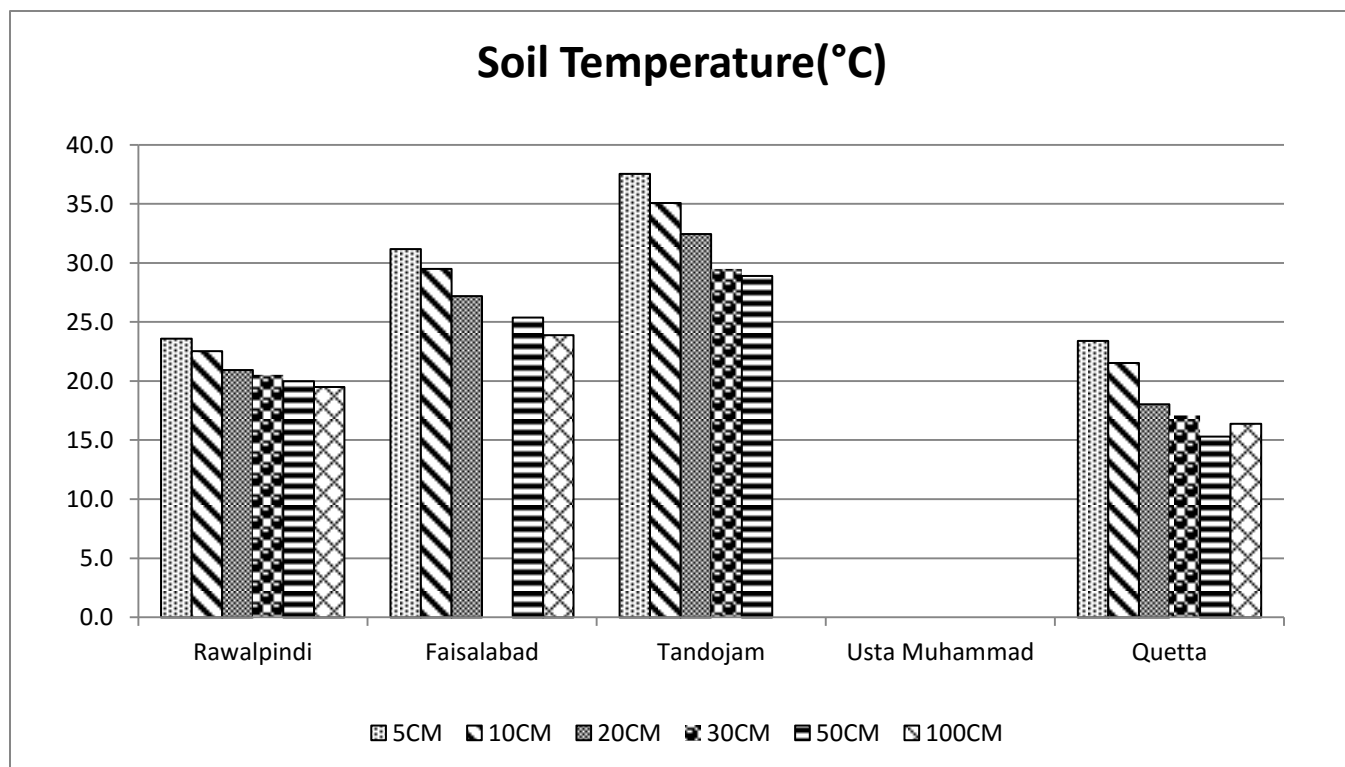
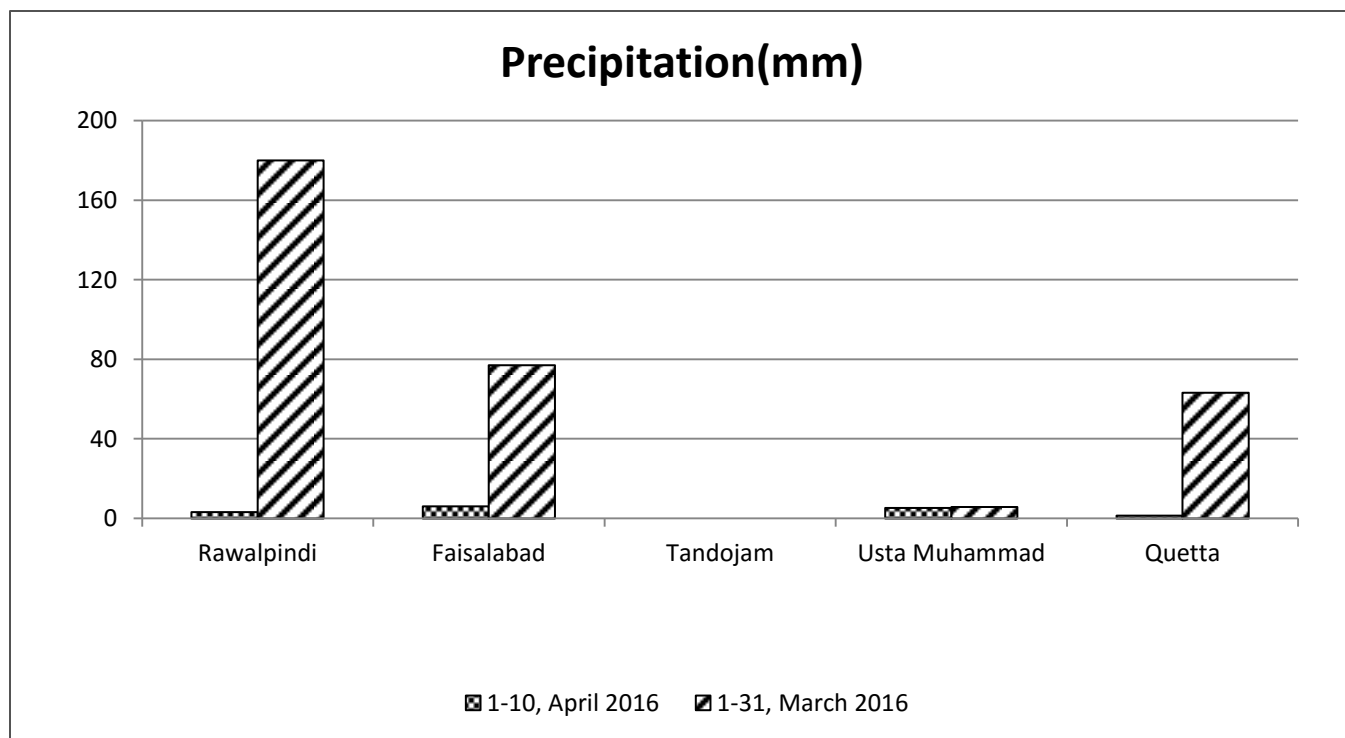
Phone: [+92-51-9250592](tel:+92-51-9250592) Email: [info@namc.pmd.gov.pk](mailto:info@namc.pmd.gov.pk)

Meteorological conditions during 1<sup>st</sup> decade of April, 2016

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	2.6	3.2	0.6	-1.9	1.3	21.9	23.6	22.6	21.0	20.6	20.0	19.5	57	55.6	4.5	3.7
2	FAISALABAD	0.4	6.1	5.7	-2.2	1.5	25.1	31.2	29.5	27.2	***	25.4	23.9	57	52.9	3.1	3.7
3	JHELUM	1.7	2.4	0.7	-1.5	-0.1	24.0	27.1	25.3	23.3	22.2	22.4	***	53	52.2	3.0	3.6
4	LAHORE	0.5	1.0	0.5	0.0	-0.2	26.6	30.2	28.9	26.1	24.9	***	23.3	47	56.5	4.5	4.3
5	SARGODHA	1.3	6.3	5.0	-2.7	0.9	25.0	27.4	26.1	23.9	23.2	21.8	21.9	70	59.9	4.3	3.8
6	MULTAN	0.3	13.5	13.2	-3.7	0.7	25.3	***	***	***	***	***	***	51	63.0	5.2	4.4
7	KHANPUR	0.6	9.0	8.4	-2.1	2.6	27.6	***	29.6	29.5	29.5	29.3	27.7	49	66.3	6.1	5.1
8	TANDOJAM	0.1	0.0	-0.1	-1.8	1.0	28.4	37.6	35.1	32.5	29.5	28.9	***	45	81.7	7.6	6.3
9	SAKRAND ☆	0.1	0.0	-0.1	-0.3	2.6	29.2	43.9	35.8	***	***	***	29.0	40	78.6	6.3	5.9
11	D I KHAN	0.7	4.0	3.3	-2.2	1.3	24.7	***	***	***	***	***	***	55	45.0	***	4.4
11	PESHAWAR	2.9	54.0	51.1	-2.7	-0.4	21.3	25.2	22.2	21.5	***	***	***	70	43.9	3.3	3.0
12	USTA MUHAMMAD	0.0	5.3	5.3	-0.8	0.5	28.0	***	***	***	***	***	***	41	***	9.9	7.1
13	QUETTA	0.2	1.4	1.2	-3.0	1.5	15.7	23.4	21.6	18.1	17.1	15.3	16.4	42	64.1	6.0	3.9
14	SKARDU	2.7	29.4	26.7	-1.3	1.1	11.3	***	***	***	***	***	***	62	23.0	2.6	2.2
15	GILGIT	1.4	59.3	57.9	-5.0	-0.5	12.9	***	***	***	***	***	***	68	30.6	2.5	2.2

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 April, 2016



**Past Weather (1<sup>st</sup> to 10<sup>th</sup> April, 2016)**

Heavy rainfall reported in the agricultural plains of K.P, G.B & Kashmir however light to moderate rainfall reported in the agricultural plains Punjab & Balochistan and light rainfall reported in 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 Murree, D. G Khan & Mianwali. Decadal maximum dropped below normal by 2.0°C & minimum temperature raised above normal by 1.0°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 55%, 58.1hrs, 4.4km/hr and 4.1mm/day respectively.

**1.2 Sindh**

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received Jacobabad, Larkana & Dadu. Decadal maximum dropped below normal by 0.7°C & minimum temperature raised above normal by 1.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 28%, 53.4hrs, 4.6km/hr and 6.1mm/day respectively.

**1.3 Khyber Pakhtunkhwa (KP)**

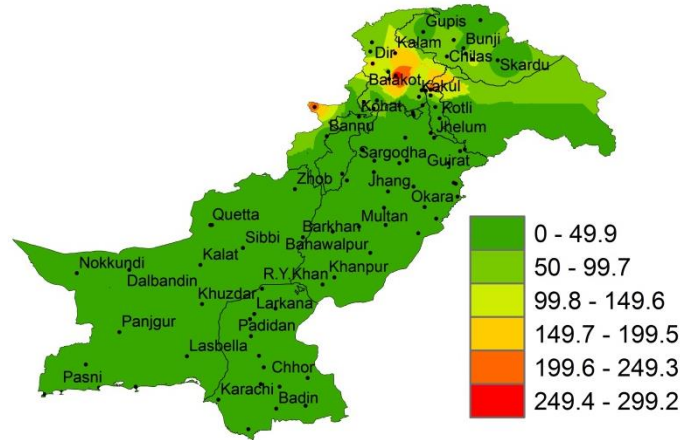
Heavy rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Malam Jabba, Pattan, & Parachinar. Decadal maximum dropped below normal by 2.5°C & minimum temperature raised above normal by 0.5°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 63%, 44.5hrs, 3.3km/hr and 3.7mm/day respectively.

**1.4 Balochistan**

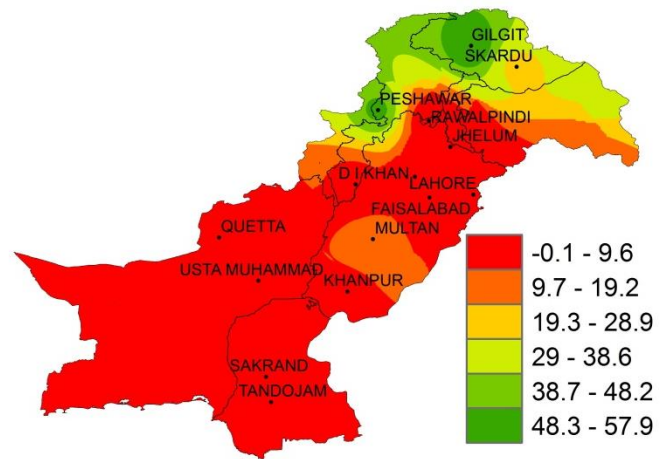
Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Zhob, Barkhan & Sibbi. Decadal maximum dropped below normal by 1.9°C & minimum temperature raised above normal by 1.0°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 42%, 64.1hrs, 8.0km/hr and 5.5mm/day respectively.

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

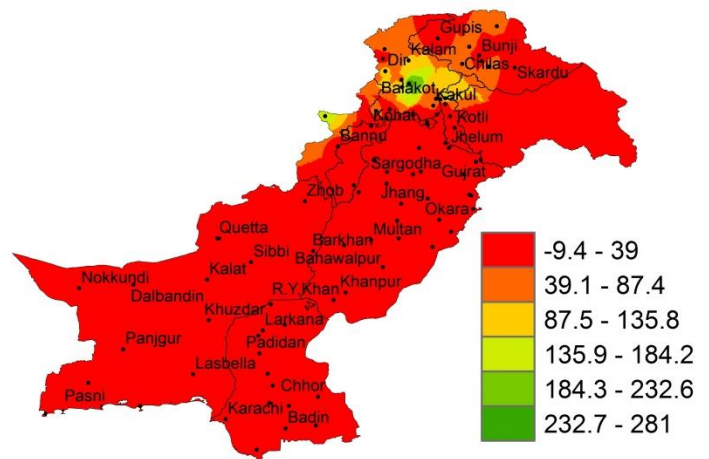
Heavy rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Astore, Chilas & Gilgit. Decadal maximum dropped below normal by 3.2°C & minimum temperature raised above normal by 0.3°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 65%, 26.8hrs, 2.6km/hr and 2.2mm/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> April, 2016)

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

Rainfall reported as 3.2mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 57%. Mean day temperature was 28.0°C while night temperature recorded as 15.7°C with 55.6hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *west north- westerly*.

**Wheat (Chakwal-97):** Good condition, shooting stage.

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

Rainfall reported as 6.1mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 57%. Mean day temperature was 31.3°C while night temperature recorded as 18.9°C with 52.9hours bright sunshine duration. Wind speed recorded as 3.1km/hr with mean wind direction *north westerly*.

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

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

Dry weather reported during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 45%. Mean day temperature was 36.5°C while night temperature recorded as 20.3°Cwith 81.7hours bright sunshine duration. Wind speed recorded as 7.6km/hr with mean wind direction *south westerly*.

**Note:** Fields are being prepared for new crop.

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

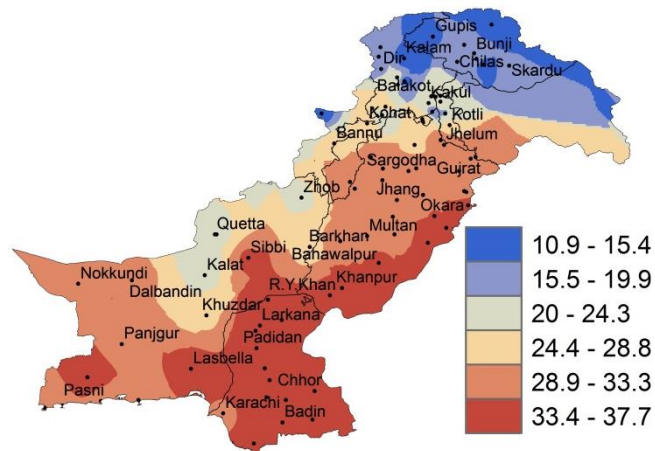
Rainfall reported as 5.3mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 41%. Mean day temperature was 35.7°C while night temperature recorded as 20.3°C. Wind speed recorded as 9.9km/hr with mean wind direction *south easterly*.

**Wheat (Zardana):** Good condition, maturity stage.

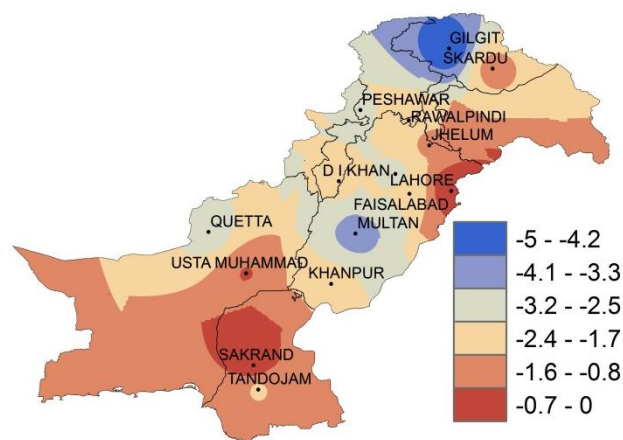
2.5 **RAMC, Quetta (Northern Balochistan)**

Rainfall reported as 1.4mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 42%. Mean day temperature was 21.2°C while night temperature recorded as 10.1°C with 69.1hours bright sunshine duration. Wind speed recorded as 6.0km/hr with mean wind direction *southerly*.

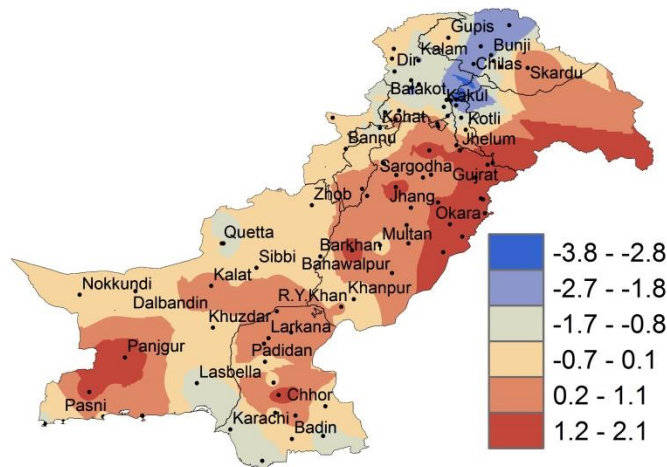
**Wheat:** Good condition, flowering stage.



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 (1<sup>st</sup> to 10<sup>th</sup> April, 2016)**

2.6 **Jhelum**

Rainfall reported as 2.4mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 53%. Mean day temperature was 30.8°C while night temperature recorded as 17.1°C with 52.2hours bright sunshine duration. Wind speed recorded 3.0km/hr with wind direction *north westerly*.

2.7 **Lahore**

Rainfall reported as 1.0mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 47%. Mean day temperature was 32.8°C while night temperature recorded as 20.3°C with 56.5hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Rainfall reported as 6.3mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 70%. Mean day temperature was 30.7°C while night temperature recorded as 19.2°C with 59.9hours bright sunshine duration. Wind speed recorded 4.3km/hr with mean wind direction *south easterly*.

2.9 **Multan**

Rainfall reported as 13.5mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 51%. Mean day temperature was 31.1°C while night temperature recorded as 19.4°C with 63.0hours bright sunshine duration. Wind speed recorded 5.2km/hr with mean wind direction *northerly*.

2.10 **Khanpur**

Rainfall reported as 9.0mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 49%. Mean day temperature was 33.7°C while night temperature recorded as 21.4°C with 66.3hours bright sunshine duration. Wind speed recorded 6.1km/hr with mean wind direction *northerly*.

2.11 **Sakrand**

Dry weather reported during the decade however weather remains cloudy for 09days. Average relative humidity recorded as 40%. Mean day temperature was 36.8°C while night temperature recorded as 21.6°C with 78.6hours bright sunshine duration. Wind speed recorded 6.3km/hr with wind direction *south westerly*.

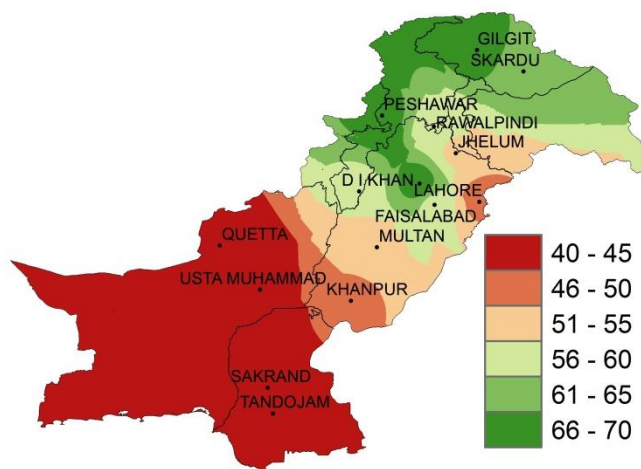


Figure.3: Relative Humidity in percentage (%)

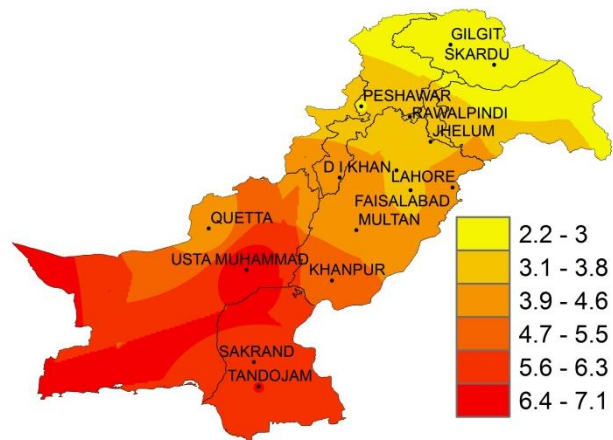


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

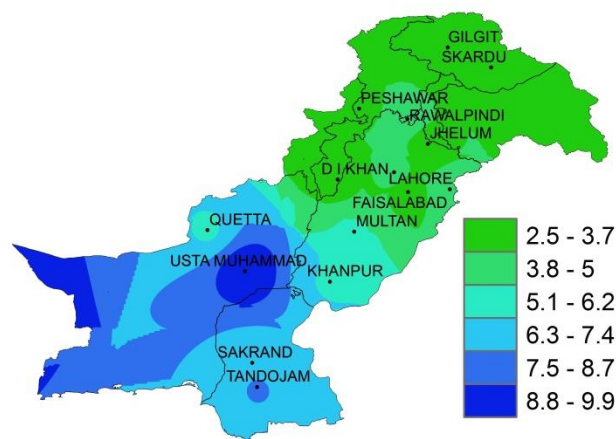


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 D.I. Khan**

Rainfall reported as 4.0mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 55%. Mean day temperature was 30.8°C while night temperature recorded as 18.6°C with 45.0hours bright sunshine duration.

**2.13 Peshawar**

Rainfall reported as 54.0mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 70%. Mean day temperature was 26.5°C while night temperature recorded as 16.0°C with 43.9hours bright sunshine duration. Wind speed recorded as 3.3km/hr with mean wind direction *south westerly*.

**2.14 Skardu**

Rainfall reported as 29.4mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 62%. Mean day temperature was 16.5°C while night temperature recorded as 6.0°C with 23.0hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *south easterly*.

**2.15 Gilgit**

Rainfall reported as 59.3mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 68%. Mean day temperature was 18.1°C while night temperature recorded as 7.6°C with 30.6hours bright sunshine duration. Wind speed recorded as 2.5km/hr with mean wind direction *westerly*.

### **3. Ten Days Weather Advisory for Farmers** **(11<sup>th</sup> to 20<sup>th</sup> April, 2016)**

**3.1 Temperature Forecast**

Day temperature slightly above normal in most of the southern parts however day & night temperatures are expected slightly 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 dry weather is expected in most parts of the province during the decade. However light to

moderate rain is expected in most parts of the province including Rawalpindi, Lahore, Gujranwala, Faisalabad, Sargodha & Sahiwal divisions from 16<sup>th</sup> to 19<sup>th</sup> of the decade.

- ❖ **Khyber Pakhtunkhwa:** Mainly cloudy weather is expected in most parts of the province. However light to moderate rainfall (with light snowfall over the hills) is expected in Bannu, Hazara, Peshawar, Kohat, Mardan & D.I Khan division from 11th to 13th and 16th to 19th of the decade.
- ❖ **Sindh:** Mostly dry weather is expected during the decade. However light to moderate rainfall is expected at isolated places of Hyderabad, Larkana & Sukkur divisions from 11th to 12th of the decade.
- ❖ **Balochistan:** Mostly dry weather is expected in most parts of the Balochistan however light to moderate rain is expected at isolated places of Quetta, Zhob, Sibbi, & Kalat from 15th to 17th of the decade.
- ❖ **Gilgit Baltistan:** Mainly cold and cloudy weather is expected in most parts of the G.B however light to moderate rain (with light snowfall over the hills) is expected Gilgit, Skardu & Hunza during the decade.
- ❖ **Kashmir:** Mainly cloudy weather is expected in most parts of the Kashmir however light to moderate rain-thunderstorm is expected in most parts of the Kashmir including Muzaffarabad, Rawalakot, Kotli during the decade.

**3.4 Advisory for Farmers**

- ❖ Wheat crop is in flowering/milk maturity/wax maturity stages in most of the agricultural plains of the country. Farmers are advised to stop irrigation the crops by keeping in view the expected rain in the agricultural plains of the country.
- ❖ At this stage of wheat crop, farmers should control weeds further growth by manual practices or any recommended spray.
- ❖ Farmers of irrigated/barani areas are advised to remove weeds from the fields, so that the present soil moisture may fully be utilized.
- ❖ Farmers of upper half and northwest Balochistan should be careful about irrigation and spraying chemicals on the crop.
- ❖ 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 in the lower half of the country especially those in central regions are advised to take up poultry rearing

houses to maintain optimum room temperature and take care against the rapid changes in air temperature and relative humidity.

- ❖ Removing weeds from the standing crops is very important as weeds utilize moisture and food which may be utilized by the crop. As a result considerable loss in yield occurs every year. However operations against weeds should be started using weedicides or manually when the crop completely covers the fields.
- ❖ Farmers are advised to ensure field sanitation and spray prophylactic fungicidal sprays to prevent spread of diseases on vegetables.