

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of K.P, however light rainfall reported in the agricultural plains Punjab, G.B & dry weather reported in Sindh and Balochistan during the last decade.
- ❖ Highest amount of rainfall reported 43.1mm at Parachinar during the last decade.
- ❖ Highest Maximum temperature recorded 46.5°C at Rahim yar khan during the last decade.
- ❖ Mainly hot and dry weather is expected in most parts of the country however rain-thunderstorm with strong gusty winds are expected at scattered places during the decade.
- ❖ Wheat crop is in different 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-thunderstorm with strong winds in the agricultural plains of the country.
- ❖ 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 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 are advised to start harvesting of mature crop keeping the expected weather in mind.

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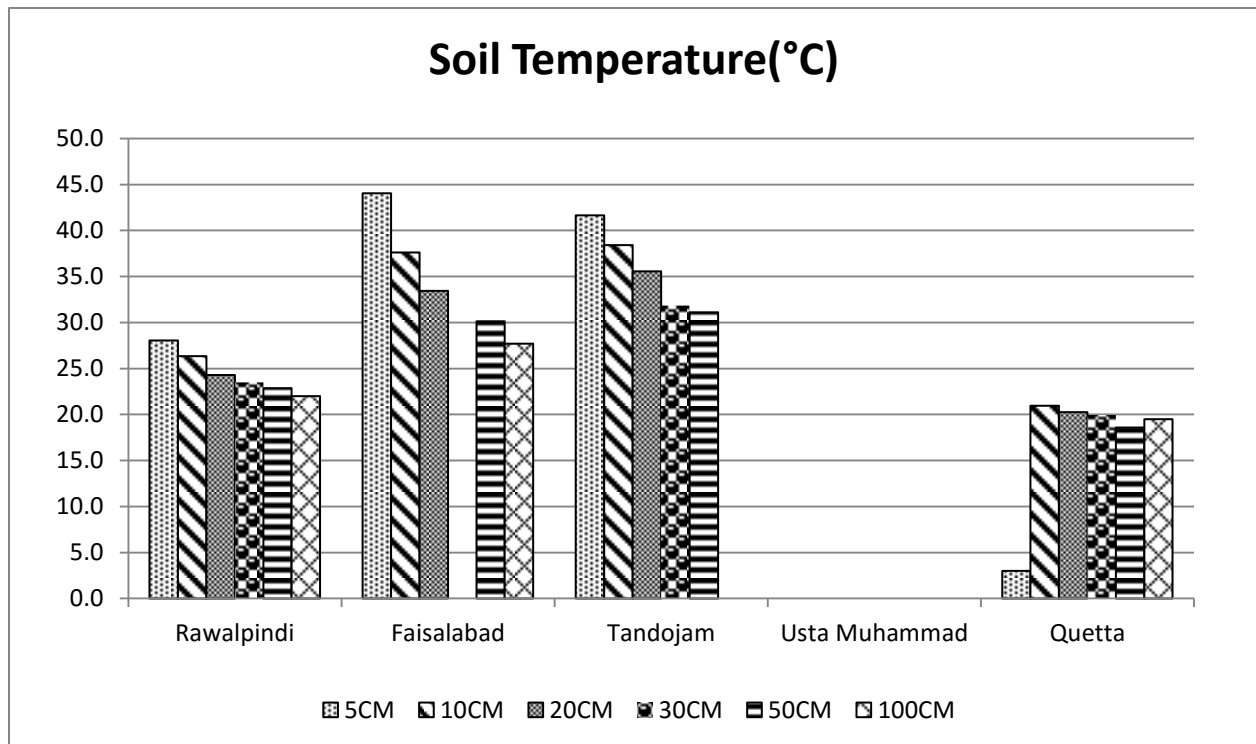
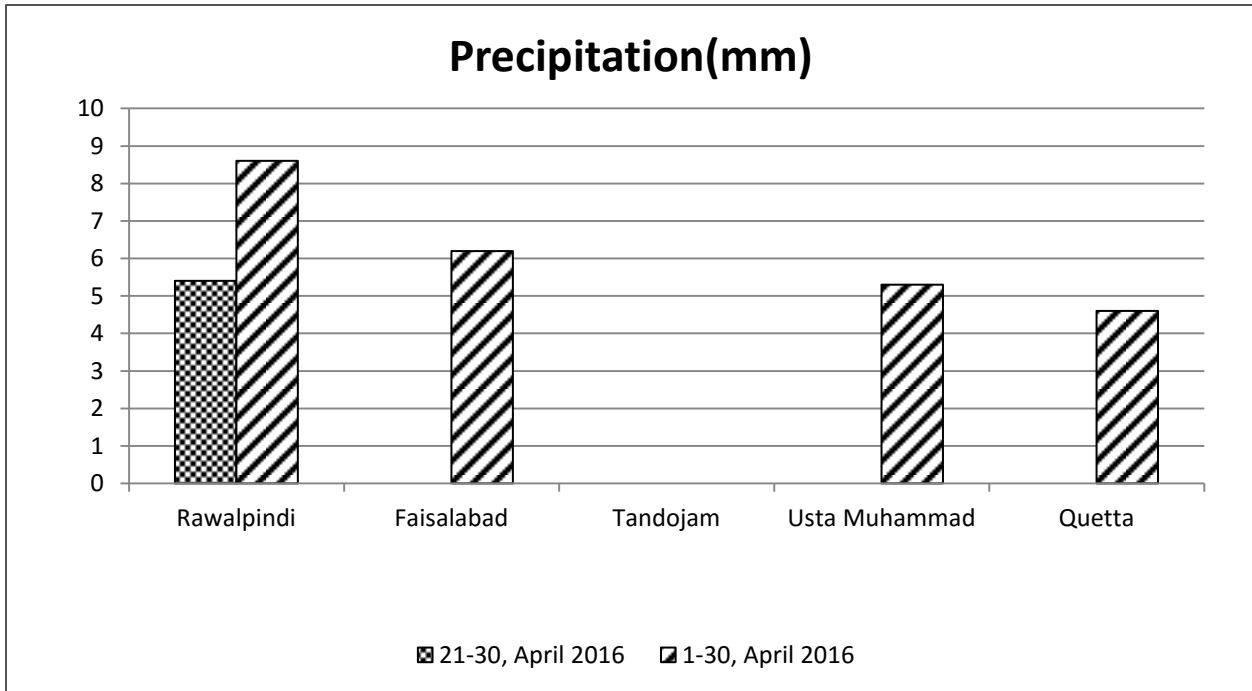
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Meteorological conditions during 3<sup>rd</sup> decade of April, 2016

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration(hours)	Wind Speed (km/hr)	ET <sub>0</sub> (mm/day)
		Normal	Actual	Dep	Tmax Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	1.9	5.5	3.6	-0.9	0.3	25.4	28.1	26.4	24.3	23.5	22.9	22.0	34	102.3	5.7	5.9
2	FAISALABAD	0.5	0.1	-0.4	0.5	-0.4	30.0	44.1	37.6	33.5	***	30.2	27.7	29	107.2	2.4	5.4
3	JHELUM	1.0	2.6	1.6	0.1	-3.2	27.4	33.8	31.1	27.7	25.7	25.6	***	31	110.4	4.2	6.0
4	LAHORE	0.3	1.3	1.0	1.2	-2.7	29.9	35.1	32.6	28.7	27.7	***	25.7	26	103.2	3.7	5.8
5	SARGODHA	0.7	0.0	-0.7	0.2	-0.9	29.9	35.1	32.6	28.8	27.4	26.0	24.8	52	92.1	1.2	4.7
6	MULTAN	0.2	4.8	4.6	-0.8	-1.0	30.5	***	***	***	***	***	***	28	3.2	3.2	4.2
7	KHANPUR	0.1	0.0	-0.1	-0.5	-1.3	31.3	***	33.2	32.7	32.7	32.7	30.5	27	108.4	3.4	6.0
8	TANDOJAM	0.1	0.0	-0.1	0.7	-1.3	31.1	41.7	38.4	35.6	31.9	31.1	***	39	110.5	8.0	8.1
9	SAKRAND ☆	0.0	0.0	0.0	-0.5	0.8	32.3	49.7	40.0	***	***	***	31.5	29	111.3	2.3	5.6
11	DI KHAN	0.3	0.0	-0.3	0.5	0.0	29.7	***	***	***	***	***	***	47	93.0	***	6.6
11	PESHAWAR	1.0	1.0	0.0	0.4	-2.2	25.9	33.9	29.6	27.3	***	***	***	44	86.2	2.9	4.7
12	USTA MUHAMMAD	0.2	0.0	-0.2	-1.2	-3.5	30.6	***	***	***	***	***	***	20	***	3.0	6.1
13	QUETTA	0.3	0.0	-0.3	-2.7	-0.7	18.7	3.0	21.0	20.3	20.0	18.6	19.5	21	107.1	5.4	5.4
14	SKARDU	0.7	0.1	-0.6	0.8	-0.5	14.3	***	***	***	***	***	***	35	82.5	5.6	4.4
15	GILGIT	0.7	0.1	-0.6	-2.4	-0.4	17.3	***	***	***	***	***	***	37	84.0	3.8	4.3

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. 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.

## Graph at RAMC's during April, 2016



**1. Past Weather (21<sup>st</sup> to 30<sup>th</sup> April, 2016)**

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

**1.1 Punjab**

Light rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Lahore, Mangla, & Multan. Decadal maximum dropped below normal by -2.4°C & minimum temperature raised above normal by 1.7°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 28%, 89.5 hrs, 3.4km/hr and 5.4mm/day respectively.

**1.2 Sindh**

Dry weather reported in the agricultural plains of Sindh. Decadal maximum raised above normal by 0.1°C & minimum temperature dropped below normal by 0.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 23%, 73.9 hrs, 3.4 km/hr and 6.9 mm/day respectively.

**1.3 Khyber Pakhtunkhwa (KP)**

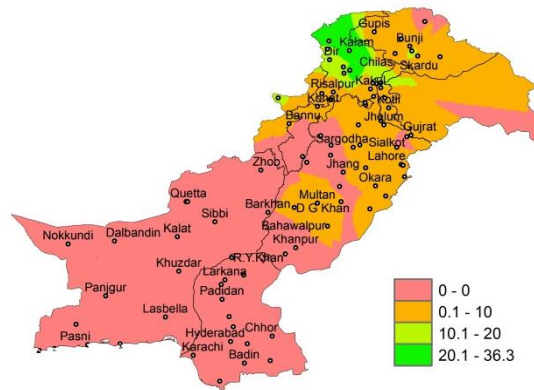
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Parachinar, Kalam & Malam jabba. Decadal maximum raised above normal by 0.4°C & minimum temperature dropped below normal by 1.1°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 46%, 89.6 hrs, 2.9 km/hr and 5.7 mm/day respectively.

**1.4 Balochistan**

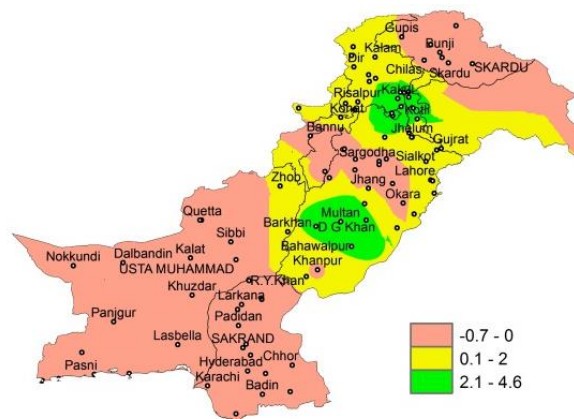
Dry weather reported in the agricultural plains of Balochistan. Decadal maximum & Minimum both dropped below normal by 2.0°C & 2.1°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 21%, 107.1hrs, 4.2 km/h and 5.8 mm/day respectively.

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

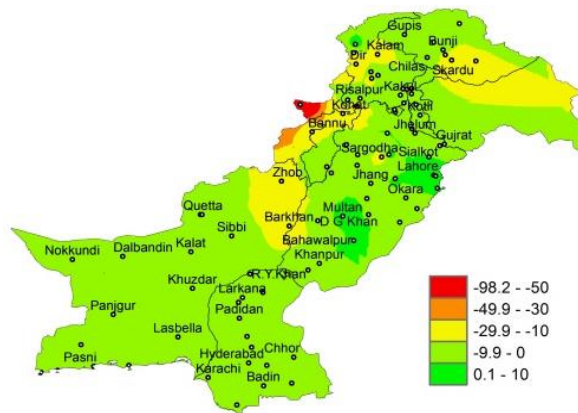
Light rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Muzzafarabad, Astore & Rawalakot. Decadal maximum dropped below normal by 7.0°C & minimum temperature raised above normal by 10.9°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 19%, 43.9hrs, 4.7 km/hr and 4.4mm/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 30<sup>th</sup> April, 2016)**

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

Rainfall reported as 5.5mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 34%. Mean day temperature was 32.7°C while night temperature recorded as 18.0°C with 102.3hours bright sunshine duration. Wind speed recorded as 5.7 km/hr with mean wind direction *westerly*.

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

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

Rainfall reported as Trace (non measureable) during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 29%. Mean day temperature was 38.7°C while night temperature recorded as 21.2°C with 107.2 hours bright sunshine duration. Wind speed recorded as 2.4 km/hr with mean wind direction *North westerly*.

**Wheat:** Normal condition, maturity completed.

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

Dry weather reported during the decade however weather remained cloudy for 01days. Average relative humidity recorded as 39%. Mean day temperature was 41.3°C while night temperature recorded as 20.8°C with 110.5 hours bright sunshine duration. Wind speed recorded as 8.0 km/h with mean wind direction *southly*.

**Cotton:** Germination (Sowing on 28-04-2016).

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

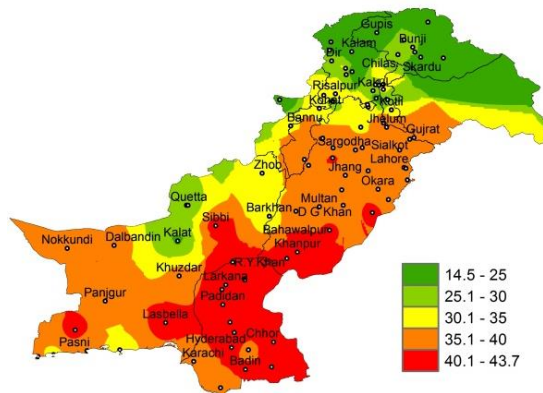
Dry weather reported during the decade. Sky remained clear throughout the decade. Average relative humidity recorded as 20%. Mean day temperature was 42.0°C while night temperature recorded as 19.1°C. Wind speed recorded as 3.0 km/hr with mean wind direction *south easterly*.

**Wheat (Zardana):** Harvested.

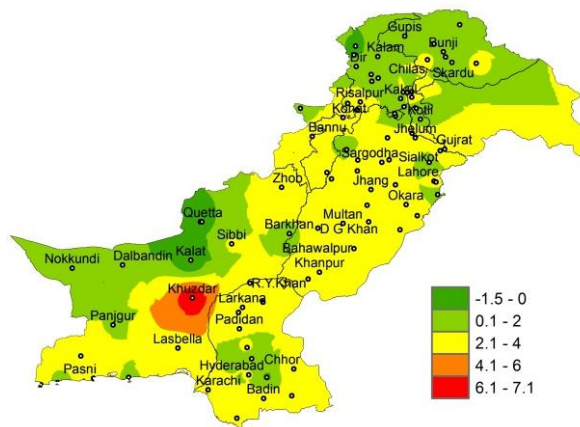
2.5 **RAMC, Quetta (Northern Balochistan)**

Dry weather reported during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 21%. Mean day temperature was 26.1°C while night temperature recorded as 11.2°C with 107.1 hours bright sunshine duration. Wind speed recorded as 5.4 km/hr with mean wind direction *North westerly*

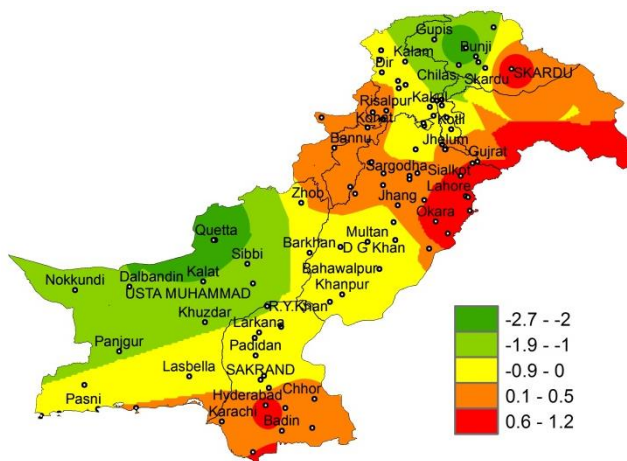
**Wheat:** Good condition, Milk maturity.



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 previousdecadein °C

2(b) **Past Weather for Sub-Regional Agricultural Plains (21<sup>st</sup> to 30<sup>th</sup> April, 2016)**

2.6 **Jhelum**

Rainfall reported as 2.6 mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 31%. Mean day temperature was 37.1°C while night temperature recorded as 17.7°C with 110.4hours bright sunshine duration. Wind speed recorded 4.2km/hr with wind direction *north westerly*.

2.7 **Lahore**

Rainfall reported as 1.3mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 26%. Mean day temperature was 38.3°C while night temperature recorded as 21.4°C with 103.2 hours bright sunshine duration. Wind speed recorded as 3.7km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Dry weather reported during the decade however weather remained cloudy for 04 days. Average relative humidity recorded as 52%. Mean day temperature was 38.3°C while night temperature recorded as 21.4°C with 92.1hours bright sunshine duration. Wind speed recorded 2.2km/hr with mean wind direction *variable*.

2.9 **Multan**

Rainfall reported as 4.8 mm during the decade however weather remained cloudy for 05 days. Average relative humidity recorded as 28%. Mean day temperature was 38.7°C while night temperature recorded as 22.3°C with 104.6 hours bright sunshine duration. Wind speed recorded 3.2 km/hr with mean wind direction *northerly*.

2.10 **Khanpur**

Dry weather reported during the decade. However sky remained cloudy for 04days. Average relative humidity recorded as 27%.Mean day temperature was 40.8°C while night temperature recorded as 21.8°C with 108.4 hours bright sunshine duration. Wind speed recorded 3.4km/hr with mean wind direction *Variable*.

2.11 **Skrand**

Dry weather reported during the decade however weather remains cloudy for 01days. Average relative humidity recorded as 29%.Mean day temperature was 41.3°C while night temperature recorded as 23.2°Cwith 96.8hours bright sunshine duration. Wind speed recorded 4.2 km/hr with wind direction *south westerly*.

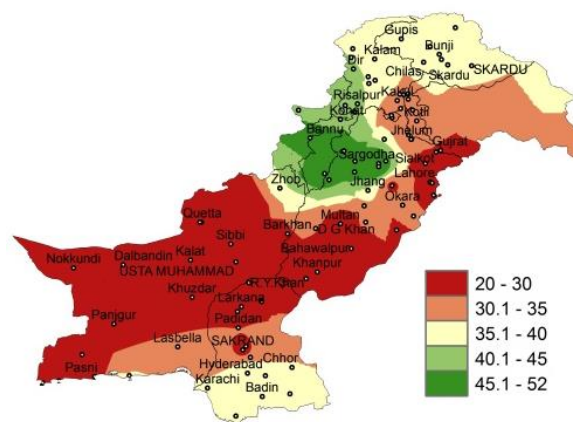


Figure.3: Relative Humidity in Percentage (%)

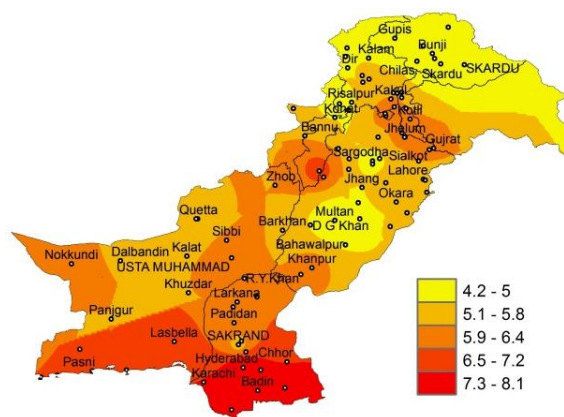


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

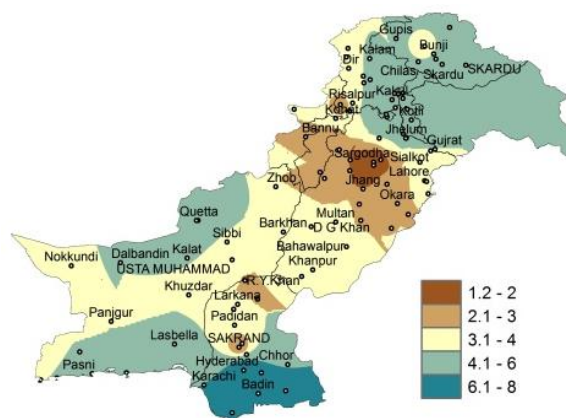


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 D.I. Khan**

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 47%. Mean day temperature was 38.0°C while night temperature recorded as 21.3°C with 93.0hours bright sunshine duration.

**2.13 Peshawar**

Rainfall reported as 1.0mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 44%. Mean day temperature was 34.1°C while night temperature recorded as 17.6°C with 86.2 hours bright sunshine duration. Wind speed recorded as 2.9 km/hr with mean wind direction *north westerly*.

**2.14 Skardu**

Rainfall reported as Trace (Non measureable) during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 35%. Mean day temperature was 21.7°C while night temperature recorded as 6.9°C with 82.5 hours bright sunshine duration. Wind speed recorded as 5.6 km/hr with mean wind direction *South east southerly*.

**2.15 Gilgit**

Rainfall reported as Trace (Non measureable) during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 37%. Mean day temperature was 24.5°C while night temperature recorded as 9.2°C with 84hours bright sunshine duration. Wind speed recorded as 3.8 km/hr with mean wind direction *Easterly*.

**3. Ten Days Weather Advisory for Farmers  
(1<sup>st</sup> to 10<sup>th</sup> May, 2016)****3.1 Temperature Forecast**

Day time temperature expected to remain 2-4°C above normal in most parts of the country & night temperatures are expected 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 and hot weather is expected during the decade. Rain-dust storm/thunderstorm and gusty wind at scattered places of the province are expected during the first half of the decade.

❖ **Khyber Pakhtunkhwa:** Mainly hot and dry weather is expected in most parts of the province. However Rain-dust storm/thunderstorm with strong gusty winds are expected at scattered places during the first half of the decade.

❖ **Sindh:** Very hot and dry weather is expected in most parts of Sindh however rain-dust storm/thunderstorm with gusty winds at isolated places are expected during the start of the decade.

❖ **Balochistan:** Very hot and dry weather is expected in most parts of Balochistan however rain-dust storm/thunderstorm with gusty winds at isolated places Quetta, Zhob & Sibbi are expected during the start of the decade.

❖ **Gilgit Baltistan:** Mainly hot and dry weather is expected in most parts of G.B. However rain-thunderstorm with strong gusty winds is expected at isolated places during the decade.

❖ **Kashmir:** Mainly hot and dry weather is expected in most parts of Kashmir. However rain-thunderstorm with strong gusty winds is expected at isolated places during the decade.

**3.4 Advisory for Farmers**

❖ Wheat crop is in different 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.

❖ 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 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 are advised to start harvesting of mature crop keeping the expected weather in mind.