

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Moderate to heavy rainfall reported in agriculture plains of GB & Kashmir. While light to moderate rainfall reported in the agricultural plains of K.P&Punjab, however light rainfall was reported from isolated places in the agricultural plains of Balochistan&Sindh during the last decade.
- ❖ Highest amount of rainfall reported 89.6mm at GarhiDopattaduring the last decade.
- ❖ Highest Maximum temperature recorded 50.5°C at Jacob Abad 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 isolated places during the decade.
- ❖ Harvesting/Threshing of wheat crop has been completed in all parts of the agricultural areas of the country.
- ❖ Wheat obtained after threshing should be stored with proper treatment so that wheat may be kept for long time.
- ❖ Due to prevailing dry weather and rising day time temperature, cotton and sugarcane farmers should irrigate the crops as per requirement.

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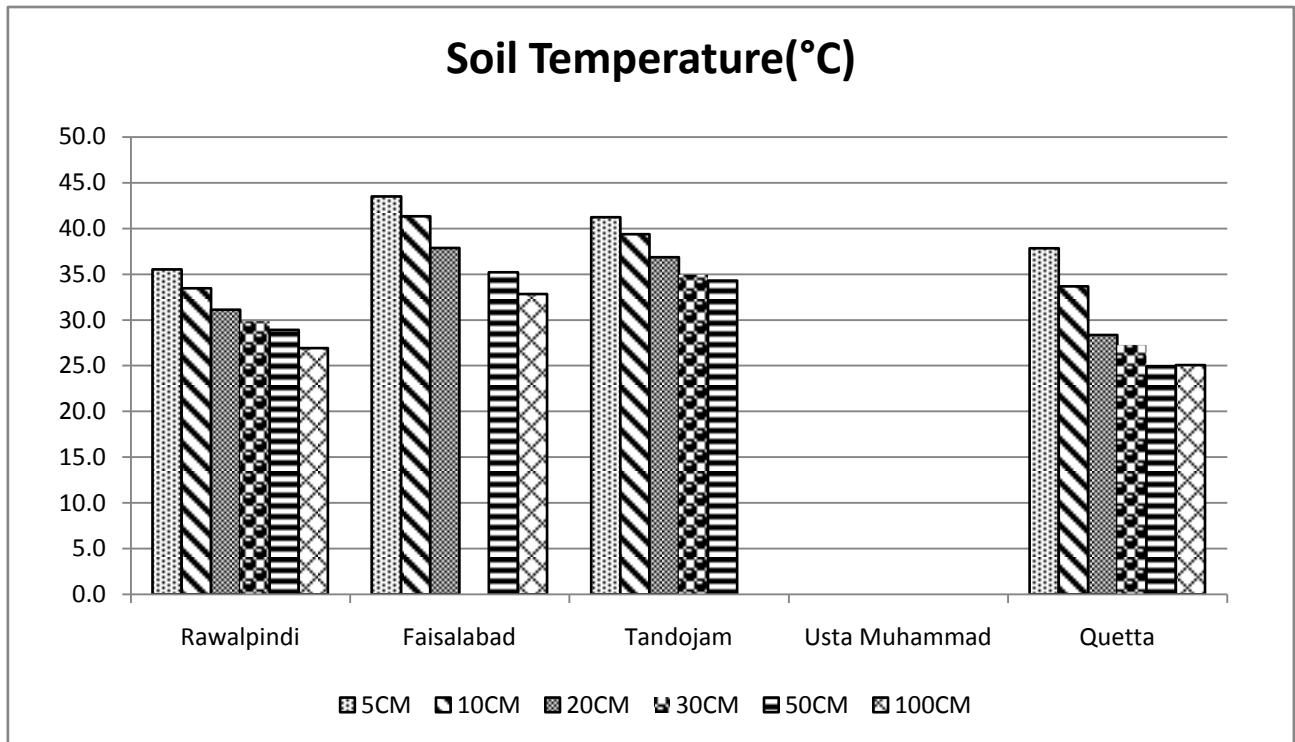
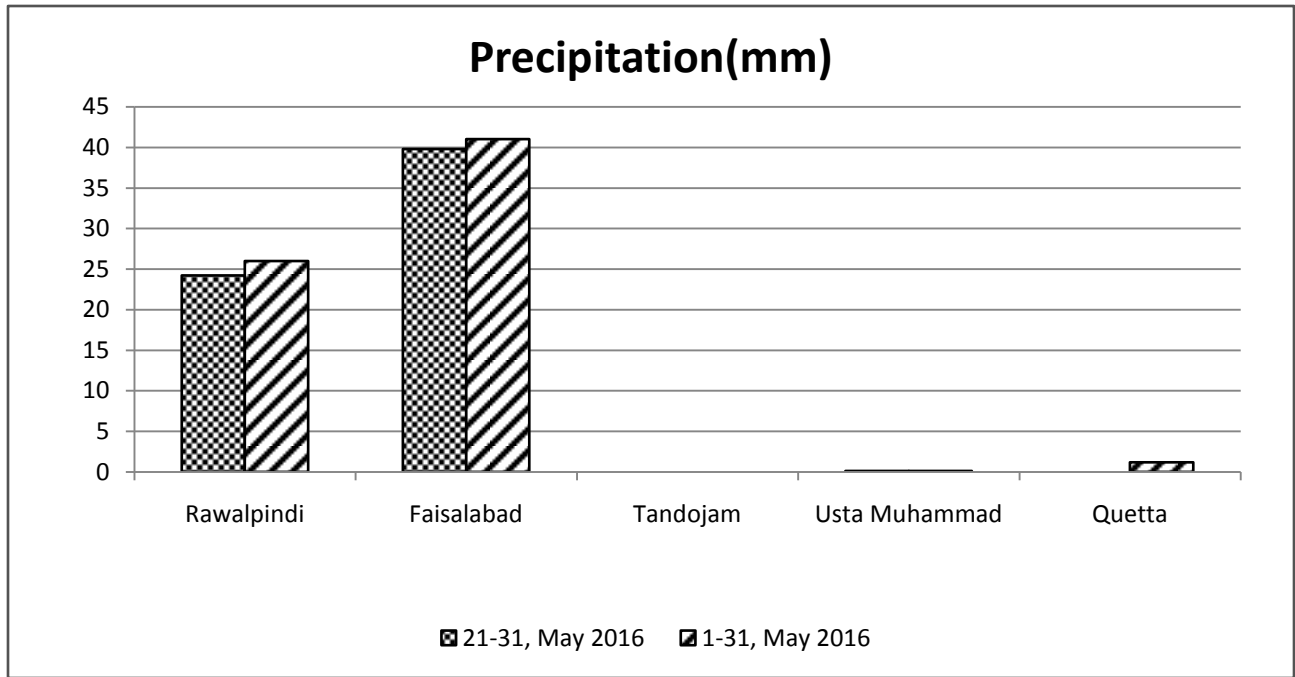
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Meteorological conditions during 3rd decade of May, 2016

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	0.6	24.2	23.6	0.8	2.2	31.2	35.5	33.5	31.1	29.9	28.9	26.9	39	116.2	6.2	7.3
2	FAISALABAD	0.8	39.8	39.0	0.1	0.8	32.7	43.5	41.3	37.9	***	35.2	32.8	41	103.6	4.8	6.8
3	JHELUM	0.8	15.0	14.2	1.2	-1.1	32.4	39.2	36.8	33.8	32.1	31.7	***	37	113.4	8.2	8.4
4	LAHORE	1.3	30.6	29.3	-0.1	-1.1	32.2	38.4	38.9	33.3	31.7	***	29.0	40	96.7	3.8	6.3
5	SARGODHA	2.1	21.3	19.2	-0.5	0.1	32.7	38.3	36.3	33.5	32.9	32.0	29.5	46	98.7	4.6	6.6
6	MULTAN	0.5	2.5	2.0	-0.2	2.1	35.2	***	***	***	***	***	***	39	89.1	6.2	7.2
7	KHANPUR	0.0	0.0	0.0	0.5	1.3	35.5	***	38.5	38.3	38.1	37.8	34.6	51	103.5	7.1	7.8
8	TANDOJAM	0.0	0.0	0.0	-0.9	-4.5	30.7	41.2	39.4	36.9	34.9	34.3	***	55	122.9	19.3	10.1
9	SAKRAND ☆	0.0	0.0	0.0	0.5	2.1	36.9	51.8	43.4	***	***	***	34.9	34	117.6	6.8	8.7
11	DI KHAN	0.3	17.0	16.7	0.7	1.7	33.6	***	***	***	***	***	***	41	83.2	***	7.3
11	PESHAWAR	0.4	0.1	-0.3	1.6	-0.9	31.3	40.1	33.6	33.2	***	***	***	49	99.8	6.7	7.1
12	USTA MUHAMMAD	0.0	0.1	0.1	1.3	-2.6	37.7	***	***	***	***	***	***	30	***	17.7	14.6
13	QUETTA	0.3	0.0	-0.3	0.5	3.8	26.4	37.8	33.7	28.4	27.3	24.9	25.1	17	121.5	7.2	7.4
14	SKARDU	0.4	5.7	5.3	-0.2	0.7	18.2	***	***	***	***	***	***	41	73.0	5.3	4.7
15	GILGIT	1.1	13.0	11.9	-1.5	0.7	21.6	***	***	***	***	***	***	45	89.4	3.3	4.8

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 RAMCs during May, 2016



1. Past Weather (21st to 31st May, 2016)

Moderate to heavy rainfall reported in agriculture plains of GB & Kashmir. While light to moderate rainfall reported in the agricultural plains of K.P, Punjab, however light rainfall reported at isolated places in the agricultural plain of Balochistan & 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, Gujranwala, & Faisalabad. Decadal maximum & minimum both raised above normal by 0.3°C & 0.6°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 42%, 103.0 hrs, 5.8 km/hr and 7.2mm/day respectively.

1.2 Sindh

Light rainfall reported at isolated places in the agricultural plains of Sindh. Chief amount of rainfall received in Benazir Shaheedabad & Larkana. Decadal maximum raised above normal by 0.2°C & minimum temperature dropped below normal by 1.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 45%, 120.3hrs, 13.1km/hr and 9.4mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

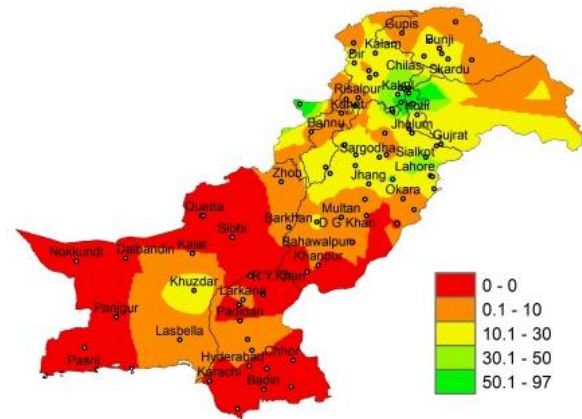
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Balakot, Drosh & Kalam. Decadal maximum & Minimum both raised above normal by 1.2°C & 0.4°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 45%, 91.5hrs, 6.7km/hr and 7.2mm/day respectively.

1.4 Balochistan

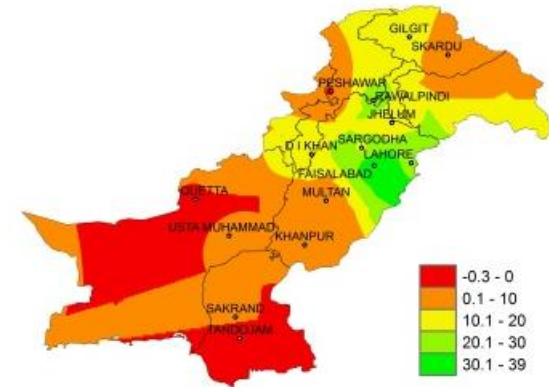
Light rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Khuzdar, Lasbella & Kalat. Decadal maximum & minimum both raised above normal by 0.9°C & 0.6°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 24%, 121.5 hrs, 12.5km/hr and 11.0mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

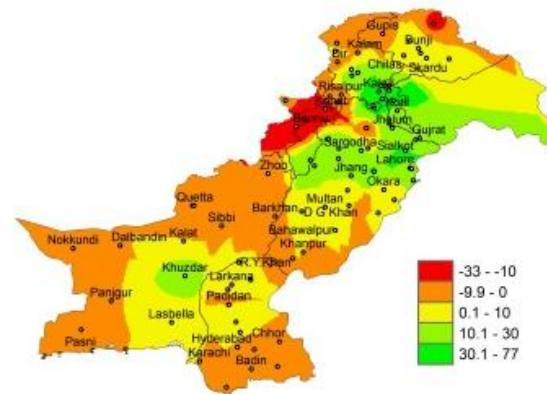
Moderate to heavy rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Garhidopatta, Rawalakot & Muzaffarabad. Decadal maximum dropped below normal by 1.0°C & minimum temperature raised above normal by 0.7°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 43%, 81.2 hrs, 4.3km/hr and 4.8 mm/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**
(21st to 31st May, 2016)

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

Rainfall reported as 24.2mmduring the decade;however weather remained cloudy for05days. Average relative humidity recorded as39%.Mean day temperature was 38.6°C while night temperature recorded as 23.7°C with 116.2hours bright sunshine duration. Wind speed recorded as 6.2km/hr with mean winddirection *westerly*.

Wheat (Chakwal-97): Harvested on 30-05-2016.

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

Rainfall reported as 39.8mm during the decade; however weather remained cloudy for 05days.Average relative humidity recorded as 41%.Mean day temperature was 39.9°C while night temperature recorded as 25.4°Cwith 103.5hours bright sunshine duration. Wind speed recorded as 4.8km/hr with mean wind direction *south easterly*.

Cotton:Very goodcondition, Third leaf stage.

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

Dry weather was reported during the decade.Sky remained clear throughout the decade. Average relativehumidityrecorded as 55%. Mean day temperature was 39.7°C while night temperature recorded as 21.6°Cwith 122.9hours bright sunshine duration. Wind speed recorded as 19.3km/h with mean winddirection*south westerly*.

Cotton:Good condition, Third leaf stage.

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

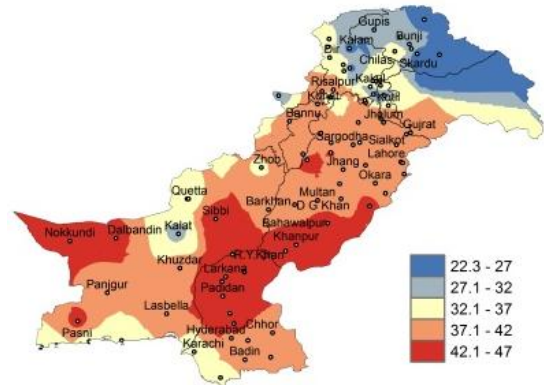
Rainfall reported as Trace (Not measureable) during the decade; however weather remained cloudy for 03days.Average relative humidity recorded as 30%. Mean day temperature was 49.1°C while night temperature recorded as 26.3°C. Wind speed recorded as 17.7km/hr with mean wind direction*variable*.

Rice: Land is being prepared for Rice.

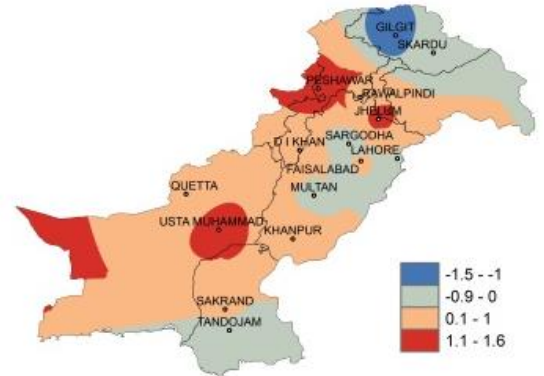
2.5 **RAMC, Quetta (Northern Balochistan)**

Dry weather was reported during the decade; however weather remained cloudy for 06days. Average relative humidity recorded as 17%. Mean day temperature was 32.9°C while night temperature recorded as 19.8°C with 121.5hours bright sunshine duration. Wind speed recorded as 7.2km/hr with mean wind direction*north westerly*.

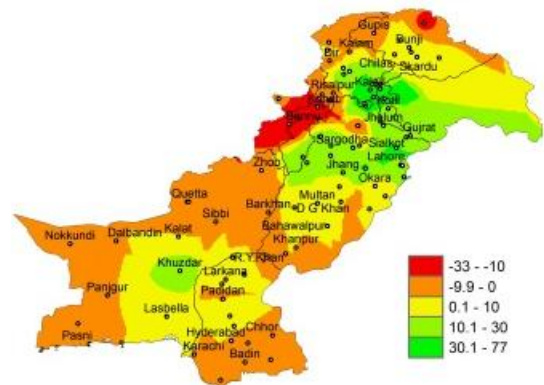
Wheat: Good condition, Full maturity stage.



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 previousdecadein “°C”

2(b) **Past Weather for Sub-Regional Agricultural Plains (21st to 31st May, 2016)**

2.6 **Jhelum**

Rainfall reported as 15.0 mmduring the decade;however weather remained cloudy for 10days.Average relative humidity recorded as 37%.Mean day temperature was 40.7°C while night temperature recorded as 24.0°Cwith 113.4hours bright sunshine duration. Wind speed recorded 8.2km/hr with wind directionvariable.

2.7 **Lahore**

Rainfall reported as 30.6mm during the decade;however weather remained cloudy for04days. Average relative humidity recorded as 40%. Mean day temperature was 39.0°C while night temperature recorded as 25.4°Cwith 96.7hours bright sunshine duration. Wind speed recorded as 3.8km/hr with mean wind direction *northwesterly*.

2.8 **Sargodha**

Rainfall reported as 21.3mm during the decade;however weather remained cloudy for 08days. Average relative humidity recorded as 46%.Mean day temperature was 39.6°C while night temperature recorded as 25.8°C with 98.7hours bright sunshine duration. Wind speed recorded 4.6km/hr with mean wind direction *variable*.

2.9 **Multan**

Rainfall reported as 2.5 mmduring the decade; however weather remained cloudy for 04days. Average relative humidity recorded as 39%.Mean day temperature was 41.5°C while night temperature recorded as 28.9°C with 89.1hours bright sunshine duration. Wind speed recorded 6.2km/hr with mean wind directionsoutherly.

2.10 **Khanpur**

Dry weather reported during the decade. However sky remained cloudy for 01day. Average relative humidity recorded as 51%.Mean day temperature was 42.9°C while night temperature recorded as 28.1°C with 103.5hours bright sunshine duration. Wind speed recorded 7.1km/hr with mean wind directionsouth westerly.

2.11 **Skrand**

Dry weather reported during the decade; however weather remains cloudy for 03days.Average relative humidity recorded as 34%.Mean day temperature was 45.1°C while night temperature recorded as 28.7°Cwith 117.6hours bright sunshine duration. Wind speed recorded 12.6 km/hr with wind direction *southwesterly*.

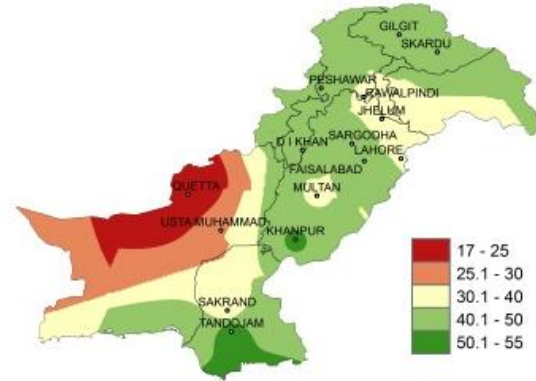


Figure.3: Relative Humidity in Percentage (%)

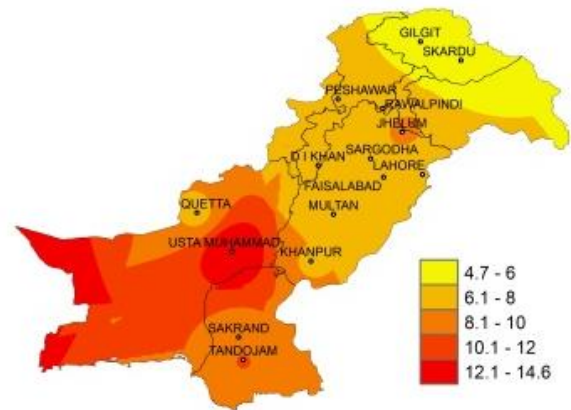


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

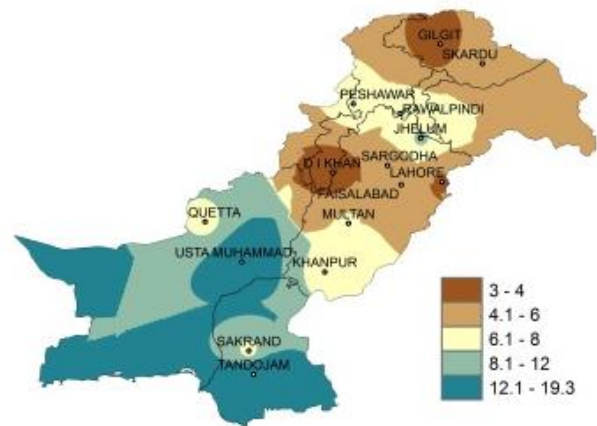


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 D.I. Khan

Rainfall reported as 17.0mm during the decade; however weather remained cloudy for 04 days. Average relative humidity recorded as 41%. Mean day temperature was 41.0°C while night temperature recorded as 26.1°C with 83.2 hours bright sunshine duration.

2.13 Peshawar

Rainfall reported as Trace (Not measureable) during the decade; however weather remained cloudy for 09 days. Average relative humidity recorded as 49%. Mean day temperature was 39.4°C while night temperature recorded as 23.1°C with 99.8 hours bright sunshine duration. Wind speed recorded as 6.7 km/hr with mean wind direction *north westerly*.

2.14 Skardu

Rainfall reported as 5.7mm during the decade; however weather remained cloudy for 06 days. Average relative humidity recorded as 34%. Mean day temperature was 25.5°C while night temperature recorded as 10.9°C with 73.0 hours bright sunshine duration. Wind speed recorded as 5.3 km/hr with mean wind direction *southeasterly*.

2.15 Gilgit

Rainfall reported as 13.0mm during the decade; however weather remained cloudy for 11 days. Average relative humidity recorded as 45%. Mean day temperature was 29.9°C while night temperature recorded as 13.2°C with 89.4 hours bright sunshine duration. Wind speed recorded as 3.3 km/hr with mean wind direction *easterly*.

**3. Ten Days Weather Advisory for Farmers
(1st to 10th June, 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 isolated places in Rawalpindi & Gujranwala division are expected on 3rd to 4th June during the decade.

❖ **Khyber Pakhtunkhwa:** Mainly hot and dry weather is expected in most parts of the province. However Rain-thunderstorm is expected at few places in Kohat, Mardan, Malakand, Hazara & Peshawar Division from 1st to 5th June of the decade.

❖ **Sindh:** Very hot and dry weather is expected in most parts of the province with the possibility of dust-storm due to the heat during the decade.

❖ **Balochistan:** Very hot and dry weather is expected in most parts of Balochistan, however rain-dust storm/thunderstorm with gusty winds is expected at isolated places in Zhob and Quetta on 1st and 2nd June 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 from 1st to 5th June 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 from 1st to 5th June during the decade.

3.4 Advisory for Farmers

❖ Wheat obtained after threshing should be stored with proper treatment so that wheat may be kept for long time without any loss.

❖ Due to prevailing dry weather and rising day time temperature, cotton and sugarcane farmers should irrigate the crops as per requirement.

❖ Farmers of rainfed areas 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.