

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of the Punjab, K.P, Balochistan, G.B & Kashmir and light rainfall in Sindh during the last decade.
- ❖ Highest amount of rainfall reported as 21.4mm at Astore during the last decade.
- ❖ Highest maximum temperature recorded 49.5°C at Shaheed Benzairabad during the last decade.
- ❖ Light to moderate rainfall is expected in the agricultural plains of Punjab, K.P, G.B & Kashmir & light rainfall is expected in Sindh and Balochistan during the next decade.
- ❖ Harvesting/Threshing of wheat crop has been completed in the most 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 without any loss due to present and expected moist conditions.
- ❖ 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.
- ❖ 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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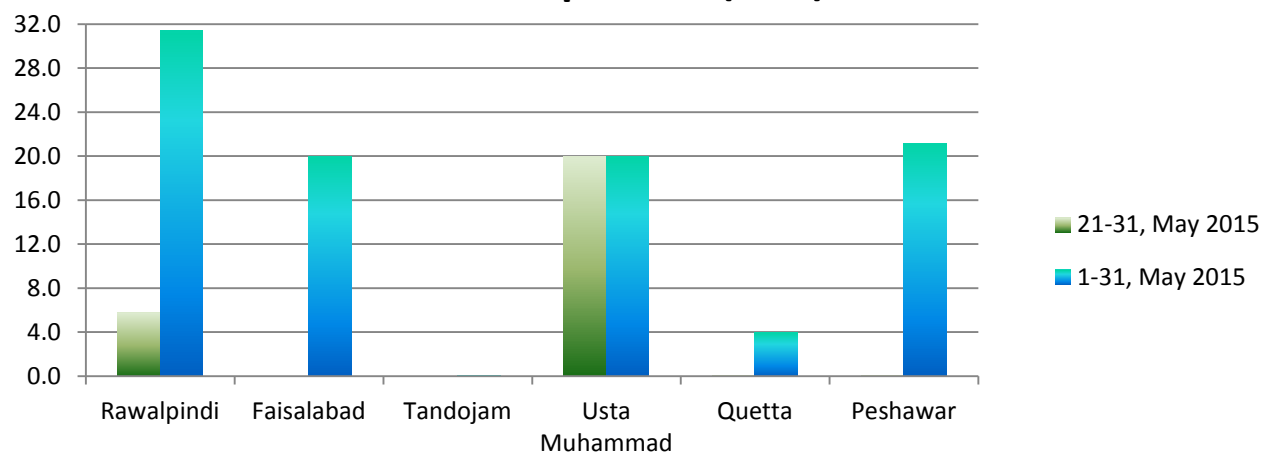
Meteorological conditions during 3rd decade of May, 2015

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	0.6	5.8	5.2	-0.1	0.3	29.8	30.7	29.3	27.8	27.4	26.1	25.1	30	115.1	5.2	6.9
2	FAISALABAD	0.8	0.0	-0.8	2.7	1.6	34.4	44.6	39.0	35.4	33.0	31.8	29.3	34	116.5	3.5	6.9
3	JHELUM	0.8	18.3	17.5	0.5	-2.4	31.4	37.1	34.6	31.9	30.0	29.7	***	31	116.8	3.8	6.7
4	LAHORE	1.3	1.4	0.1	2.2	0.7	34.3	38.2	36.0	32.5	30.8	***	27.8	35	110.6	3.9	6.8
5	SARGODHA	2.1	0.1	-2.0	2.2	0.5	34.3	41.8	39.0	34.5	33.1	32.3	28.8	38	112.2	4.1	6.9
6	MULTAN	0.5	7.6	7.1	0.4	0.0	34.5	***	***	***	***	***	***	25	107.3	7.2	8.4
7	KHANPUR	0.0	11.0	11.0	0.7	-0.5	34.7	***	37.6	37.1	37.0	36.7	32.6	39	111.5	5.4	7.6
8	TANDOJAM	0.0	0.0	0.0	2.6	0.4	34.9	41.8	40.2	37.0	34.4	33.6	***	46	124.5	4.1	7.4
9	SAKRAND ☆	0.0	0.0	0.0	-0.3	-3.1	33.9	51.0	43.0	***	***	***	34.7	34	126.2	3.8	7.4
10	ROHRI	0.0	5.0	5.0	0.3	1.8	37.9	47.5	43.6	38.2	31.4	34.0	33.0	33	145.0	3.4	7.5
11	D I KHAN	0.3	3.0	2.7	1.7	-1.5	32.5	***	***	***	***	***	***	33	98.0	***	7.9
12	PESHAWAR	0.4	0.1	-0.3	-0.3	-1.6	30.0	35.7	31.6	30.1	***	***	***	40	96.7	2.3	5.4
13	USTA MUHAMMAD	0.0	20.0	20.0	-2.8	-1.7	36.1	40.8	39.5	38.2	37.2	***	33.2	26	***	***	8.9
14	QUETTA	0.3	0.1	-0.2	-0.8	1.3	24.5	34.4	30.9	26.4	25.6	23.6	23.9	16	108.0	7.0	6.8
15	SKARDU	0.4	16.0	15.6	-4.2	-2.2	14.8	***	***	***	***	***	***	42	56.2	7.3	4.3
16	GILGIT	1.1	7.3	6.2	-3.5	-0.5	20.0	***	***	***	***	***	***	43	72.0	3.9	4.8

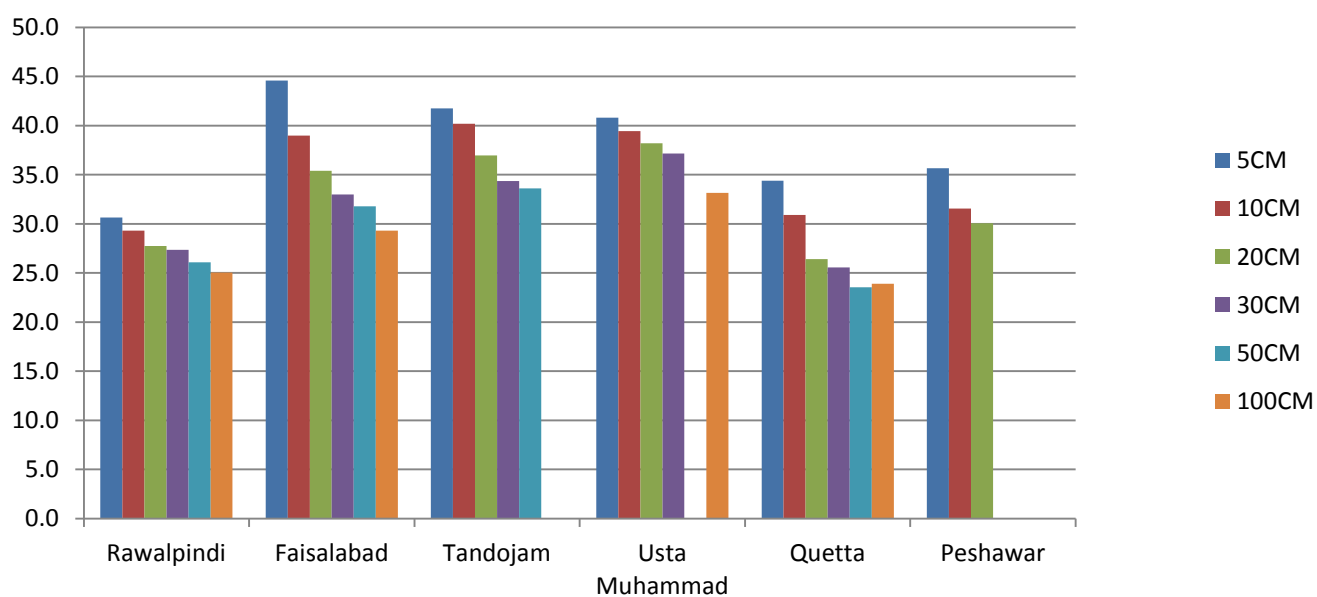
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. And "% Dep" is calculated by the formula; Dep divided by Normal multiplied by 100. Tmin & Tmax stands for minimum and maximum temperatures respectively. ET 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 May, 2015

Precipitation(mm)



Soil Temperature(°C)



Past Weather (21st to 31st May, 2015)

Light to moderate rainfall reported in the agricultural plains of the Punjab, K.P, Balochistan, G.B & Kashmir and light rainfall 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 Bahawalpur, Khanpur & Noorpur Thal. Decadal maximum raised above normal by 1.2°C & minimum temperature remains normal, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 33%, 112.9hrs, 4.7km/hr and 7.9mm/day respectively.

1.2 Sindh

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Rohri, Jacobabad & Larkana. Decadal maximum raised above normal by 0.9°C & minimum temperature dropped below normal by 0.3°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 38%, 137.9hrs, 3.8km/hr and 7.4mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

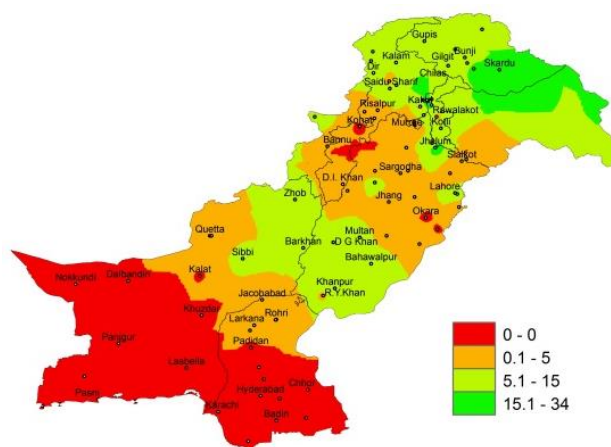
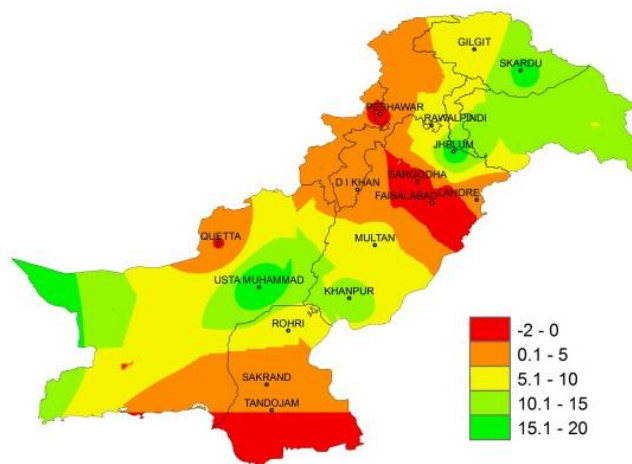
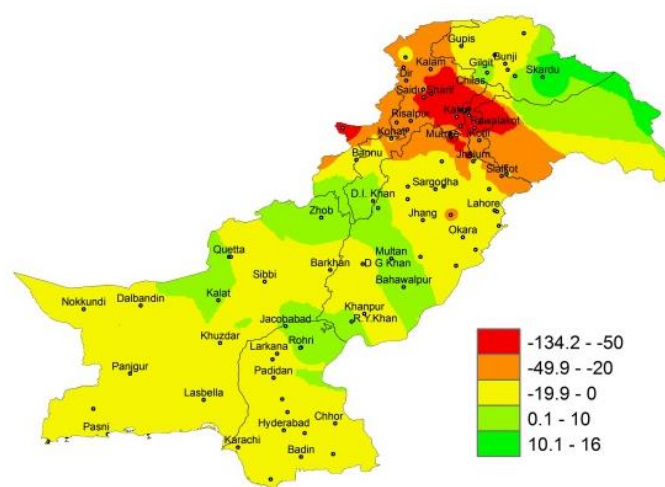
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Saidu Sharif, Dir & Parachinar. Decadal maximum raised above normal by 0.7°C & minimum temperature dropped below normal by 1.6°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 37%, 97.4hrs, 2.3km/hr and 6.7mm/day respectively.

1.4 Balochistan

Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Zhob, Brakhan & Sibbi. Decadal maximum & minimum temperature both dropped below normal by 1.8°C & 0.2°C respectively, in the province. Whereas mean values relative humidity, sunshine hour, wind speed & ETo were recorded as 21%, 108.0hrs, 7.0km/hr and 7.9mm/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 Astore, Skardu & Bunji. Decadal maximum & minimum temperature both dropped below normal by 3.9°C & 1.4°C respectively, in the province. Relative humidity, sunshine hour, wind speed & ETo were recorded as 43%, 64.1hrs, 5.6km/hr and 4.6mm/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, 2015)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 5.8mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 30%. Mean day temperature was 37.7°C while night temperature recorded as 21.8°C with 115.1hours bright sunshine duration. Wind speed recorded as 5.2km/hr with mean wind direction *variable*.

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

2.2 RAMC, Faisalabad (Central Punjab)

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 34%. Mean day temperature was 42.5°C while night temperature recorded as 26.2°C with 116.45hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *southerly*.

Cotton: Excellent condition, Third leaf stage.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade however weather remained clear. Average relative humidity recorded as 46%. Mean day temperature was 43.2°C while night temperature recorded as 26.5°C with 124.5hours bright sunshine duration. Wind speed recorded as 4.1km/hr with mean wind direction *south westerly*.

Cotton (BT-3701): Good condition, Third leaf Stage.

2.4 RAMC, Usta Muhammad (Eastern Balochistan)

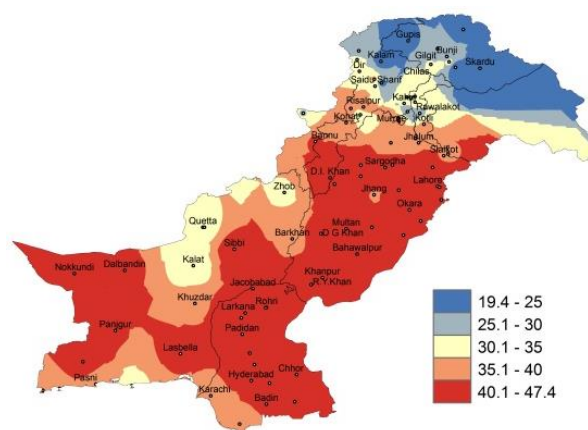
Rainfall reported as 20.0mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 26%. Mean day temperature was 45.0°C while night temperature recorded as 27.2°C.

Rice (Paniri): Good Condition, Germination stage.

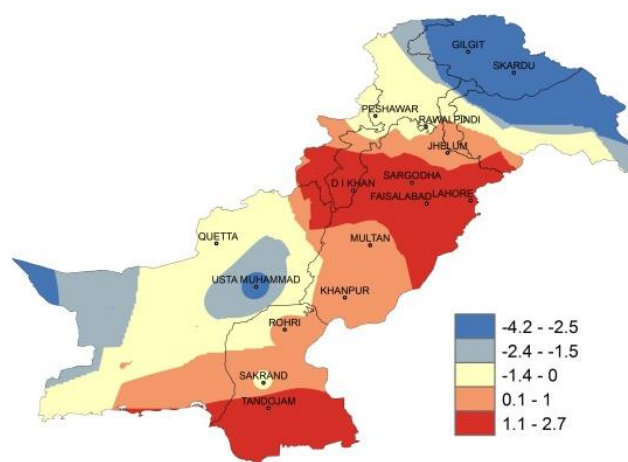
2.5 RAMC, Quetta (Northern Balochistan)

Rainfall reported as Trace (not measureable) during the decade, however weather remained cloudy for 06days. Average relative humidity recorded as 16%. Mean day temperature was 31.6°C while night temperature recorded as 17.3°C with 108.0hours bright sunshine duration and wind speed recorded as 7.0km/hr with mean wind direction *north westerly*.

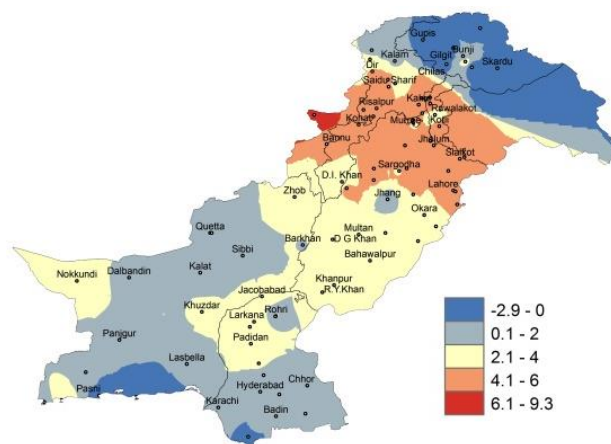
Wheat: Good condition, full maturity.



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 (21st to 31st May, 2015)

2.6 Jhelum

Rainfall reported as 18.3mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 31%. Mean day temperature was 40.0°C while night temperature recorded as 22.7°C with 72.2hours bright sunshine duration and wind speed recorded as 3.8km/hr with mean wind direction *variable*.

2.7 Lahore

Rainfall reported as 1.4mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 35%. Mean day temperature was 41.3°C while night temperature recorded as 27.2°C with 110.6hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *north westerly*.

2.8 Sargodha

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 38%. Mean day temperature was 42.3 °C while night temperature recorded as 26.2°C with 112.2hours bright sunshine duration. Wind speed recorded as 4.1km/h with mean wind direction *variable*.

2.9 Multan

Rainfall reported as 7.6mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 25%. Mean day temperature was 42.1°C while night temperature recorded as 26.8°C with 107.3hours bright sunshine duration. Wind speed recorded 7.2km/hr with mean wind direction *south westerly*.

2.10 Khanpur

Rainfall reported as 11.0mm during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 39%. Mean day temperature was 43.1°C while night temperature recorded as 26.3°C with 111.5hours bright sunshine duration. Wind speed recorded 5.4km/hr with mean wind direction *westerly*.

2.11 Sakrand

Dry weather reported during the decade however weather remains cloudy for 02days. Average relative humidity recorded as 34%. Mean day temperature was 44.3°C while night temperature recorded as 23.7°C with 126.2hours bright sunshine duration. Wind speed recorded 3.8km/hr with wind direction *south easterly*.

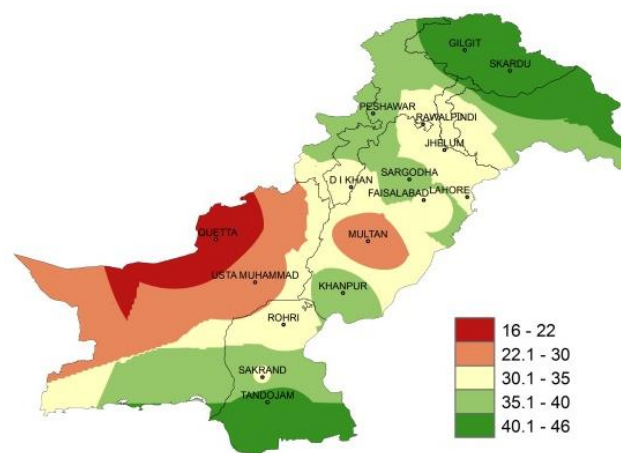


Figure.3: Relative Humidity in percentage (%)

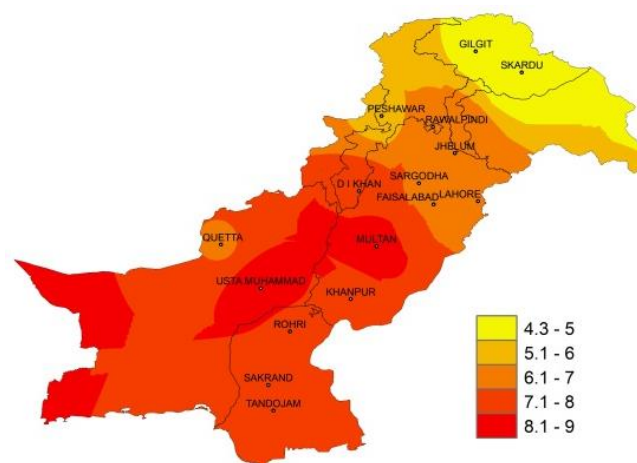


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

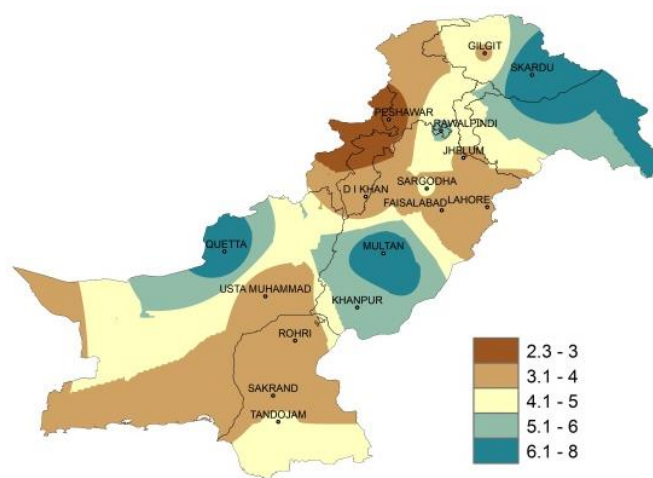


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as 5.0mm during the decade; however weather remained cloudy for 02days. Average relative humidity recorded as 33%. Mean day temperature was 44.9°C while night temperature recorded as 30.9°C with 145.0hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction *southerly*.

2.13 D.I. Khan

Rainfall reported as 3.0mm during the decade, however weather remained cloudy for 02days. Average relative humidity recorded as 33%. Mean day temperature was 42.0°C while night temperature recorded as 22.9°C with 98.0hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 40%. Mean day temperature was 37.5°C while night temperature recorded as 22.4°C with 96.7hours bright sunshine duration. Wind speed recorded as 2.3km/hr with mean wind direction *northerly*.

2.15 Skardu

Rainfall reported as 16.0mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 42%. Mean day temperature was 21.5°C while night temperature recorded as 8.0°C with 56.2hours bright sunshine duration. Wind speed recorded as 7.3km/hr with mean wind direction *north-west northerly*.

2.16 Gilgit

Rainfall reported as 7.3mm during the decade however weather remained cloudy for 11days. Average relative humidity recorded as 43%. Mean day temperature was 27.9°C while night temperature recorded as 12.0°C with 72.0hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *easterly*.

3. Ten Days Weather Advisory for Farmers (1st to 10th 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.

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 Muzzafarabad, Rawalakot during this decade.

3.4 Advisory for Farmers

- ❖ Harvesting/Threshing of wheat crop has been completed in the most 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 without any loss due to present and expected moist conditions.
- ❖ 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.
- ❖ 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 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.
- ❖ 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.