

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of the Punjab, K.P, G.B & Kashmir and light rainfall reported in Sindh, Balochistan during the last decade.
- ❖ Highest amount of rainfall reported as 70.0mm at Murree during the last decade.
- ❖ Highest maximum temperature recorded 48.5°C at Sibbi during the last decade.
- ❖ Light to moderate rainfall is expected in the agricultural plains of Punjab, K.P, Balochistan, Gilgit Baltistan & Kashmir and light rainfall is expected in Sindh during the next decade.
- ❖ 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 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.
- ❖ 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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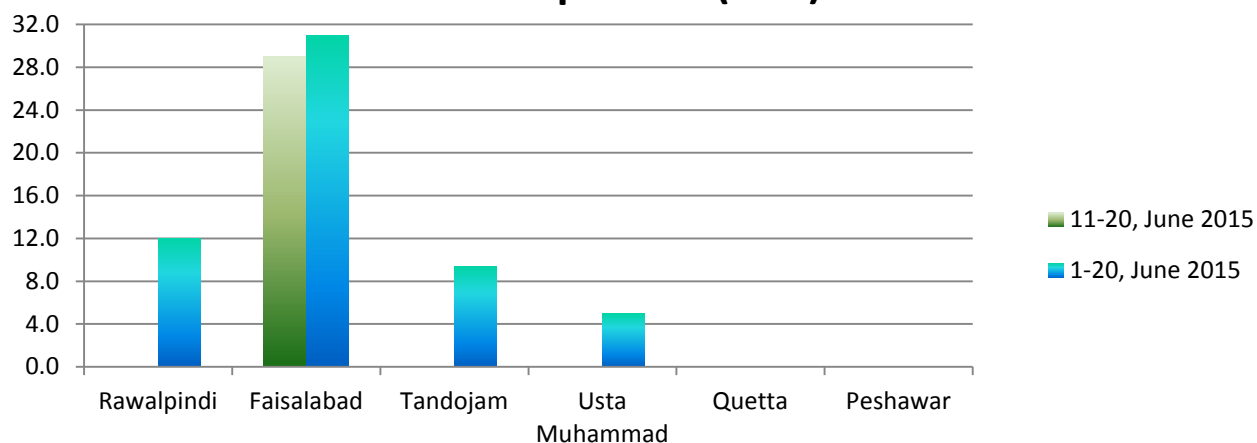
Meteorological conditions during 2nd decade of June, 2015

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration(hours)	Wind Speed (km/hr)	ET _o (mm/day)
		Normal	Actual	Dep	Tmax Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	3.5	0.0	-3.5	2.0	1.6	32.0	34.6	33.0	32.6	30.2	28.9	27.1	39	92.0	3.2	5.9
2	FAISALABAD	2.7	29.0	26.3	1.3	2.0	34.2	45.5	42.1	38.5	36.5	35.6	32.7	44	89.0	3.7	6.2
3	JHELUM	2.8	18.2	15.4	0.1	-1.7	32.0	37.6	35.4	34.2	31.0	30.8	***	45	100.7	6.8	7.3
4	LAHORE	3.5	26.6	23.1	0.7	-1.1	33.0	37.6	36.4	33.3	31.7	***	29.0	44	97.4	4.3	6.5
5	SARGODHA	1.8	7.5	5.7	0.1	0.5	33.8	38.6	36.5	33.5	32.1	32.1	29.9	49	102.9	5.3	7.0
6	MULTAN	0.4	21.6	21.2	-3.7	-0.1	33.3	***	***	***	***	***	***	44	68.4	6.9	6.6
7	KHANPUR	0.2	0.0	-0.2	-0.5	0.7	35.1	***	39.0	38.4	38.2	38.0	35.1	50	88.6	5.7	6.9
8	TANDOJAM	0.0	0.0	0.0	0.2	0.7	33.5	47.7	45.3	39.1	36.4	35.5	***	57	108.4	11.3	8.2
9	SAKRAND ☆	0.0	0.0	0.0	-0.5	-2.6	32.9	50.0	43.4	***	***	***	35.7	56	118.1	6.8	7.7
10	ROHRI	0.3	0.1	-0.2	0.0	1.5	37.1	47.1	43.9	39.2	37.5	34.8	34.3	42	115.9	3.0	6.9
11	D I KHAN	1.5	5.0	3.5	0.3	-0.4	32.9	***	***	***	***	***	***	51	69.5	***	6.7
12	PESHAWAR	0.8	0.0	-0.8	0.9	-0.1	32.7	41.1	36.5	34.9	***	***	***	49	94.4	2.7	5.8
13	USTA MUHAMMAD	0.0	0.0	0.0	0.1	-1.2	35.6	41.1	38.9	37.9	36.1	***	32.7	34	***	***	8.8
14	QUETTA	0.0	0.0	0.0	0.1	0.4	26.8	38.9	35.5	30.2	29.2	27.0	26.7	25	95.7	5.4	6.4
15	SKARDU	0.3	0.1	-0.2	-1.9	-2.9	19.3	***	***	***	***	***	***	32	69.2	7.9	5.7
16	GILGIT	0.3	0.1	-0.2	-1.0	0.1	24.3	***	***	***	***	***	***	33	90.8	3.4	5.6

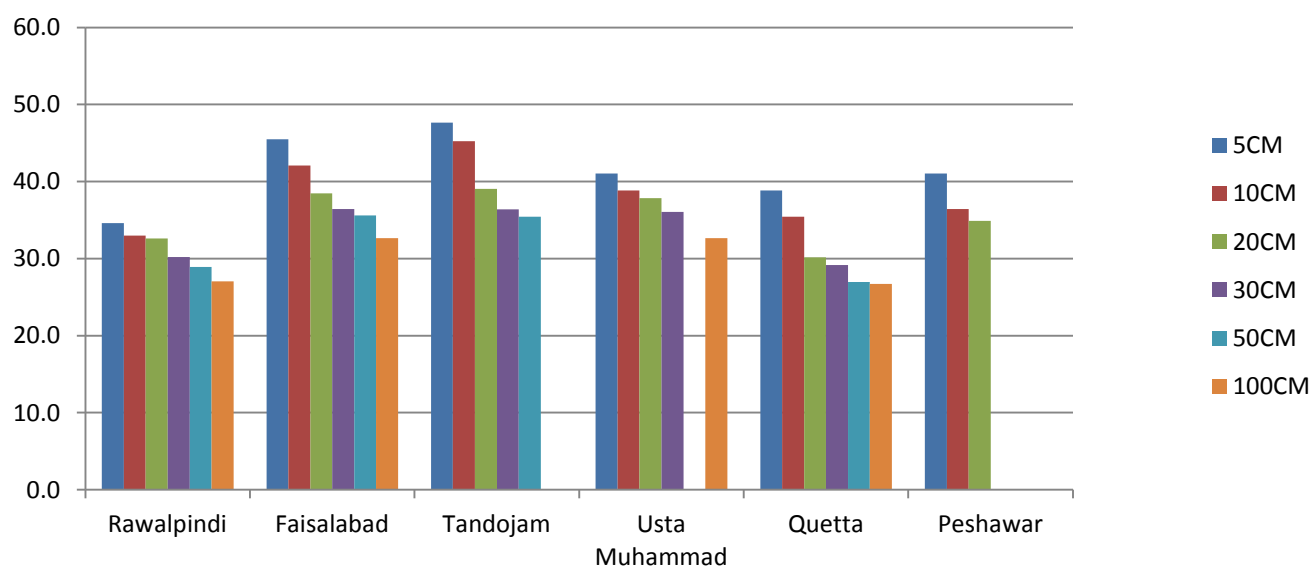
Table-1: Meteorological parameters for selected station of Pakistan. "Dep" in the table stands for difference from climatic normal, i.e. actual value minus normal. And "% Dep" is calculated by the formula; *Dep divided by Normal multiplied by 100*. Tmin & Tmax stands for minimum and maximum temperatures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

Precipitation(mm)



Soil Temperature(°C)



Past Weather (11th to 20th June, 2015)

Light to moderate rainfall reported in the agricultural plains of the Punjab, K.P, G.B & Kashmir and light rainfall reported in Sindh, Balochistan 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, Bahawalpur & Gujranwala. Decadal maximum remains normal & 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 45%, 91.3hrs, 5.1km/hr and 6.6mm/day respectively.

1.2 Sindh

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Chorr, Badin & sukkur. Decadal maximum & minimum temperature both dropped below normal by 0.1°C & 0.1°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 52%, 114.1hrs, 7.0km/hr and 7.6mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

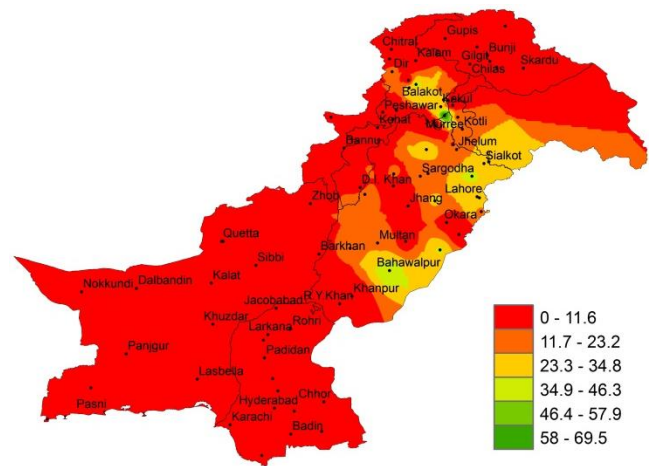
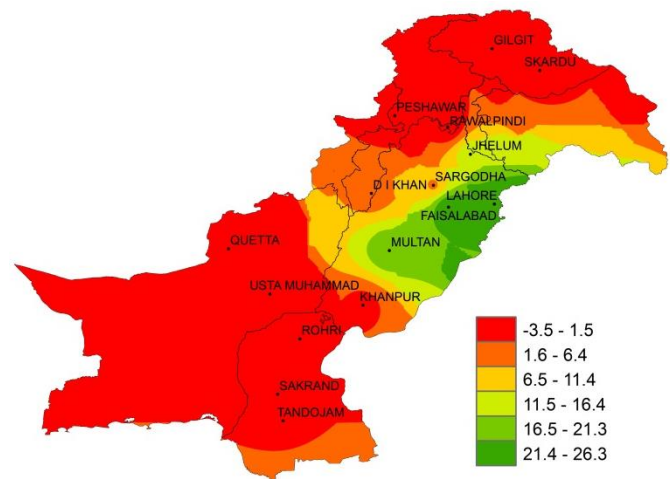
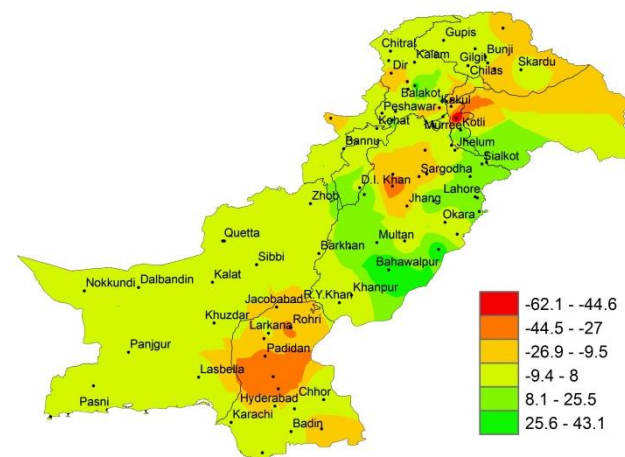
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Malam Jabba, Balakot & Saidu Sharif. Decadal maximum raised above normal by 0.6°C & minimum temperature dropped below normal by 0.2°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 50%, 82.0hrs, 2.7km/hr and 6.3mm/day respectively.

1.4 Balochistan

Light rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Zhob, Khuzdar & Dalbandin. Decadal maximum raised above normal by 0.1°C & minimum temperature dropped below normal by 0.4°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 30%, 95.7hrs, 5.4km/hr and 7.6mm/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 Kotli, Rawalakot & Muzzaffarabad. Decadal maximum & minimum temperature both dropped below normal by 1.5°C & 1.4°C respectively, in the province. Relative humidity, sunshine hour, wind speed & ETo were recorded as 33%, 80.0hrs, 5.7km/hr and 5.7mm/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 (11th to 20th June, 2015)

2.1 RAMC, Rawalpindi (Potohar region)

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 39%. Mean day temperature was 39.3°C while night temperature recorded as 24.7°C with 92.0hours bright sunshine duration. Wind speed recorded as 3.2km/hr with mean wind direction *westerly*.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 29.0mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 44%. Mean day temperature was 40.4°C while night temperature recorded as 27.9°C with 89.1hours bright sunshine duration. Wind speed recorded as 3.7km/hr with mean wind direction *south easterly*.

Cotton: Excellent condition, budding stage.

2.3 RAMC, Tandojam (Lower Sindh)

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 57%. Mean day temperature was 39.6°C while night temperature recorded as 27.3°C with 108.4hours bright sunshine duration. Wind speed recorded as 11.3km/hr with mean wind direction *south westerly*.

Cotton (Sindh-I): Good condition, budding Stage.

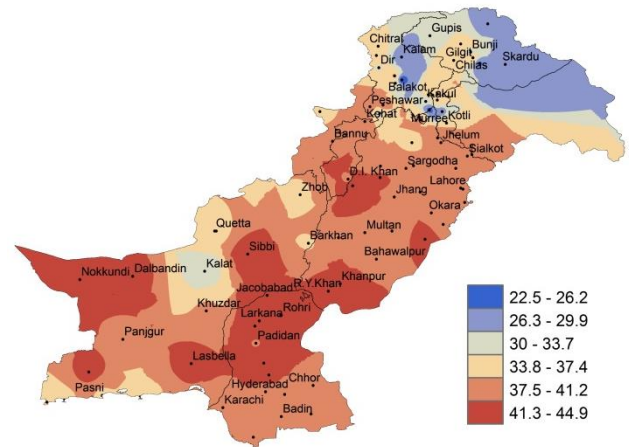
2.4 RAMC, Usta Muhammad (Eastern Balochistan)

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 34%. Mean day temperature was 44.5°C while night temperature recorded as 26.6°C.

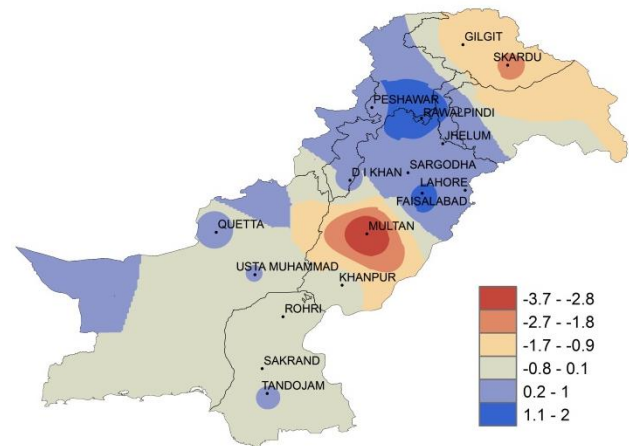
Rice (Paniri): Good Condition, Germination stage.

2.5 RAMC, Quetta (Northern Balochistan)

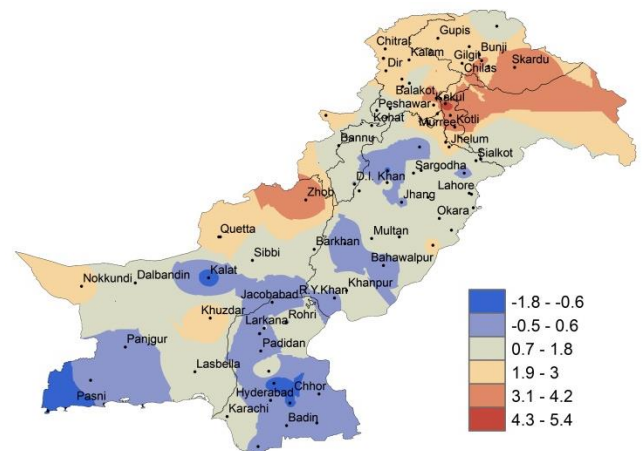
Dry weather reported during the decade, however weather remained cloudy for 09days. Average relative humidity recorded as 25%. Mean day temperature was 34.7°C while night temperature recorded as 18.9°C with 95.7hours bright sunshine duration and wind speed recorded as 5.4km/hr with mean wind direction *southerly*.



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 (11th to 20th June, 2015)

2.6 Jhelum

Rainfall reported as 18.2mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 45%. Mean day temperature was 39.0°C while night temperature recorded as 24.9°C with 100.7hours bright sunshine duration and wind speed recorded as 6.8km/hr with mean wind direction *south westerly*.

2.7 Lahore

Rainfall reported as 26.6mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 44%. Mean day temperature was 39.1°C while night temperature recorded as 26.9°C with 97.4hours bright sunshine duration. Wind speed recorded as 4.3km/hr with mean wind direction *south westerly*.

2.8 Sargodha

Rainfall reported as 7.5mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 49%. Mean day temperature was 40.0°C while night temperature recorded as 27.6°C with 102.9hours bright sunshine duration. Wind speed recorded as 5.3km/h with mean wind direction *variable*.

2.9 Multan

Rainfall reported as 21.6mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 44%. Mean day temperature was 37.8°C while night temperature recorded as 28.8°C with 68.4hours bright sunshine duration. Wind speed recorded 6.9km/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 50%. Mean day temperature was 41.5°C while night temperature recorded as 28.7°C with 88.6hours bright sunshine duration. Wind speed recorded 5.7km/hr with mean wind direction *south westerly*.

2.11 Sakrand

Dry weather reported during the decade however weather remains cloudy for 02days. Average relative humidity recorded as 56%. Mean day temperature was 41.6°C while night temperature recorded as 24.3°C with 118.1hours bright sunshine duration. Wind speed recorded 6.8km/hr with wind direction *southerly*.

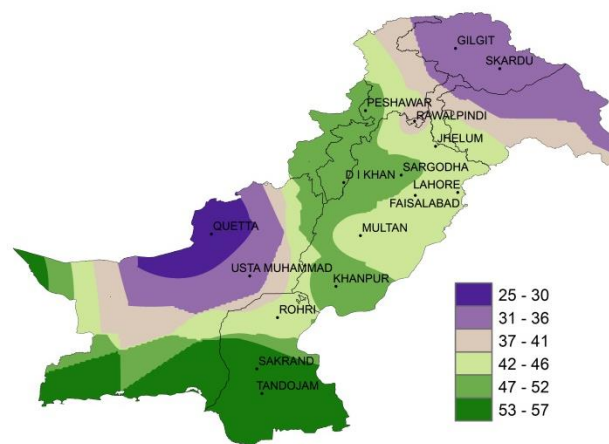


Figure.3: Relative Humidity in percentage (%)

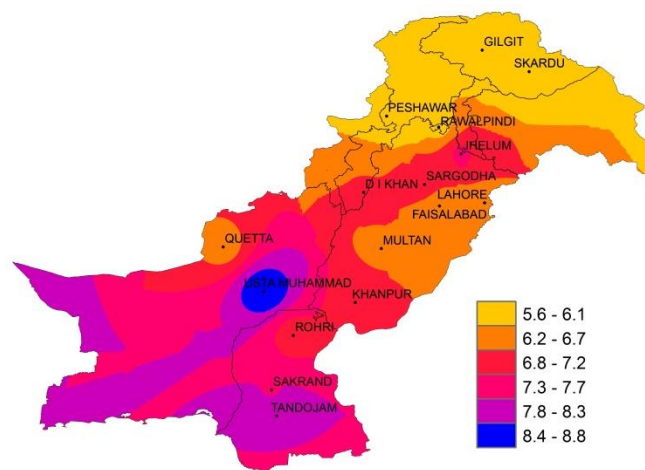


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

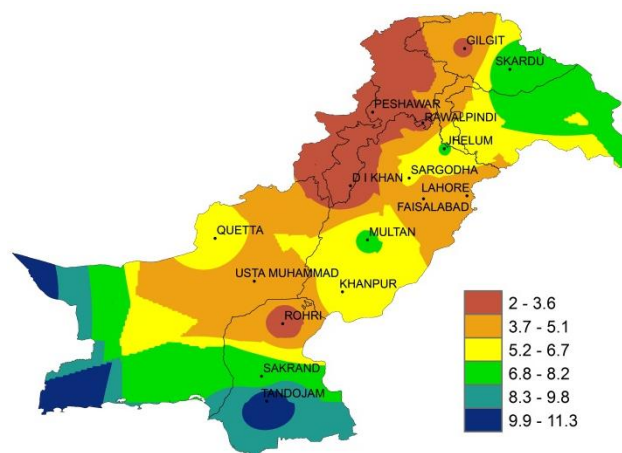


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as Trace (not measureable) during the decade; however weather remained cloudy for 01day. Average relative humidity recorded as 42%. Mean day temperature was 43.2°C while night temperature recorded as 30.9°C with 115.9hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *south westerly*.

2.13 D.I. Khan

Rainfall reported as 5.0mm during the decade; however weather remained cloudy for 03days. Average relative humidity recorded as 51%. Mean day temperature was 40.7°C while night temperature recorded as 25.0°C with 69.5hours bright sunshine duration.

2.14 Peshawar

Dry weather reported during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 49%. Mean day temperature was 39.7°C while night temperature recorded as 25.6°C with 94.4hours bright sunshine duration. Wind speed recorded as 2.7km/hr with mean wind direction *north westerly*.

2.15 Skardu

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 32%. Mean day temperature was 27.7°C while night temperature recorded as 10.8°C with 69.2hours bright sunshine duration. Wind speed recorded as 7.9km/hr with mean wind direction *south westerly*.

2.16 Gilgit

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 33%. Mean day temperature was 33.7°C while night temperature recorded as 14.9°C with 90.8hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction *easterly*.

3. Ten Days Weather Advisory for Farmers **(21st to 30th June, 2015)**

3.1 Temperature Forecast

Temperatures are likely to be 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 while during dust/thunderstorm it will gust up to 30-50 knots.

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, Bahawalpur and Lahore division from 23rd to 28th of the 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 from 23rd to 27th 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, Jacobabad, Mirpur Khas, Karachi & Hyderabad from 22nd to 26th of the decade.
- ❖ **Balochistan:** Mostly hot and dry weather is expected in most parts of the Balochistan however light to moderate rain is expected at north-west Balochistan including Kalat, Khuzdar, Zhob, Quetta from 23rd to 26th of the 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, Kotli & Rawalakot during this decade.

3.4 Advisory for Farmers

- ❖ 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 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.
- ❖ 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 in upper parts are advised to cultivate maize crop due to recent rains. Farmers 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.

- ❖ Due to onset of monsoon rains in last week of June, farmers are advised to take in time precautionary measures to protect their crops, livestock and other property from any expected heavy rain.
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