

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of country during the last decade.
- ❖ Highest amount of rainfall reported as 145.2mm at Malam Jabba during the last decade.
- ❖ Highest maximum temperature recorded 49.1°C at Dadu 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.
- ❖ Wheat crop is fully matured in the agricultural plains of Punjab KP & Balochistan. Whereas harvesting/ threshing of wheat crop has been completed in agricultural plains of Sindh & adjoining areas of southern Punjab. Farmers are therefore advised to harvest the full matured crop keeping the expected rains in mind.
- ❖ 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.

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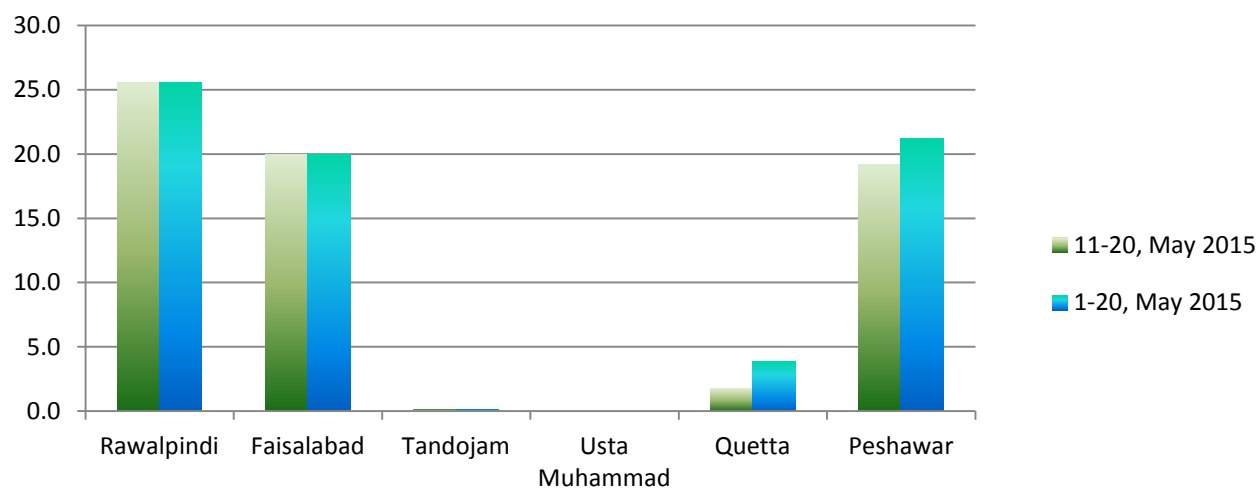
Meteorological conditions during 2nd decade of May, 2015

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	1.5	25.6	24.1	-4.4	-0.5	27.0	28.1	26.9	25.9	25.5	24.8	23.9	52	76.2	5.1	5.3
2	FAISALABAD	0.2	20.0	19.8	-3.2	-0.7	31.2	39.5	37.6	34.2	32.1	31.0	28.9	53	92.3	3.4	5.7
3	JHELUM	0.9	18.0	17.1	-5.9	-3.0	28.0	32.3	30.2	30.2	27.3	27.3	***	57	78.9	4.3	5.2
4	LAHORE	0.2	30.3	30.1	-3.3	-2.1	30.5	32.6	31.2	30.1	29.0	***	26.4	48	80.2	4.0	5.5
5	SARGODHA	0.6	3.8	3.2	-3.9	-0.6	31.5	37.3	35.2	31.6	30.6	30.1	27.1	50	88.2	5.0	6.1
6	MULTAN	0.0	3.1	3.1	-4.0	-0.9	32.6	***	***	***	***	***	***	40	93.3	6.0	6.9
7	KHANPUR	0.0	12.7	12.7	-1.7	0.0	33.4	***	35.3	34.9	34.8	34.7	32.4	49	94.4	4.6	6.5
8	TANDOJAM	0.0	0.1	0.1	-9.7	-12.6	22.4	29.2	27.2	24.0	23.7	23.7	***	48	86.6	1.7	4.3
9	SAKRAND ☆	0.0	3.0	3.0	-2.1	-3.2	32.6	50.4	41.9	***	***	***	33.1	43	116.1	5.9	7.6
10	ROHRI	0.0	0.1	0.1	-2.4	0.4	35.9	45.3	42.2	36.6	35.0	32.2	31.8	37	112.2	4.0	7.0
11	DI KHAN	0.4	0.1	-0.3	-2.6	-1.5	30.7	***	***	***	***	***	***	42	84.9	***	6.9
12	PESHAWAR	0.4	19.2	18.8	-6.1	-1.7	27.1	30.6	28.4	27.5	***	***	***	61	68.0	3.0	4.5
13	USTA MUHAMMAD	0.0	0.0	0.0	-1.3	-3.9	34.2	40.6	37.9	36.4	34.5	***	31.6	23	***	***	9.2
14	QUETTA	0.1	1.8	1.7	-2.1	0.8	23.3	33.2	29.6	25.5	24.4	22.3	22.7	20	110.2	6.1	6.4
15	SKARDU	0.3	0.1	-0.2	-2.5	1.2	17.8	***	***	***	***	***	***	48	55.3	5.2	4.1
16	GILGIT	0.2	13.3	13.1	-4.3	2.0	21.4	***	***	***	***	***	***	47	58.9	3.6	4.4

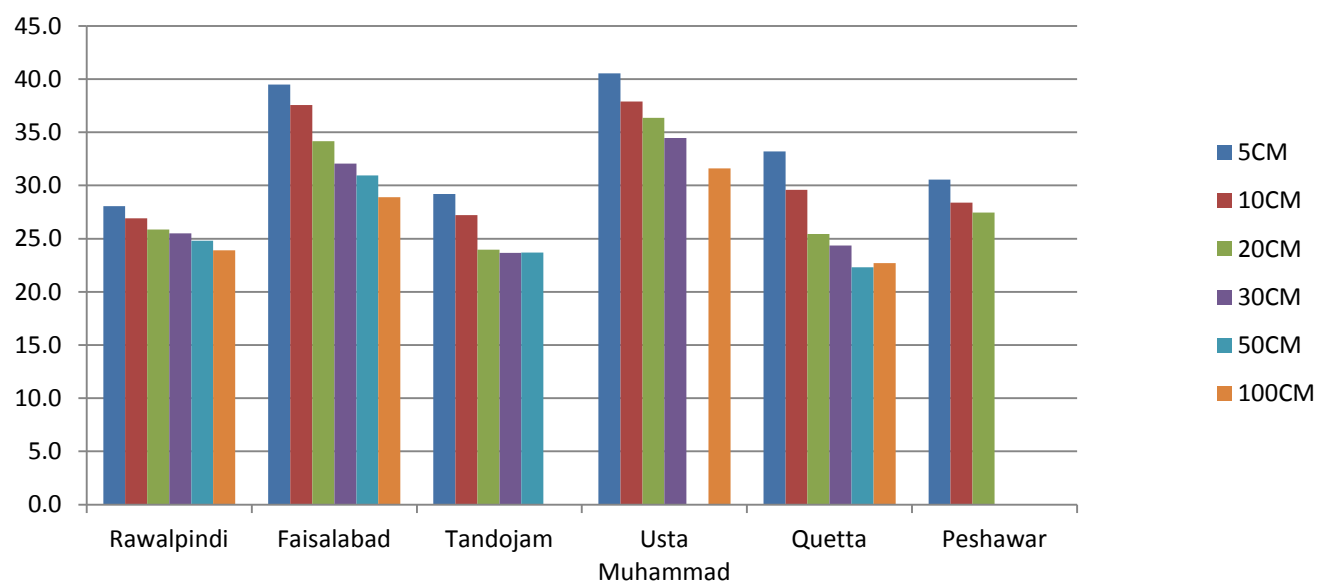
Table-1: Meteorological parameters for selected station of Pakistan. “Dep” in the table stands for difference from climatic normal, i.e. actual value minus normal. And “% Dep” is calculated by the formula; **Dep divided by Normal multiplied by 100**. Tmin & Tmax stands for minimum and maximum temperatures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

Precipitation(mm)



Soil Temperature(°C)



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

Light to moderate rainfall reported in the agricultural plains of the country during the last decade.

1.1 Punjab

Light to moderate rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Mangla, Islamabad & Murree. Decadal maximum & minimum temperature departure both dropped below normal by 3.8°C & 1.1°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETO were recorded as 50%, 86.2hrs, 4.6km/hr and 5.9mm/day respectively.

1.2 Sindh

Light to moderate rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Thatta, Larkana & Rohri. Decadal maximum & minimum temperature departure both dropped below normal by 4.7°C & 5.1°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 43%, 105.0hrs, 3.9km/hr and 6.3mm/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, Parachinar & Kakul. Decadal maximum & minimum temperature departure both dropped below normal by 4.4°C & 1.6°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 52%, 76.5hrs, 3.0km/hr and 5.7mm/day respectively.

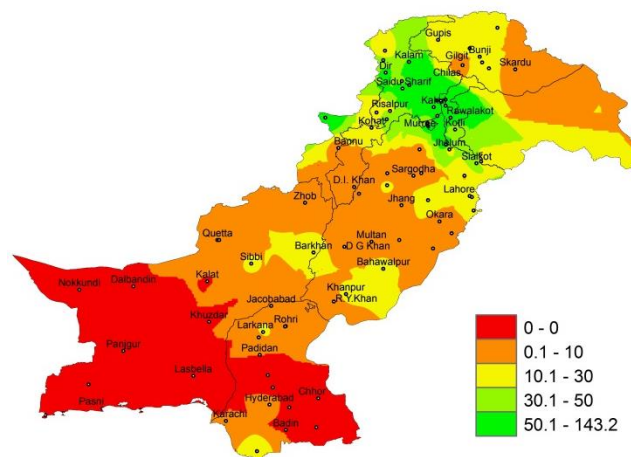
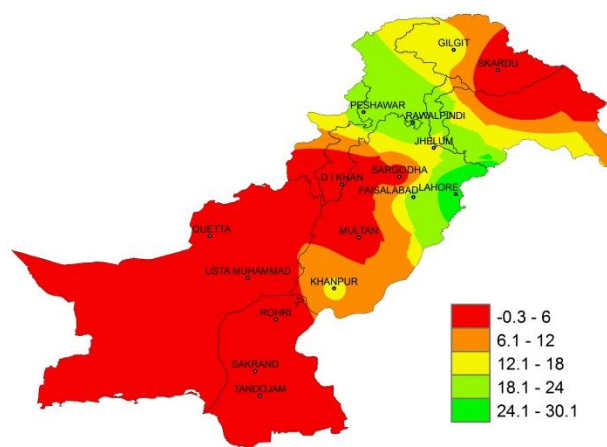
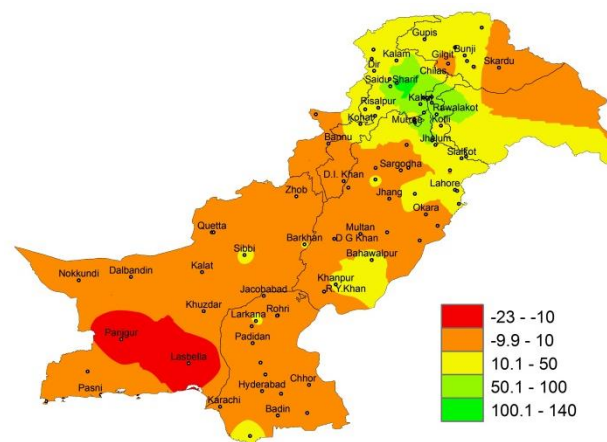
1.4 Balochistan

Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Brakhan, Sibbi & Zhob. Decadal maximum & minimum temperature departure both dropped below normal by 1.7°C & 1.6°C respectively, in the province. Whereas mean values relative humidity, sunshine hour, wind speed & ETo were recorded as 22%, 110.2hrs, 6.1km/hr and 7.8mm/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 Garhi Doppatta, Muzaffarabad & Rawalakot. Decadal maximum dropped below normal by 3.4°C & minimum temperature departure raised above normal by 1.6°C, in the province. Relative humidity, sunshine hour, wind speed & ETo were

recorded as 48%, 57.1hrs, 4.4km/hr and 4.3mm/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 May, 2015)

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 25.6mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 52%. Mean day temperature was 33.2°C while night temperature recorded as 20.7°C with 76.2hours bright sunshine duration. Wind speed recorded as 5.1km/hr with mean wind direction *westerly*.

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

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 20.0mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 53%. Mean day temperature was 38.0°C while night temperature recorded as 24.3°C with 95.25hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction *south westerly*.

Wheat: Harvested.

2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 48%. Mean day temperature was 31.6°C while night temperature recorded as 13.1°C with 86.6hours bright sunshine duration. Wind speed recorded as 1.7km/hr with mean wind direction *northerly*.

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

2.4 RAMC, Usta Muhammad (Eastern Balochistan)

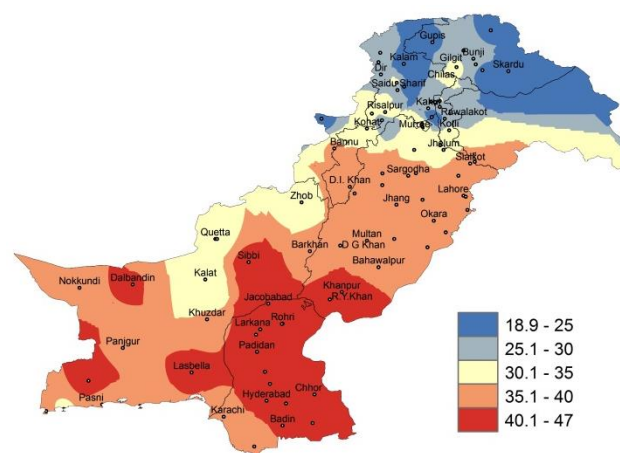
Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 23%. Mean day temperature was 45.0°C while night temperature recorded as 23.4°C.

Rice (Paniri): Good Condition, Germination stage.

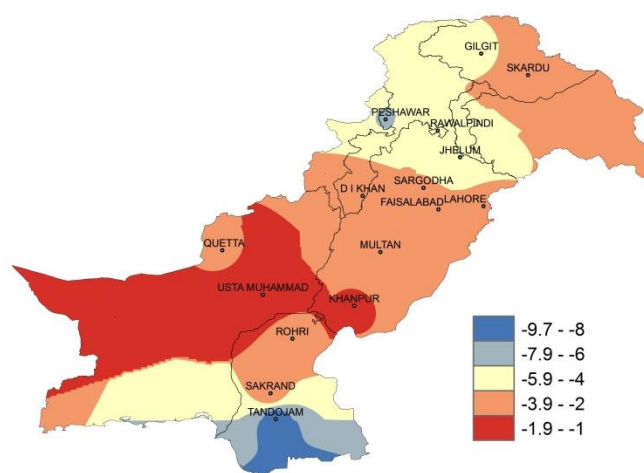
2.5 RAMC, Quetta (Northern Balochistan)

Rainfall reported as 1.8mm during the decade, however weather remained cloudy for 08days. Average relative humidity recorded as 20%. Mean day temperature was 30.4°C while night temperature recorded as 16.2°C with 110.2hours bright sunshine duration and wind speed recorded as 6.1km/hr with mean wind direction *north easterly*.

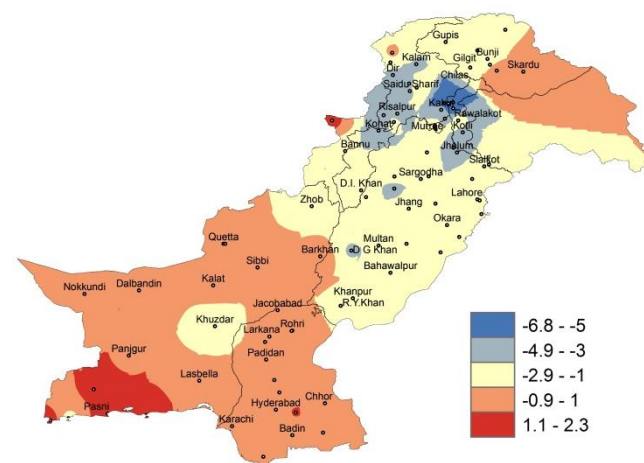
Wheat: Good condition, full maturity.



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 (11th to 20th May, 2015)

2.6 Jhelum

Rainfall reported as 18.0mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 57%. Mean day temperature was 34.4°C while night temperature recorded as 21.5°C with 78.9hours bright sunshine duration and wind speed recorded as 4.3km/hr with mean wind direction *north westerly*.

2.7 Lahore

Rainfall reported as 30.3mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 48%. Mean day temperature was 36.9°C while night temperature recorded as 24.1°C with 80.2hours bright sunshine duration. Wind speed recorded as 4.0km/hr with mean wind direction *south westerly*.

2.8 Sargodha

Rainfall reported as 3.8mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 50%. Mean day temperature was 37.9°C while night temperature recorded as 25.0°C with 88.2hours bright sunshine duration. Wind speed recorded as 5.0km/h with mean wind direction *variable*.

2.9 Multan

Rainfall reported as 3.1mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 40%. Mean day temperature was 38.9°C while night temperature recorded as 26.2°C with 93.3hours bright sunshine duration. Wind speed recorded 6.0km/hr with mean wind direction *south easterly*.

2.10 Khanpur

Rainfall reported as 12.7mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 49%. Mean day temperature was 40.4°C while night temperature recorded as 26.4°C with 94.4hours bright sunshine duration. Wind speed recorded 4.6km/hr with mean wind direction *northerly*.

2.11 Sakrand

Rainfall reported as 3.0mm during the decade however weather remains cloudy for 05days. Average relative humidity recorded as 43%. Mean day temperature was 42.4°C while night temperature recorded as 22.7°C with 116.1hours bright sunshine duration. Wind speed recorded 5.9km/hr with wind direction *southerly*.

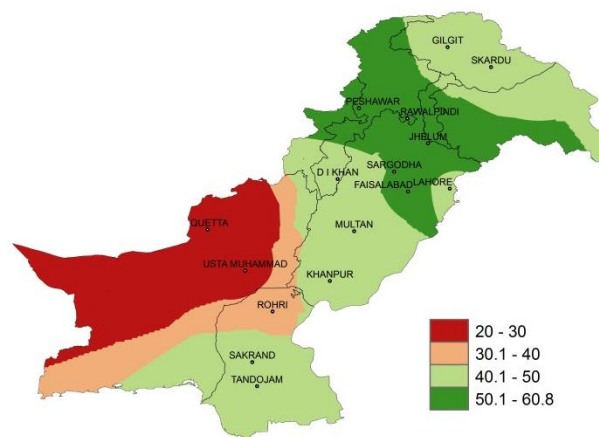


Figure.3: Relative Humidity in percentage (%)

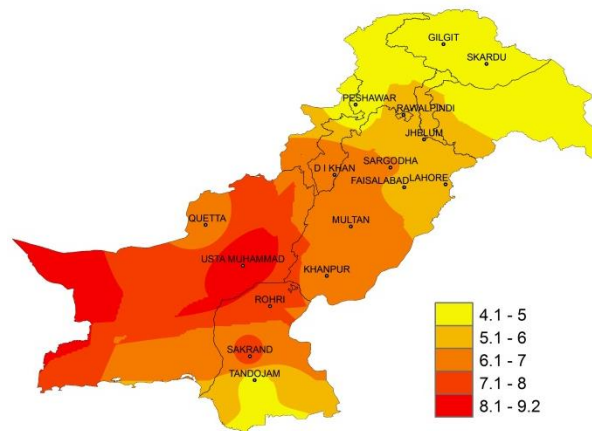


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

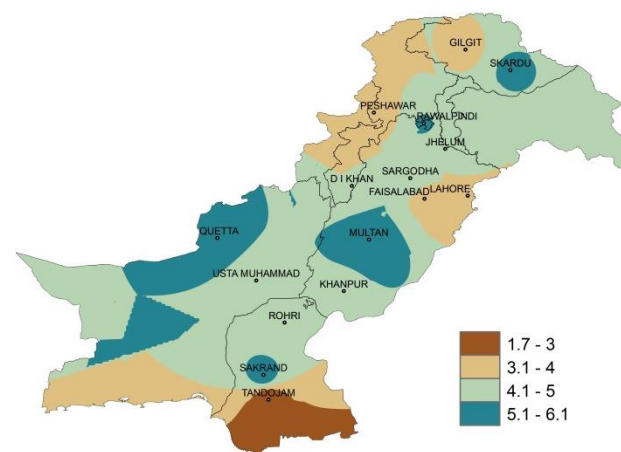


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Rainfall reported as Trace (not measureable) during the decade, however weather remained cloudy for 04days. Average relative humidity recorded as 37%. Mean day temperature was 42.5°C while night temperature recorded as 29.3°C with 121.0hours bright sunshine duration. Wind speed recorded as 4.0km/hr with mean wind direction *north easterly*.

2.13 D.I. Khan

Rainfall reported as Trace (not measureable) during the decade, however weather remained cloudy for 06days. Average relative humidity recorded as 42%. Mean day temperature was 38.6°C while night temperature recorded as 22.7°C with 84.9hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 19.2mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 61%. Mean day temperature was 32.2°C while night temperature recorded as 21.9°C with 68.0hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *north easterly*.

2.15 Skardu

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 48%. Mean day temperature was 24.3°C while night temperature recorded as 11.2°C with 55.3hours bright sunshine duration. Wind speed recorded as 5.2km/hr with mean wind direction *north westerly*.

2.16 Gilgit

Rainfall reported as 13.3mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 47%. Mean day temperature was 28.8°C while night temperature recorded as 13.9°C with 58.9hours bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction *easterly*.

3. Ten Days Weather Advisory for Farmers (21st to 31st May, 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, from 22nd to 25th and at few places including Sargodha, Bhakkar, Mianwali on 29th of this 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 on 25th of this 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 on 25th and 29th of this 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

- ❖ Wheat crop is fully matured in the agricultural plains of Punjab KP & Balochistan. Whereas harvesting/ threshing of wheat crop has been completed in agricultural plains of Sindh & adjoining areas of southern Punjab. Farmers are therefore advised to harvest the full matured crop keeping the expected rains in mind.
- ❖ 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.
- ❖ 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.
- ❖ During the harvesting process, farmers are advised to be aware about the weather conditions & keep listening &

watching carefully the weather advisories issued through radio & television.

- ❖ 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.
- ❖ Pest/viral attacks are expected after recent rains on sugarcane crop. Farmers are therefore advised to take in time precautionary measures in this regard.
- ❖ 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.