

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Heavy to moderate rainfall reported in the agricultural plains of K.P. Light to moderate rainfall reported in agriculture plains of Punjab, GB & Kashmir & dry weather reported in Sindh & Balochistan during the last decade.
- ❖ Highest amount of rainfall reported 99.0mm at Balakot during the last decade.
- ❖ Highest Maximum temperature recorded 49.0°C at Sibbi & Sukkur 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 country during the decade.
- ❖ 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.

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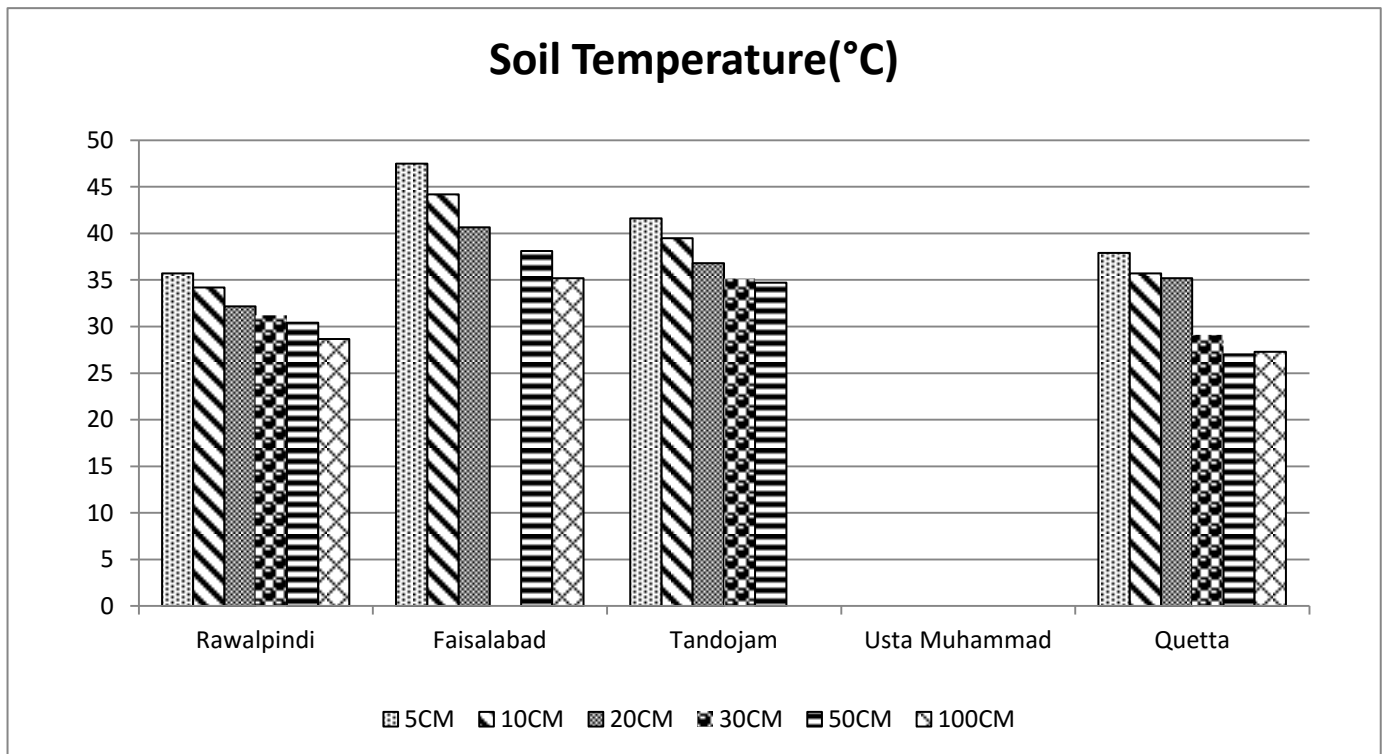
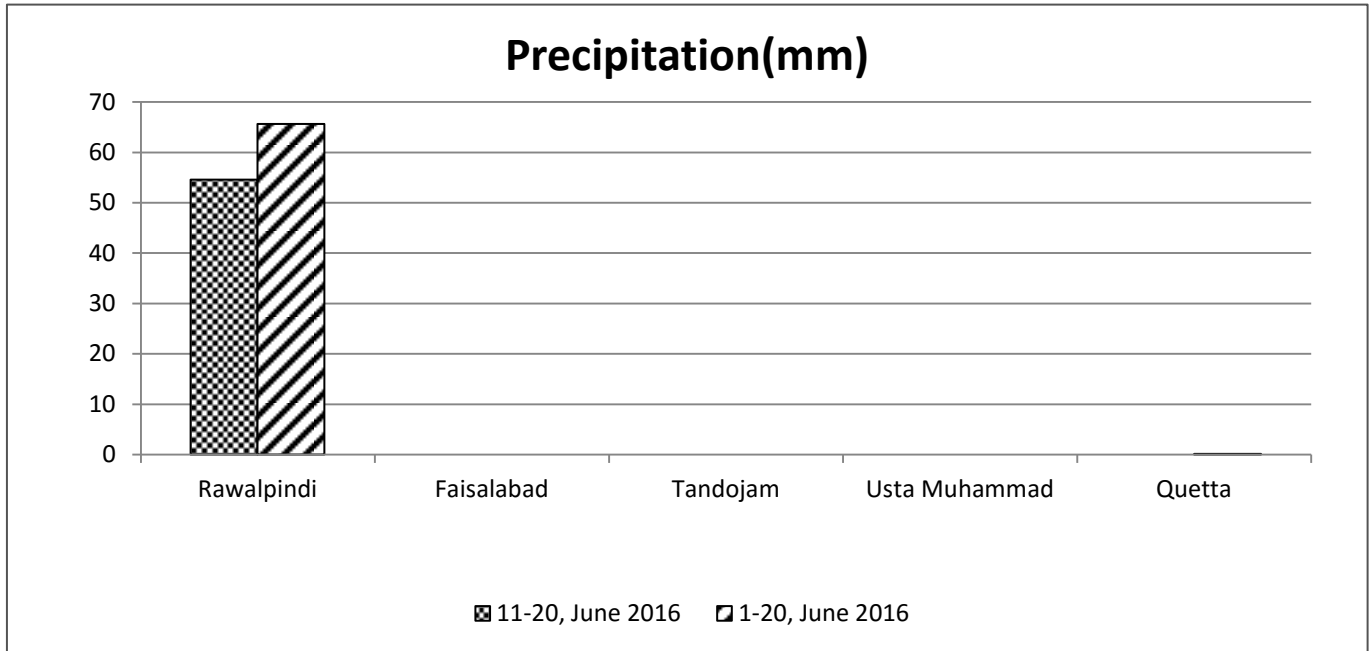
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Meteorological conditions during 2nd decade of June, 2016

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	3.5	54.6	51.1	2.1	2.2	32.4	35.7	34.2	32.2	31.2	30.4	28.7	48	85.3	4.5	6.1
2	FAISALABAD	2.7	0.0	-2.7	1.7	2.9	34.8	47.5	44.2	40.7	***	38.1	35.2	46	72.1	5.5	6.4
3	JHELUM	2.8	87.3	84.5	0.6	-0.9	32.6	36.7	35.1	33.2	33.1	32.0	***	52	73.0	18.3	9.1
4	LAHORE	3.5	52.8	49.3	0.8	-0.8	33.2	38.6	37.5	34.1	33.0	***	30.7	53	72.8	3.5	5.6
5	SARGODHA	1.8	6.0	4.2	1.1	1.6	34.9	40.8	38.8	36.3	35.5	33.2	31.4	47	66.4	6.1	6.5
6	MULTAN	0.4	0.4	0.0	-0.2	1.7	36.0	***	***	***	***	***	***	44	63.4	6.7	6.8
7	KHANPUR	0.2	0.0	-0.2	0.3	0.9	35.6	***	38.7	38.5	38.4	38.4	35.5	48	74.7	6.2	6.8
8	TANDOJAM	0.0	0.0	0.0	0.1	-0.6	32.8	41.6	39.5	36.8	35.2	34.7	***	54	100.0	15.6	9.0
9	SAKRAND ☆	0.0	0.0	0.0	1.4	1.5	35.9	52.5	43.9	***	***	***	36.3	40	100.7	6.1	7.7
11	D I KHAN	1.5	0.0	-1.5	2.3	2.9	35.5	***	***	***	***	***	***	45	79.5	***	7.4
11	PESHAWAR	0.8	24.0	23.2	1.0	-0.1	32.7	39.2	36.1	34.3	***	***	***	60	77.8	3.3	5.6
12	USTA MUHAMMAD	0.0	0.0	0.0	1.5	0.7	37.2	***	***	***	***	***	***	35	***	***	8.9
13	QUETTA	0.0	0.0	0.0	-0.9	1.3	26.8	37.9	35.7	35.2	29.1	27.0	27.3	17	113.6	5.3	6.7
14	SKARDU	0.3	0.1	-0.2	2.3	0.9	23.3	***	***	***	***	***	***	33	88.6	4.4	5.5
15	GILGIT	0.3	2.0	1.7	-0.4	1.6	25.4	***	***	***	***	***	***	44	34.7	3.0	4.1

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 June, 2016



1. Past Weather (11th to 20th June, 2016)

Heavy to moderate rainfall reported in the agricultural plains of K.P. Light to moderate rainfall reported in agriculture plains of Punjab, GB & Kashmir & dry weather 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 Jhelum, Chakwal & Murree. Decadal maximum & minimum both raised above normal by 0.9°C & 1.1°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 48%, 72.5hrs, 7.3km/hr and 6.8mm/day respectively.

1.2 Sindh

Dry weather reported in the agricultural plains of Sindh. Decadal maximum & minimum temperature both raised above normal by 0.8°C & 0.4°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 47%, 100.4hrs, 10.9km/hr and 8.4mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

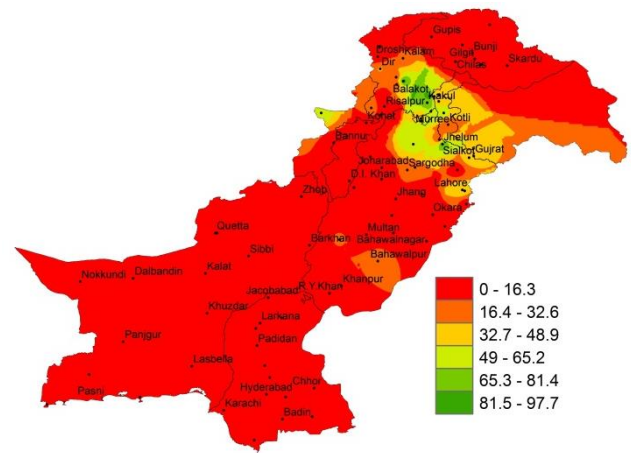
Heavy to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Balakot, Malam Jabba & Kakul. Decadal maximum & minimum both raised above normal by 1.7°C & 1.4°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 53%, 78.7hrs, 3.3km/hr and 6.5mm/day respectively.

1.4 Balochistan

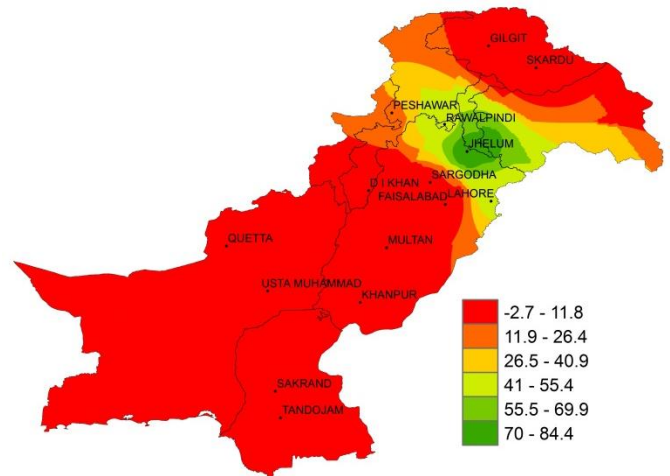
Dry weather reported in the agricultural plains of Balochistan. Decadal maximum & minimum temperature both raised above normal by 0.3°C & 1.0°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 26%, 113.6hrs, 5.3km/hr and 7.8mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

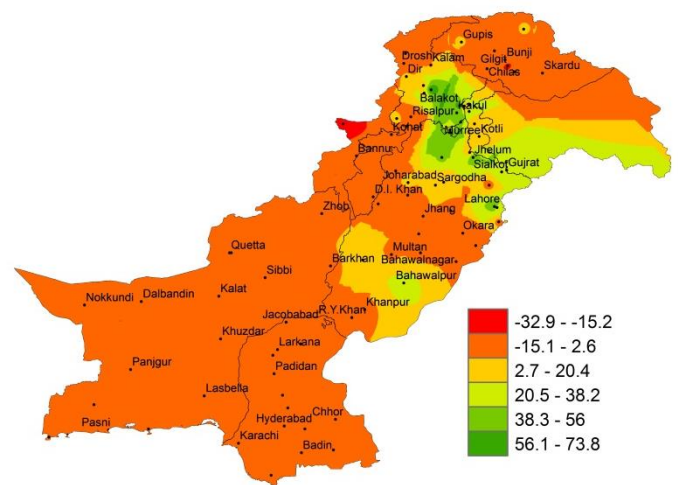
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received Rawalakot, Garhidopatta & Muzaffarabad. Decadal maximum & minimum temperature both raised above normal by 1.0°C & 1.3°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 39%, 61.7hrs, 3.7km/hr and 4.8mm/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, 2016)**

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

Rainfall reported as 54.6mm during the decade; however weather remained cloudy for 10days. Average relative humidity recorded as 48%. Mean day temperature was 39.4°C while night temperature recorded as 25.3°C with 85.3hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *westerly*.

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

Dry weather reported during the decade; however weather remained cloudy for 06days. Average relative humidity recorded as 46%. Mean day temperature was 40.8°C while night temperature recorded as 28.8°C with 72.10hours bright sunshine duration. Wind speed recorded as 5.5km/hr with mean wind direction *easterly*.

Cotton: Very good condition, budding stage.

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

Dry weather was reported during the decade; however weather remained cloudy for 03days. Average relative humidity recorded as 54%. Mean day temperature was 39.5°C while night temperature recorded as 26.0°C with 100.0hours bright sunshine duration. Wind speed recorded as 15.6km/h with mean wind direction *south westerly*.

Cotton (Star-2): Good condition, budding stage.

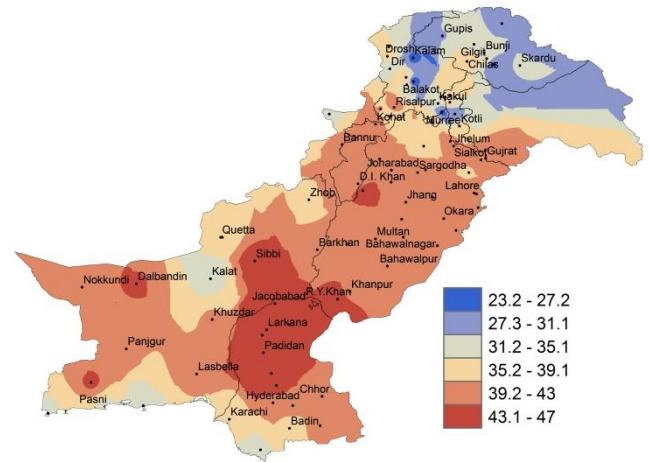
2.4 **RAMC, Usta Muhammad (Eastern Balochistan)**

Dry weather reported during the decade; however weather remained cloudy for 01day. Average relative humidity recorded as 35%. Mean day temperature was 45.9°C while night temperature recorded as 28.5°C.

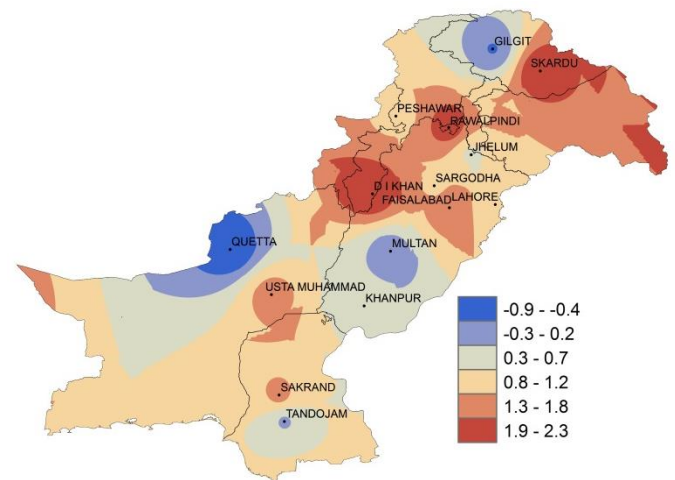
Rice (Paniri): Good Condition.

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

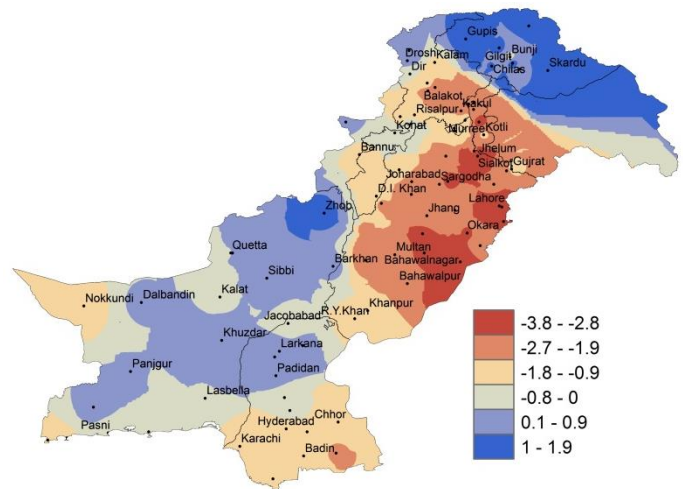
Dry weather was reported during the decade; however weather remained cloudy for 07days. Average relative humidity recorded as 17%. Mean day temperature was 33.7°C while night temperature recorded as 19.8°C with 113.6hours bright sunshine duration. Wind speed recorded as 5.3km/hr with mean wind direction *north westerly*.



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, 2016)**

2.6 **Jhelum**

Rainfall reported as 87.3mm during the decade; however weather remained cloudy for 10days. Average relative humidity recorded as 52%. Mean day temperature was 39.5°C while night temperature recorded as 25.7°C with 73.0hours bright sunshine duration. Wind speed recorded 18.3km/hr with wind direction *north easterly*.

2.7 **Lahore**

Rainfall reported as 52.8mm during the decade; however weather remained cloudy for 10days. Average relative humidity recorded as 53%. Mean day temperature was 39.2°C while night temperature recorded as 27.2°C with 72.8hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *south easterly*.

2.8 **Sargodha**

Rainfall reported as 6.0mm during the decade; however weather remained cloudy for 04days. Average relative humidity recorded as 47%. Mean day temperature was 41.0°C while night temperature recorded as 28.7°C with 66.4hours bright sunshine duration. Wind speed recorded 6.10km/hr with mean wind direction *north easterly*.

2.9 **Multan**

Rainfall reported as 0.4mm during the decade; however weather remained cloudy for 06days. Average relative humidity recorded as 44%. Mean day temperature was 41.3°C while night temperature recorded as 30.6°C with 63.4hours bright sunshine duration. Wind speed recorded 6.7km/hr with mean wind direction *south westerly*.

2.10 **Khanpur**

Dry weather reported during the decade. However sky remained cloudy for 03days. Average relative humidity recorded as 48%. Mean day temperature was 42.3°C while night temperature recorded as 28.9°C with 74.7hours bright sunshine duration. Wind speed recorded 6.2km/hr with mean wind direction *south westerly*.

2.11 **Skrand**

Dry weather reported during the decade; however weather remains cloudy for 04days. Average relative humidity recorded as 40%. Mean day temperature was 43.3°C while night temperature recorded as 28.4°C with 100.7hours bright sunshine duration. Wind speed recorded 6.1km/hr with wind direction *south easterly*.

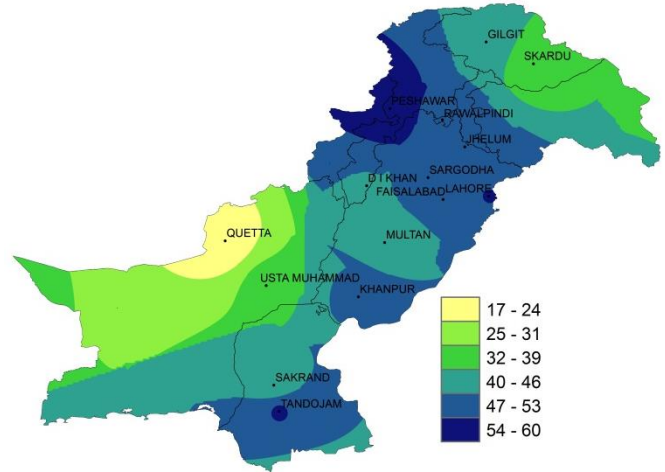


Figure.3: Relative Humidity in Percentage (%)

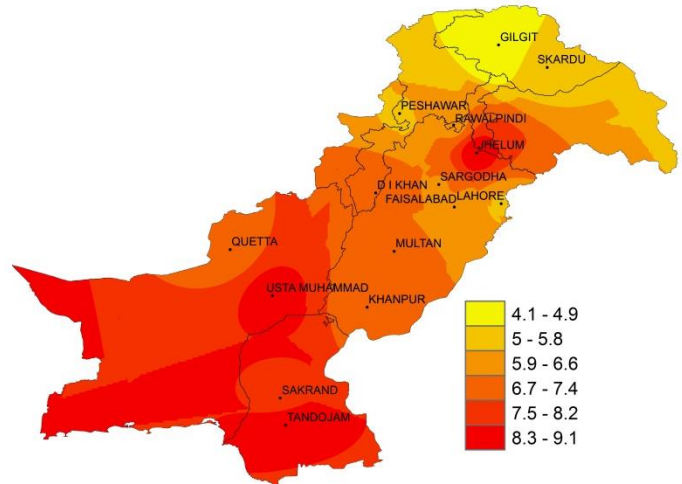


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

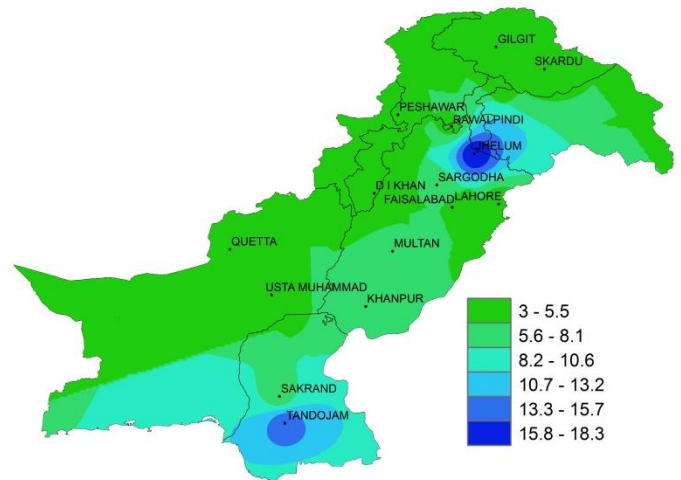


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 D.I. Khan

Dry weather reported during the decade; however weather remained cloudy for 03days. Average relative humidity recorded as 45%. Mean day temperature was 42.7°C while night temperature recorded as 28.3°C with 79.5hours bright sunshine duration.

2.13 Peshawar

Rainfall reported as 24.0mm during the decade; however weather remained cloudy for 09days. Average relative humidity recorded as 60%. Mean day temperature was 39.8°C while night temperature recorded as 25.6°C with 77.8hours bright sunshine duration. Wind speed recorded as 3.3km/hr with mean wind direction *north westerly*.

2.14 Skardu

Rainfall reported as Trace (not measureable) during the decade; however weather remained cloudy for 03days. Average relative humidity recorded as 33%. Mean day temperature was 31.9°C while night temperature recorded as 14.6°C with 88.6hours bright sunshine duration. Wind speed recorded as 4.4km/hr with mean wind direction *southerly*.

2.15 Gilgit

Rainfall reported as 2.0mm during the decade; however weather remained cloudy for 10days. Average relative humidity recorded as 44%. Mean day temperature was 34.3°C while night temperature recorded as 16.4°C with 34.7hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *westerly*.

**3. Ten Days Weather Advisory for Farmers
(21st to 30th 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 Bahawalpur, D.G Khan, Faisalabad, Rawalpindi, Lahore & Gujranwala division are expected

at isolated places on 21st to 23rd and from 25th to 29th 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 during 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. Light rainfall reported at isolated places including Hyderabad, Mirpur Khas & Sukkur divisions from 27th to 29th of 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 divisions on 24th and from 27th to 29th decade.
- ❖ **Gilgit Baltistan:** Mainly hot weather is expected in most parts of G.B. However rain-thunderstorm is expected at isolated places including Astore, Gilgit, Hunza-Nagar & Skardu during the decade.
- ❖ **Kashmir:** Mainly hot weather is expected in most parts of Kashmir. However rain-thunderstorm is expected at isolated places including Muzaffarabad, Kotli, Neelum & Rawalakot during the decade.

3.4 Advisory for Farmers

- ❖ 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