

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported from agricultural plains of the Punjab, K.P, G.B & Kashmir, however light rainfall reported from Sindh & Balochistan during the last decade.
- ❖ Highest amount of rainfall recorded as 52.0mm at Parachinar during the last decade.
- ❖ Highest maximum temperature recorded 50.5°C at Turbat during the last decade.
- ❖ Lower values of relative humidity reported from Quetta & Skardu regions while higher values reported from Punjab, Lower parts of Sindh during the last decade.
- ❖ Lower values of ETo reported from Gilgit-Baltistan while higher values reported from Sindh & Punjab during the last decade.
- ❖ Temperature is likely to be normal/slightly above normal in the agricultural plains of the country during the decade.
- ❖ Dust storm/ gusty wind conditions likely to prevail in the country during the decade.
- ❖ Wheat obtained should be stored with proper treatment so that wheat may be kept for long time without any loss due to coming moist conditions during monsoon.
- ❖ 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.

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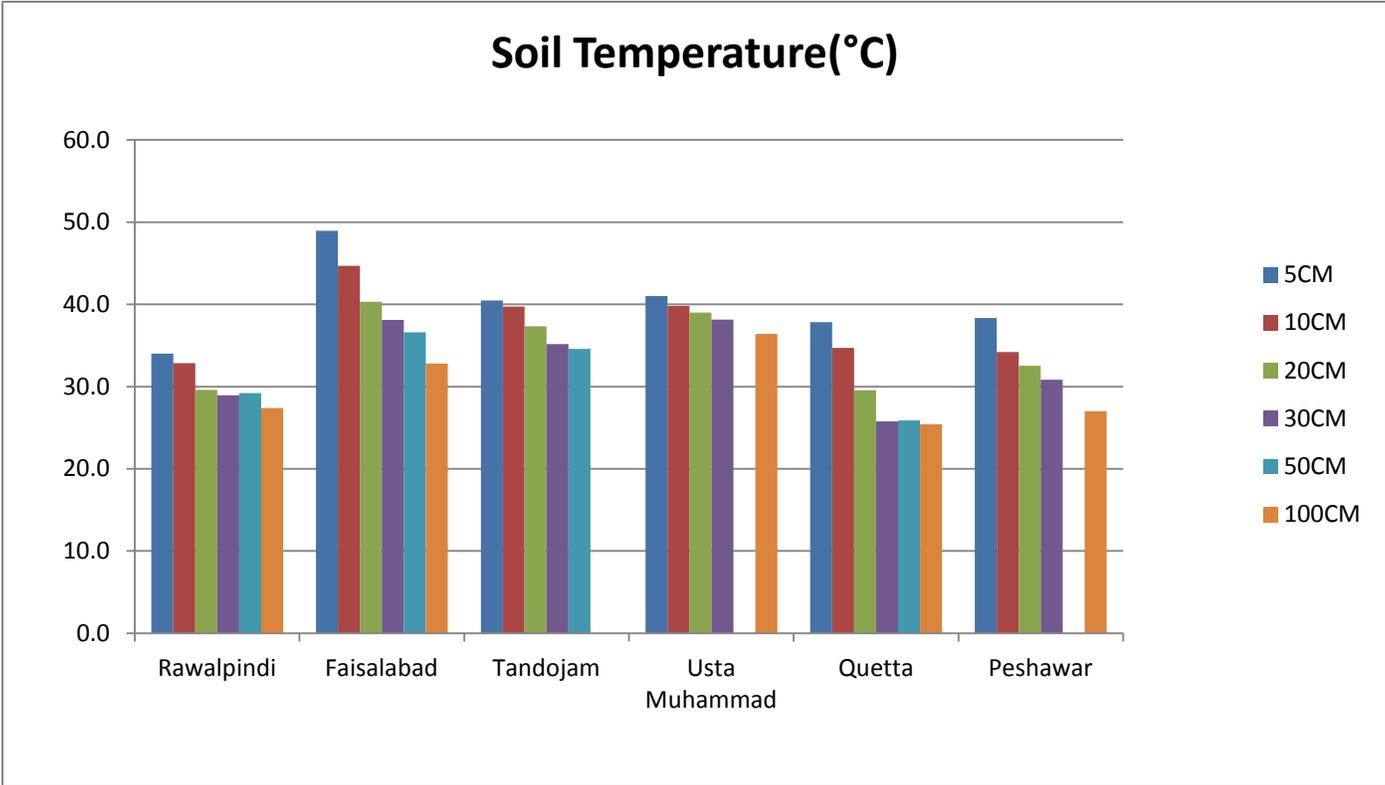
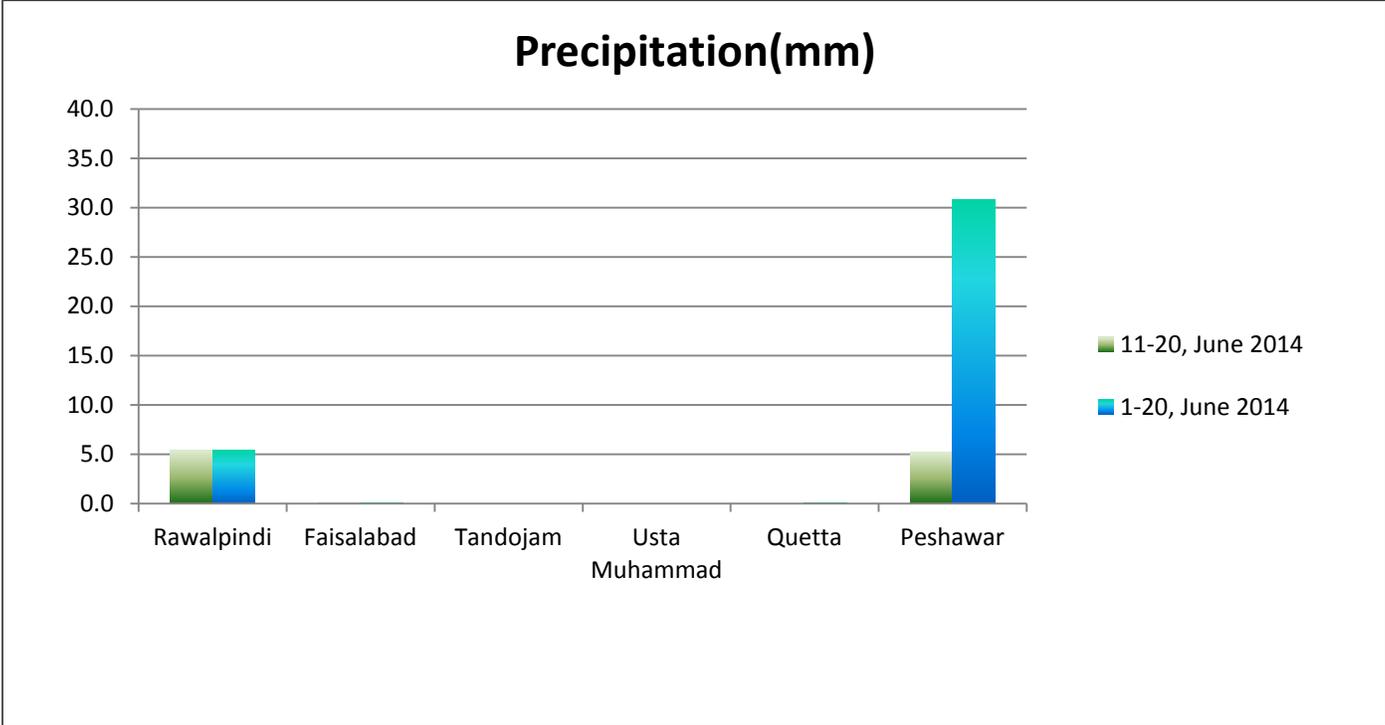
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Meteorological conditions during 2nd Decade of June, 2014

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	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	3.5	5.4	1.9	-0.3	4.0	32.1	34.0	32.9	29.6	29.0	29.2	27.4	35	74.4	1.8	5.0
2	FAISALABAD	2.7	0.1	-2.6	3.4	3.2	35.8	49.0	44.7	40.3	38.1	36.6	32.8	43	104.5	5.1	7.3
3	JHELUM	2.8	2.0	-0.8	0.9	3.8	35.1	42.7	40.1	36.7	34.7	34.1	***	37	90.8	4.5	6.7
4	LAHORE	3.5	0.0	-3.5	1.3	3.8	35.8	42.8	39.7	35.2	33.8	***	29.8	42	98.3	4.5	6.9
5	SARGODHA	1.8	0.0	-1.8	2.9	3.5	36.7	43.2	40.3	36.3	36.3	35.4	32.0	41	89.2	2.6	6.0
6	MULTAN	0.4	0.1	-0.3	2.5	0.3	36.6	***	***	***	***	***	***	43	98.8	14.3	10.1
7	KHANPUR	0.2	0.0	-0.2	1.6	0.4	36.0	***	39.9	39.4	39.2	38.8	35.6	48	105.7	9.2	8.6
8	TANDOJAM	0.0	0.0	0.0	0.7	-0.9	32.9	40.5	39.8	37.4	35.2	34.6	***	62	106.0	6.7	6.9
9	SAKRAND ☆	0.0	0.0	0.0	-1.2	1.1	34.4	45.0	42.1	***	***	***	34.8	48	112.2	16.8	10.8
10	ROHRI	0.3	0.0	-0.3	1.3	0.3	37.1	50.6	46.6	39.3	37.6	35.0	34.2	44	116.0	4.8	7.6
11	D I KHAN	1.5	5.5	4.0	0.9	2.8	34.8	***	***	***	***	***	***	40	93.2	***	7.9
12	PESHAWAR	0.8	5.2	4.4	-0.6	3.3	33.6	38.4	34.2	32.6	30.9	***	27.0	41	88.3	1.6	5.3
13	USTA MUHAMMAD	0.0	0.0	0.0	2.3	2.0	38.3	41.0	39.8	39.0	38.2	***	36.4	41	***	***	8.8
14	QUETTA	0.0	0.0	0.0	0.6	0.5	27.1	37.9	34.7	29.6	25.8	25.9	25.4	19	115.4	5.5	6.8
15	SKARDU	0.3	1.6	1.3	-1.8	-0.4	20.6	***	***	***	***	***	***	31	58.6	5.9	5.2
16	GILGIT	0.3	2.0	1.7	-0.1	0.7	25.1	***	***	***	***	***	***	41	67.3	2.5	4.9

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. * stands for (rainfall + snowfall)

Precipitation at RAMC's during June, 2014



Past Weather (11th to 20th June, 2014)

Light to moderate rainfall reported from agricultural plains of the Punjab, K.P, G.B & Kashmir, however light rainfall reported from Sindh & Balochistan during the last decade.

1.1 Punjab

Light to moderate rainfall reported in the agricultural plains of Punjab. Decadal minimum & maximum temperature both raised above normal by 1.8°C & 2.7°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 94.5hrs, 6.0km/hr, 41% and 7.2mm/day respectively.

1.2 Sindh

Light rainfall reported during the decade. Decadal minimum & maximum temperature both raised above normal by 0.3°C & 0.2°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 111.4hrs, 9.4km/hr, 51% and 8.4mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

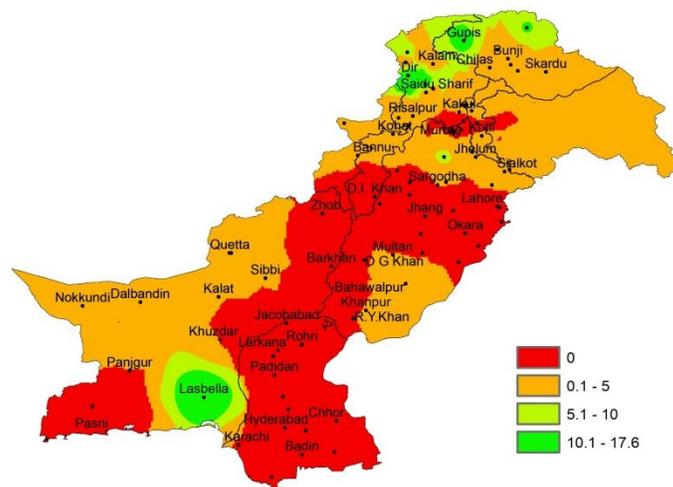
Light to moderate rainfall reported in the agricultural plains of KP. Decadal minimum & maximum temperature both raised above normal by 0.2°C & 3.1°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 90.8hrs, 1.6km/hr, 41% and 6.6mm/day respectively.

1.4 Balochistan

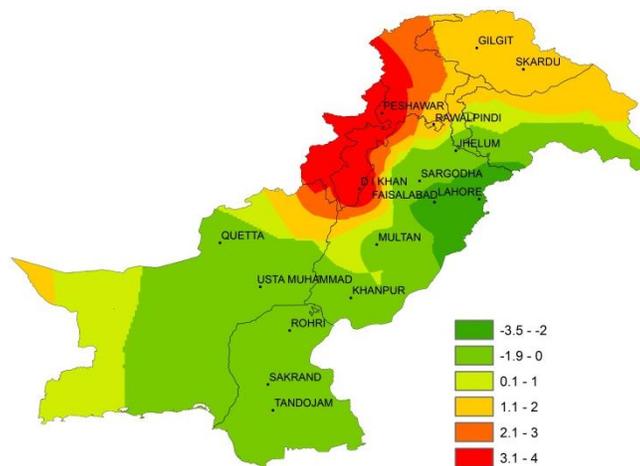
Light rainfall reported in the agricultural plains of Balochistan. Decadal minimum & maximum temperature both raised above normal by 1.5°C & 1.3°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 115.4hrs, 5.5km/hr, 30% and 7.8mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

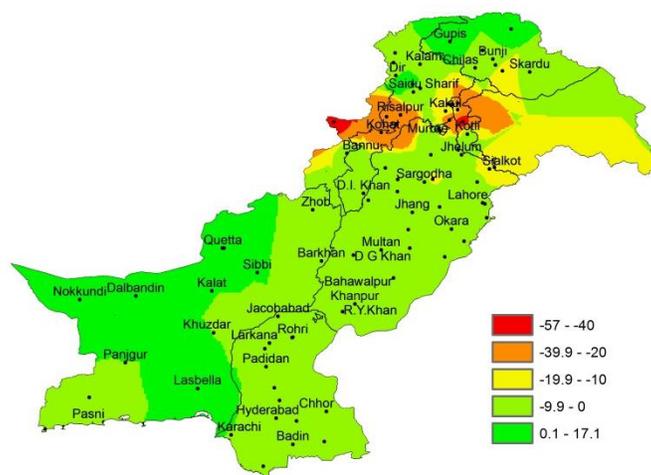
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Decadal minimum dropped below normal by 1.0°C & maximum temperature raised above normal by 1.0°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity and ETo were recorded 63.0hrs, 4.2km/hr, 36% and 5.1mm/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, 2014)**

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

Rainfall reported as 5.4mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 35%. Mean night temperature was 22.8°C while day temperature recorded as 41.3°C with 74.4 hours bright sunshine duration. Wind speed recorded as 1.8km/h with mean wind direction *westerly*.

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

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 43%. Mean night temperature was 29.3°C while day temperature recorded as 42.3°C with 104.5hours bright sunshine duration. Wind speed recorded as 5.1km/hr with mean wind direction *south westerly*.

Cotton: Normal condition, budding stage.

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

Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 62%. Mean night temperature was 27.3°C while day temperature recorded as 38.5°C with 106.0hours bright sunshine duration. Wind speed recorded as 6.7km/hr with mean wind direction *south westerly*.

Cotton (BT-3701): Good condition, budding stage.

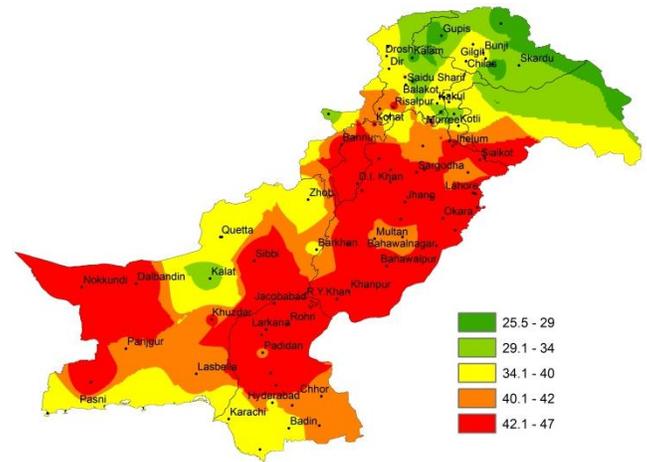
2.4 **RAMC, Usta Muhammad (Eastern Balochistan)**

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 41%. Mean night temperature was 30.1°C, while day temperature recorded as 46.4°C.

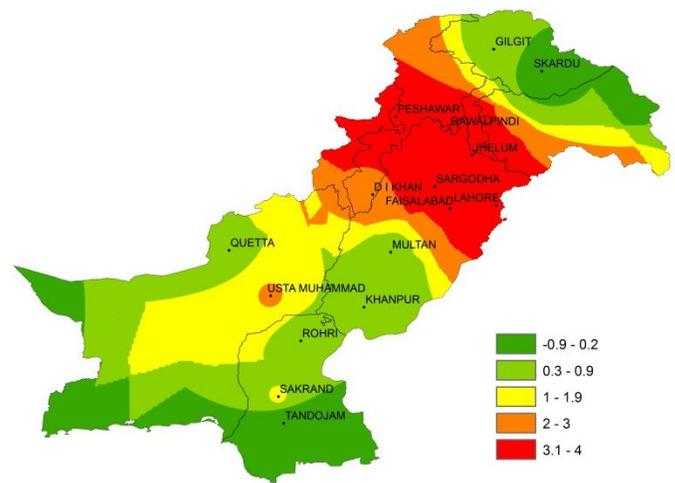
Rice: Good condition, Germination stage.

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

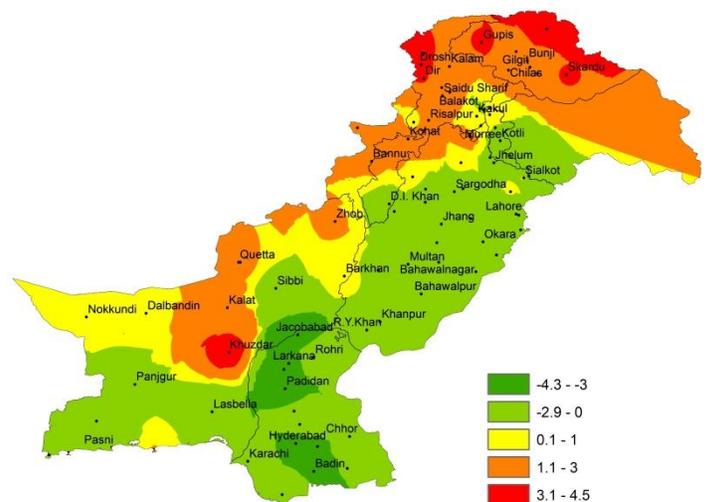
Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 19%. Mean night temperature was 19.1°C while day temperature recorded as 35.1°C with 115.4hours bright sunshine duration and wind speed recorded as 5.5km/hr with mean wind direction *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, 2014)**

2.6 **Jhelum**

Rainfall reported as 2.0mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 37%. Mean night temperature was 27.5°C while day temperature recorded as 42.7°C with 90.8hours bright sunshine duration. Wind speed recorded 4.5km/hr with mean wind direction *south westerly*.

2.7 **Lahore**

Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 42%. Mean night temperature was 29.3°C while day temperature recorded as 42.2°C with 98.3hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *south westerly*.

2.8 **Sargodha**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 41%. Mean night temperature was 30.0°C while day temperature recorded as 43.4°C with 89.2hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *variable*.

2.9 **Multan**

Rainfall reported as Trace (not measureable) reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 43%. Mean night temperature was 31.4°C while day temperature recorded as 41.8°C with 98.8hours bright sunshine duration. Wind speed recorded as 14.3km/hr with mean wind direction *south westerly*.

2.10 **Khanpur**

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 48%. Mean night temperature was 29.6°C while day temperature recorded as 42.4°C with 105.7hours bright sunshine duration. Wind speed recorded as 9.2km/hr with mean wind direction *south westerly*.

2.11 **Sakrand**

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 48%. Mean night temperature was 25.7°C while day temperature recorded as 43.0°C with 112.2hours bright sunshine duration. Wind speed recorded 16.8km/hr with mean wind direction *south westerly*.

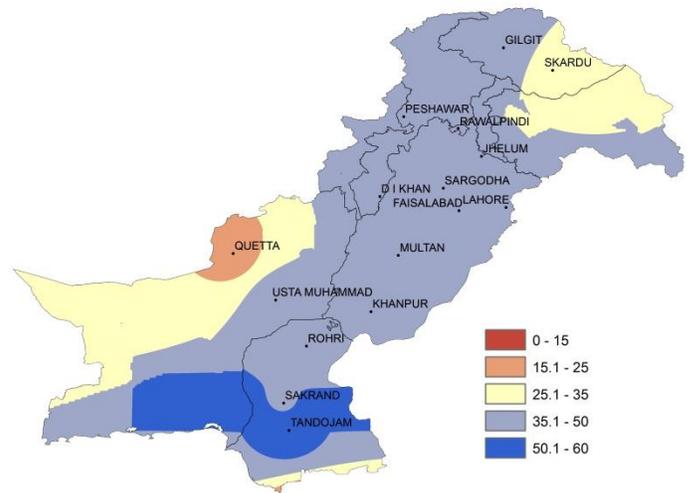


Figure.3: Relative Humidity in percentage (%)

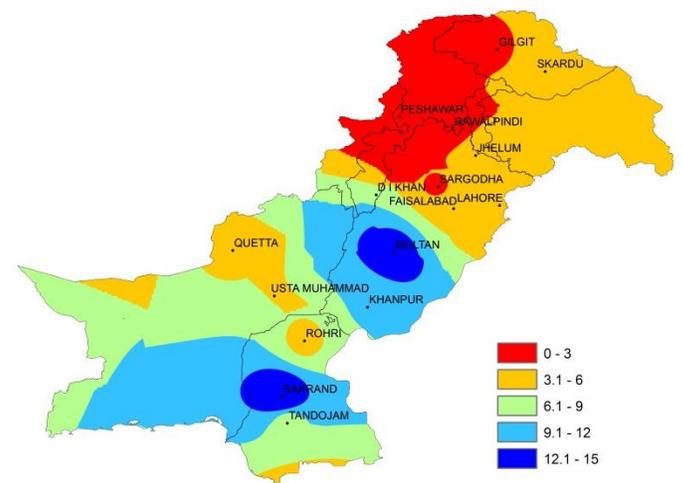


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

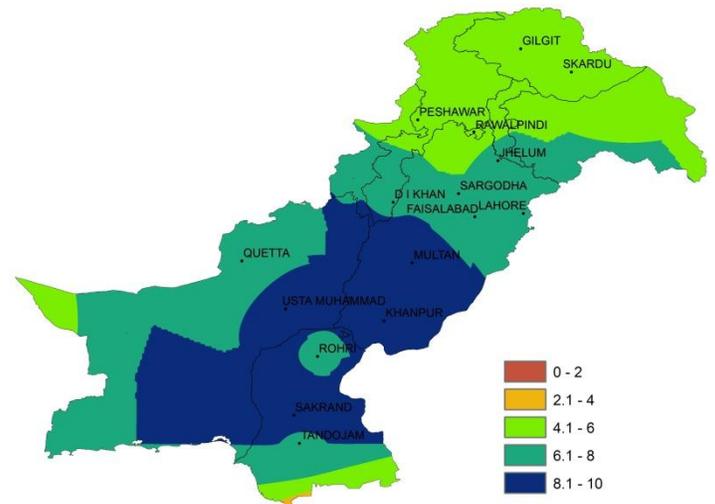


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 44%. Mean night temperature was 30.7°C while day temperature recorded as 43.5°C with 116.0hours bright sunshine duration. Wind speed recorded as 4.8km/hr with mean wind direction *south westerly*.

2.13 D.I. Khan

Rainfall reported as 5.5mm during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 40%. Mean night temperature was 26.3°C while day temperature recorded as 43.2°C with 93.2hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 5.2mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 41%. Mean night temperature was 25.1°C while day temperature recorded as 42.1°C with 88.3hours bright sunshine duration. Wind speed recorded as 1.6km/hr with mean wind direction *north westerly*.

2.15 Skardu

Rainfall reported as 1.6mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 31%. Mean night temperature was 11.9°C while day temperature recorded as 29.2°C with 58.6hours bright sunshine duration. Wind speed recorded as 5.9km/hr with mean wind direction *south westerly*.

2.16 Gilgit

Rainfall reported as 2.0mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 41%. Mean night temperature was 14.7°C while day temperature recorded as 35.4°C with 67.3bright sunshine duration. Wind speed recorded as 2.5km/hr with mean wind direction *easterly*.

3. Ten Days Weather Advisory for Farmers (21st to 30th June, 2014)

3.1 Temperature Forecast

Temperatures are likely to be above normal in the agricultural plains of the country and heat wave will also envelop northern areas during the decade.

3.2 Wind Forecast

Dust storm/ gusty wind conditions likely to prevail in the country during the decade.

3.3 Rain Forecast

- ❖ **Punjab:** Mainly dry weather is expected however light rainfall over hills is expected during the end of decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected, light to moderate rainfall at isolated places is expected over most of the agricultural plains of the province during the end of decade.
- ❖ **Sindh:** Dry weather is expected in the province during the decade.
- ❖ **Balochistan:** Mainly dry weather is expected in the province. However light rainfall expected over northern Balochistan during the end of decade.
- ❖ **Gilgit Baltistan:** Mostly cloudy weather with light to moderate rainfall over hills is expected in most parts of GB during the end of decade.
- ❖ **Kashmir:** Mainly dry weather with light to moderate rainfall over hills is expected in isolated parts of Kashmir during the end of decade.

3.4 Advisory for Farmers

- ❖ Due to prevailing dry weather and rising day time temperature in lower parts of the country, cotton and sugarcane farmers should irrigate the crops as per requirement.
- ❖ Wheat obtained should be stored with proper treatment so that wheat may be kept for long time without any loss due to coming moist conditions during monsoon.
- ❖ Pest/viral attacks and more weeds growth are expected after recent rains on sugarcane and other standing crops in upper parts of the country. 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.
- ❖ Due to expected 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.