

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 61.1mm at Parachinar during the last decade.
- ❖ Highest maximum temperature recorded 50.0°C at Moen-jo-Daro during the last decade.
- ❖ Lower values of relative humidity reported from Skardu, Quetta, Multan & Rohri regions while higher values reported from Punjab, K.P & Lower Sindh during the last decade.
- ❖ Lower values of ETo reported from Gilgit-Baltistan while higher values reported from Central Punjab & Sindh 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.
- ❖ Farmers are advised to harvest the full matured wheat crop keeping the expected rains in mind.
- ❖ 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.

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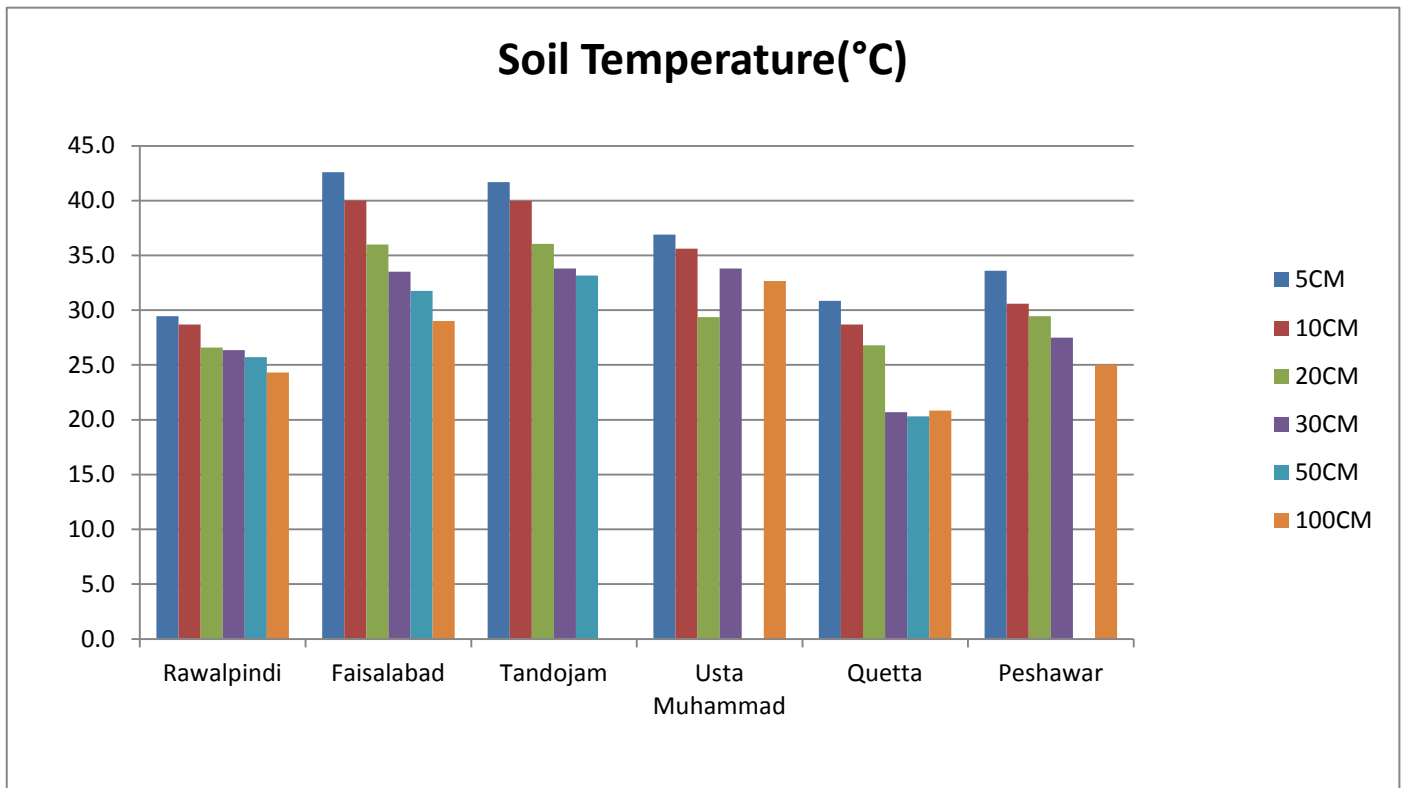
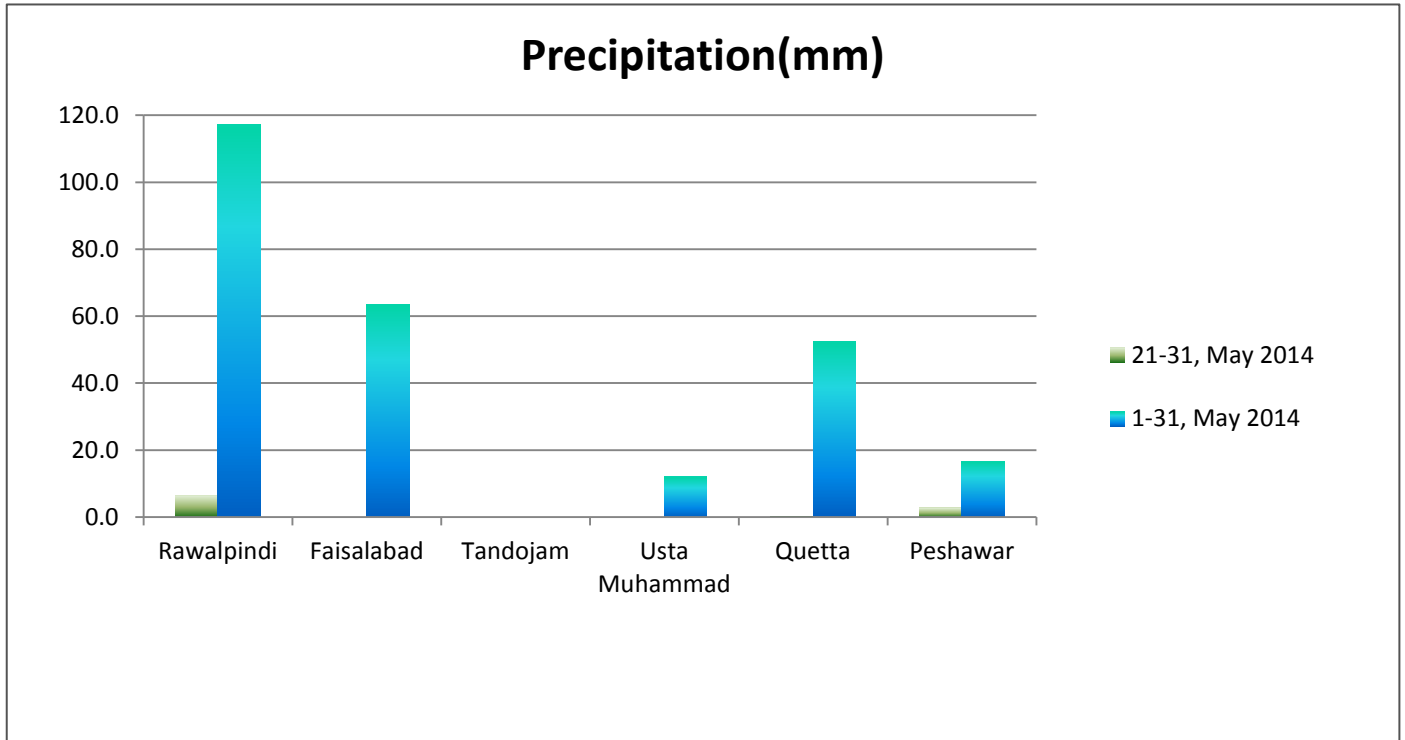
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Meteorological conditions during 3rd Decade of May, 2014

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	0.6	6.4	5.8	-0.9	-1.1	28.7	29.5	28.7	26.6	26.4	25.7	24.3	37	105.7	3.2	5.9
2	FAISALABAD	0.8	0.0	-0.8	1.2	0.5	33.1	42.6	40.0	36.0	33.5	31.8	29.0	31	119.0	3.6	6.7
3	JHELUM	0.8	5.5	4.7	-2.6	-0.4	30.8	36.1	34.0	30.7	28.7	28.5	***	42	110.5	3.3	6.2
4	LAHORE	1.3	6.1	4.8	-2.0	0.4	32.0	37.7	35.7	31.9	30.0	***	26.7	33	110.6	4.1	6.6
5	SARGODHA	2.1	4.2	2.1	2.3	0.6	34.4	38.4	35.6	32.3	31.1	30.6	28.1	40	104.0	1.1	5.5
6	MULTAN	0.5	0.6	0.1	0.5	-1.4	33.8	***	***	***	***	***	***	31	111.2	5.3	7.4
7	KHANPUR	0.0	0.0	0.0	-0.4	0.1	34.5	***	36.7	36.1	36.4	35.3	32.5	37	110.0	5.0	7.4
8	TANDOJAM	0.0	0.0	0.0	0.0	2.6	34.7	41.7	40.0	36.1	33.8	33.2	***	48	114.1	3.6	6.9
9	SAKRAND ☆	0.0	0.0	0.0	-2.3	0.4	34.7	45.3	42.2	***	***	***	32.5	33	129.9	6.1	8.6
10	ROHRI	0.0	0.0	0.0	1.3	0.2	37.6	50.1	45.6	37.6	35.9	33.0	33.8	28	119.0	6.0	8.5
11	D I KHAN	0.3	0.1	-0.2	-1.5	0.5	31.9	***	***	***	***	***	***	38	112.1	***	7.9
12	PESHAWAR	0.4	2.8	2.4	-2.9	0.0	29.5	33.6	30.6	29.5	27.5	***	25.0	41	87.6	3.7	5.7
13	USTA MUHAMMAD	0.0	0.0	0.0	-1.1	-3.9	35.9	36.9	35.6	29.4	33.8	***	32.7	40	***	***	8.3
14	QUETTA	0.3	0.1	-0.2	-0.3	-1.3	23.4	30.9	28.7	26.8	20.7	20.3	20.9	21	114.8	5.5	6.3
15	SKARDU	0.4	7.7	7.3	-1.3	-2.4	16.1	***	***	***	***	***	***	30	65.4	9.3	5.3
16	GILGIT	1.1	1.8	0.7	-0.5	-0.4	21.5	***	***	***	***	***	***	37	65.3	3.5	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. 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 May, 2014



Past Weather (21st to 31st May, 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. Chief amount of rainfall received in Murree, Gujrat & Mandi Bahu Din. Decadal minimum & maximum temperature both dropped below 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 110.1hrs, 3.7km/hr, 36% and 6.5mm/day respectively.

1.2 Sindh

Light rainfall reported at one place of Sindh i.e Moen-Jo-Daro. Decadal minimum dropped below normal by 0.3°C & maximum temperature raised above normal by 1.1°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 121.0hrs, 5.2km/hr, 36% and 8.0mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

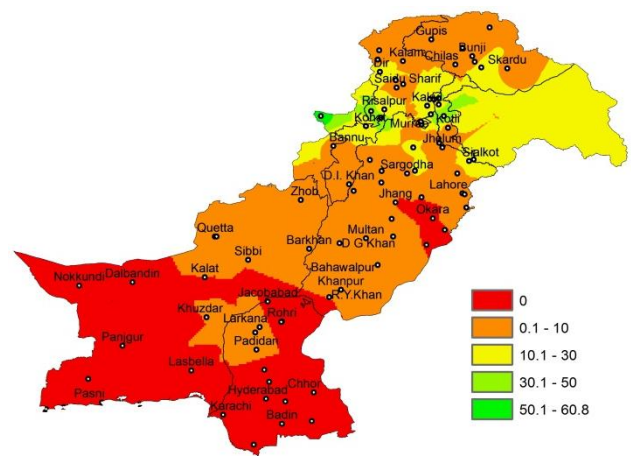
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall reported in Parachinar, Pattan & Cherat. Decadal minimum dropped below normal by 2.2°C & maximum temperature raised above normal by 0.3°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 99.9hrs, 3.7km/hr, 40% and 6.8mm/day respectively.

1.4 Balochistan

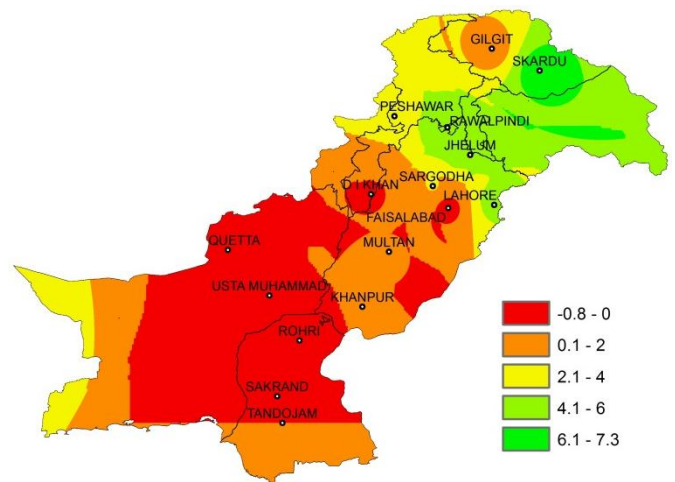
Light rainfall reported at one place of Balochistan i.e Quetta. Decadal minimum & maximum temperature both dropped below normal by 0.7°C & 2.6°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were 114.8hrs, 5.5km/hr, 31% and 7.3mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

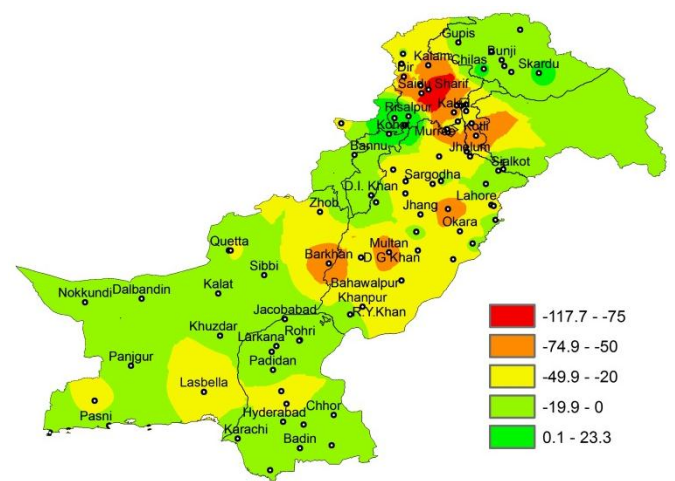
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall reported in, Rawalakot, Astore & Garhi Dopatta. Decadal minimum & maximum temperature both dropped below normal by 0.9°C & 1.4°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity and ETo were recorded 65.4hrs, 6.4km/hr, 34% 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**
(21st to 31st May, 2014)

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

Rainfall reported as 6.4mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 37%. Mean night temperature was 20.6°C while day temperature recorded as 36.7°C with 105.7 hours bright sunshine duration. Wind speed recorded as 3.2km/h with mean wind direction *westerly*.

Wheat (Chakwal 97): Good condition, Full maturity stage.

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

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 31%. Mean night temperature was 25.8°C while day temperature recorded as 40.3°C with 119.0hours bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction *south easterly*.

Cotton: Normal condition, 3rd Leaf Completed stage.

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

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 48%. Mean night temperature was 26.1°C while day temperature recorded as 43.2°C with 114.1hours bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction *south westerly*.

Cotton (BT-3701): Good condition, 3rd True Leaf stage.

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

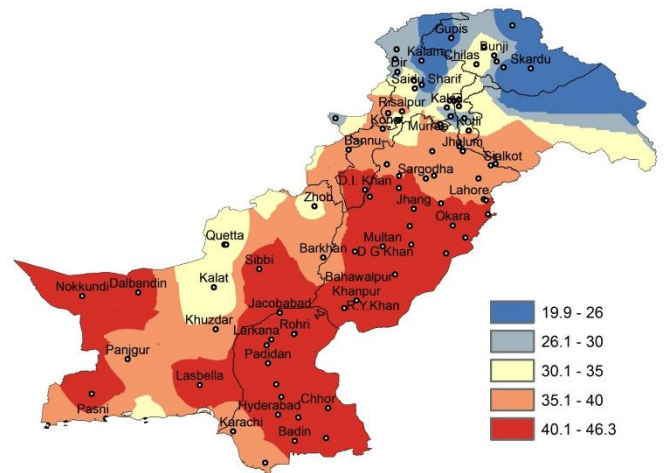
Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 40%. Mean night temperature was 27.8°C, while day temperature recorded as 43.9°C.

Note: Plowing for rice crop.

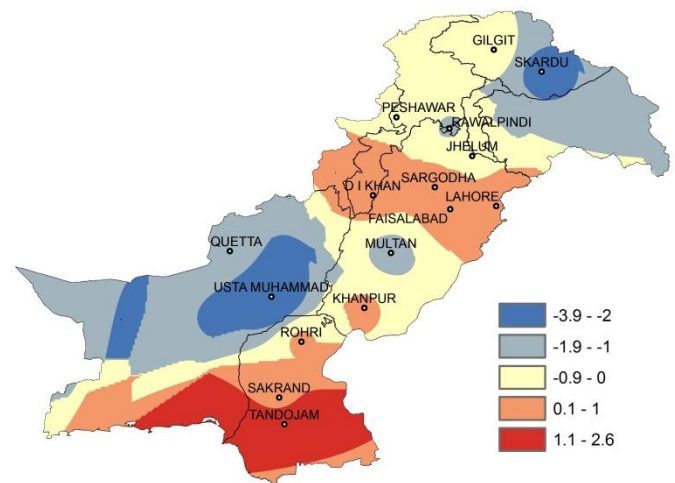
2.5 **RAMC, Quetta (Northern Balochistan)**

Rainfall reported as Trace (not measurable) during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 21%. Mean night temperature was 15.7°C while day temperature recorded as 31.1°C with 114.8hours bright sunshine duration and wind speed recorded as 5.5km/hr with mean wind direction *north easterly*.

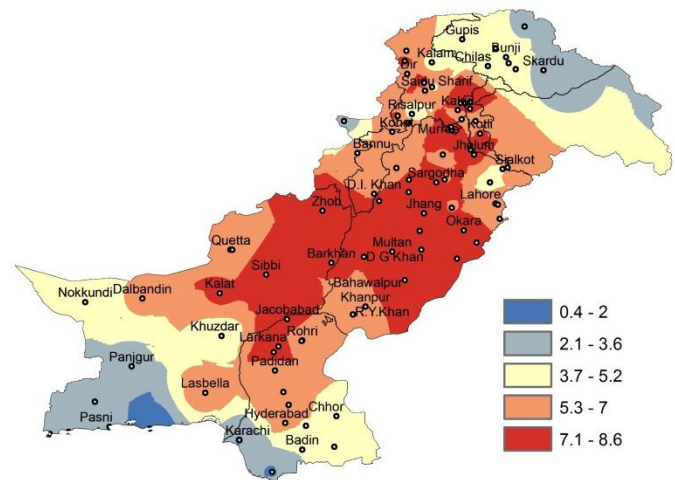
Wheat (Local White): Good condition, Full Maturity Stage.



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, 2014)

2.6 Jhelum

Rainfall reported as 5.5mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 42%. Mean night temperature was 22.5°C while day temperature recorded as 39.1°C with 110.5hours bright sunshine duration. Wind speed recorded 3.3km/hr with mean wind direction *south westerly*.

2.7 Lahore

Rainfall reported as 6.1mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 33%. Mean night temperature was 24.5°C while day temperature recorded as 39.5°C with 110.6hours bright sunshine duration. Wind speed recorded as 4.1km/hr with mean wind direction *south westerly*.

2.8 Sargodha

Rainfall reported as 4.2mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 40%. Mean night temperature was 28.0°C while day temperature recorded as 40.7°C with 104.0hours bright sunshine duration. Wind speed recorded as 1.11km/hr with mean wind direction *variable*.

2.9 Multan

Rainfall reported as 0.6mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 31%. Mean night temperature was 27.3°C while day temperature recorded as 40.3°C with 111.2hours bright sunshine duration. Wind speed recorded as 5.3km/hr with mean wind direction *south westerly*.

2.10 Khanpur

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 37%. Mean night temperature was 26.4°C while day temperature recorded as 42.5°C with 110.0hours bright sunshine duration. Wind speed recorded as 5.0km/hr with mean wind direction *northerly*.

2.11 Sakrand

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 33%. Mean night temperature was 24.3°C while day temperature recorded as 45.0°C with 129.9hours bright sunshine duration. Wind speed recorded 6.1km/hr with mean wind direction *south westerly*.

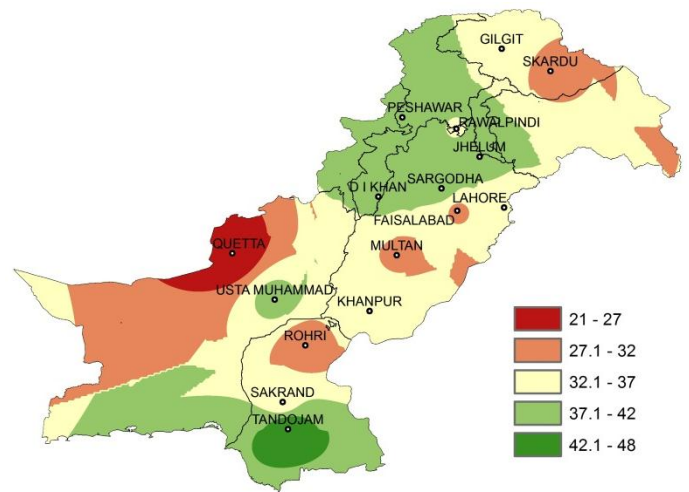


Figure.3: Relative Humidity in percentage (%)

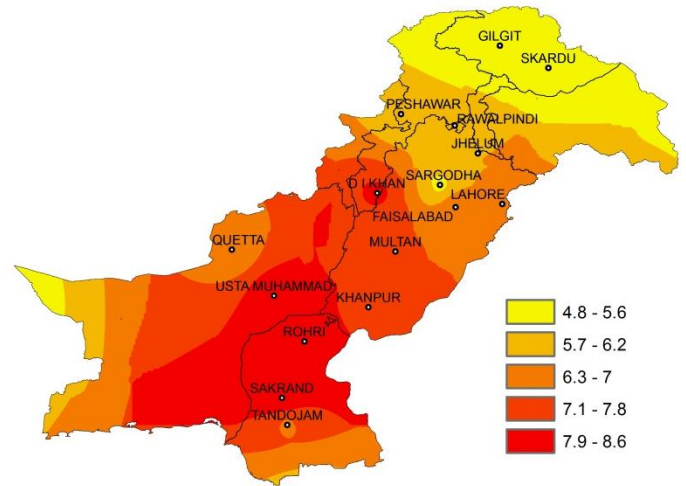


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

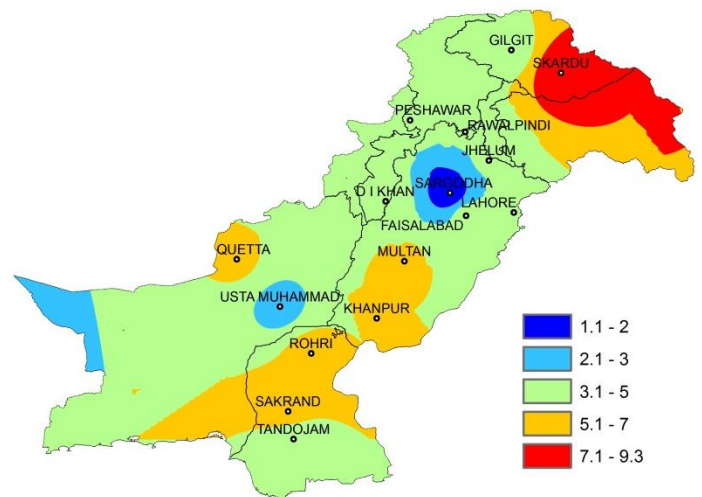


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 28%. Mean night temperature was 30.4°C while day temperature recorded as 44.8°C with 119.0hours bright sunshine duration. Wind speed recorded as 6.0km/hr with mean wind direction *south westerly*.

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 38%. Mean night temperature was 22.9°C while day temperature recorded as 40.8°C with 112.1hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 2.8mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 41%. Mean night temperature was 21.1°C while day temperature recorded as 37.8°C with 87.6hours bright sunshine duration. Wind speed recorded as 3.7km/hr with mean wind direction *north easterly*.

2.15 Skardu

Rainfall reported as 7.7mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 30%. Mean night temperature was 8.9°C while day temperature recorded as 23.3°C with 65.4hours bright sunshine duration. Wind speed recorded as 9.3km/hr with mean wind direction *south easterly*.

2.16 Gilgit

Rainfall reported as 1.8mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 37%. Mean night temperature was 12.0°C while day temperature recorded as 31.0°C with 65.3bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *easterly*.

**3. Ten Days Weather Advisory for Farmers
(1st to 10th June, 2014)****3.1 Temperature Forecast**

Temperatures are likely to be normal/slightly above normal in the agricultural plains of the country 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 in the province during the 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 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 decade.
- ❖ **Gilgit Baltistan:** Mostly cloudy weather with light to moderate rainfall over hills is expected in most parts of GB during the decade.
- ❖ **Kashmir:** Mainly dry weather with light to moderate rainfall over hills is expected in isolated parts of Kashmir during the decade.

3.4 Advisory for Farmers

- ❖ Harvesting/Threshing of wheat crop has been completed in the most of the agricultural areas of the country. Due to prevailing dry weather and rising day time temperature, cotton and sugarcane farmers should irrigate the crops as per requirement.
- ❖ 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.
- ❖ 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.