

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported from agricultural plains of the country during the last decade.
- ❖ Highest amount of rainfall recorded as 121.0mm at Malam Jabba during the last decade.
- ❖ Highest maximum temperature recorded 49.5°C at Turbat during the last decade.
- ❖ Lower values of relative humidity reported from Sindh, Gilgit-Baltistan regions while higher values reported from Central Punjab during the last decade.
- ❖ Lower values of ETo reported from Gilgit-Baltistan & K.P regions while higher values reported from Sindh & Balochistan 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 are also advised to protect the stored wheat due to the present moist conditions prevailing during the decade.

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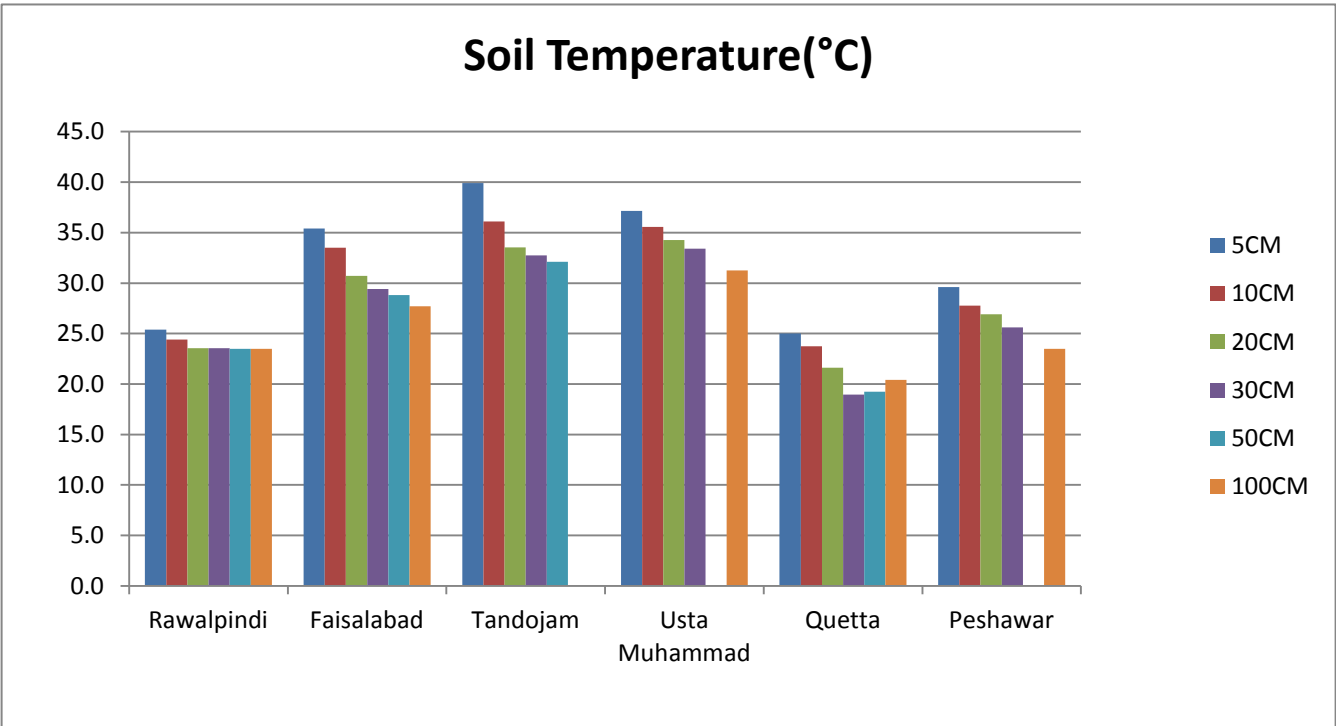
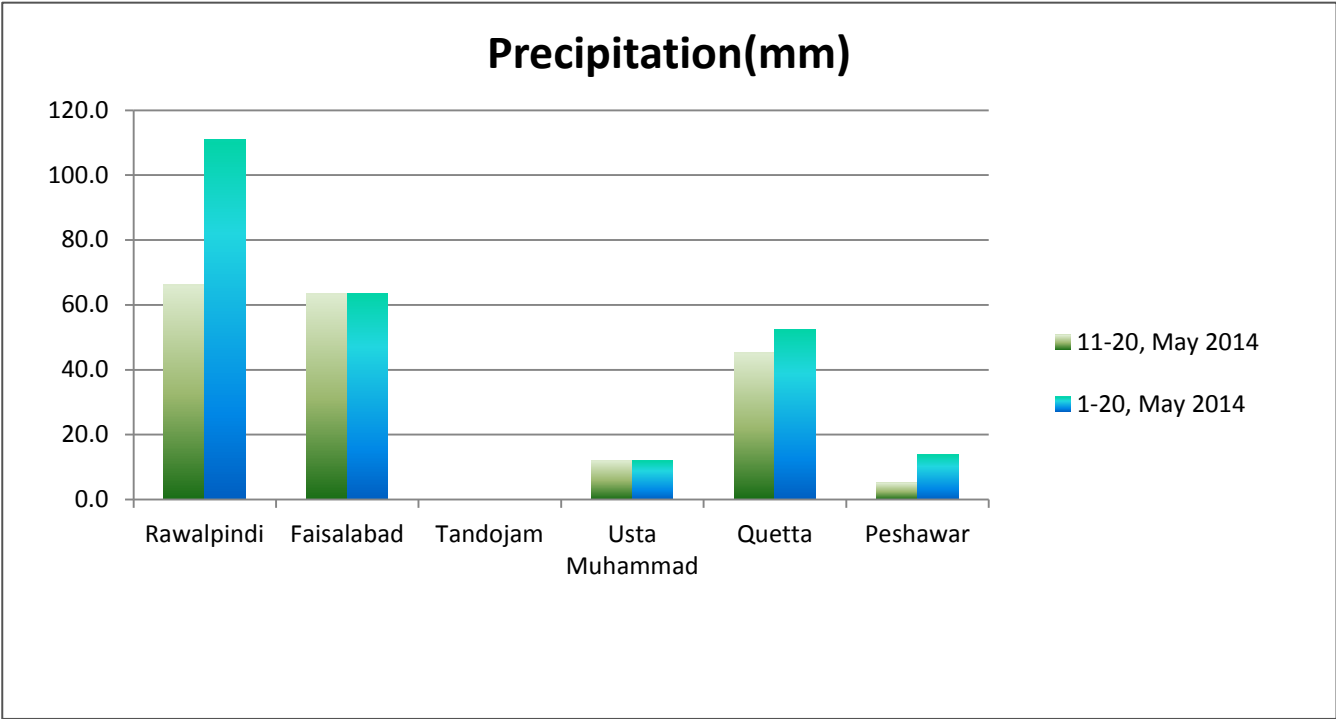
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Meteorological conditions during 2nd Decade of May, 2014

Sr. No.	Station	*Precipitation (mm)			Air Temperature (°c)			Soil Temperatures (°c)						Sunshine Duration (hours)	Wind Speed (km/hr)	R.H (%)	ETo (mm/day)
		Normal	Actual	Dep	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	1.5	66.2	64.7	-4.3	-8.6	23.0	25.4	24.4	23.6	23.6	23.5	23.5	67.9	2.9	57	4.2
2	FAISALABAD	0.2	63.5	63.3	-4.1	-7.9	27.1	35.4	33.5	30.7	29.4	28.8	27.7	90.9	3.4	65	5.1
3	JHELUM	0.9	32.1	31.2	-4.6	-8.7	25.8	30.1	28.5	26.8	25.8	26.2	***	77.4	3.5	58	4.7
4	LAHORE	0.2	19.9	19.7	-5.9	-6.4	27.1	32.7	31.0	28.6	27.2	***	25.8	85.7	3.9	52	5.3
5	SARGODHA	0.6	33.4	32.8	-3.9	-8.9	27.3	31.8	30.0	28.3	28.0	28.4	27.5	72.1	1.3	57	4.3
6	MULTAN	0.0	65.3	65.3	-5.9	-8.9	27.6	***	***	***	***	***	***	93.9	10.1	48	7.0
7	KHANPUR	0.0	34.8	34.8	-4.1	-6.5	29.0	***	35.6	34.9	34.7	34.4	31.4	95.0	6.8	50	6.5
8	TANDOJAM	0.0	0.0	0.0	-1.0	-2.9	31.6	39.9	36.1	33.6	32.8	32.1	***	107.8	4.2	38	6.5
9	SAKRAND ☆	0.0	26.0	26.0	-5.2	-5.6	29.8	41.7	38.5	***	***	***	31.2	114.6	7.2	45	7.5
10	ROHRI	0.0	0.0	0.0	-3.4	-6.6	31.9	46.9	42.4	35.5	34.1	31.5	31.3	105.0	5.4	41	6.8
11	D I KHAN	0.4	8.0	7.6	-4.8	-7.2	26.7	***	***	***	***	***	***	83.5	***	49	6.1
12	PESHAWAR	0.4	5.1	4.7	-7.3	-7.0	23.8	29.6	27.8	26.9	25.6	***	23.5	72.4	3.3	53	4.5
13	USTA MUHAMMAD	0.0	12.0	12.0	-0.7	-4.8	34.1	37.2	35.6	34.3	33.4	***	31.3	***	***	54	7.4
14	QUETTA	0.1	45.2	45.1	-2.4	-7.5	19.0	25.0	23.8	21.6	19.0	19.3	20.4	85.5	5.6	46	4.9
15	SKARDU	0.3	3.8	3.5	-0.8	-4.5	15.8	***	***	***	***	***	***	46.2	6.7	37	4.3
16	GILGIT	0.2	6.6	6.4	1.1	-6.5	19.8	***	***	***	***	***	***	37.7	3.9	45	3.9

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 May, 2014



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

Light to moderate rainfall reported from 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 Islamabad, Murree & Faisalabad. Decadal minimum & maximum temperature both dropped below normal by 4.7°C & 8.0°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 83.3hrs, 4.6km/hr, 55% and 5.3mm/day respectively.

1.2 Sindh

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Dadu, Shaheed Benazirabad & Padidan. Decadal minimum & maximum temperature both dropped below normal by 3.2°C & 5.0°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 109.1hrs, 5.6km/hr, 41% and 6.9mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

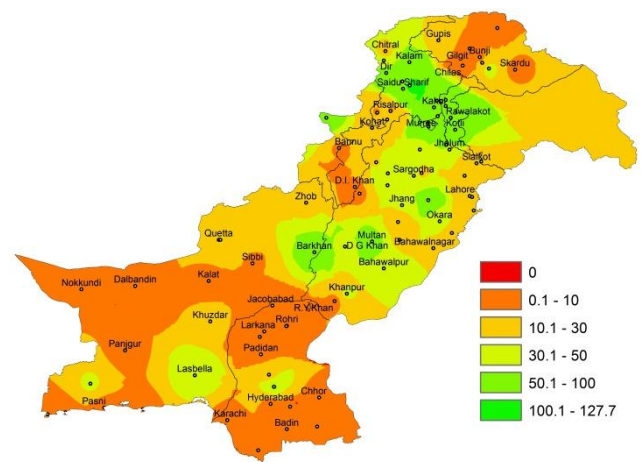
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall reported in Malam Jabba Parachinar & Saidu Sharif. Decadal minimum & maximum temperature both dropped below normal by 6.1°C & 7.1°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 78.0hrs, 3.3km/hr, 51% and 5.3mm/day respectively.

1.4 Balochistan

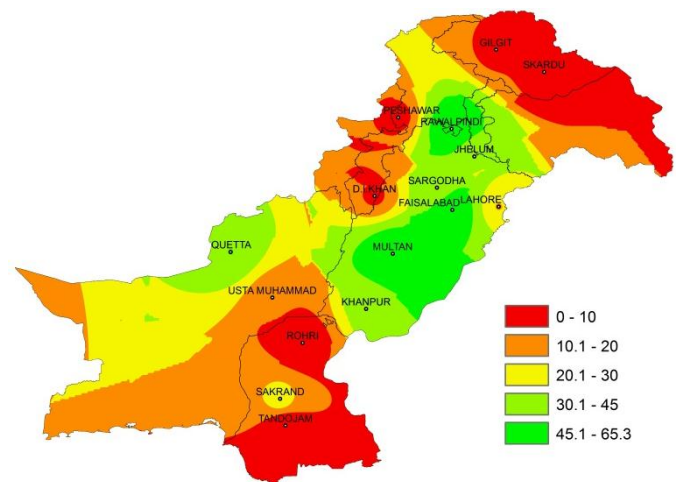
Light rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Barkhan, Lasbella & Zhob. Decadal minimum & maximum temperature both dropped below normal by 1.6°C & 6.2°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were 85.5hrs, 5.6km/hr, 50% and 6.2mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

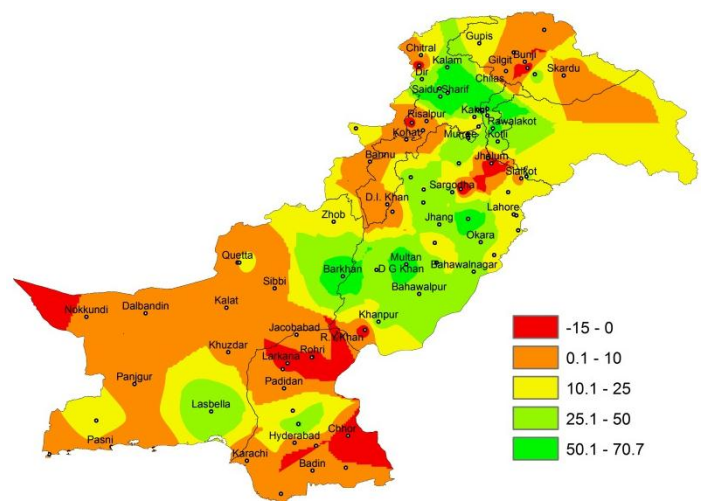
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall reported in, Rawalakot, Kotli & Muzaffarabad. Decadal minimum temperature raised above normal by 0.1°C & maximum temperature dropped below normal by 5.5°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity and ETo were recorded 42.0hrs, 5.3km/hr, 41% and 4.1mm/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 May, 2014)**

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

Rainfall reported as 66.2mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 57%. Mean night temperature was 16.9°C while day temperature recorded as 29.0°C with 67.9 hours bright sunshine duration. Wind speed recorded as 2.9km/h with mean wind direction *westerly*.

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

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

Rainfall reported as 63.5mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 65%. Mean night temperature was 20.9°C while day temperature recorded as 33.3°C with 90.91hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction *variable*

Cotton: Normal condition, 3rd Leaf Completed stage.

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

Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 38%. Mean night temperature was 24.7°C while day temperature recorded as 38.4°C with 107.8hours bright sunshine duration. Wind speed recorded as 4.2km/hr with mean wind direction *south westerly*.

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

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

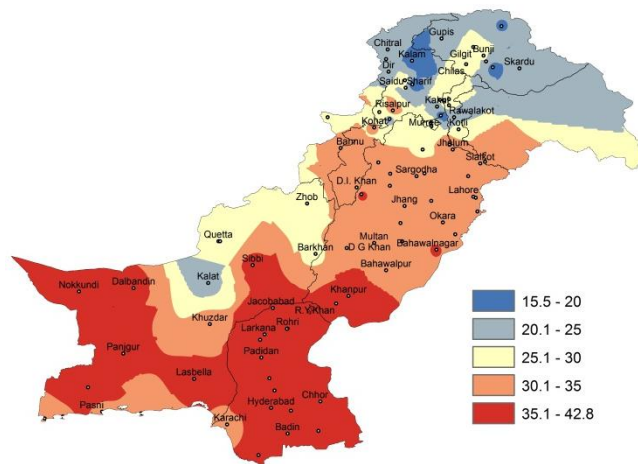
Rainfall reported as 12.0mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 54%. Mean night temperature was 26.6°C, while day temperature recorded as 41.5°C.

Note: Plowing for rice crop.

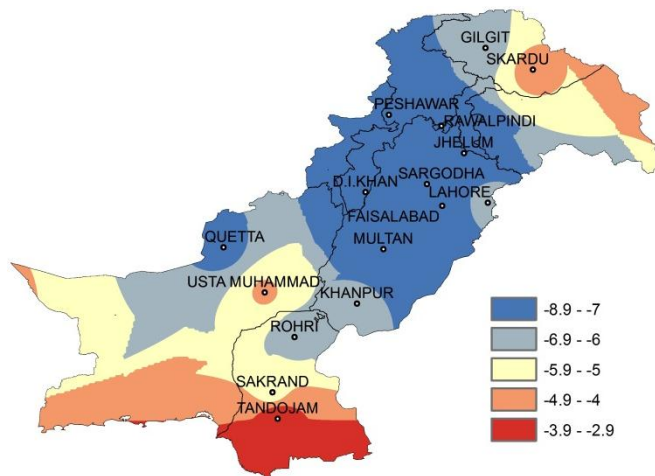
2.5 **RAMC, Quetta (Northern Balochistan)**

Rainfall reported as 45.2mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 46%. Mean night temperature was 13.0°C while day temperature recorded as 25.0°C with 85.5hours bright sunshine duration and wind speed recorded as 5.6km/hr with mean wind direction *southerly*.

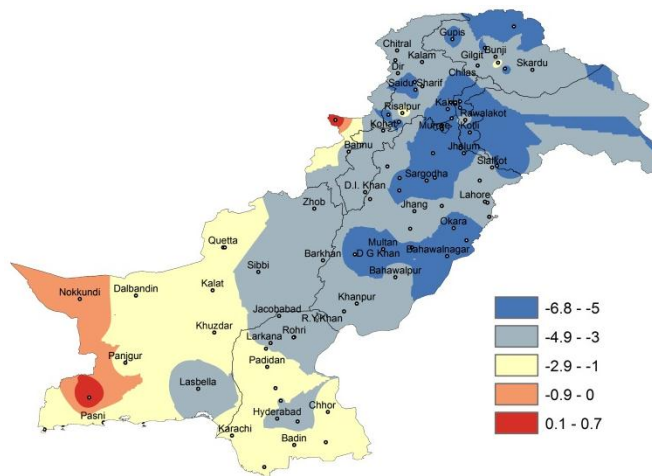
Wheat (Local White): Good condition, Wax Maturity Stage.



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 (11th to 20th May, 2014)**

2.6 **Jhelum**

Rainfall reported as 32.1mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 58%. Mean night temperature was 19.9°C while day temperature recorded as 31.6°C with 77.4hours bright sunshine duration. Wind speed recorded 3.5km/hr with mean wind direction *westerly*.

2.7 **Lahore**

Rainfall reported as 19.9mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 52%. Mean night temperature was 20.3°C while day temperature recorded as 33.8°C with 85.7hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *south westerly*.

2.8 **Sargodha**

Rainfall reported as 33.4mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 57%. Mean night temperature was 21.7°C while day temperature recorded as 32.9°C with 72.1hours bright sunshine duration. Wind speed recorded as 1.3km/hr with mean wind direction *variable*.

2.9 **Multan**

Rainfall reported as 65.3mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 48%. Mean night temperature was 21.2°C while day temperature recorded as 34.0°C with 93.9hours bright sunshine duration. Wind speed recorded as 10.1km/hr with mean wind direction *southerly*.

2.10 **Khanpur**

Rainfall reported as 34.8mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 50%. Mean night temperature was 22.3°C while day temperature recorded as 35.6°C with 95.0hours bright sunshine duration. Wind speed recorded as 6.8km/hr with mean wind direction *north easterly*.

2.11 **Sakrand**

Rainfall reported as 26.0mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 45%. Mean night temperature was 20.7°C while day temperature recorded as 38.9°C with 114.6hours bright sunshine duration. Wind speed recorded 7.2km/hr with mean wind direction *south westerly*.

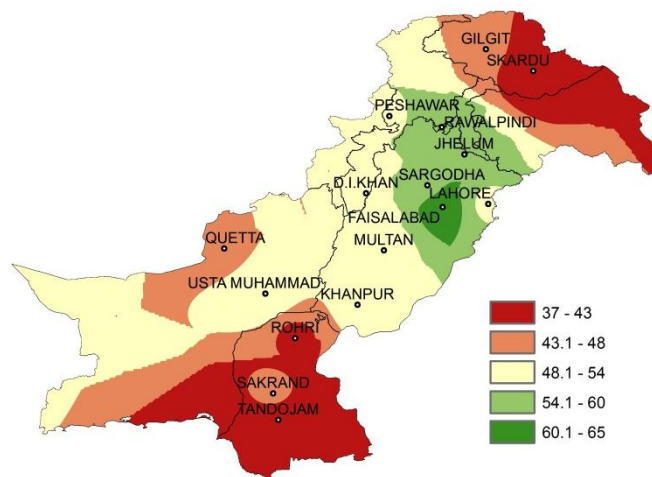


Figure.3: Relative Humidity in percentage (%)

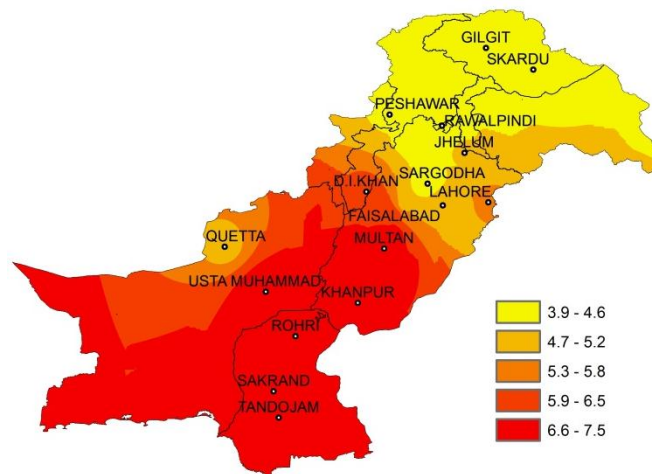


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

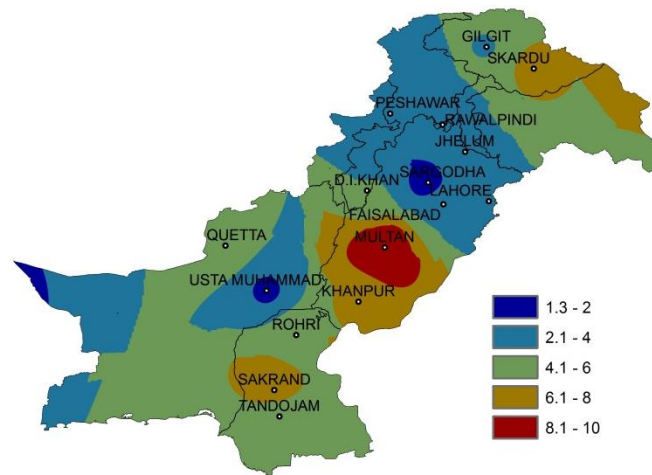


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 41%. Mean night temperature was 25.5°C while day temperature recorded as 38.3°C with 105.0hours bright sunshine duration. Wind speed recorded as 5.4km/hr with mean wind direction *north westerly*.

2.13 D.I. Khan

Rainfall reported as 8.0mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 49%. Mean night temperature was 19.4°C while day temperature recorded as 34.0°C with 83.5hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 5.1mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 53%. Mean night temperature was 16.3°C while day temperature recorded as 31.3°C with 72.4hours bright sunshine duration. Wind speed recorded as 3.3km/hr with mean wind direction *north westerly*.

2.15 Skardu

Rainfall reported as 3.8mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 37%. Mean night temperature was 9.2°C while day temperature recorded as 22.3°C with 46.2hours bright sunshine duration. Wind speed recorded as 6.7km/hr with mean wind direction *north easterly*.

2.16 Gilgit

Rainfall reported as 6.6mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 45%. Mean night temperature was 13.0°C while day temperature recorded as 26.6°C with 37.7bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *variable*.

**3. Ten Days Weather Advisory for Farmers
(21st to 31st May, 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 to moderate rainfall is expected at isolated places in the agricultural plains of the province during the decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected, light to moderate rainfall at isolated places is expected in 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 to moderate rainfall expected in northern Balochistan during the decade.
- ❖ **Gilgit Baltistan:** Mostly cloudy weather light to moderate with isolated heavy rainfall over hills is expected in most parts of GB during the decade.
- ❖ **Kashmir:** Mostly cloudy weather with light to moderate/ heavy rainfall over hills is expected in most parts of Kashmir during the 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.
- ❖ 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 are expected after recent rains on sugarcane crop. Farmers are therefore advised to take in time precautionary measures in this regard.