

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- ❖ Light to moderate rainfall reported from agricultural plains of the country during the last decade.
- ❖ Highest maximum temperature recorded 46.0°C at Moin-Jo-Daro & Larkana during the last decade.
- ❖ Highest amount of rainfall recorded as 95.0mm at Malam Jabba during the last decade.
- ❖ Lower values of relative humidity reported from Gilgit, skardu region, Multan & Rohri regions while higher values reported from Peshawar region during the last decade.
- ❖ Lower values of ETo reported from Gilgit-Baltistan regions while higher values reported from Lower Punjab, Sindh & Balochistan during the last decade.
- ❖ Temperatures are likely to be normal/slightly below normal in most of the agricultural plains of the country during the decade.
- ❖ Rainfall with gusty winds is predicted for most of the days in upper half and for 2-3 days in lower half of 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 expected moist conditions during the decade.

## PAKISTAN METEOROLOGICAL DEPARTMENT SECTOR H-8/2, ISLAMABAD

Patron-in-Chief: *Arif Mahmood, Director General*

Editor-in-Chief: *Dr. Khalid M. Malik, Director*

Editor: *Khalida Noureen, Meteorologist*

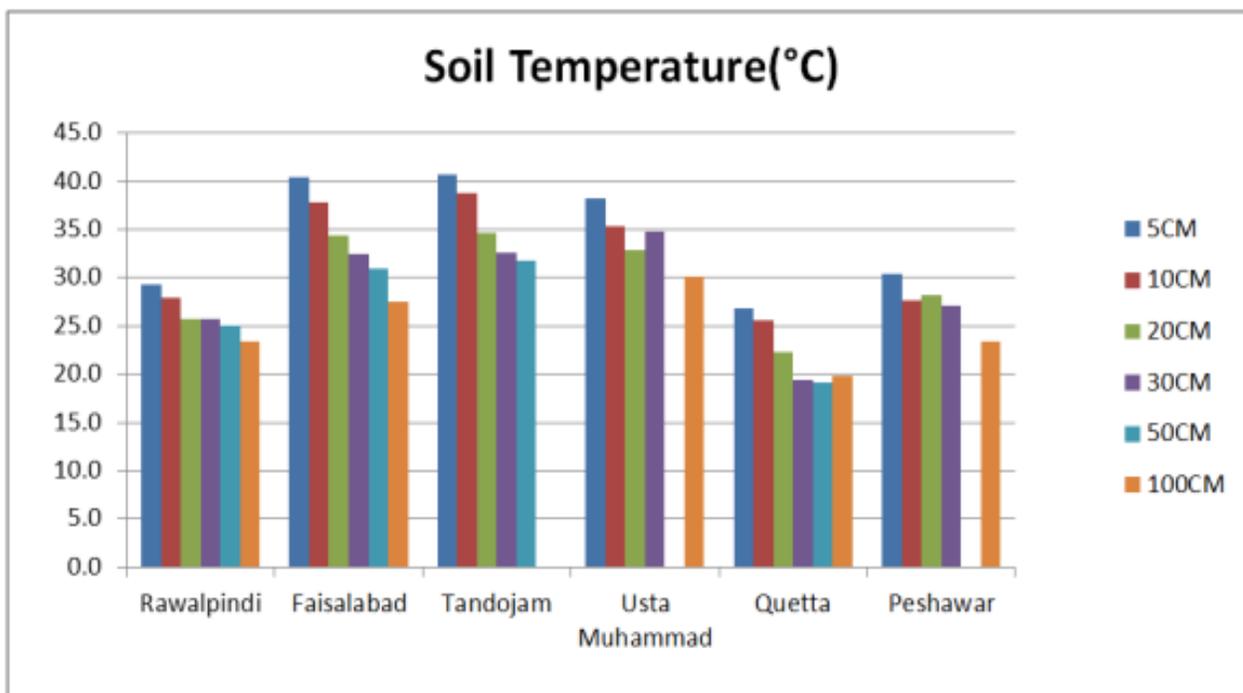
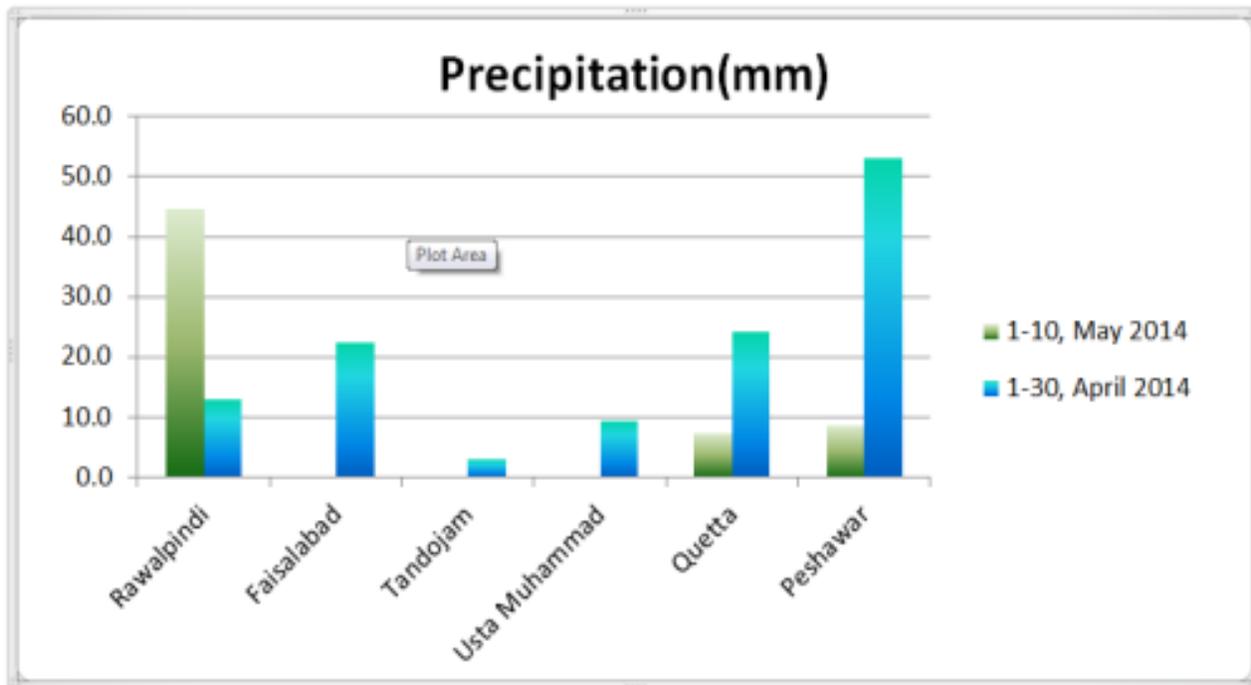
Phone: [+92-51-9250592](tel:+92-51-9250592) Email: [info@namc.pmd.gov.pk](mailto:info@namc.pmd.gov.pk)

## Meteorological conditions during 1<sup>st</sup> 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	1.0	44.6	43.6	0.3	-0.6	27.3	29.3	28.0	25.7	25.7	25.0	23.4	96.7	2.8	47	2.4
2	FAISALABAD	0.7	0.1	-0.6	1.2	-0.1	31.5	40.5	37.8	34.4	32.4	30.9	27.5	85.4	3.2	36	2.8
3	JHELUM	1.5	37.4	35.9	-0.5	-1.0	29.6	33.7	32.0	29.3	27.4	27.5	***	99.8	4.1	51	3.2
4	LAHORE	0.7	3.5	2.8	-1.6	0.1	30.9	35.6	33.9	30.2	28.5	***	25.3	92.5	3.9	40	4.9
5	SARGODHA	0.5	0.5	0.0	1.4	-0.4	31.9	37.4	34.8	31.9	30.8	30.0	26.9	84.7	0.9	48	2.3
6	MULTAN	0.4	0.8	0.4	0.4	-1.2	32.2	***	***	***	***	***	***	85.8	6.1	32	5.4
7	KHANPUR	0.2	3.0	2.8	0.4	0.4	33.0	***	35.6	34.9	34.7	34.4	31.4	84.0	5.0	36	4.4
8	TANDOJAM	0.0	0.0	0.0	0.9	-0.1	32.9	40.7	38.8	34.7	32.6	31.8	***	95.6	3.4	45	5.5
9	SAKRAND ☆	0.0	8.0	8.0	-2.6	-2.2	31.1	43.7	39.4	***	***	***	31.1	110.6	7.0	40	6.2
10	ROHRI	0.0	1.4	1.4	0.1	-1.6	34.6	48.1	43.2	35.8	34.2	31.0	30.1	102.0	1.7	29	6.3
11	D I KHAN	0.1	0.1	0.0	0.2	-0.7	30.2	***	***	***	***	***	***	81.0	***	45	4.3
12	PESHAWAR	0.9	8.7	7.8	-0.5	0.2	28.0	30.4	27.7	28.2	27.2	***	23.4	65.4	3.9	48	2.3
13	USTA MUHAMMAD	0.1	0.0	-0.1	-2.5	-2.6	32.3	38.3	35.3	32.9	34.8	***	30.2	***	***	43	7.2
14	QUETTA	0.3	7.2	6.9	0.5	-2.6	20.6	26.8	25.6	22.3	19.5	19.2	19.8	73.3	5.9	43	4.8
15	SKARDU	1.1	0.0	-1.1	1.1	3.0	18.4	***	***	***	***	***	***	73.9	5.3	30	4.0
16	GILGIT	0.8	0.5	-0.3	2.3	1.8	22.5	***	***	***	***	***	***	57.8	3.6	38	4.2

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)

## Graphs of RAMC's during May/April, 2014



**Past Weather (1<sup>st</sup> to 10<sup>th</sup> 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 Mangla, Murree & Islamabad. Decadal minimum temperature raised above normal 0.2°C & maximum temperature dropped below normal by 0.4°C in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 89.8hrs, 3.7km/hr, 41% and 3.6mm/day respectively.

**1.2 Sindh**

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Shaheed Benazirabad, Dadun & Jacobabad. Decadal minimum & maximum temperature both dropped below normal by 0.5°C & 1.3°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 102.7hrs, 4.0km/hr, 38% and 6.0mm/day respectively.

**1.3 Khyber Pakhtunkhwa (KP)**

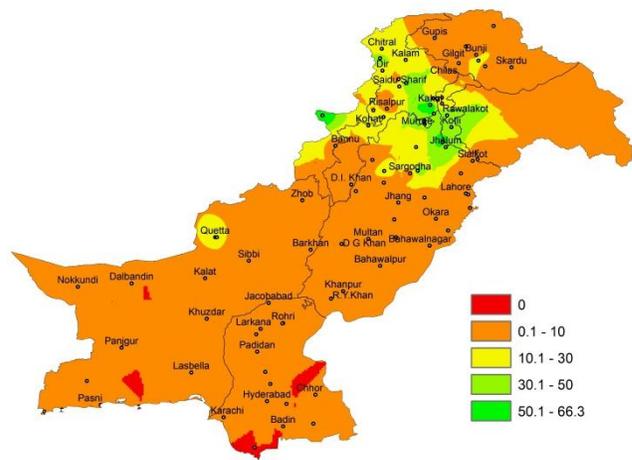
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall reported in Malam Jabba Kakul & Parachinar. Decadal minimum & maximum temperature dropped below normal by 0.2°C both, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 73.2hrs, 3.9km/hr, 47% and 3.4mm/day respectively.

**1.4 Balochistan**

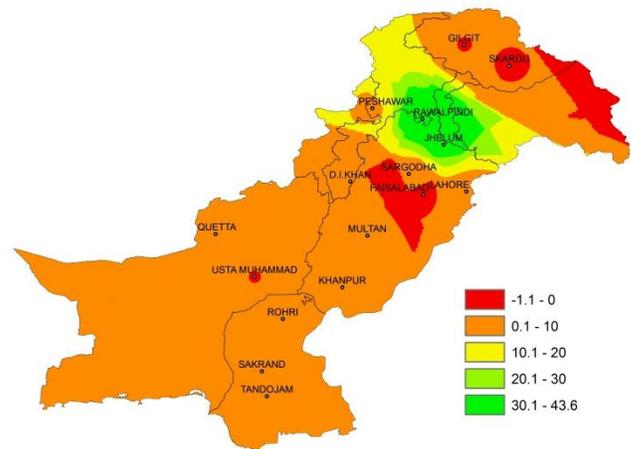
Light rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Lasbella, Quetta & Zhob. Decadal minimum & maximum temperature both dropped below normal by 1.0°C & 2.6°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were 73.3hrs, 5.9km/hr, 43% and 6.0mm/day respectively.

**1.5 Gilgit-Baltistan and Azad Jammu & Kashmir**

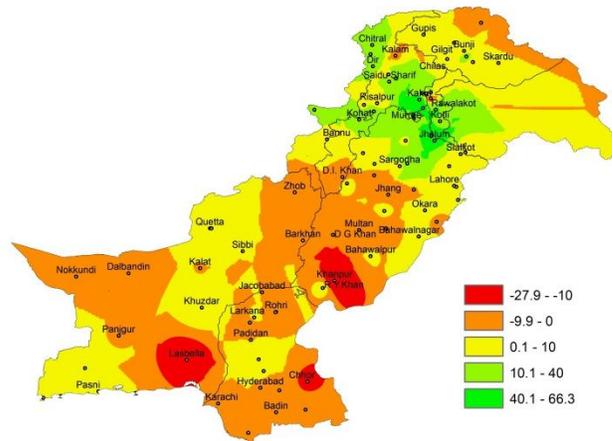
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall reported in, Rawalakot, Muzaffarabad & Garhi Dopatta. Decadal minimum & maximum temperature both raised above normal by 1.7°C & 2.4°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity and ETo were recorded 65.9hrs, 4.5km/hr, 34% and 4.4mm/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**  
**(1<sup>st</sup> to 10<sup>th</sup> May, 2014)**

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

Rainfall reported as 44.6mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 47%. Mean night temperature was 19.9°C while day temperature recorded as 34.7°C with 96.7 hours bright sunshine duration. Wind speed recorded as 2.7km/h with mean wind direction *westerly*.

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

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

Rainfall reported as Trace (not measurable) during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 36%. Mean night temperature was 22.7°C while day temperature recorded as 44.5°C with 86.0hours bright sunshine duration. Wind speed recorded as 3.2km/hr with mean wind direction *southwesterly*

*Cotton*: Very Good condition, Third Leaf Completed stage.

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

Dry weather reported during the decade however weather remained cloudy for 03day. Average relative humidity recorded as 45%. Mean night temperature was 24.7°C while day temperature recorded as 41.0°C with 95.6hours bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction *sowth westerly*.

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

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

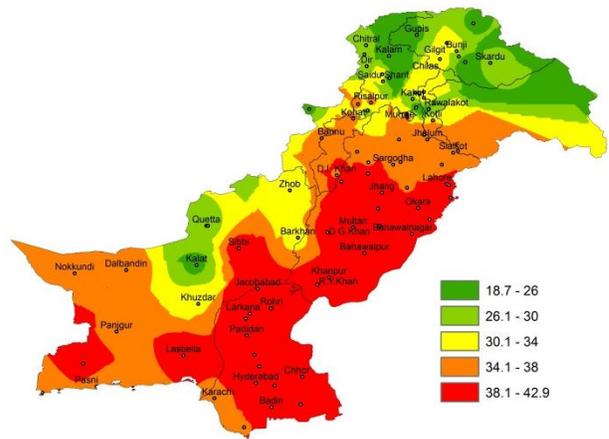
Dry weather reported during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 43%. Mean night temperature was 23.1°C, while day temperature recorded as 41.7°C.

*Note*: No crop in the field.

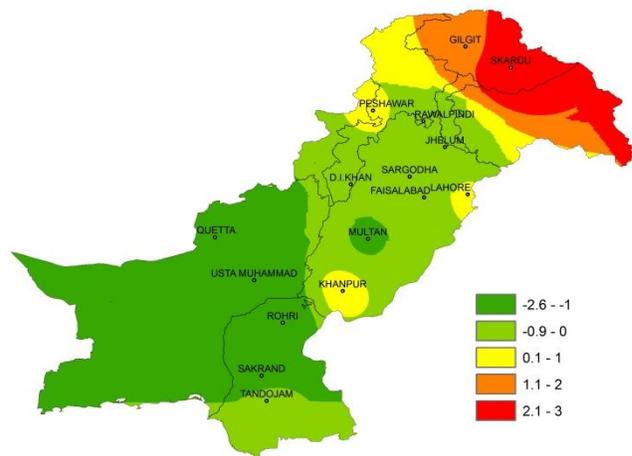
2.5 **RAMC, Quetta (Northern Balochistan)**

Rainfall reported as 7.2mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 43%. Mean night temperature was 13.9°C while day temperature recorded as 27.2°C with 73.3hours bright sunshine duration and wind speed recorded as 5.9km/hr with mean wind direction *southerly*.

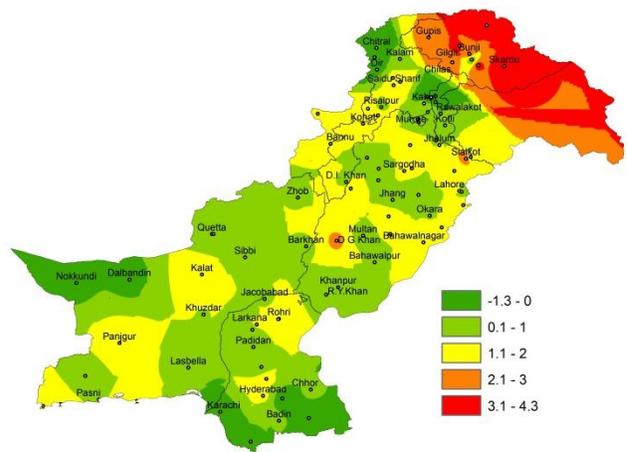
*Wheat (Local White)*: Good condition, Milk Maturity Stage.



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 (1<sup>st</sup> to 10<sup>th</sup> May, 2014)**

**2.6 Jhelum**

Rainfall reported as 37.4mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 51%. Mean night temperature was 22.2°C while day temperature recorded as 36.9°C with 99.8hours bright sunshine duration. Wind speed recorded 4.1km/hr with mean wind direction northwesterly.

**2.7 Lahore**

Rainfall reported as 3.5mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 40%. Mean night temperature was 23.6°C while day temperature recorded as 38.1°C with 92.5hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *northeasterly*.

**2.8 Sargodha**

Rainfall reported as 0.5mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 48%. Mean night temperature was 25.1°C while day temperature recorded as 38.7°C with 84.7hours bright sunshine duration. Wind speed recorded as 0.93km/hr with mean wind direction *westerly*.

**2.9 Multan**

Rainfall reported as 0.8mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 32%. Mean night temperature was 25.3°C while day temperature recorded as 39.1°C with 85.8hours bright sunshine duration. Wind speed recorded as 6.1km/hr with mean wind direction *northerly*.

**2.10 Khanpur**

Rainfall reported as 3.0mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 36%. Mean night temperature was 25.0°C while day temperature recorded as 40.9°C with 84.0hours bright sunshine duration. Wind speed recorded as 5.0km/hr with mean wind direction *westerly*.

**2.11 Sakrand**

Rainfall reported as 8.0mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 40%. Mean night temperature was 21.8°C while day temperature recorded as 40.3°C with 110.6hours bright sunshine duration. Wind speed recorded 7.0km/hr with mean wind direction south westerly.

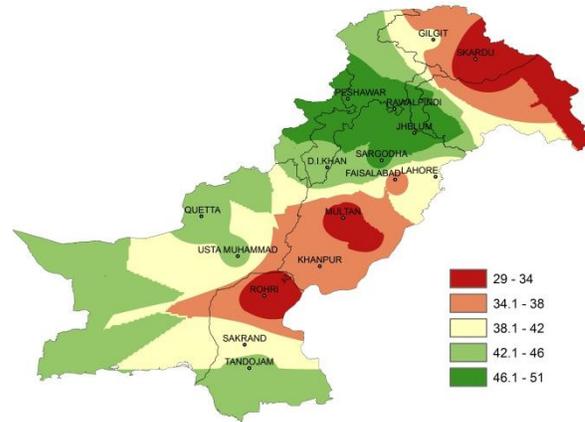


Figure.3: Relative Humidity in percentage (%)

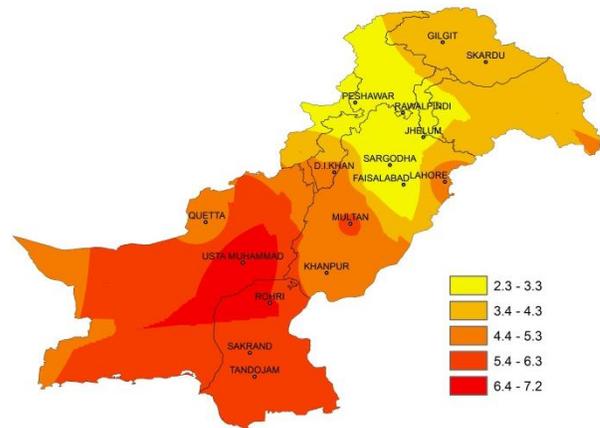


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

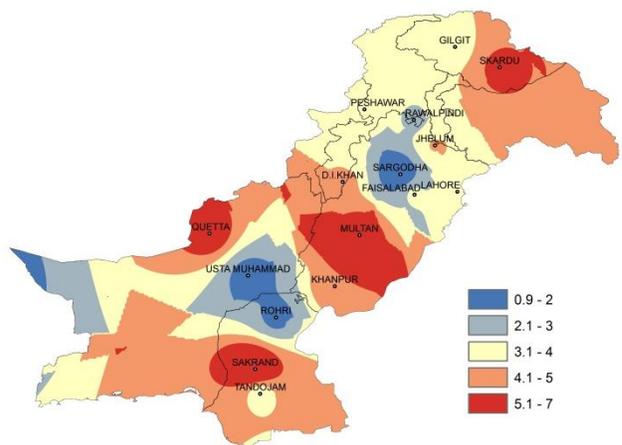


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Rainfall reported as 1.4mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 29%. Mean night temperature was 27.8°C while day temperature recorded as 41.4°C with 102.0hours bright sunshine duration. Wind speed recorded as 1.7km/hr with mean wind direction *variable*.

**2.13 D.I. Khan**

Rainfall reported as Trace (not measurable) during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 45%. Mean night temperature was 22.7°C while day temperature recorded as 37.7°C with 81.0hours bright sunshine duration.

**2.14 Peshawar**

Rainfall reported as 8.7mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 48%. Mean night temperature was 20.9°C while day temperature recorded as 35.0°C with 65.4hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *north westerly*.

**2.15 Skardu**

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 30%. Mean night temperature was 9.8°C while day temperature recorded as 27.0°C with 73.9hours bright sunshine duration. Wind speed recorded as 5.3km/hr with mean wind direction *north south easterly*.

**2.16 Gilgit**

Rainfall reported as 0.5mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 38%. Mean night temperature was 13.3°C while day temperature recorded as 31.6°C with 57.8bright sunshine duration. Wind speed recorded as 3.6km/hr with mean wind direction *variable*.

### **3. Ten Days Weather Advisory for Farmers (11<sup>th</sup> to 20<sup>th</sup> May, 2014)**

**3.1 Temperature Forecast**

Temperatures are likely to be normal/slightly below 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:** Light to moderate rainfall with isolated heavy falls is expected in most of the agricultural plains of the province during the decade.
- ❖ **Khyber Pakhtunkhwa:** Light to moderate rainfall with isolated heavy falls is expected over most of the agricultural plains of the province during the decade.
- ❖ **Sindh:** Mainly dry weather is expected in the province. However light to moderate rainfall expected at isolated places on 14th and 15th May during the decade.
- ❖ **Balochistan:** Mainly dry weather is expected in the province. However light to moderate rainfall expected over northern Balochistan on 14th and 15th May during the decade.
- ❖ **Gilgit Baltistan:** Light to moderate with isolated heavy rainfall over hills is expected in most parts of GB during the decade.
- ❖ **Kashmir:** 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.
- ❖ Cotton and sugarcane crops growers are informed to irrigate the crops keeping the expected rains in mind during the decade.