

# Decadal Agromet Bulletin of Pakistan



## Highlights....

- ❖ Light to moderate rainfall reported from agricultural plains of the Punjab, K.P, Balochistan, GB & Kashmir and light rainfall reported from Sindh during the last decade.
- ❖ Highest maximum temperature recorded 41.7°C at Chorr during the last decade.
- ❖ Highest amount of rainfall recorded as 85.0mm at Parachinar during the last decade.
- ❖ Lower values of relative humidity reported from Skardu, Gilgit, Balochistan & Sindh regions while higher values reported from Central Punjab & KP during the last decade.
- ❖ Lower values of ETo reported from Gilgit-Baltistan & Kashmir regions while higher values reported from Sindh & Balochistan during the last decade.
- ❖ Temperatures are likely to be normal/slightly above normal in most of the agricultural plains of the country during the decade.
- ❖ Wind conditions likely to prevail in most of the agricultural plains of the country in the afternoon with dust raising winds in the lower half of the country during the decade.
- ❖ Mainly dry weather is expected during the decade. However light to moderate rainfall with isolated heavy rainfall over the hills is expected during the decade.

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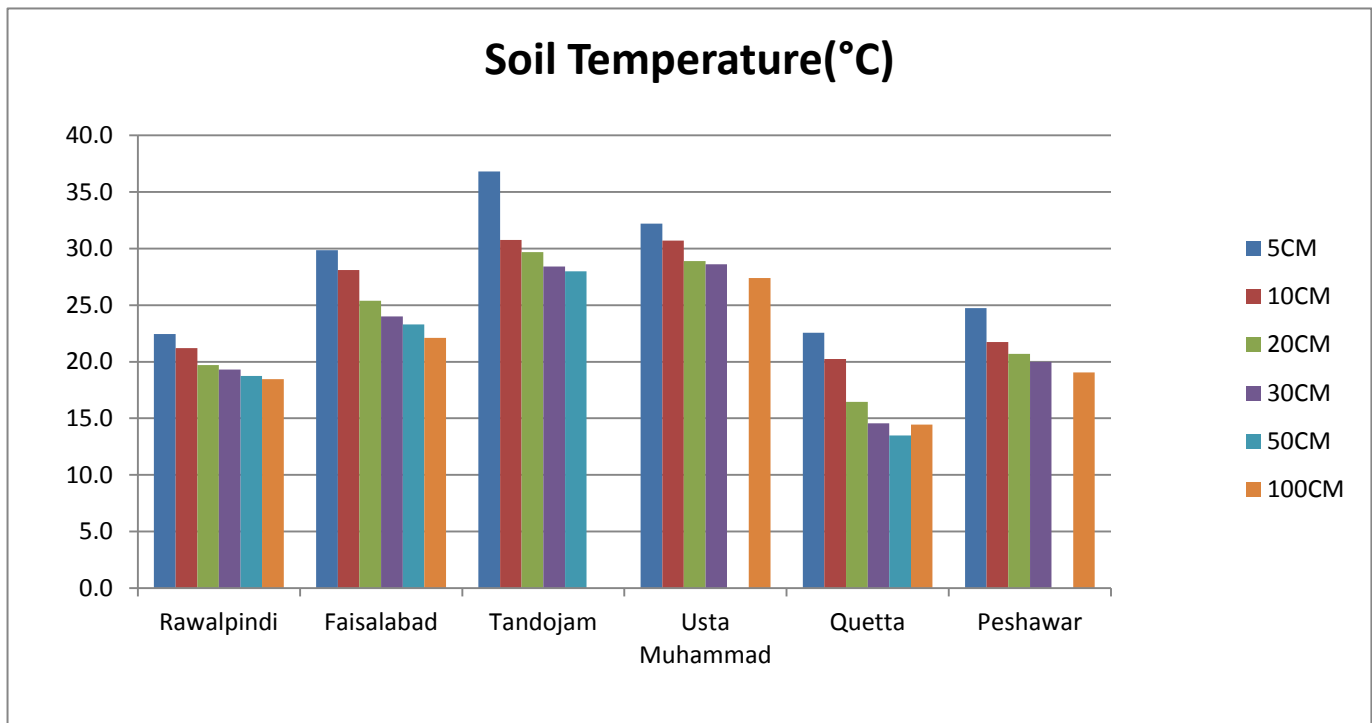
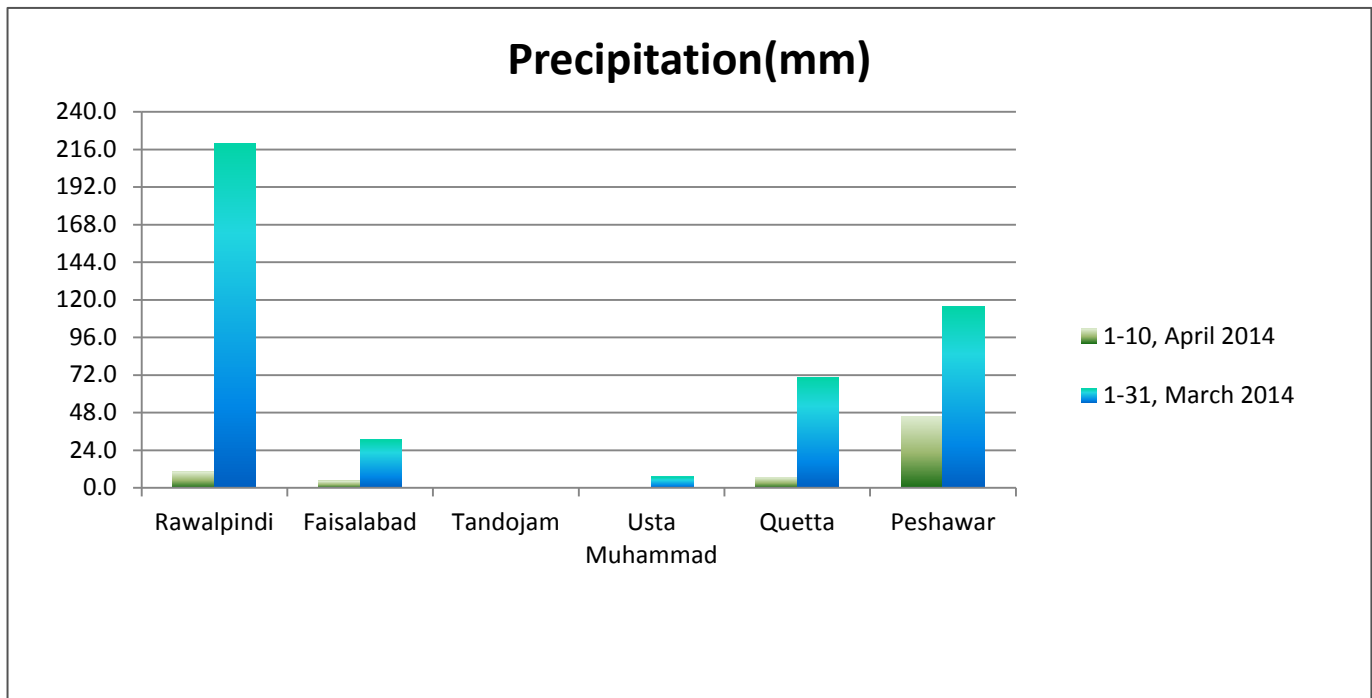
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## Meteorological conditions during 1<sup>st</sup> Decade of April, 2014

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	2.6	10.1	7.5	-1.5	-3.0	19.9	22.5	21.2	19.7	19.3	18.8	18.5	80.7	6.4	53	4.8
2	FAISALABAD	0.4	4.4	4.0	-0.6	-2.6	23.9	29.9	28.1	25.4	24.0	23.3	22.1	89.0	3.0	64	4.3
3	JHELUM	1.7	34.7	33.0	-2.2	-3.4	22.0	25.2	23.8	22.0	21.1	21.4	***	79.8	6.0	56	4.9
4	LAHORE	0.5	11.7	11.2	-4.2	-3.1	23.0	27.6	26.3	23.6	22.3	***	21.3	83.3	4.6	54	4.7
5	SARGODHA	1.3	27.4	26.1	-0.7	-3.5	23.8	28.3	26.5	24.2	23.6	23.5	12.4	82.4	2.0	58	3.9
6	MULTAN	0.3	3.3	3.0	-0.6	-2.9	25.0	***	***	***	***	***	***	85.4	5.4	49	5.0
7	KHANPUR	0.6	1.0	0.4	-0.9	-1.2	26.3	***	29.4	28.9	28.9	28.9	26.8	98.1	5.1	45	5.5
8	TANDOJAM	0.1	0.0	-0.1	-0.5	0.1	28.6	36.8	30.8	29.7	28.4	28.0	***	100.8	2.4	41	5.1
9	SAKRAND ☆	0.1	0.0	-0.1	-1.6	0.4	27.5	42.3	36.4	***	***	29.7	27.2	117.2	4.4	42	6.0
10	ROHRI	0.6	0.0	-0.6	0.4	-0.9	29.1	41.4	37.1	31.0	29.6	26.9	27.1	115.5	4.5	36	5.9
11	D I KHAN	0.7	37.7	37.0	-1.8	-3.7	22.4	***	***	***	***	***	***	86.5	***	58	5.4
12	PESHAWAR	2.9	45.7	42.8	-3.1	-2.3	20.1	24.8	21.8	20.7	20.0	***	19.1	63.1	2.5	59	3.7
13	USTA MUHAMMAD	0.0	0.0	0.0	0.9	-1.1	28.1	32.2	30.7	28.9	28.6	***	27.4	***	***	44	6.1
14	QUETTA	0.2	6.6	6.4	0.7	-3.0	15.3	22.6	20.3	16.5	14.6	13.5	14.5	89.0	7.1	39	4.5
15	SKARDU	2.7	7.4	4.7	-0.2	-0.7	10.9	***	***	***	***	***	***	48.0	3.5	48	2.8
16	GILGIT	1.4	0.1	-1.3	0.6	-0.3	15.8	***	***	***	***	***	***	48.2	3.4	38	3.3

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 April/March, 2014



**Past Weather (1<sup>st</sup> to 10<sup>th</sup> April, 2014)**

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

**1.1 Punjab**

Light to moderate rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Joharabad, Chakwal & Jhelum. Decadal minimum & maximum temperature both dropped below normal by 1.5°C & 2.8°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 85.5hrs, 4.6km/hr, 54% and 4.7mm/day respectively.

**1.2 Sindh**

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Nawabshah, Padidan & Karachi. Decadal minimum & maximum temperature both dropped below normal by 0.6°C & 0.1°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 111.2hrs, 3.8km/hr, 40% and 5.7mm/day respectively.

**1.3 Khyber Pakhtunkhwa (KP)**

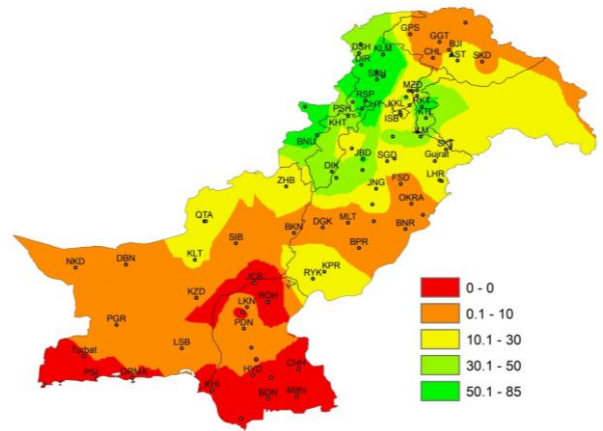
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall reported in Parachinar, Dir & Risalpur. Decadal minimum & maximum temperature both dropped below normal by 2.5°C & 3.0°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 74.8hrs, 2.5km/hr, 59% and 4.6mm/day respectively.

**1.4 Balochistan**

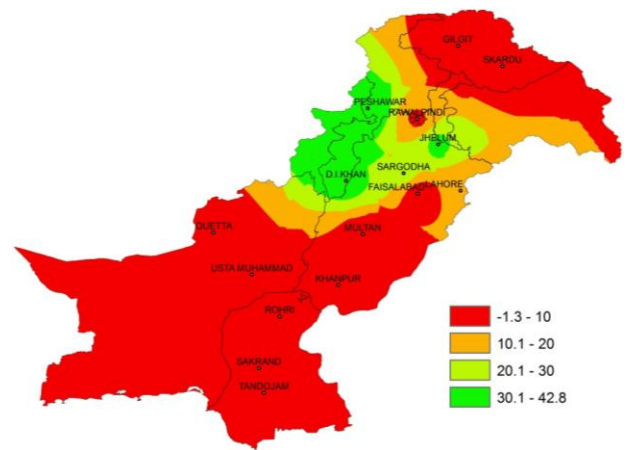
Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Quetta, Zhob & Kalat. Decadal minimum raised above normal by 0.8°C & maximum temperature dropped below normal by 2.1°C, in the province, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were 89.0hrs, 7.1km/hr, 42% and 5.3mm/day respectively.

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

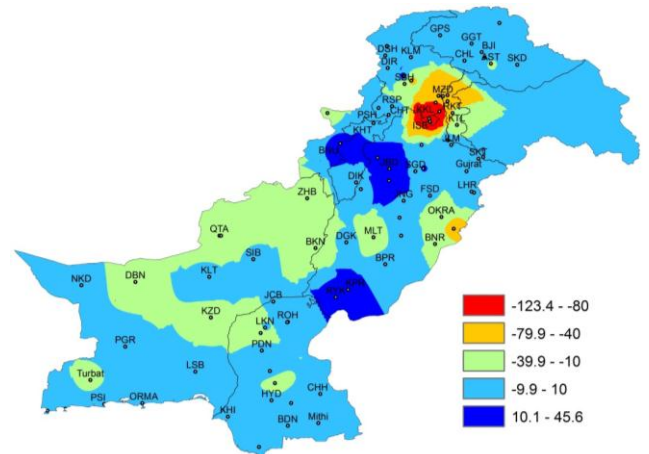
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall reported in Rawalakot, Kotli & Garhi Dopatta. Decadal minimum raised above normal by 0.2°C & maximum temperature dropped below normal by 0.5°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity and ETo were recorded 48.1hrs, 3.5km/hr, 43% and 3.1mm/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  
(1<sup>st</sup> to 10<sup>th</sup> April, 2014)**

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

Rainfall reported as 10.1mm during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 53%. Mean night temperature was 12.9°C while day temperature recorded as 26.9°C with 80.7hours bright sunshine duration. Wind speed recorded as 6.4km/h with mean wind direction *westerly*.

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

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

Rainfall reported as 4.4mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 64%. Mean night temperature was 16.8°C while day temperature recorded as 30.9°C with 89.0hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *north westerly*.

**Wheat:** Very Good condition, Wax Maturity stage.

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

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 41%. Mean night temperature was 18.8°C while day temperature recorded as 38.4°C with 100.8hours bright sunshine duration. Wind speed recorded as 2.4km/hr with mean wind direction *southerly*.

**Wheat (TD-1):** Good condition, harvesting stage.

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

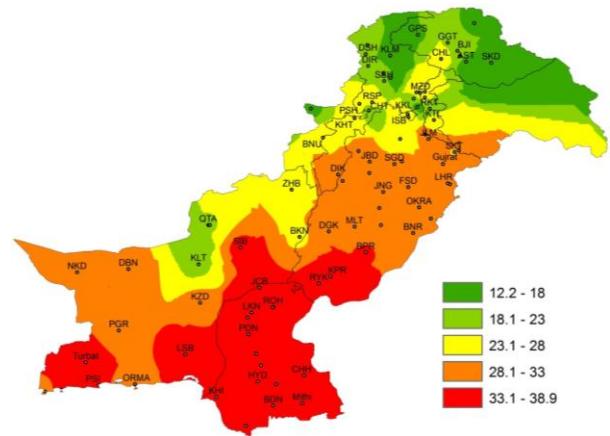
Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 44%. Mean night temperature was 20.7°C, while day temperature recorded as 35.4°C.

**Wheat (Zardana):** Good condition, Full Maturity stage.

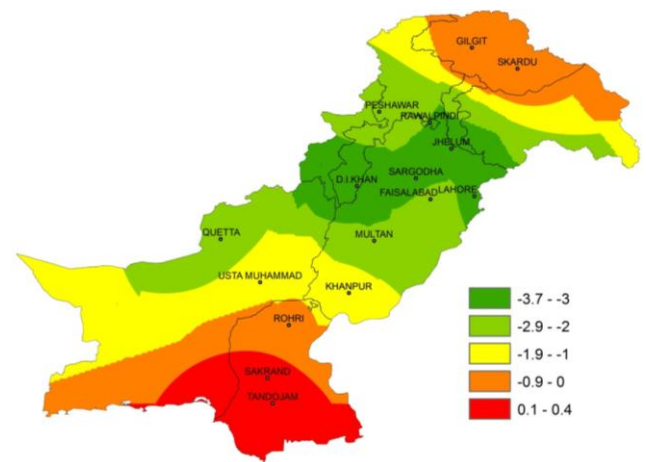
2.5 **RAMC, Quetta (Northern Balochistan)**

Rainfall reported as 6.6mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 39%. Mean night temperature was 9.3°C while day temperature recorded as 21.2°C with 89.0hours bright sunshine duration and wind speed recorded as 7.1km/hr with mean wind direction *southerly*.

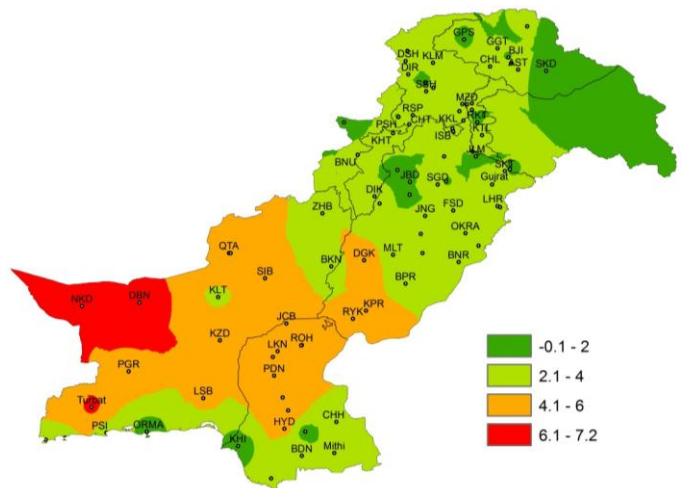
**Wheat (Local White):** Good condition, Shooting Stage.



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> April, 2014)**

**2.6 Jhelum**

Rainfall reported as 34.7mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 56%. Mean night temperature was 15.0°C while day temperature recorded as 28.9°C with 79.8hours bright sunshine duration. Wind speed recorded 6.0km/hr with mean wind direction *north westerly*.

**2.7 Lahore**

Rainfall reported as 11.7mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 54%. Mean night temperature was 16.3°C while day temperature recorded as 29.7°C with 83.3hours bright sunshine duration. Wind speed recorded as 4.6km/hr with mean wind direction *north westerly*.

**2.8 Sargodha**

Rainfall reported as 27.4mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 58%. Mean night temperature was 17.6°C while day temperature recorded as 29.9°C with 82.4hours bright sunshine duration. Wind speed recorded as 2.0km/hr with mean wind direction *variable*.

**2.9 Multan**

Rainfall reported as 3.3mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 49%. Mean night temperature was 18.1°C while day temperature recorded as 31.9°C with 85.4hours bright sunshine duration. Wind speed recorded as 5.4km/hr with mean wind direction *north easterly*.

**2.10 Khanpur**

Rainfall reported as 1.0mm during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 45%. Mean night temperature was 17.9°C while day temperature recorded as 34.6°C with 98.1hours bright sunshine duration. Wind speed recorded as 5.1km/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 42%. Mean night temperature was 17.4°C while day temperature recorded as 37.5°C with 117.2hours bright sunshine duration. Wind speed recorded 4.4km/hr with mean wind direction *easterly*.

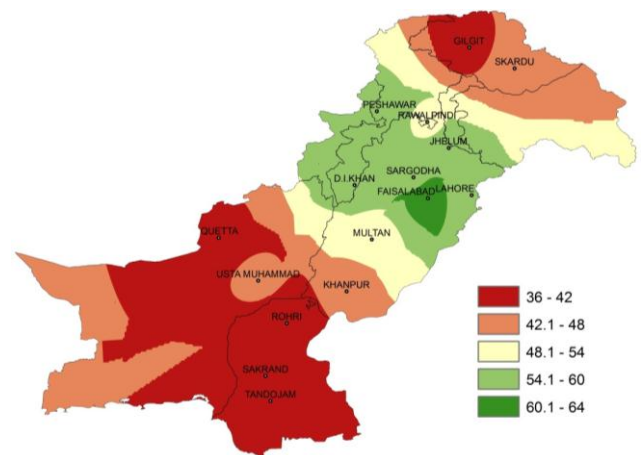


Figure.3: Relative Humidity in percentage (%)

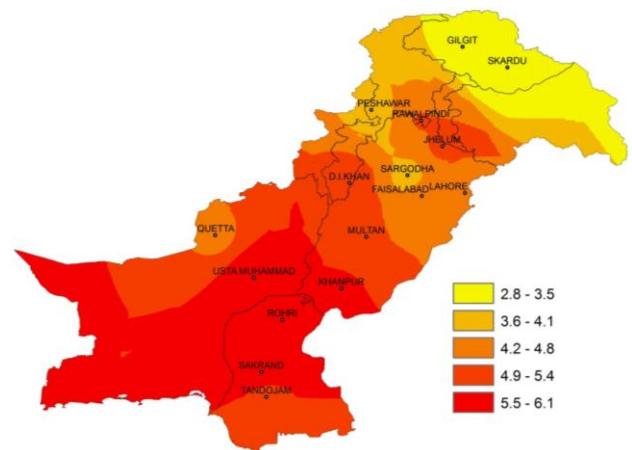


Figure.4: Reference Crop Evapotranspiration “ET<sub>0</sub>” in mm/day

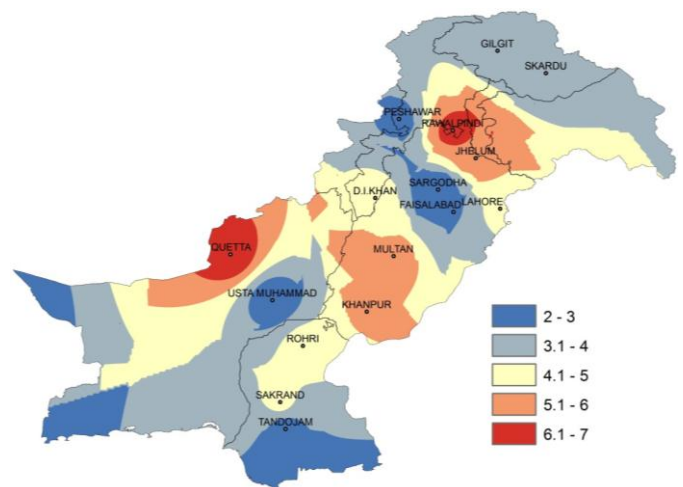


Figure 5: Wind Speed in kilometer per hour (km/h)

**2.12 Rohri**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 36%. Mean night temperature was 22.5°C while day temperature recorded as 35.6°C with 115.5hours bright sunshine duration. Wind speed recorded as 4.5km/hr with mean wind direction *north easterly*.

**2.13 D.I. Khan**

Rainfall reported as 37.7mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 58%. Mean night temperature was 15.5°C while day temperature recorded as 29.3°C with 86.5hours bright sunshine duration.

**2.14 Peshawar**

Rainfall reported as 45.7mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 59%. Mean night temperature was 13.3°C while day temperature recorded as 26.9°C with 63.1hours bright sunshine duration. Wind speed recorded as 2.5km/hr with mean wind direction *north westerly*.

**2.15 Skardu**

Rainfall reported as 7.4mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 48%. Mean night temperature was 4.7°C while day temperature recorded as 17.1°C with 48.0hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *south easterly*.

**2.16 Gilgit**

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 38%. Mean night temperature was 8.7°C while day temperature recorded as 22.8°C with 48.2bright sunshine duration. Wind speed recorded as 3.4km/hr with mean wind direction *variable*.

**3. Ten Days Weather Advisory for Farmers  
(11<sup>th</sup> to 20<sup>th</sup> April, 2014)****3.1 Temperature Forecast**

Temperatures are likely to be normal/slightly above normal in most of the agricultural plains of the country during the decade.

**3.2 Wind Forecast**

Wind conditions likely to prevail in most of the agricultural plains of the country in the afternoon with dust raising winds in the lower half of the country during the decade.

**3.3 Rain Forecast**

- ❖ **Punjab:** Mainly dry weather is expected during the decade. However light to moderate rainfall is expected mostly over upper & central parts are expected in 1st half of the decade.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected during the decade. However light to moderate rainfall over the hills is expected mostly over upper hilly areas and central parts during the decade.
- ❖ **Sindh:** Dry weather is expected in the province during the decade.
- ❖ **Balochistan:** Mainly dry weather is expected during the decade. However light to moderate rainfall is expected 1-2 days in North West Baluchistan 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 and snowfall over hills is expected in most parts of Kashmir during the decade.

**3.4 Advisory for Farmers**

- ❖ Wheat crop is growing at Milk /Wax/Full Maturity stages in most of the agricultural plains of the country. Farmers are advised to stop irrigation the crops by keeping in view of the occurred and expected rain in agricultural plains of the country.
- ❖ Weeds are expected to shoot in excess after last heavy rains. Farmers should control weeds growth soon after rains. Weeds removing practices should be started soon after expected rains in the mentioned areas.
- ❖ Farmers are advised to ensure field sanitation and spray prophylactic fungicidal & viral sprays to prevent spread of diseases on standing crops.
- ❖ Wheat crop is growing at very crucial development stages of wax maturity/full maturity stages in Punjab. Farmers of these areas are advised to harvest Wheat crop keeping weather information in mind.
- ❖ Farmers of southern Punjab & Sindh are advised to prepare land for cotton in time so that best grains conditions may be fully utilized during the whole crop life.