

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported from agricultural plains of the K.P, G.B & Kashmir, however light rainfall reported from Punjab & Balochistan, and dry weather reported from Sindh during the last decade.
- ❖ Highest amount of rainfall recorded as 52.0mm at Parachinar during the last decade.
- ❖ Highest maximum temperature recorded 50.0°C at Larkana during the last decade.
- ❖ Lower values of relative humidity reported from Punjab, Quetta, Rohri & Skardu regions while higher values reported from Lower parts of Sindh & Balochistan during the last decade.
- ❖ Lower values of ETo reported from Gilgit-Baltistan 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.
- ❖ 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 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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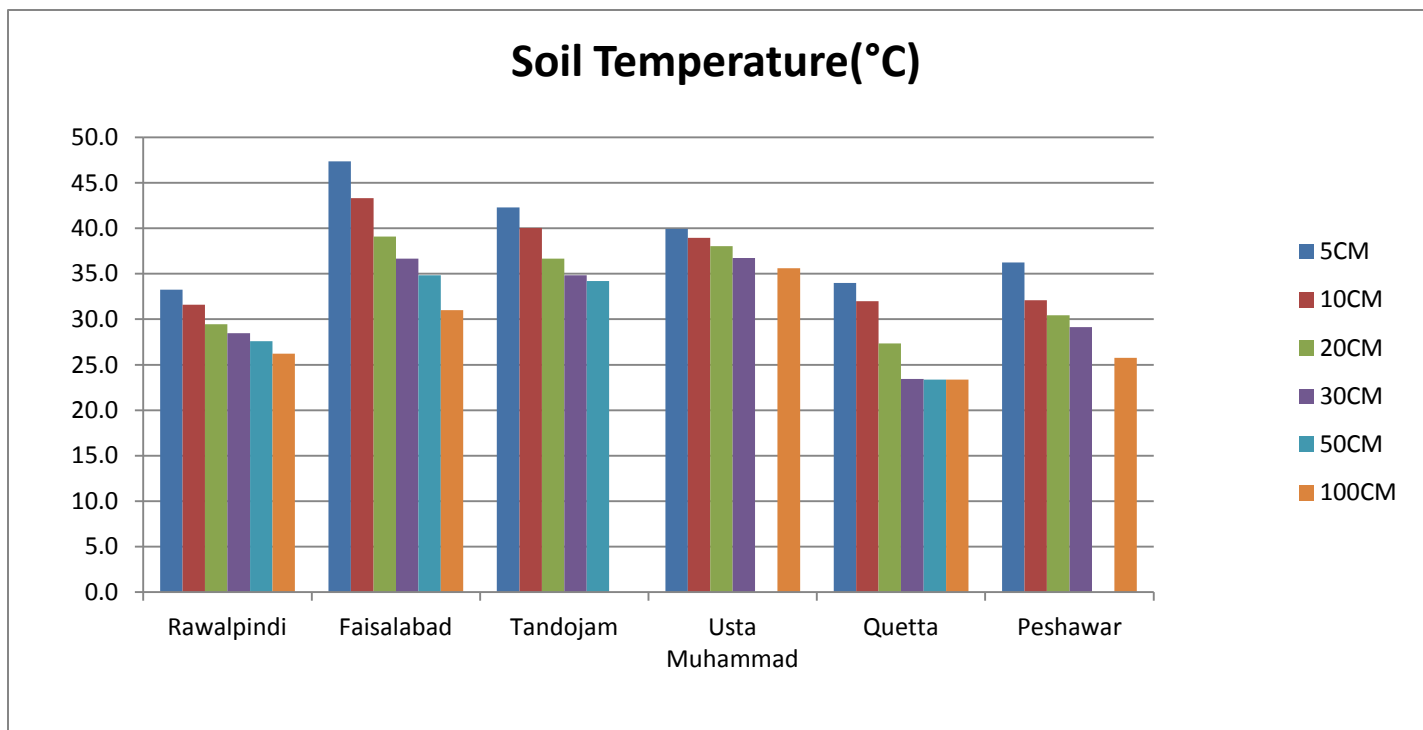
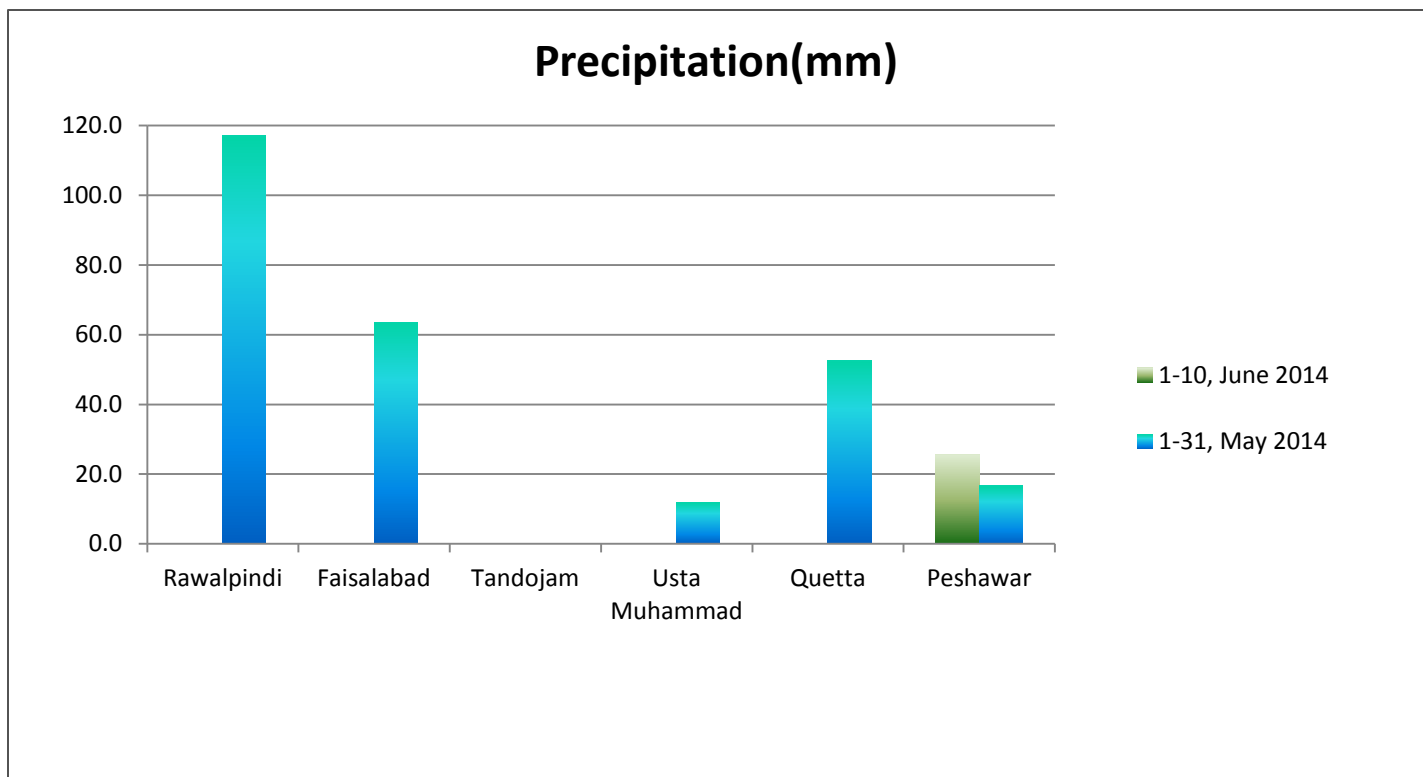
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Meteorological conditions during 1st Decade of June, 2014

Sr. No.	Station	*Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration (hours)	Wind Speed (km/hr)	ET _o (mm/day)
		Normal	Actual	Dep	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	1.6	0.0	-1.6	-1.3	1.5	30.7	33.3	31.6	29.5	28.5	27.6	26.2	30	93.8	1.3	5.1
2	FAISALABAD	1.1	0.0	-1.1	1.0	3.4	35.7	47.4	43.3	39.1	36.7	34.9	31.0	28	107.3	2.6	6.3
3	JHELUM	2.1	0.0	-2.1	-1.0	2.7	34.0	41.4	38.5	34.5	32.0	31.3	***	29	114.4	3.5	6.9
4	LAHORE	1.2	0.0	-1.2	0.2	4.7	35.9	42.2	38.6	34.3	32.6	***	28.5	26	109.2	3.5	6.9
5	SARGODHA	0.3	0.0	-0.3	1.2	2.5	36.4	41.8	38.8	35.5	34.3	33.5	30.2	32	100.9	0.9	5.5
6	MULTAN	0.1	0.0	-0.1	-1.8	1.8	35.3	***	***	***	***	***	***	29	94.1	5.6	7.6
7	KHANPUR	0.6	0.0	-0.6	1.2	3.4	36.3	***	39.2	38.5	38.2	37.9	34.7	36	96.2	4.9	7.3
8	TANDOJAM	0.9	0.0	-0.9	0.6	3.6	35.0	42.3	40.1	36.7	34.9	34.2	***	51	105.6	3.5	6.6
9	SAKRAND ☆	0.9	0.1	-0.8	-1.3	3.5	34.9	47.2	43.8	***	***	***	33.9	40	120.2	6.1	8.3
10	ROHRI	0.0	0.0	0.0	2.6	3.5	38.9	51.9	47.2	39.3	37.5	34.7	33.5	30	115.0	2.7	6.8
11	D I KHAN	0.3	0.0	-0.3	0.3	2.7	34.7	***	***	***	***	***	***	34	107.2	***	8.4
12	PESHAWAR	0.6	25.6	25.0	-2.2	1.1	31.8	36.3	32.1	30.5	29.2	***	25.8	36	91.3	3.9	6.3
13	USTA MUHAMMAD	0.5	0.0	-0.5	1.2	2.1	38.2	40.0	39.0	38.1	36.8	***	35.6	36	***	***	9.3
14	QUETTA	0.5	0.1	-0.4	-0.2	-0.3	25.5	34.0	32.0	27.4	23.5	23.4	23.4	18	105.2	6.2	6.7
15	SKARDU	0.3	1.8	1.5	-1.7	-1.3	18.4	***	***	***	***	***	***	31	63.8	5.9	5.0
16	GILGIT	0.6	1.8	1.2	0.3	-0.6	23.1	***	***	***	***	***	***	40	79.9	3.8	5.3

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. ET_o 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 (1st to 10th June, 2014)

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

1.1 Punjab

Light rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Chakwal, Islamabad & Murree. Decadal minimum dropped below normal by 0.1°C & maximum temperature raised above normal by 2.9°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 102.3hrs, 3.2km/hr, 30% and 6.5mm/day respectively.

1.2 Sindh

Dry weather reported during the decade. Decadal minimum & maximum temperature both raised above normal by 0.6°C & 3.5°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 113.6hrs, 4.1km/hr, 40% and 7.2mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

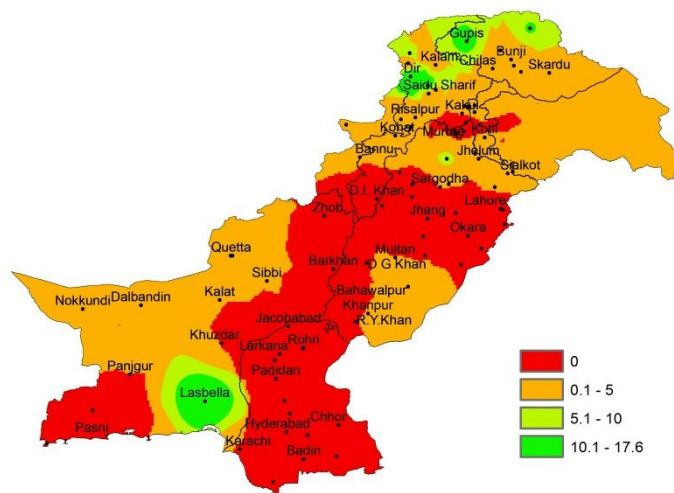
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall reported in Parachinar, Lower Dir & Kohat. Decadal minimum dropped below normal by 0.9°C & maximum temperature raised above normal by 1.9°C, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 99.3hrs, 3.9km/hr, 35% and 7.4mm/day respectively.

1.4 Balochistan

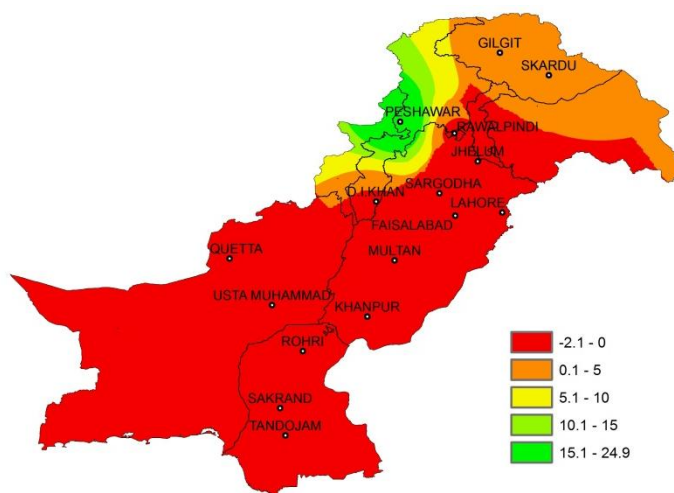
Light rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Lasbella, Quetta & Nokkundi. Decadal minimum & maximum temperature both raised above normal by 0.5°C & 0.9°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity & ETo were recorded as 105.2hrs, 6.2km/hr, 27% and 8.0mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

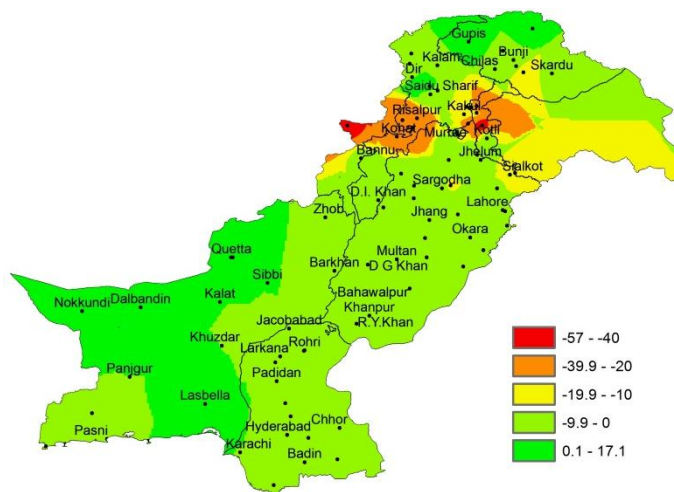
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall reported in Gupis, Hunza & Astore. Decadal minimum & maximum temperature both dropped below normal by 0.7°C & 1.0°C respectively, in the province. Whereas mean values of sunshine hour, wind speed, relative humidity and ETo were recorded 71.9hrs, 4.9km/hr, 36% and 5.5mm/day respectively.



I. Actual rainfall



II. Departure of rainfall from Normal



Departure of rainfall from Previous Decade

Figure.1: Rainfall distribution during previous decade in "mm"

2(a) **Past Weather for Major Agricultural Plains**
(1st to 10th June, 2014)

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

Dry weather reported during the decade, however weather remained cloudy for 04days. Average relative humidity recorded as 30%. Mean night temperature was 21.3°C while day temperature recorded as 40.1°C with 93.8 hours bright sunshine duration. Wind speed recorded as 1.3km/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 04days. Average relative humidity recorded as 28%. Mean night temperature was 27.1°C while day temperature recorded as 44.2°C with 107.3hours bright sunshine duration. Wind speed recorded as 2.6km/hr with mean wind direction *variable*.

Cotton: Normal condition, budding stage.

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

Dry weather reported during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 51%. Mean night temperature was 27.0°C while day temperature recorded as 43.0°C with 105.6hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *south westerly*.

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

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

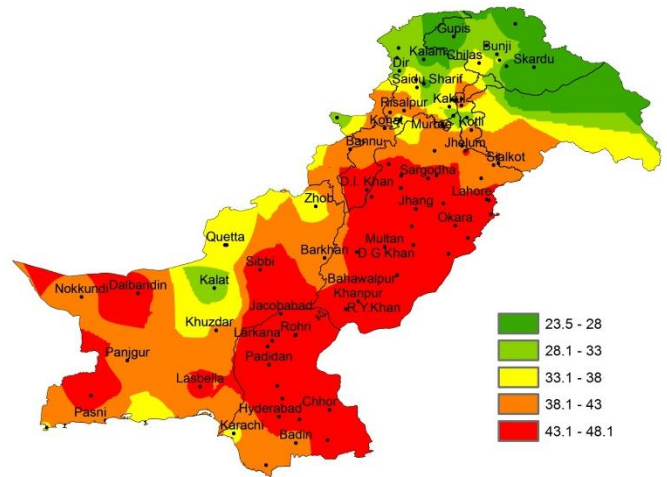
Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 36%. Mean night temperature was 28.9°C, while day temperature recorded as 47.4°C.

Rice: Good condition, Emergence stage.

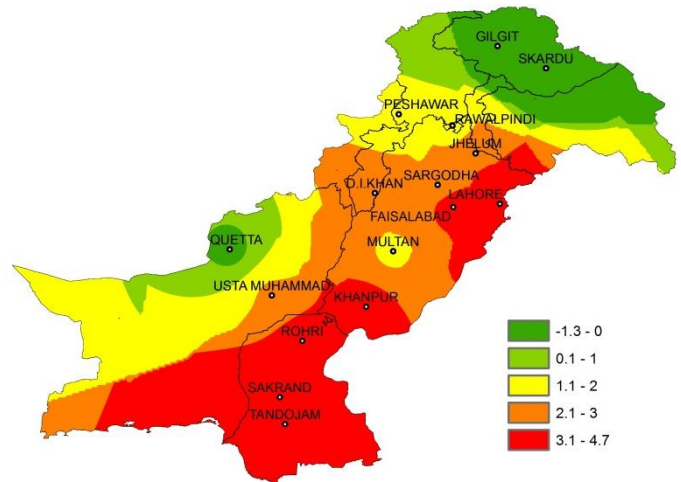
2.5 **RAMC, Quetta (Northern Balochistan)**

Rainfall reported as Trace (not measurable) during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 18%. Mean night temperature was 17.4°C while day temperature recorded as 33.5°C with 105.2hours bright sunshine duration and wind speed recorded as 6.2km/hr with mean wind direction *north westerly*.

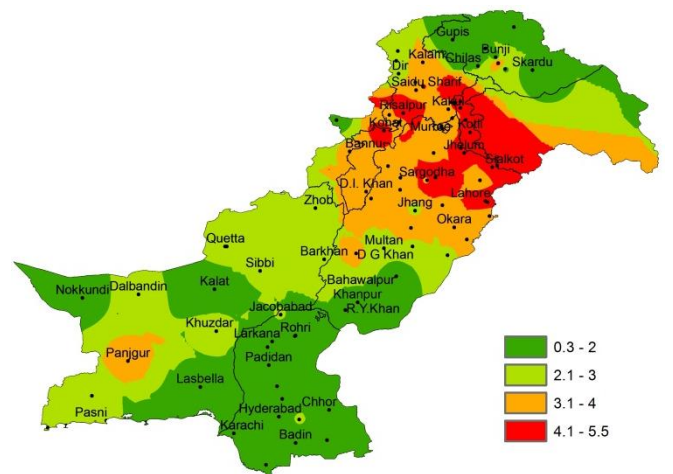
Wheat (Local White): Harvested.



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 (1st to 10th June, 2014)**

2.6 **Jhelum**

Dry weather reported during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 29%. Mean night temperature was 24.6°C while day temperature recorded as 43.3°C with 114.4hours bright sunshine duration. Wind speed recorded 3.5km/hr with mean wind direction *north westerly*.

2.7 **Lahore**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 26%. Mean night temperature was 27.9°C while day temperature recorded as 43.9°C with 109.2hours bright sunshine duration. Wind speed recorded as 3.5km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Dry weather reported during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 32%. Mean night temperature was 28.5°C while day temperature recorded as 44.2°C with 100.9hours bright sunshine duration. Wind speed recorded as 0.93km/hr with mean wind direction *variable*.

2.9 **Multan**

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 29%. Mean night temperature was 26.6°C while day temperature recorded as 43.9°C with 94.1hours bright sunshine duration. Wind speed recorded as 5.6km/hr with mean wind direction *variable*.

2.10 **Khanpur**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 36%. Mean night temperature was 28.3°C while day temperature recorded as 44.2°C with 96.2hours bright sunshine duration. Wind speed recorded as 4.9km/hr with mean wind direction *westerly*.

2.11 **Sakrand**

Rainfall reported as Trace (not measurable) reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 40%. Mean night temperature was 24.7°C while day temperature recorded as 45.1°C with 120.2hours bright sunshine duration. Wind speed recorded 6.1km/hr with mean wind direction *southerly*.

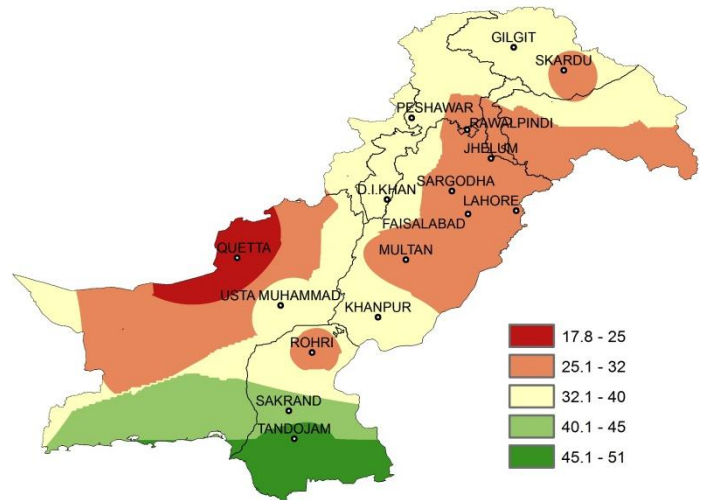


Figure.3: Relative Humidity in percentage (%)

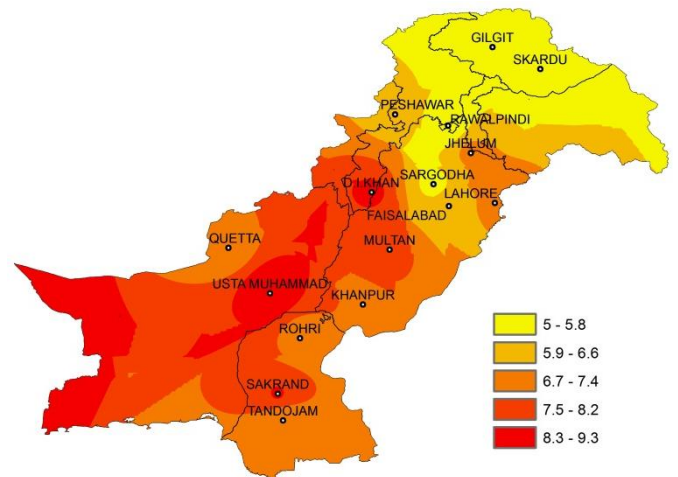


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

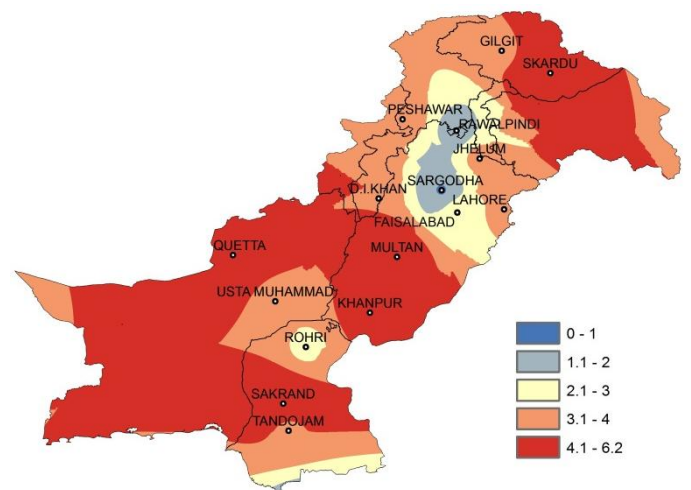


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 30%. Mean night temperature was 31.7°C while day temperature recorded as 46.1°C with 115.0hours bright sunshine duration. Wind speed recorded as 2.7km/hr with mean wind direction *south westerly*.

2.13 D.I. Khan

Dry weather reported during the decade however weather remained cloudy for 01day. Average relative humidity recorded as 34%. Mean night temperature was 25.5°C while day temperature recorded as 43.8°C with 107.2hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 25.6mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 36%. Mean night temperature was 23.0°C while day temperature recorded as 40.5°C with 91.3hours bright sunshine duration. Wind speed recorded as 3.9km/hr with mean wind direction *north westerly*.

2.15 Skardu

Rainfall reported as 1.8mm during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 31%. Mean night temperature was 10.4°C while day temperature recorded as 26.4°C with 63.8hours bright sunshine duration. Wind speed recorded as 5.9km/hr with mean wind direction *south westerly*.

2.16 Gilgit

Rainfall reported as 1.8mm during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 40%. Mean night temperature was 13.5°C while day temperature recorded as 32.6°C with 79.9bright sunshine duration. Wind speed recorded as 3.8km/hr with mean wind direction *easterly*.

**3. Ten Days Weather Advisory for Farmers
(11th to 20th 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, 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 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.
- ❖ Farmers of upper half of the country are advised to complete sowing of Kharif crops in time so that crop may obtain normal growing conditions during crop life cycle.