

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported from most of the agricultural plains of the country during the last decade.
- ❖ Highest amount of rainfall recorded as 89.1mm at Rawalakot during the last decade.
- ❖ Highest maximum temperature recorded as 44.5°C at Shaheed Benazirabad during the last decade.
- ❖ Lower values of relative humidity reported from Balochistan and higher values reported from K.P during the last decade.
- ❖ Higher values of ETo reported from the agricultural plains of Sindh, GB and Punjab and lower values reported from Balochistan during the last decade.
- ❖ Normal temperatures are expected in most of the upper & central agricultural plains of the country. However, day temperature likely to raise 2-3°C in southern parts of the country during the next decade.
- ❖ Normal to gusty wind pattern may prevail in most parts of the country during the next decade.
- ❖ Mainly hot & dry weather is expected in most parts of the country during the next decade.
- ❖ Chances of rainfall/thunderstorm at isolated to scattered places of Sindh, Balochistan and Punjab during the next decade.
- ❖ Chances of rainfall/thunderstorm at scattered places of K.P, Gilgit Baltistan & Kashmir during the next decade.

**NATIONAL AGROMET CENTRE (NAMC)
PAKISTAN METEOROLOGICAL DEPARTMENT
SECTOR H-8/2, ISLAMABAD**

Phone: [+92-51-9250592](tel:+92-51-9250592) Email: dirnamc@yahoo.com

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

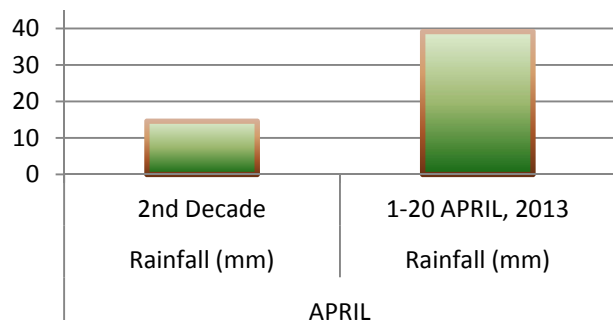
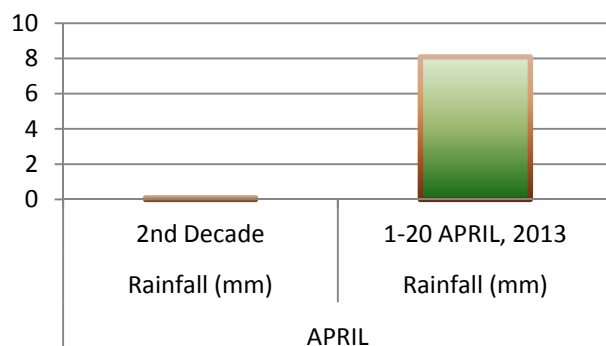
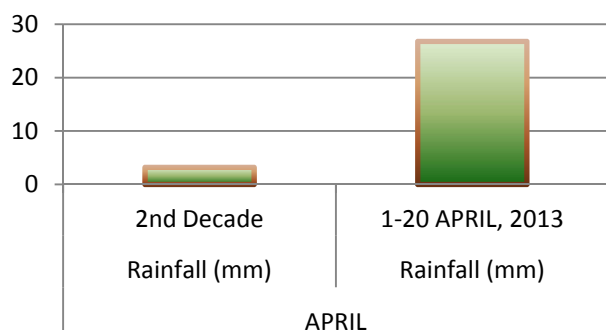
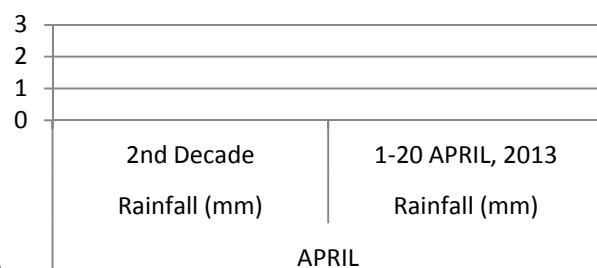
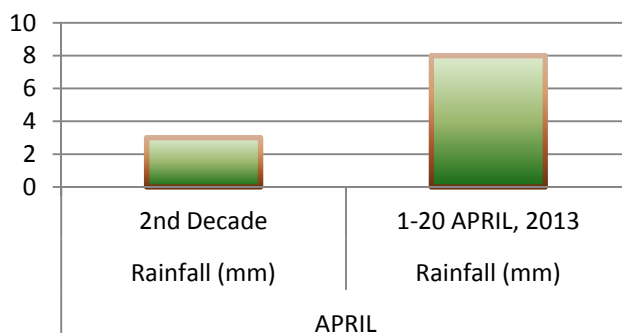
Editor-in-Chief: *Dr. Khalid M. Malik, Director*

Editor: *Zeeshan Javed Hashmi, Assistant Meteorologist*

Meteorological conditions during 2nd decade of April, 2013

Sr. No.	Station	Precipitation (mm)			Air Temperature (°c)			Soil Temperatures (°c)						Sunshine Duration (hours)	Wind Speed (km/hr)	R.H (%)	ET _o (mm/day)
		Normal	Actual	Dep	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	TANDOJAM	0.0	3.0	3.0	-0.1	-3.2	27.2	28.0	28.6	28.8	26.5	26.6	26.6	90.4	4.2	44.0	4.9
2	SAKRAND ☆	0.0	0.0	0.0	-1.7	-1.7	26.4	37.8	35.8	38.5	29.3	29.6	27.6	100.5	5.7	36.0	5.5
3	ROHRI	0.0	0.0	0.0	0.4	-1.6	28.7	40.4	36.0	30.5	31.4	27.0	27.1	92.3	6.8	39.0	5.8
4	USTA MUHAMMAD	0.0	0.0	0.0	-2.0	-4.1	25.1	28.9	28.7	25.4	25.8	26.1	23.2	***	0.1	46.0	3.5
5	QUETTA	0.4	3.2	2.8	-1.1	-3.8	14.0	20.8	19.4	15.8	14.6	13.6	14.7	78.1	5.4	42.0	3.7
6	KHANPUR	0.0	0.0	0.0	0.2	-1.3	26.8	28.5	27.7	27.4	27.5	27.5	26.4	88.4	2.4	41.0	4.3
7	MULTAN	0.6	3.3	2.7	0.3	-1.7	26.1	***	***	***	***	***	***	75.0	5.0	42.0	4.6
8	LAHORE	0.2	0.0	-0.2	-3.6	-0.2	24.8	29.9	28.4	25.8	24.1	***	22.1	79.8	3.7	37.0	4.3
9	FAISALABAD	0.4	TR	-0.3	0.8	-0.4	25.7	32.3	30.0	27.0	25.2	24.2	22.2	82.7	4.4	26.0	4.5
10	SARGODHA	0.5	3.0	2.5	0.3	-1.3	25.4	29.6	27.5	22.3	23.8	23.7	22.2	88.4	1.1	54.0	4.0
11	JHELMUM	0.8	16.6	15.8	-1.3	-1.5	23.4	26.5	24.9	22.9	21.7	21.8	***	71.2	4.4	59.0	3.9
12	RAWALPINDI	0.6	14.6	14.0	-0.2	-0.7	21.7	24.7	22.8	20.7	20.5	19.7	18.8	76.8	2.6	50.0	3.6
13	D I KHAN	0.8	TR	-0.7	-0.5	-1.4	24.2	***	***	***	***	***	***	81.6	4.4	50.0	4.3
14	PESHAWAR	2.6	15.3	12.7	-1.0	0.1	22.4	23.8	22.0	21.2	20.7	20.3	19.2	64.2	2.1	53.0	3.3
15	SKARDU	0.8	TR	-0.7	1.2	1.0	12.5	***	***	***	***	***	***	50.6	5.4	31.0	3.2
16	GILGIT	0.6	2.0	1.4	0.6	0.7	16.3	***	***	***	***	***	***	40.3	4.1	37.0	3.2

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.

Graphs for Rainfall (mm) during April 2013**RAMC RAWALPINDI****RAMC FAISALABAD****RAMC QUETTA****RAMC USTA MUHAMMAD****RAMC TANDOJAM**

Past Weather (11th to 20th April, 2013):

Light to moderate rainfall reported from the most of the agricultural plains of the country during the decade.

1.1 Punjab

Light to moderate rainfall reported at a number of places in the agricultural plains of Punjab; chief amount received at, Murree, Islamabad and Mangla etc. Decadal maximum temperature & decadal minimum temperature both dropped below normal by 0.5°C & 0.3°C respectively in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.8 km/hr, 39%, and 5.0 mm/day respectively.

1.2 Sindh

Light rainfall reported from only two places in the agricultural plains of Sindh; chief amount received at Chhor, Benazir shaheed abad, Decadal maximum temperature dropped below normal by 1.8°C & Decadal minimum raised above normal by 0.6°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 5.0 km/hr, 33%, and 6.0 mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

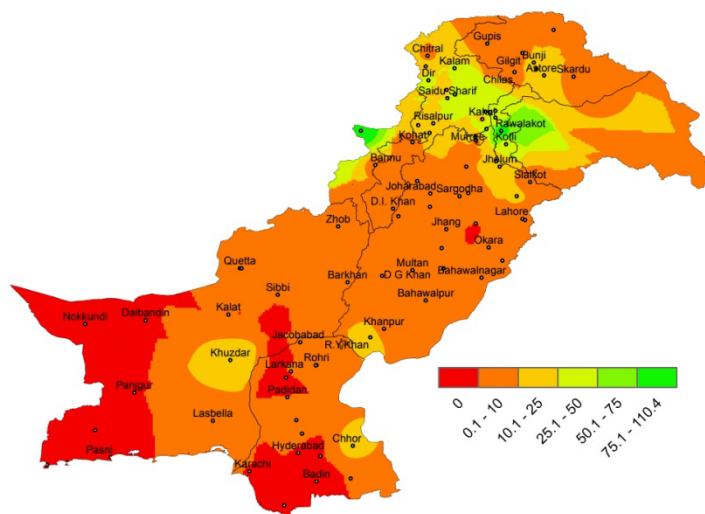
Light to moderate rainfall reported at a number of places in the agricultural plains of KP; chief amount received at Parachinar, Malamjabba, Dir etc. In KP region; Decadal maximum remained normal and decadal minimum dropped below normal by 1.0°C in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.0 km/hr, 47%, and 4.5 mm/day respectively.

1.4 Balochistan

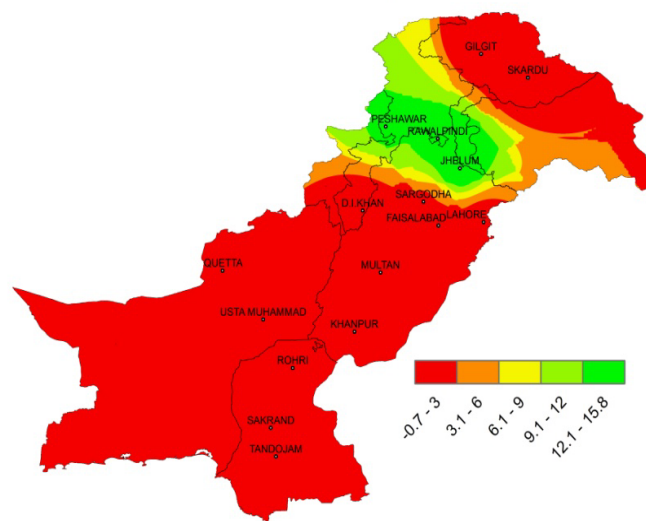
Light rainfall reported from only two places in the agricultural plains of Balochistan; chief amount received at Khuzdar and Samungli (Quetta). Decadal maximum & minimum temperature both dropped below normal by 3.2°C & 0.6°C respectively, in the province. Whereas mean values of wind speed, relative humidity and ETo were 3.6 km/hr, 26%, and 4.3 mm/day respectively.

1.5 Gilgit Baltistan and Azad Jammu & Kashmir

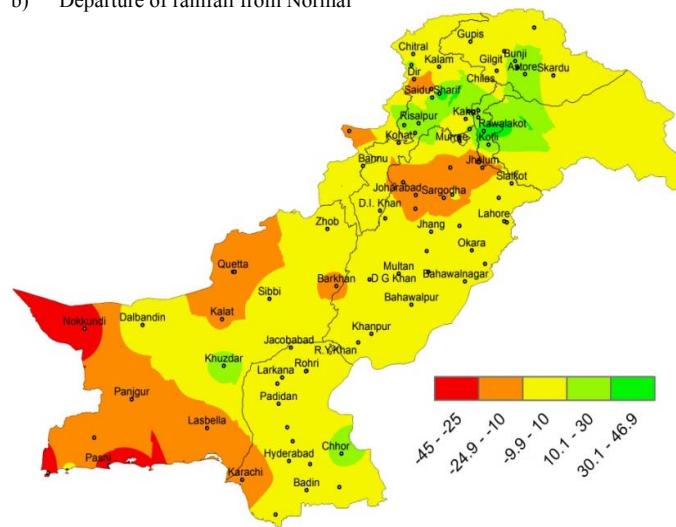
Light to moderate rainfall reported at a number of places in agricultural plains of GB & Kashmir; chief amount received at, Rawalakot, Kotli, Pattan etc. In GB & AJK region; Decadal maximum raised above normal by 1.6°C while decadal minimum dropped below normal by 0.1°C in the province. Whereas mean values of wind speed, relative humidity and ETo were recorded 5.5 km/hr, 32%, and 5.1 mm/day respectively.



a) Actual rainfall



b) Departure of rainfall from Normal



c) Departure of rainfall from Previous Decade

Figure.1: Rainfall distribution during previous decade in “mm”

2 (a) Past Weather for Major Agricultural Plains (Past Weather (11th to 20th April, 2013):

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 14.6 mm during the decade, weather remained cloudy for 6 days, average relative humidity recorded as 44%. Mean night temperature was 16.0°C while day temperature recorded as 32.0°C with 92.4 hours bright sunshine duration. Wind speed recorded as 2.9 Km/hr with mean direction *westerly*. Presently one crop is grown at the station.

Wheat Chakwal 97: Good condition, Flowering stage.

2.2 RAMC, Faisalabad (Central Punjab)

Rainfall reported as Trace (non measureable) during the decade, weather remained cloudy for 1 days, average relative humidity recorded as 34%. Mean night temperature was 20.3°C while day temperature recorded as 35.8°C with 97.1 hours bright sunshine duration. Wind speed recorded as 5.1 Km/hr with mean direction *south westerly*.

Sugarcane: Very Good condition, Tillering completed.

Wheat: Very Good condition, wax maturity completed.

2.3 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 3.0 mm during the decade, weather remained cloudy for 4 day during the decade, average relative humidity recorded as 31%. Mean night temperature was 22.2°C while day temperature recorded as 39.1°C with 99.5 hours bright sunshine duration. Wind speed recorded as 3.9 km/hr with mean direction *south westerly*.

Sowing has not been done yet.

2.4 RAMC, Quetta (Northern Balochistan)

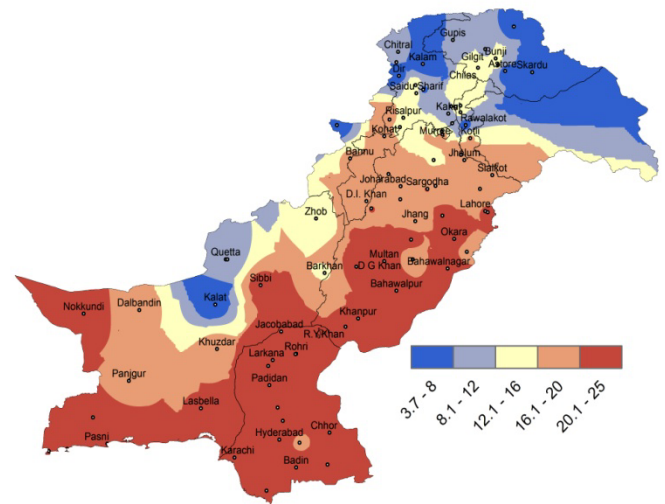
Rainfall reported as 3.2 mm during the decade, weather remained cloudy for 8 days, average relative humidity recorded as 33%. Mean night temperature was 11.1°C while day temperature recorded as 24.0°C with 101.7 hours bright sunshine duration and wind speed recorded as 6.1 Km/hr with mean direction *westerly*.

Wheat (Local white): Good condition, Flowering stage.

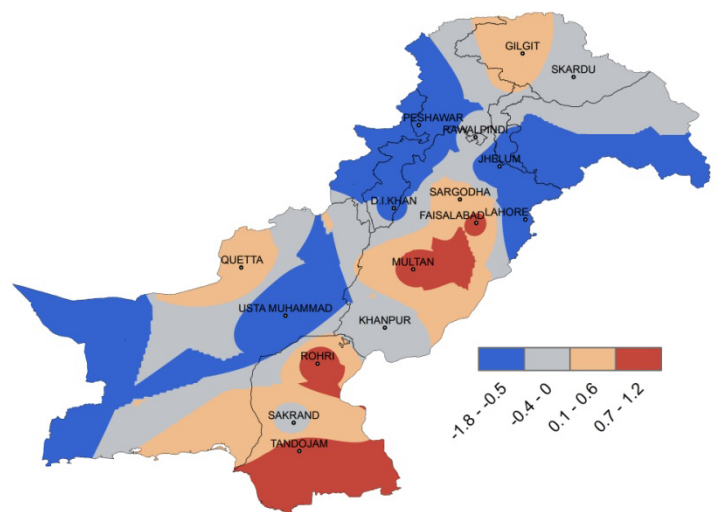
2.5 RAMC, Usta Muhammad (Eastern Balochistan)

No rainfall reported during the decade, weather remained cloudy for 7 days, average relative humidity recorded as 18%. Mean night temperature was 19.1°C while day temperature recorded as 34.9°C with wind speed recorded as 1.1 Km/hr with mean direction *southerly*.

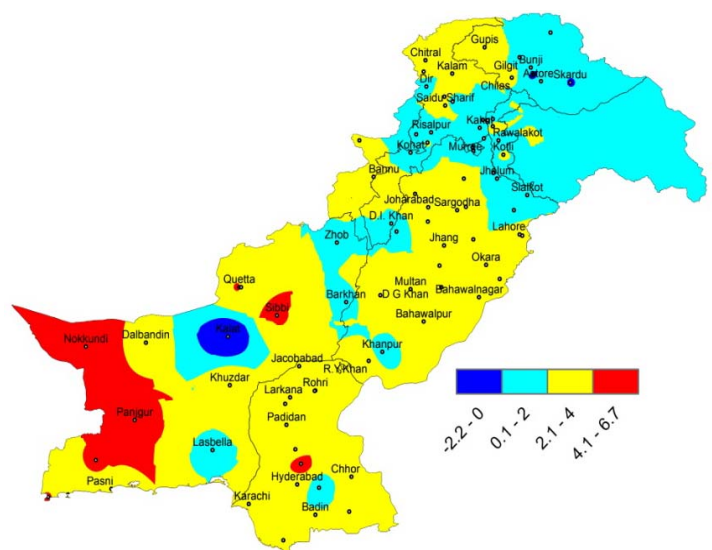
Wheat: Good condition, Wax maturity stage.



(a) Actual max-temp



(b) Departure of max-temp from Normal



(c) 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 April, 2013):

2.6 Jhelum

Rainfall reported as 16.6 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 47%. Mean night temperature was 18.0°C while day temperature recorded as 34.4°C with 99.2 hours bright sunshine duration. Wind speed recorded 4.4 Km/hr with mean direction *north westerly*.

2.7 Lahore

No rainfall reported during the decade, weather remained cloudy for 6 days, average relative humidity recorded as 34%. Mean night temperature was 20.4°C while day temperature recorded as 35.5°C with 97.4 hours bright sunshine duration. Wind speed recorded as 3.3 Km/hr with mean direction *north westerly*.

2.8 Sargodha

Rainfall reported as 3.0 mm during the decade, weather remained cloudy for 8 days during the decade, average relative humidity recorded as 45%. Mean night temperature was 20.6°C while day temperature recorded as 35.1°C with 97.8 hours bright sunshine duration. Wind speed recorded as 3.5 Km/hr with mean direction *north easterly*.

2.9 Multan

Rainfall reported as 3.3 mm during the decade, weather remained cloudy for 7 days, average relative humidity recorded as 36%. Mean night temperature was 21.7°C while day temperature recorded as 36.7°C with 99.0 hours bright sunshine duration. Mean wind direction is *southerly*.

2.10 Khanpur

No rainfall reported during the decade, weather remained cloudy for 2 days during the decade, average relative humidity recorded as 35%. Mean night temperature was 21.0°C while day temperature recorded as 38.0°C with 100.2 hours bright sunshine duration. Wind speed recorded as 3.0 Km/hr with mean direction *westerly*.

2.11 Rohri

No rainfall reported during the decade, weather remained cloudy for 10 days, average relative humidity recorded as 32%. Mean night temperature was 25.0°C while day temperature recorded as 39.2°C with 112.0 hours bright sunshine duration. Wind speed recorded as 6.0 Km/hr with mean direction *south westerly*.

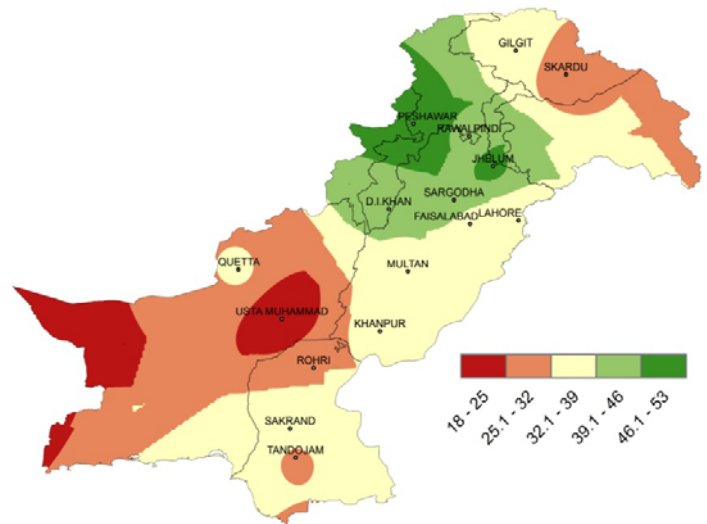


Figure.3: Relative Humidity in percentage

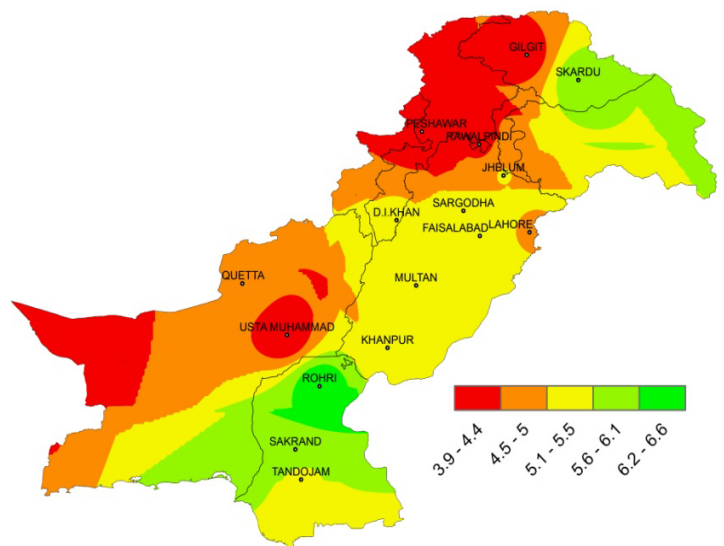


Figure.4: Reference Crop Evapotranspiration “ET₀” in mm/day

2.12 Sakrand

No rainfall reported during the decade, weather remained cloudy for 9 days during the decade, average relative humidity recorded as 37%. Mean night temperature was 20.2°C while day temperature recorded as 38.9°C with 103.1 hours bright sunshine duration. Wind speed recorded as 5.0 Km/hr with mean direction *south easterly*.

2.13 Peshawar

Rainfall reported as 15.3 mm during the decade, weather remained cloudy for 9 days, average relative humidity recorded as 53%. Mean night temperature was 16.7°C while day temperature recorded as 31.8°C with 83.1 hours bright sunshine duration. Wind speed recorded as 1.7Km/hr with mean direction *north easterly*.

2.14 D.I. Khan

Rainfall reported as Trace (non measureable) during the decade weather remained cloudy for 3 days, average relative humidity recorded as 40%. Mean night temperature was 18.7°C while day temperature recorded as 34.6°C with 98.6 hours bright sunshine duration. Wind speed recorded as 4.2 Km/hr with mean direction *north easterly*.

2.15 Gilgit

Rainfall reported as 0.5 mm during the decade. weather remained cloudy for 8 days and average relative humidity recorded as 57%. Mean night temperature was 3.8°C while day temperature recorded as 14.8°C with 8.7 hours bright sunshine. Wind speed recorded as 5.2 Km/hr with variable direction.

2.16 Skardu

Rainfall reported as Trace (non measureable) during the decade, weather remained cloudy for 3 days, average relative humidity recorded as 29%. Mean night temperature was 5.9°C while day temperature recorded as 21.1°C with 62.1 hours bright sunshine duration with mean speed 6.9 Km/hr and mean direction *north westerly*.

3. Ten days Weather advisory for Farmers (21st to 30th April, 2013)

3.1 Temperature Forecast:

Normal temperatures are expected in most of the upper & central agricultural plains of the country. However, day temperature likely to raise 2-3°C in southern parts of the country during the decade.

3.2 Rain Forecast:

- ❖ **Punjab:** Mainly dry weather is expected in most parts of the province. However Rainfall/Thunderstorm is expected at isolated places during 21st to 27th April.
- ❖ **Khyber Pakhtunkhwa:** Mainly dry weather is expected in most parts of the province. However Rainfall/Thunderstorm is expected at scattered places during 21st to 27th April.
- ❖ **Sindh :** Mainly hot/dry weather is expected in most parts of the province. However Rainfall/Thunderstorm is expected at isolated places during 21st to 24th April.
- ❖ **Balochistan:** Mainly hot/dry weather is expected in most parts of the province. However Rainfall/Thunderstorm is expected at isolated places during 21st to 26th April.
- ❖ **Gilgit-Baltistan & Kashmir:** Mostly partly cloudy/cloudy conditions prevailed in most parts of the province. However Rainfall/Thunderstorm is expected at isolated to scattered places during the decade.

3.3 Wind Forecast:

Normal to gusty wind pattern may prevail in most of the agricultural plains of the country during the decade.

3.4 Advisory for Farmers:

- ❖ Farmers are advised to harvest the wheat crop, when the crop is fully matured.
- ❖ During the harvesting process, farmers are advised to be aware about the weather conditions and keep listening & watching carefully the weather advisories issued through radio and televisions.
- ❖ During the rainy days, stop the harvested crop and safe the crop and fodder to avoid any loss.
- ❖ Farmers of lower half of the country are advised to prepare the fields for the coming Kharif crops in time.
- ❖ Farmers of lower half including Southern Punjab, Sindh and Balochistan should early complete sowing of cotton, so that to fully utilize present soil moisture.