

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Mostly dry weather reported from the most of the agricultural plains of the country during the last decade but light to moderate rainfall reported from the agricultural plains of KP and Gilgit Baltistan region. Highest amount of rainfall recorded at Pattan and Kalam which was 20 mm during the last decade.
- ❖ Absolute lowest temperature was recorded in Skardu that was 6.1°C during the last decade.
- ❖ Lowest values of the relative humidity recorded at Balochistan, extreme lowest humidity recorded in the agricultural plains of Quetta which was 26% during the last decade.
- ❖ Highest values for ETo (above 4.0 mm/day) recorded in central & southern punjab of the country.
- ❖ Day time temperatures are expected to be normal but night temperatures may drop 2-3°C in most of the agricultural plains of the country during the decade.
- ❖ Normal wind pattern prevails in most parts of the country during the decade.
- ❖ Chances of Isolated light rain in Gilgit Baltistan region on 2nd/3rd October & during the end days of the decade.
- ❖ No chance of rain in the rest parts of the country during the decade.

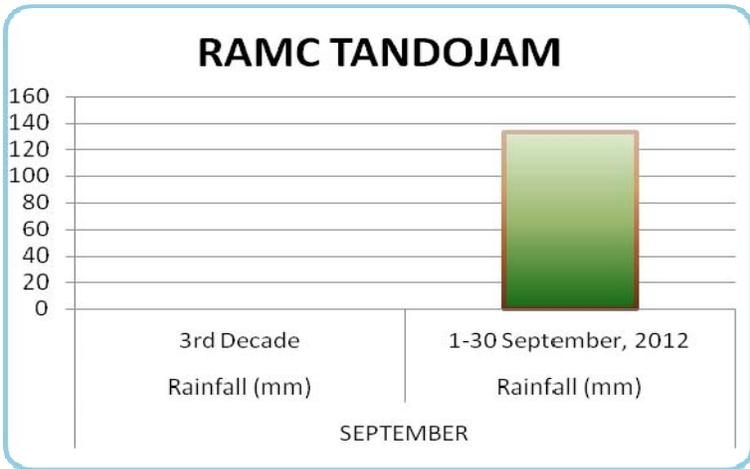
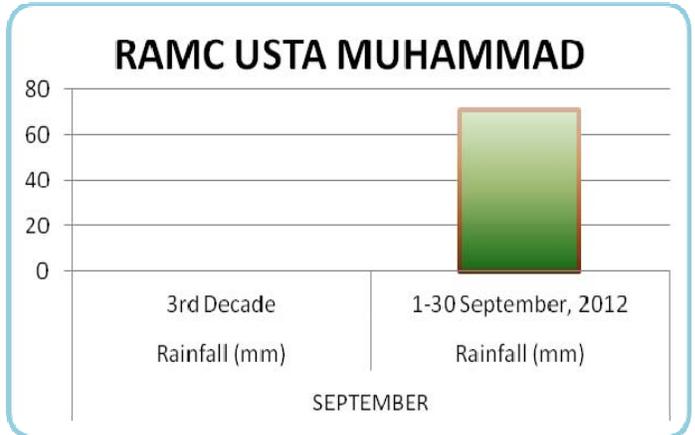
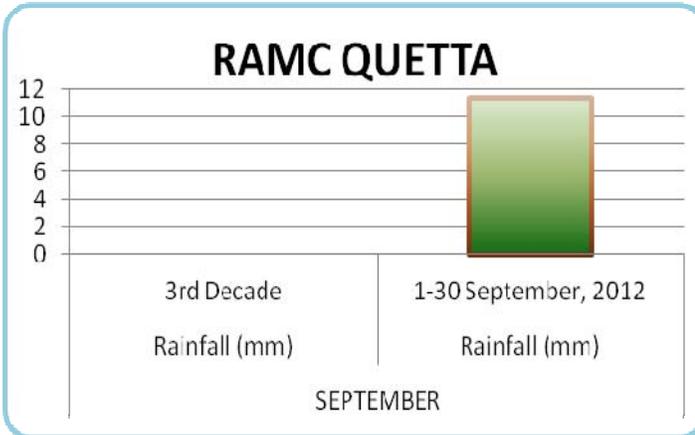
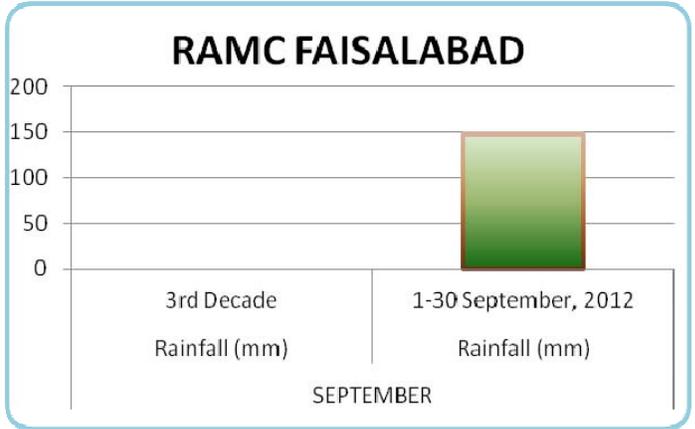
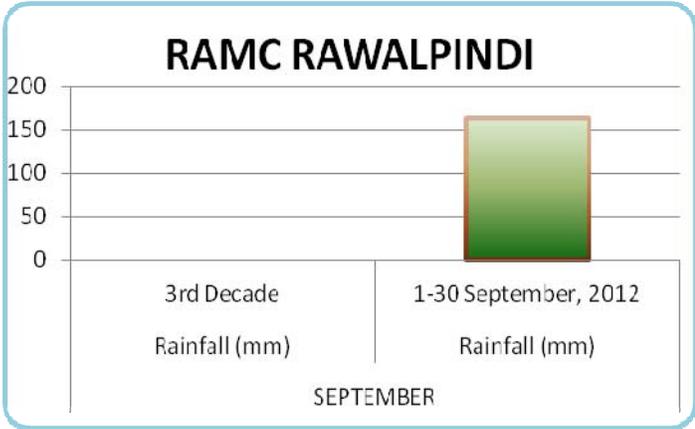
**NATIONAL AGROMET CENTRE (NAMC)
PAKISTAN METEOROLOGICAL DEPARTMENT
SECTOR H-8/2, ISLAMABAD**

Phone: +92-51-9250592 email: dirnamc@yahoo.com

Chief Editor: Dr. Khalid M. Malik, Director, NAMC Islamabad

Editor: M. Zeeshan Javed, Assistant Meteorologist, NAMC Islamabad

Graphs for Rainfall (mm) during September 2012



Note: Due to stagnant water in Usta Muhammad, data for 3rd decade is not available.

Meteorological conditions during 3rd decade of September, 2012

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	TANDOJAM	0.0	0.0	0.0	0.0	-1.0	29.4	39.0	36.1	34.0	32.0	31.9	30.6	29.1	0.5	62	0.8
2	SAKRAND ☆	0.0	0.0	0.0	-2.0	0.0	28.8	40.8	38.9	41.7	33.8	34.6	33.2	110.5	1.5	54	2.1
3	ROHRI	0.0	0.0	0.0	0.1	-1.2	31.2	38.2	36.5	33.7	33.3	33.1	33.6	114.0	2.0	51	1.0
4	USTA MUHAMMAD	0.0	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	QUETTA	0.0	0.0	0.0	-0.6	-1.4	18.5	29.8	27.3	23.3	16.6	22.3	24.9	108.2	5.2	26	1.6
6	KHANPUR	0.0	0.0	0.0	-0.5	-0.7	29.3	31.7	31.3	31.2	31.7	30.7	32.0	101.4	3.2	58	5.0
7	MULTAN	0.1	0.0	-0.1	-0.5	-0.7	29.8	***	***	***	***	***	***	105.3	4.7	53	5.3
8	LAHORE	1.1	0.0	-1.1	-1.3	0.3	29.0	32.9	32.3	30.1	29.2	***	29.1	97.6	1.7	53	4.0
9	FAISALABAD	2.1	0.0	-2.1	-0.3	0.3	28.8	32.4	31.4	30.2	29.6	29.4	30.0	99.8	3.4	53	4.3
10	SARGODHA	0.9	0.0	-0.9	0.0	0.2	29.7	33.0	31.8	30.5	30.2	30.7	30.6	87.1	1.7	55	3.8
11	JHELMUM	0.9	0.0	-0.9	-0.4	0.5	28.5	31.0	30.0	28.7	28.1	28.8	***	99.4	1.9	60	3.9
12	RAWALPINDI	1.9	0.0	-1.9	-0.4	0.9	26.3	31.6	29.8	29.3	27.2	27.4	28.4	96.5	2.8	56	3.9
13	DI KHAN	0.7	0.0	-0.7	-0.1	-1.1	28.5	***	***	***	***	***	***	97.7	2.0	58	3.7
14	PESHAWAR	1.1	2.0	0.9	1.6	0.1	28.4	32.0	29.6	28.1	29.0	28.4	29.1	78.5	1.0	61	2.8
15	SKARDU	0.1	0.0	-0.1	-0.6	-1.5	14.8	***	***	***	***	***	***	54.6	4.2	45	3.3
16	GILGIT	0.2	0.0	-0.2	3.9	-1.6	20.3	***	***	***	***	***	***	72.2	4.1	49	4.4

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.

Past Weather (21st to 30th September, 2012):

Light rainfall reported from few agricultural plains of Punjab, Sindh and Balochistan. However light to moderate rainfall reported from the agricultural plains of KP and Kashmir/Gilgit Baltistan during the decade.

1.1 Punjab

Light rainfall reported from the agricultural plains of Punjab during the decade, chief amount received at Kamra and D.G Khan (Fig. 1.a). Decadal maximum temperature raised above normal by 0.1°C and minimum temperature dropped below normal by 0.5°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 2.8 km/hr, 55 %, and 4.3 mm/day respectively (Fig 3-4).

1.2 Sindh

No rainfall reported from the agricultural plains of Sindh during the decade, Decadal maximum and minimum temperature dropped below normal by 0.7 & 0.6°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 1.3 km/hr, 56 %, and 1.3 mm/day respectively.

1.3 Khyber Pakhtoonkhawa (KP)

Light to moderate rainfall reported from the agricultural plains of KPK; chief amount received at Kalam, Dir and Chitral etc. Decadal maximum temperature dropped below normal by 0.5 and minimum temperature raised above normal by 0.8°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 1.5 km/hr, 60 %, and 3.3 mm/day respectively.

1.4 Balochistan

Light rainfall reported from the agricultural plains of Balochistan; chief amount received at Lasbella and Kalat etc. In the northern Balochistan, decadal maximum and minimum temperature both dropped below normal by 1.4 & 0.6°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 5.2 km/hr, 26%, and 1.6 mm/day respectively.

1.5 Gilgit Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from the agricultural plains of Kashmir & Gilgit Baltistan; chief amount received at Pattan, Gupis and Garhi Dopatta etc. In GB & AJK region; decadal maximum temperature dropped below normal by 1.6°C and minimum temperature raised above normal by 1.7°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded as 4.2 km/hr, 47 %, and 3.9 mm/day respectively.

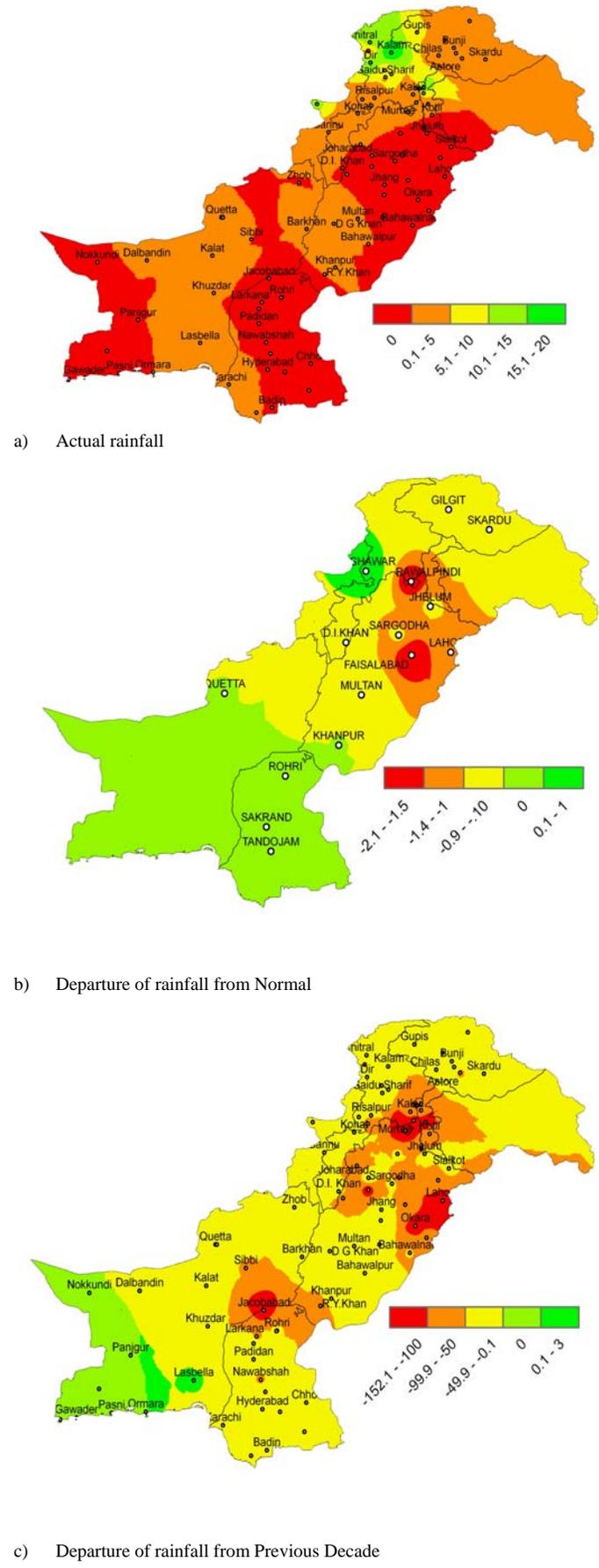


Figure.1: Rainfall distribution during previous decade in “mm”

2 (a) Past Weather for Major Agricultural Plains (21st to 30th September, 2012) as per Table-1

2.1 RAMC, Rawalpindi (Potohar region)

No rainfall & cloudy day reported during the decade, average relative humidity recorded as 56%. Mean night temperature was 18.8°C while day temperature recorded as 33.8°C with 96.5 hours bright sunshine duration. Wind speed recorded as 2.8 Km/hr with mean direction *westerly*. Presently one crop (rainfed conditions) is grown at the station as detailed below:

Maize: Good condition, Flowering stage.

2.2 RAMC, Tandojam (Lower Sindh)

No rainfall & cloudy day reported during the decade, average relative humidity recorded as 62%. Mean night temperature was 23.3°C while day temperature recorded as 35.4°C with 29.1 hours bright sunshine duration. Wind speed recorded as 0.5 Km/hr with mean direction *south westerly*. Presently only one crop (irrigated conditions) is grown at the station as detailed below:

Cotton (BT-886): Good condition, 3rd picking completed.

2.3 RAMC, Faisalabad (Central Punjab)

No rainfall & cloudy day reported during the decade, average relative humidity recorded as 53%. Mean night temperature was 21.8°C while day temperature recorded as 35.7°C with 99.8 hours bright sunshine duration. Wind speed recorded as 3.4 Km/hr with mean direction *south westerly*. Presently one crop (irrigated conditions) is grown at the station as detailed below:

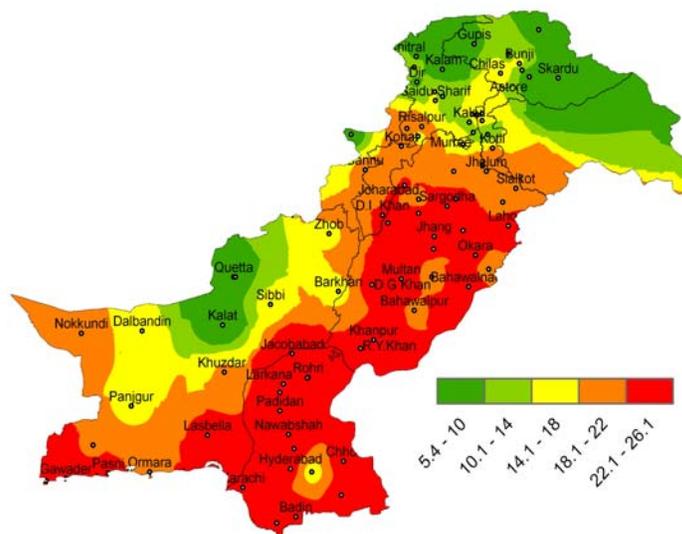
Sugarcane: Very Good condition, Tillering completed.
Cotton: Very Good condition, Boll opening completed.

2.4 RAMC, Quetta (Northern Balochistan)

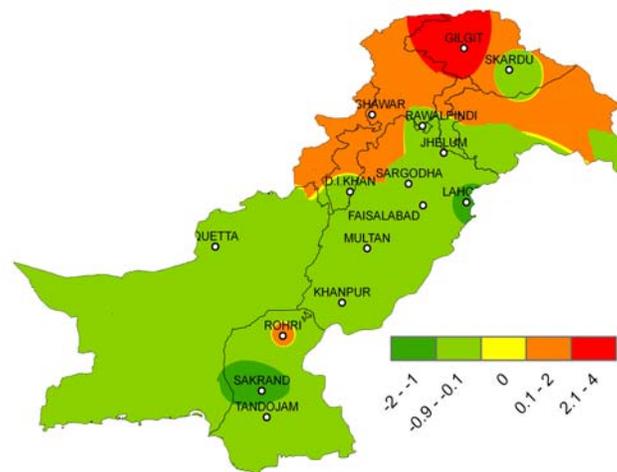
No rainfall & cloudy day reported during the decade, average relative humidity recorded as 26%. Mean night temperature was 8.7°C while day temperature recorded as 28.2°C with 108.2 hours bright sunshine duration and wind speed recorded as 5.2 Km/hr with mean direction *north westerly*. Presently no crop is grown at the station.

2.5 RAMC, Usta Muhammad (Eastern Balochistan)

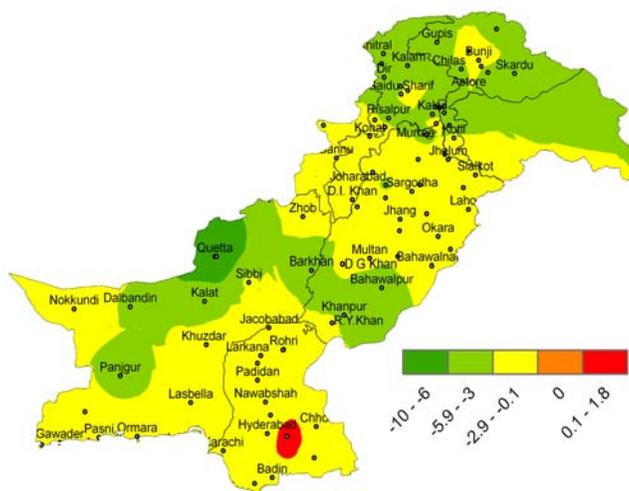
Note: Due to stagnant water in Usta Muhammad, data for 3rd decade is not available.



a) Actual min-temp



b) Departure of min-temp from Normal



c) Departure of min-temp from Previous Decade

Figure.2: Minimum Temperature distribution during previous decade in °C

2(b) Past Weather for sub regional Agricultural Plains (21st to 30th September, 2012)

2.6 Rohri

No rainfall & cloudy day reported during the decade, average relative humidity recorded as 51%. Mean night temperature was 25.6°C while day temperature recorded as 36.7°C with 114.0 hours bright sunshine duration. Wind speed recorded as 2.0 Km/hr with mean direction *southerly*.

2.7 Skardu

Rainfall reported Trace (amount not measurable) during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 45%. Mean night temperature was 7.4°C while day temperature recorded as 22.2°C with 54.6 hours bright sunshine duration. Wind speed recorded as 4.2 Km/hr with mean direction *north westerly*.

2.8 Multan

No rainfall & cloudy day reported during the decade, average relative humidity recorded as 53%. Mean night temperature was 23.7°C while day temperature recorded as 35.8°C with 105.3 hours bright sunshine duration. Wind speed recorded as 4.7 Km/hr with mean direction *south westerly*.

2.9 Lahore

No rainfall reported during the decade, weather remained cloudy for 2 days and average relative humidity recorded as 53%. Mean night temperature was 23.3°C while day temperature recorded as 34.7°C with 97.6 hours bright sunshine duration. Wind speed recorded as 1.7 Km/hr with mean direction *westerly*.

2.10 Peshawar

Rainfall reported amounting 2.0 mm during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 61%. Mean night temperature was 22.9°C while day temperature recorded as 33.8°C with 78.5 hours bright sunshine duration. Wind speed recorded as 1.0 Km/hr with mean direction *north-north easterly*.

2.11 Khanpur

No rainfall reported during the decade, weather remained cloudy for 01 day and average relative humidity recorded as 58%. Mean night temperature was 22.7°C while day temperature recorded as 35.9°C with 101.4 hours bright sunshine duration. Wind speed recorded as 3.2 Km/hr with mean direction *south westerly*.

2.12 Sargodha

No rainfall & cloudy day reported during the decade, average relative humidity recorded as 55%. Mean night temperature was 23.6°C while day temperature recorded as 35.7°C with 87.1 hours bright sunshine duration. Wind speed recorded as 1.7 Km/hr with mean direction *south westerly*.

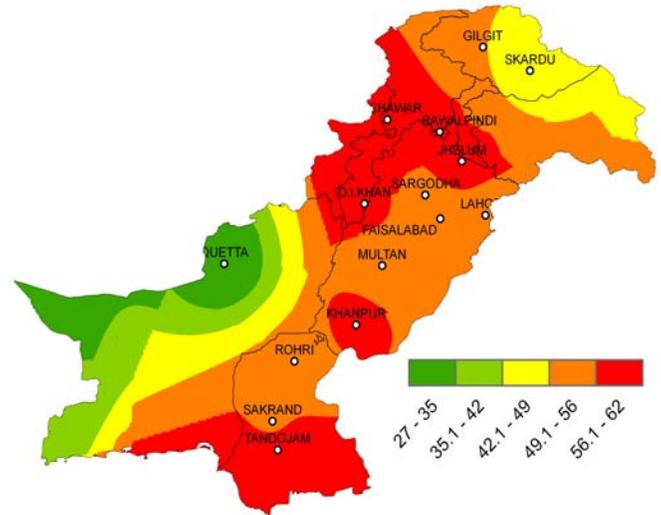


Figure.3: Relative Humidity in percentage

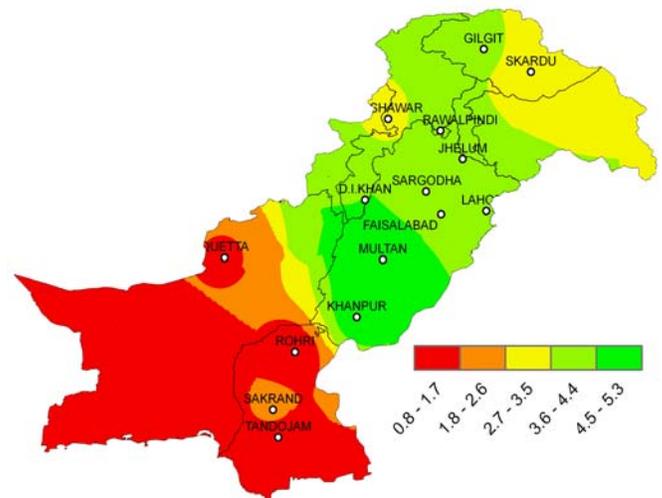


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

2.13 Gilgit.

Rainfall reported Trace (amount not measurable) during the decade, however weather remained cloudy for 10 days and average relative humidity recorded as 49%. Mean night temperature was 12.6°C while day temperature recorded as 27.9°C with 72.2 hours bright sunshine. Wind speed recorded as 6.6 Km/hr with mean direction *south easterly*.

2.14 Jhelum

No rainfall reported during the decade, however weather remained cloudy for 3 days and average relative humidity recorded as 60%. Mean night temperature was 21.9°C while day temperature recorded as 35.1°C with 99.4 hours bright sunshine duration. Wind speed recorded as 1.9 Km/hr with mean direction *south westerly*.

2.15 D.I. Khan

No rainfall reported during the decade, weather remained cloudy for 01 day and average relative humidity recorded as 58%. Mean night temperature was 22.1°C while day temperature recorded as 34.8°C with 97.7 hours bright sunshine duration. Wind speed recorded as 2.0 Km/hr with mean direction *north easterly*.

2.16 Sakrand

No rainfall reported during the decade, however weather remained cloudy for 3 days average relative humidity recorded as 54%. Mean night temperature was 20.5°C while day temperature recorded as 37.0°C with 110.5 hours bright sunshine duration. Wind speed recorded as 1.5 Km/hr with mean direction *south easterly*.

3. Ten days Weather advisory for Farmers (1st to 10th October, 2012)

3.1 Temperature Forecast:

Day time temperatures expected to be normal but night temperatures may drop 2-3°C in most of the agricultural plains of the country during the decade.

3.2 Rain Forecast:

- ❖ **Punjab:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Khyber Pakhtoonkhawa:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Sindh:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Balochistan:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Kashmir & Gilgit-Baltistan:** Mainly dry weather is expected in most parts, however light rain is likely at isolated places of Kashmir during the end of the decade and light rain is likely at isolated places of Gilgit-Baltistan on 2nd/3rd October & during the end days of the decade.

3.3 Wind Forecast:

Normal wind pattern prevails in most of the agricultural plains of the country during the decade.

3.4 Advisory for Farmers:

- ❖ Farmers of Barani areas are advised to remove weeds from the fields and prepare their fields for incoming Rabi crops.
- ❖ Farmers are advised to cultivate winter vegetables in time so that present soil moisture may fully be utilized.