

http://namc.pmd.gov.pk/dekadal_bulletin/920123.pdf

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Heavy showers occurred in the agricultural plains of Sindh, Kashmir and Punjab. Highest amount of rainfall recorded at Islamabad which was 152 mm during the last decade.
- ❖ Extreme temperatures (above 40°C) recorded in Turbat which was 42°C during the last decade.
- ❖ Highest values of the relative humidity (above 60%) recorded at scattered places of Punjab, Upper KP and lower Sindh.
- ❖ Highest values for ETo (above 4.0 mm/day) recorded in central and lower half of the country.
- ❖ Day time temperatures are expected to be normal 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 rain/thundershower in upper parts of the country during the end of the decade.

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

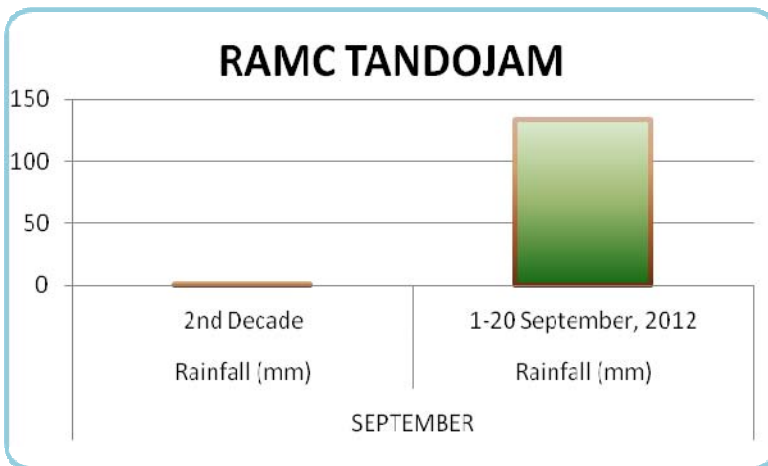
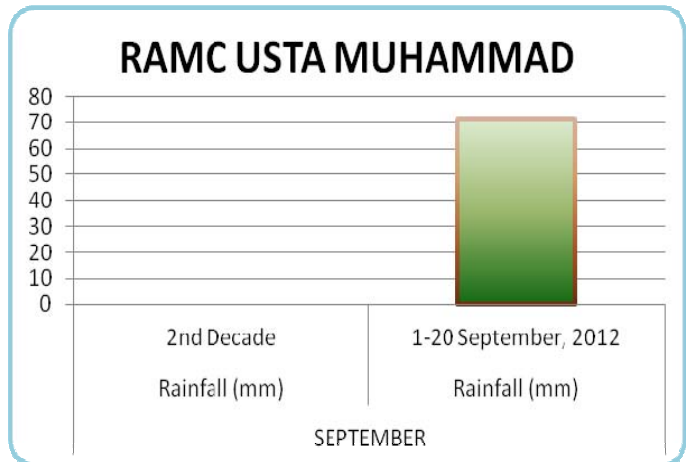
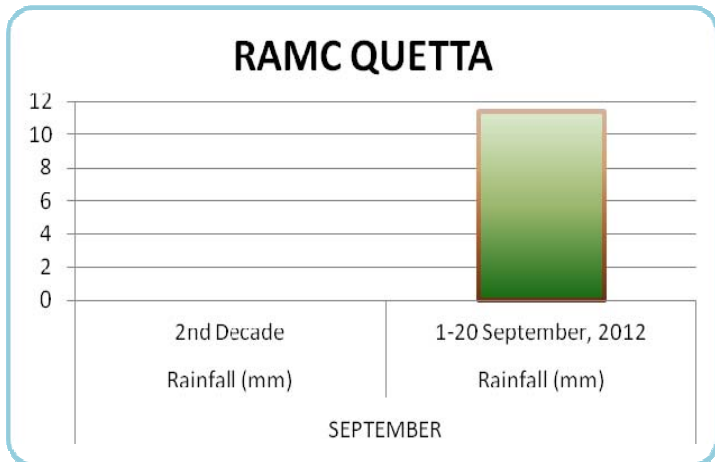
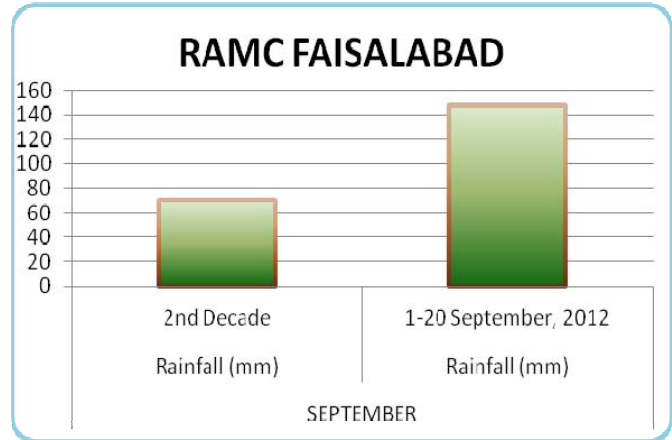
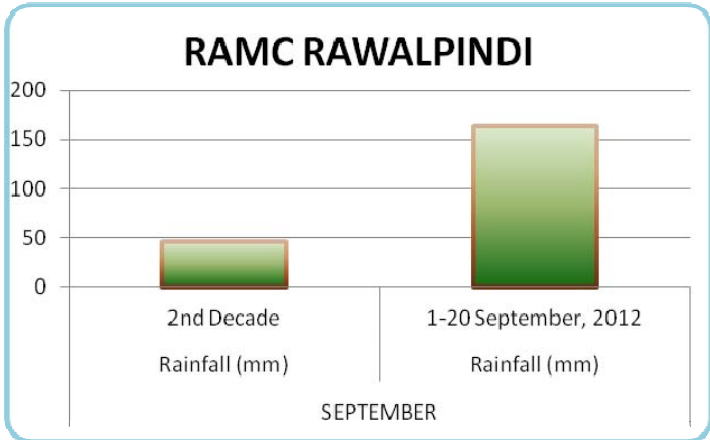
[http://www.pmd.gov.pk/WFF/weather for farmers](http://www.pmd.gov.pk/WFF/weather_for_farmers)

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Graphs for Rainfall (mm) during September 2012



Note: Due to stagnant water in Usta Muhammad, data for 2nd decade is not available.

Meteorological conditions during 2nd 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 | 2.2 | 1.0 | 1.0 | 1.1 | -1.5 | 29.8 | 35.4 | 33.3 | 32.8 | 30.8 | 31.1 | 30.6 | 66.0 | 4.7 | 73 | 4.2 |
| 2 | SAKRAND ☆ | 1.0 | 39.0 | 39.0 | -0.8 | -2.0 | 28.9 | 38.9 | 37.8 | 39.6 | 32.5 | 33.6 | 33.2 | 79.7 | 2.2 | 69 | 4.2 |
| 3 | ROHRI | 0.1 | 5.0 | 4.9 | 0.0 | -2.6 | 31.3 | 38.2 | 36.3 | 33.6 | 32.9 | 32.5 | 34.7 | 55.7 | 7.8 | 64 | 4.5 |
| 4 | USTA MUHAMMAD | 0.6 | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| 5 | QUETTA | 0.0 | 0.0 | 0.4 | 1.4 | -3.5 | 19.9 | 30.1 | 28.1 | 24.9 | 17.8 | 23.9 | 26.4 | 89.5 | 5.7 | 31 | 4.4 |
| 6 | KHANPUR | 0.7 | 0.4 | 1.5 | 1.0 | -1.8 | 30.7 | 32.3 | 31.8 | 31.7 | 32.0 | 32.3 | 32.6 | 88.8 | 5.0 | 71 | 4.8 |
| 7 | MULTAN | 1.1 | 2.3 | 138.9 | -1.6 | -1.6 | 30.5 | *** | *** | *** | *** | *** | *** | 87.4 | 5.3 | 71 | 4.6 |
| 8 | LAHORE | 3.8 | 140.3 | 68.5 | 1.3 | -0.7 | 28.5 | 32.3 | 31.8 | 30.3 | 29.6 | *** | 29.4 | 72.5 | 2.5 | 73 | 3.8 |
| 9 | FAISALABAD | 1.6 | 69.7 | 59.0 | 0.8 | -1.7 | 29.3 | 33.0 | 32.1 | 31.1 | 30.4 | 30.4 | 30.6 | 73.3 | 4.1 | 73 | 4.1 |
| 10 | SARGODHA | 1.5 | 61.0 | 24.1 | -0.3 | -10.1 | 25.5 | 32.2 | 31.1 | 30.1 | 29.8 | 30.1 | 30.4 | 74.7 | 2.4 | 72 | 3.9 |
| 11 | JHELUM | 3.4 | 25.4 | 42.2 | 0.1 | -1.4 | 28.6 | 32.1 | 31.2 | 30.1 | 29.2 | 29.7 | *** | 70.2 | 1.5 | 76 | 3.6 |
| 12 | RAWALPINDI | 5.4 | 45.6 | 0.4 | 1.4 | -3.5 | 25.7 | 31.2 | 29.3 | 28.9 | 28.9 | 28.2 | 28.9 | 66.3 | 1.2 | 75 | 3.3 |
| 13 | DI KHAN | 1.1 | 34.0 | 31.7 | -1.9 | -3.5 | 29.0 | *** | *** | *** | *** | *** | *** | 86.9 | 3.1 | 64 | 4.3 |
| 14 | PESHAWAR | 1.1 | 12.2 | 11.1 | -5.2 | -3.3 | 26.2 | 31.8 | 30.2 | 29.3 | 30.1 | 29.7 | 29.9 | 63.9 | 1.9 | 71 | 3.3 |
| 15 | SKARDU | 0.8 | 1.7 | 1.5 | -3.6 | 3.9 | 17.6 | *** | *** | *** | *** | *** | *** | 45.8 | 4.2 | 58 | 2.9 |
| 16 | GILGIT | 0.5 | 16.4 | 16.3 | -2.8 | -4.1 | 22.0 | *** | *** | *** | *** | *** | *** | 62.2 | 3.2 | 63 | 3.5 |

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 (11th to 20th September, 2012):

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

1.1 Punjab

Light to moderate rainfall with few heavy falls reported from the agricultural plains of Punjab during 1st half of the decade, chief amount received at Islamabad, Lahor and Noorpur Thal (Fig. 1.a). Decadal maximum temperature dropped below normal by 3.0°C and minimum temperature raised above normal by 0.4°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.1 km/hr, 73 %, and 4.0 mm/day respectively (Fig 3-4).

1.2 Sindh

Light to moderate rainfall with heavy to very heavy showers reported from the agricultural plains of Sindh during the decade, chief amount received at Jacobabad, Shaheed Benazirabad and Larkana etc. Decadal maximum temperature dropped below normal by 2.0°C and minimum temperature raised above normal by 0.1°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 4.9 km/hr, 69%, and 4.3 mm/day respectively.

1.3 Khyber Pakhtoonkhawa (KP)

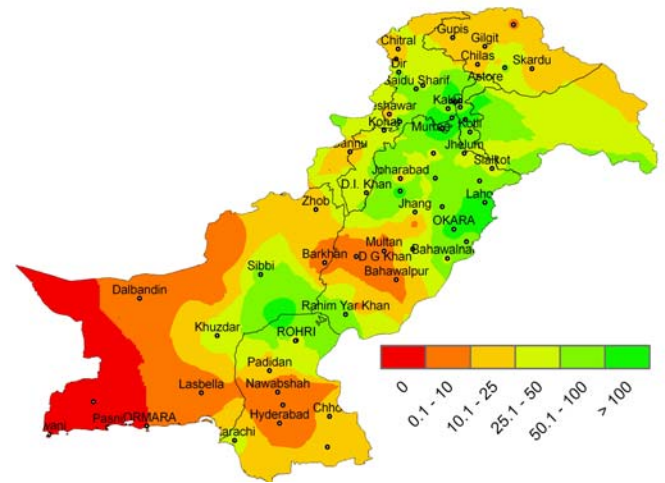
Light to moderate rainfall with few heavy falls reported from the agricultural plains of KPK; chief amount received at Balakot, Kakul and Parachinar etc. Decadal maximum and minimum temperature both dropped below normal by 3.6 & 0.3°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 2.5 km/hr, 68 %, and 3.8 mm/day respectively.

1.4 Balochistan

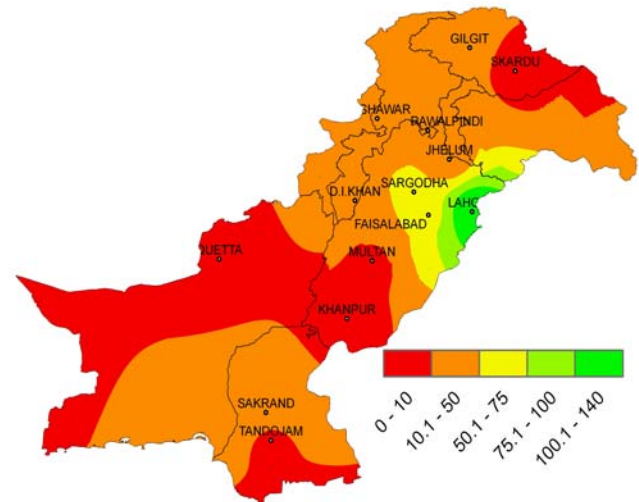
Light to moderate rainfall with few heavy falls reported from the agricultural plains of Balochistan; chief amount received at Sibbi, Khuzdar and Zhob etc. In the northern Balochistan, decadal maximum and minimum temperature both dropped below normal by 3.5 & 1.1°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 5.7 km/hr, 31%, and 4.4 mm/day respectively.

1.5 Gilgit Baltistan and Azad Jammu & Kashmir

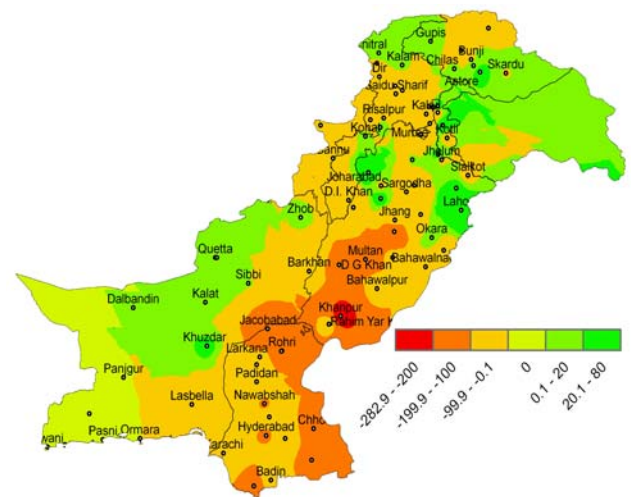
Light to moderate rainfall reported from the agricultural plains of Gilgit Baltistan and light to moderate rainfall with few heavy showers reported from Azad Jammu & Kashmir; chief amount received at Rawalakot, Pattan and Astore etc. In GB & AJK region; decadal maximum temperature dropped below normal by 3.2°C and minimum temperature raised above normal by 3.4°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded as 3.7 km/hr, 61 %, and 3.2 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 (11th to 20th September, 2012) as per Table-1

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported amounting 45.6 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 75%. Mean night temperature was 21.5°C while day temperature recorded as 29.9°C with 66.3 hours bright sunshine duration. Wind speed recorded as 1.2 Km/hr with mean direction *westerly*. Presently one crop (rainfed conditions) is grown at the station as detailed below:

Maize: Good condition, Tillering stage.

2.2 RAMC, Tandojam (Lower Sindh)

Rainfall reported amounting 1.0 mm during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 73%. Mean night temperature was 25.4°C while day temperature recorded as 34.1°C with 66.0 hours bright sunshine duration. Wind speed recorded as 4.7 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 stage.

2.3 RAMC, Faisalabad (Central Punjab)

Rainfall reported amounting 69.7 mm during the decade, weather remained cloudy for 10 days and average relative humidity recorded as 73%. Mean night temperature was 24.9°C while day temperature recorded as 33.6°C with 73.3 hours bright sunshine duration. Wind speed recorded as 4.1 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 stage completed.

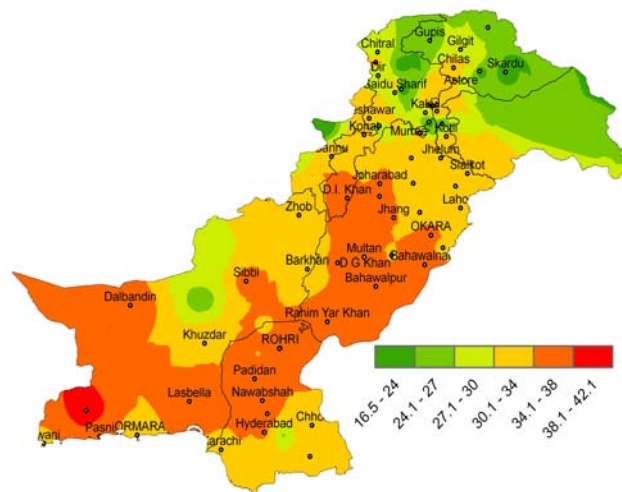
Cotton: Very Good condition, Boll opening stage.

2.4 RAMC, Quetta (Northern Balochistan)

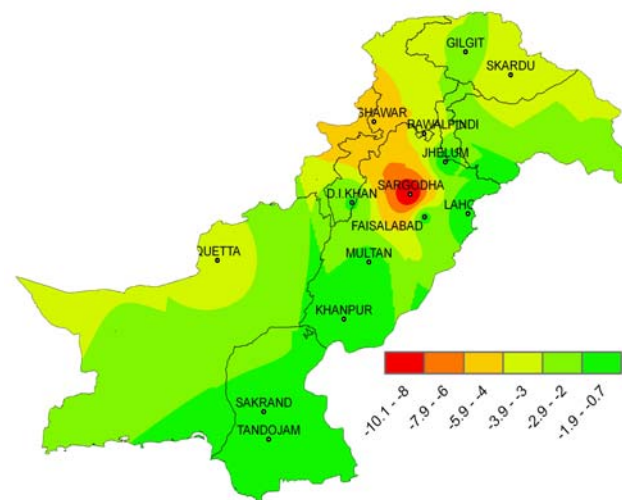
Rainfall reported amounting 0.0 mm during the decade, weather remained cloudy for 3 days and average relative humidity recorded as 31%. Mean night temperature was 11.5°C while day temperature recorded as 28.2°C with 89.5 hours bright sunshine duration and wind speed recorded as 5.7 Km/hr with mean direction *north westerly*. Presently no crop is grown at the station.

2.5 RAMC, Usta Muhammad (Eastern Balochistan)

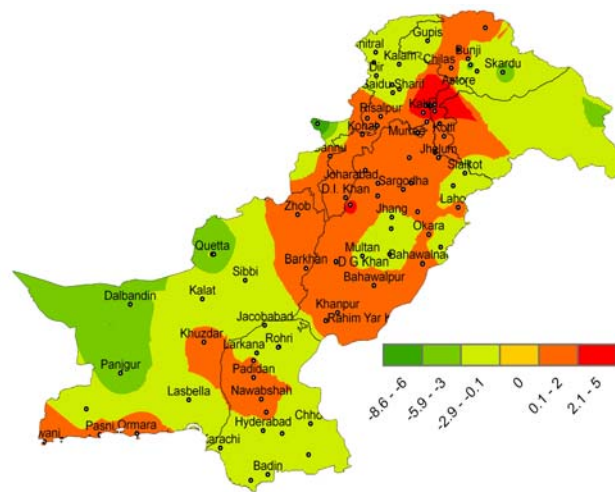
Note: Due to stagnant water in Usta Muhammad, data for 2nd decade is not available.



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 September, 2012)

2.6 Rohri

Rainfall reported amounting 5.0 mm during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 67%. Mean night temperature was 26.7°C while day temperature recorded as 35.3°C with 84.5 hours bright sunshine duration. Wind speed recorded as 2.0 Km/hr with mean direction *north easterly*.

2.7 Skardu

Rainfall reported amounting 1.7 mm during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 58%. Mean night temperature was 11.9°C while day temperature recorded as 23.2°C with 45.8 hours bright sunshine duration. Wind speed recorded as 4.2 Km/hr with variable direction.

2.8 Multan

Rainfall reported amounting 2.3 mm during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 71%. Mean night temperature was 26.5°C while day temperature recorded as 34.4°C with 87.4 hours bright sunshine duration. Wind speed recorded as 5.3 Km/hr with mean direction *southerly*.

2.9 Lahore

Rainfall reported amounting 140.3 mm during the decade, weather remained cloudy for 10 days and average relative humidity recorded as 73%. Mean night temperature was 23.9°C while day temperature recorded as 33.0°C with 72.5 hours bright sunshine duration. Wind speed recorded as 2.5 Km/hr with mean direction *north westerly*.

2.10 Peshawar

Rainfall reported amounting 12.2 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 71%. Mean night temperature was 22.9°C while day temperature recorded as 29.4°C with 63.9 hours bright sunshine duration. Wind speed recorded as 1.9 Km/hr with mean direction *north-north westerly*.

2.11 Khanpur

Rainfall reported amounting 0.4 mm during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 71%. Mean night temperature was 26.3°C while day temperature recorded as 35.0°C with 88.8 hours bright sunshine duration. Wind speed recorded as 5.0 Km/hr with mean direction *south westerly*.

2.12 Sargodha

Rainfall reported amounting 61.0 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 72%. Mean night temperature was 25.5°C while day temperature recorded as 33.7°C with 74.7

hours bright sunshine duration. Wind speed recorded as 2.4 Km/hr with variable direction.

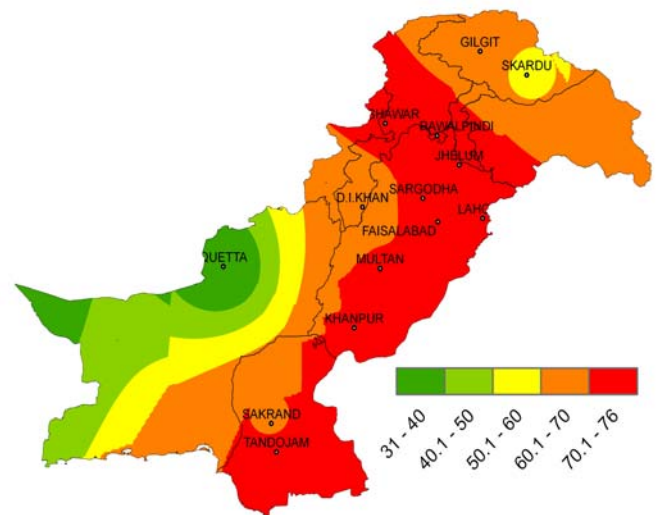


Figure.3: Relative Humidity in percentage

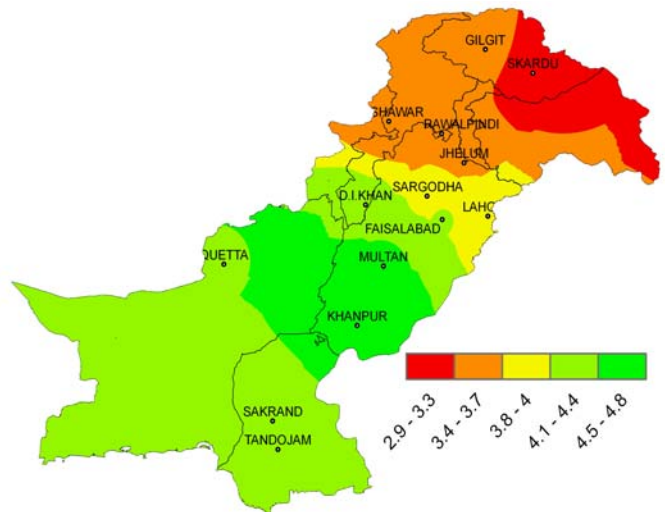


Figure.4: Reference Crop Evapotranspiration “ET₀” in mm/day

2.13 Gilgit.

Rainfall reported amounting 16.4 mm during the decade however weather remained cloudy for 10 days and average relative humidity recorded as 63%. Mean night temperature was 15.5°C while day temperature recorded as 28.5°C with 62.2 hours bright sunshine. Wind speed recorded as 3.2 Km/hr with mean direction *easterly*.

2.14 Jhelum

Rainfall reported amounting 25.3 mm during the decade however weather remained cloudy for 9 days and average relative humidity recorded as 76%. Mean night temperature was 23.9°C while day temperature recorded as 33.3°C with 70.2 hours bright sunshine duration. Wind speed recorded as 1.5 Km/hr with variable wind.

2.15 D.I. Khan

Rainfall reported amounting 34.0 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 64%. Mean night temperature was 23.9°C while day temperature recorded as 34.1°C with 86.9 hours bright sunshine duration. Wind speed recorded as 3.1 Km/hr with mean direction *north easterly*.

2.16 Sakrand

Rainfall reported amounting 39.0 mm during the decade however weather remained cloudy for 4 days average relative humidity recorded as 69%. Mean night temperature was 22.8°C while day temperature recorded as 34.9°C with 79.7 hours bright sunshine duration. Wind speed recorded as 2.2 Km/hr with mean direction *south easterly*.

3. Ten days Weather advisory for Farmers (21st to 30th September, 2012)

3.1 Temperature Forecast:

Day time temperatures expected to be normal 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. However rain/thunderstorm is likely at isolated places of upper Punjab during the end of the decade.
- ❖ **Khyber Pakhtoonkhawa:** Mainly dry weather is expected in most parts of the province. However rain/thunderstorm is likely at isolated places of upper KP during the end of decade.
- ❖ **Sindh:** Mainly hot & 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 rain/thunderstorm is likely at isolated places of Kashmir during the end of the decade. However, Light rain is likely at a few places of Gilgit-Baltistan on 24th/25th & during the end of the decade.

3.3 Wind Forecast:

Normal wind pattern with no significant storm is predicted in most of the agricultural plains of the country during the decade.

3.4 Advisory for Farmers:

- ❖ Farmers are advised to take in time necessary precautionary measures to protect their crops, livestock and other property to keep in mind with current situation of weather.
- ❖ Farmers of the worst hit rain belt may focus their efforts to take care of residual surviving plants of cotton and other crop to support their livelihood. Rice being resistant to surplus water may be the best choice to yield a lot under prevailing conditions before the Rabi sowing.
- ❖ Government assistance in terms of free seed and fertilizer for Rabi sowing is likely to be launched. Farmers should avail this opportunity to ensure timely sowing of Rabi crops.
- ❖ Stagnant water may badly damage the standing crops in the agricultural plains of Sindh and Southern Punjab. Therefore drainage of water from fields may be made if possible so that the land may be prepared well on time for the sowing of wheat and other Rabi crops.