

# DECADAL AGROMET BULLETIN OF PAKISTAN



2<sup>nd</sup> Decade April, 2012



Regional Agromet Centre, Tandojam, located in lower Sindh

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

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**Meteorological conditions during 1<sup>st</sup> decade of April, 2012**

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						Sunshine Duration (hours)	Wind Speed (km/hr)	R.H (%)	ET <sub>o</sub> (mm/day)
		Normal	Actual	Dep	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	TANDOJAM	0.1	0.0	-0.1	2.6	1.3	30.8	33.6	33.2	31.1	29.1	28.3	25.7	96.9	3.5	46	5.4
2	SAKRAND ☆	0.1	TR	-0.1	1.3	1.8	29.6	39.4	37.4	40.4	30.4	30.3	27.3	102.7	2.6	40	5.1
3	ROHRI	0.6	TR	-0.6	2.1	2.1	31.4	40.7	35.9	31.4	30.1	28.2	27.1	92.5	5.6	33	5.8
4	USTA MUHAMMAD	0.0	0.0	0.0	-0.1	2.0	29.1	36.9	36.0	30.4	29.4	28.4	27.8	***	2.7	46	5.1
5	QUETTA	0.2	9.6	9.4	1.7	1.0	17.8	23.9	22.3	18.9	12.1	16.8	15.8	80.8	6.2	34	4.3
6	KHANPUR	0.6	0.0	-0.6	2.0	1.8	29.2	31.3	30.0	29.5	29.1	28.7	27.9	92.3	7.7	45	6.0
7	MULTAN	0.3	TR	-0.3	2.3	1.9	28.9	***	***	***	***	***	***	88.3	5.2	41	5.2
8	LAHORE	0.5	TR	-0.5	1.0	2.4	28.4	32.7	30.4	27.2	25.7	***	22.4	95.3	3.8	37	4.8
9	FAISALABAD	0.4	2.0	1.6	3.9	2.0	28.4	36.3	33.6	29.1	26.8	25.3	22.6	93.3	4.1	40	4.8
10	SARGODHA	1.3	5.6	4.3	2.8	2.2	28.4	34.5	31.3	28.1	26.6	26.1	23.7	93.7	2.8	40	4.5
11	JHELUM	1.7	2.7	1.0	2.0	3.6	27.6	32.0	29.9	26.8	25.0	24.6	***	78.1	3.8	35	4.4
12	RAWALPINDI	2.6	2.5	-0.1	1.9	3.3	24.8	29.2	25.8	23.3	22.1	20.6	19.0	79.9	2.3	39	3.8
13	D I KHAN	0.7	6.2	5.5	1.7	1.6	26.8	***	***	***	***	***	***	87.8	2.7	41	4.3
14	PESHAWAR	2.9	2.5	-0.4	0.7	2.8	24.6	25.9	24.3	22.5	22.1	20.6	19.3	55.0	2.3	51	3.4
15	SKARDU	2.7	0.0	-2.7	2.8	2.6	14.1	***	***	***	***	***	***	54.0	5.4	37	3.3
16	GILGIT	1.4	1.2	-0.2	3.3	1.8	18.2	***	***	***	***	***	***	60.3	6.9	39	4.0

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<sub>o</sub>** stands for reference crop evapotranspiration. \*\*\* stands for no data and (☆) indicates the station with five years climatic (normal) data for computing departures.



### Past Weather (1<sup>st</sup> to 10<sup>th</sup> April, 2012):

Light to moderate rain reported from the agricultural plains of KPK, Punjab, Kashmir & Gilgit Baltistan during the period. However meager rain is reported for a few days from the agricultural plains of Sindh and Balochistan during the period.

#### **1.1 Punjab**

Light to moderate rainfall reported from most of the agricultural plains Punjab during the decade, chief amount received at Sialkot, Murree, Noorpurthal and Chakwal (Fig. 1.a). Decadal maximum temperature and minimum temperature both raised above normal by 2.5°C and 2.3°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 4.2 km/hr, 40 %, and 4.8 mm/day respectively (Fig 3-4).

#### **1.2 Sindh**

Mainly dry weather is reported from most of the agricultural plains of the province during the decade however rainfall in fewer amount occurred at isolated places of Upper Sindh . Decadal maximum temperature and minimum temperature both raised above normal by 1.7°C and 2.0°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.9 km/hr, 40 %, and 5.4 mm/day respectively.

#### **1.3 Khyber Pakhtoon Khawa (KPK)**

Rainfall in favourable amount reported from most of the agricultural plains of KPK; chief amount received at Parachinar, Kalam, Kakul and Dir etc. Decadal maximum temperature and minimum temperature both raised above normal by 2.2°C and 1.2°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 2.5 km/hr, 46 %, and 3.9 mm/day respectively.

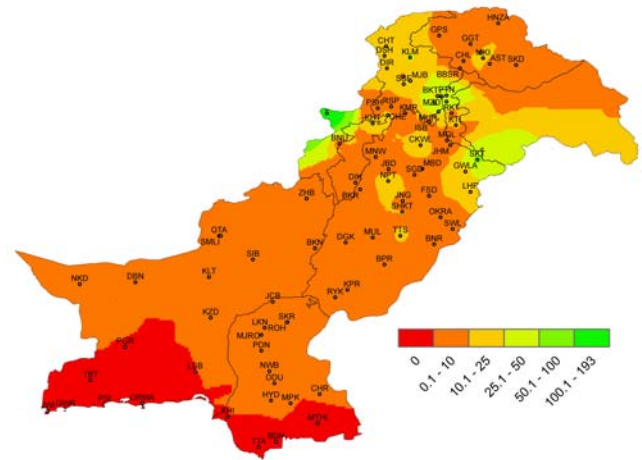
#### **1.4 Balochistan**

Mainly dry weather is reported from most of the agricultural plains of the province however light rainfall occurred at isolated places in upper parts like Barkhan, Quetta and Kallat etc. In the northern Balochistan decadal maximum temperature and minimum temperature both raised above normal by 1.5°C and 0.8°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 4.5 km/hr, 40 %, and 4.7 mm/day respectively.

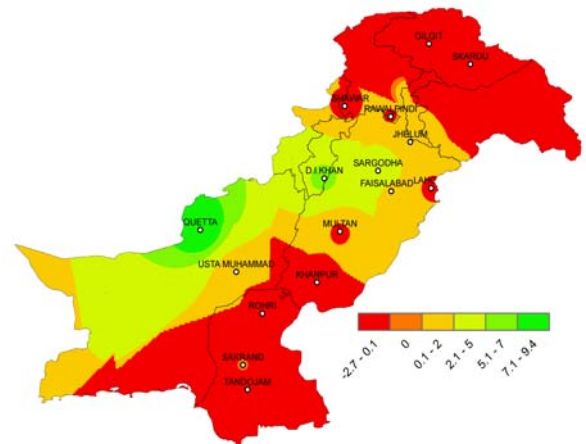
#### **1.5 Gilgit Baltistan and Azad Jammu & Kashmir**

Light to moderate rainfall reported from most of the agricultural plains of Gilgit Baltistan and Azad Jammu & Kashmir; chief amount received at Pattan, Muzaffarabad and Garhi Dopatta etc. In Gilgit Baltistan region; decadal maximum temperature and minimum temperature both raised above normal by 2.2°C and 3.1°C respectively. Whereas

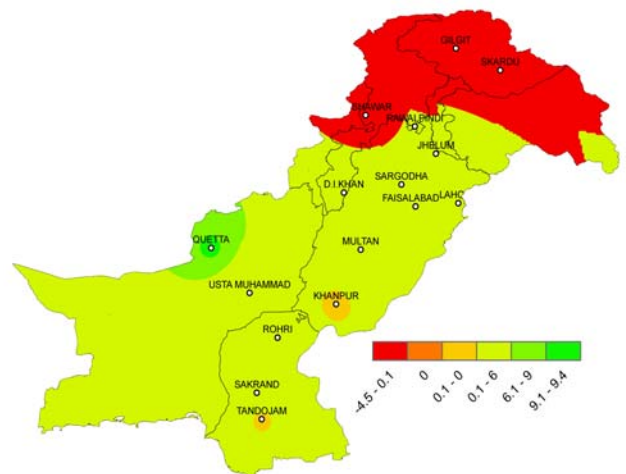
mean values of wind speed, relative humidity and ETo were recorded as 6.2 km/hr, 38 %, and 3.7 mm/day respectively.



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 (1<sup>st</sup> to 10<sup>th</sup> April, 2012) as per Table-1

### 2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 2.5 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 39%. Mean night temperature was 16.3°C while day temperature recorded as 33.2°C with 79.9 hours bright sunshine duration. Wind speed recorded as 2.3 Km/hr with mean direction *westerly*. Presently only one crop (rainfed conditions) is grown at the station as detailed below.

Wheat (Chakwal-97): Good condition at *Shooting* stage

### 2.2 RAMC, Tandojam (Lower Sindh)

No rainfall reported during the decade however weather remained cloudy for 7 days average relative humidity recorded as 46%. Mean night temperature was 21.9°C while day temperature recorded as 39.6°C with 96.9 hours bright sunshine duration. Wind speed recorded as 3.5 Km/hr with mean direction *south-westerly*. Presently no crop is there in the fields.

### 2.3 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 2.0 mm during the decade, weather remained cloudy for the entire period and average relative humidity recorded as 40%. Mean night temperature was 21.3°C while day temperature recorded as 35.5°C with 93.3 hours bright sunshine duration. Wind speed recorded as 4.1 Km/hr with mean direction *north-westerly*. Presently two crops (irrigated conditions) are grown at the station as detailed below.

Wheat: Very good condition at *Wax-Maturity* stage.  
Sugarcane: Good condition, *Tillering* stage completed.

### 2.4 RAMC, Quetta (Northern Balochistan)

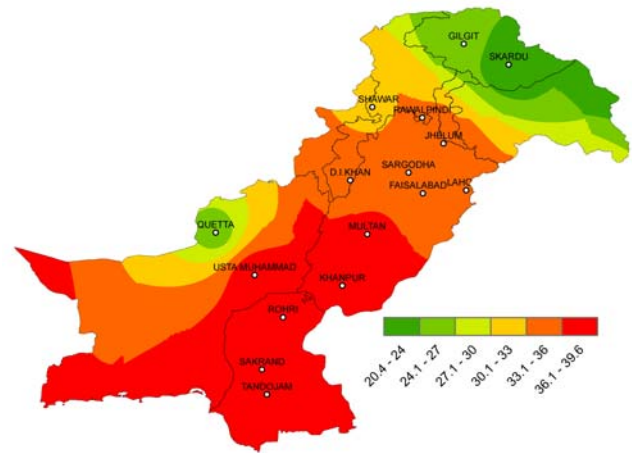
Rainfall reported as 9.6 mm during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 34%. Mean night temperature was 10.3 °C while day temperature recorded as 25.2°C with 80.8 hours bright sunshine duration and wind speed recorded as 6.2 Km/hr with mean direction *north-westerly*. Presently only one crop (rainfed conditions) is grown at the station as detailed below.

Wheat (Local): Good condition at *Heading* stage.

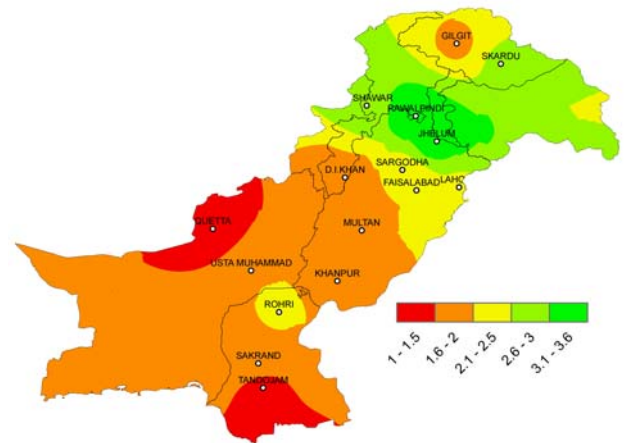
### 2.5 RAMC, Usta Muhammad (Eastern Balochistan)

No rainfall reported during the decade however weather remained cloudy for 4 days and average relative humidity recorded as 46%. Mean night temperature was 19.7°C while day temperature recorded as 38.5°C. Wind speed recorded as 2.7 Km/hr with mean direction *easterly*. Presently two crops (irrigated conditions) are grown at the station as detailed below.

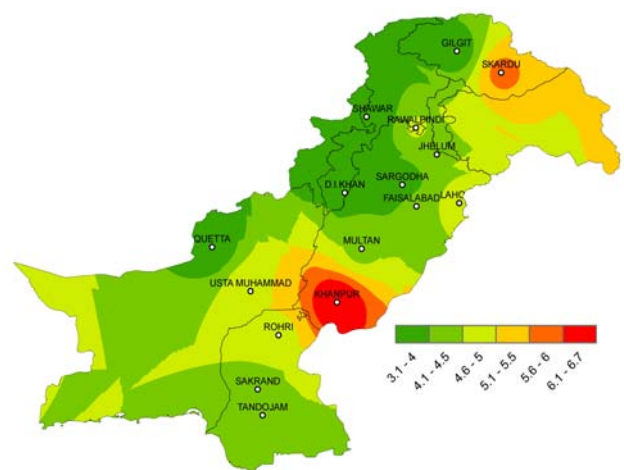
Wheat (Lasani): Good condition at *Full-Maturity* stage.  
Mastard: Good condition, *Harvesting* in process.



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 (1<sup>st</sup> to 10<sup>th</sup> April, 2012)

### 2.6 Rohri

During the decade rainfall occurred as Trace (indeterminate amount), weather remained cloudy for 8 days and average relative humidity recorded as 33 %. Mean night temperature was 24.2°C while day temperature recorded as 38.6°C with 92.5 hours bright sunshine duration. Wind speed recorded as 5.6 Km/hr with mean direction *north-easterly*.

### 2.7 Skardu

During the decade no rainfall occurred however weather remained cloudy for 7 days and average relative humidity recorded as 37 %. Mean night temperature was 7.7 °C while day temperature recorded as 20.4°C with 54.0 hours bright sunshine duration. Wind speed recorded as 5.4 Km/hr with mean direction *north-westerly*.

### 2.8 Multan

During the decade rainfall occurred as Trace (indeterminate amount), weather remained cloudy for the entire period and average relative humidity recorded as 41%. Mean night temperature was 21.0°C while day temperature recorded as 36.7°C with 88.3 hours bright sunshine duration. Wind speed recorded as 5.2 Km/hr with mean direction *northerly*.

### 2.9 Lahore

Rainfall reported as Trace (indeterminate amount) during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 37%. Mean night temperature was 21.5°C while day temperature recorded as 35.2°C with 95.3 hours bright sunshine duration. Wind speed recorded as 3.8 Km/hr with mean direction *north-westerly*.

### 2.10 Peshawar

Rainfall reported as 2.5 mm during the decade, weather remained cloudy for the entire period and average relative humidity recorded as 51%. Mean night temperature was 17.1 °C while day temperature recorded as 32.0°C with 55.0 hours bright sunshine duration. Wind speed recorded as 2.3 Km/hr with mean direction *north-westerly*.

### 2.11 Khanpur

During the decade no rainfall occurred however weather remained cloudy for the entire period and average relative humidity recorded as 45%. Mean night temperature was 20.8°C while day temperature recorded as 37.6°C with 92.3 hours bright sunshine duration. Wind speed recorded as 7.7 Km/hr with mean direction *north-easterly*.

### 2.12 Sargodha

Rainfall reported as 5.6 during the decade, however weather remained cloudy the entire period and average relative humidity recorded as 40%. Mean night temperature was

21.1°C while day temperature recorded as 35.6°C with 93.7 hours bright sunshine duration. Wind speed recorded as 2.8 Km/hr with variable direction.

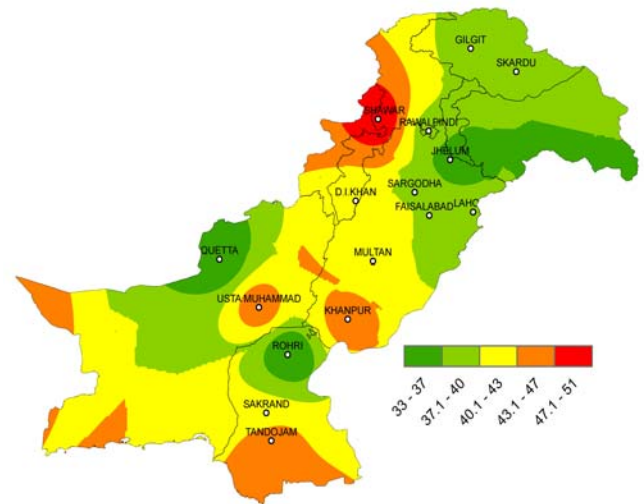


Figure.3: Relative Humidity in percentage

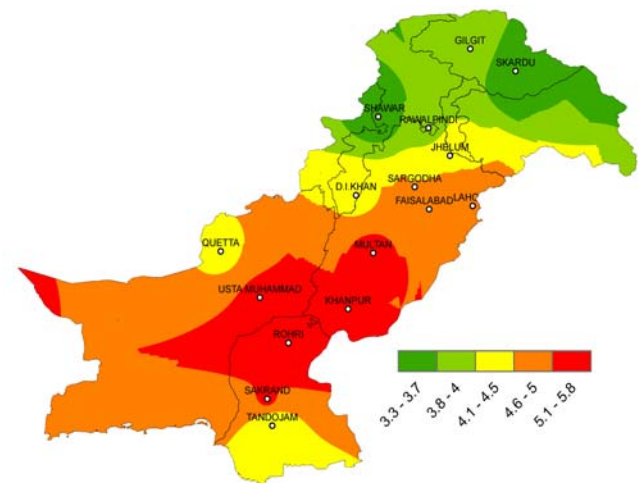


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

### 2.13 Gilgit.

Rainfall reported as 1.2 mm during the decade however weather remained cloudy for the entire period and average relative humidity recorded as 39 %. Mean night temperature was 11.4°C while day temperature recorded as 24.9 °C with 60.3 hours bright sunshine. Wind speed recorded as 6.9 Km/hr with mean direction *easterly*.

### 2.14 Jhelum

During the decade 2.7 mm rainfall occurred however weather remained cloudy for the entire period and average relative humidity recorded as 35 %.Mean night temperature was 19.2°C while day temperature recorded as 35.9°C with 78.1 hours bright sunshine duration. Wind speed recorded as 3.8 Km/hr with mean direction *south-westerly*.

## 2.15 D.I. Khan

Rainfall reported as 6.2 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 41%. Mean night temperature was 19.0°C while day temperature recorded as 34.6°C with 87.8 hours bright sunshine duration. Wind speed recorded as 2.7 Km/hr with mean direction *south-easterly*.

## 2.16 Sakrand

During the decade rainfall occurred as Trace (indeterminate amount), weather remained cloudy for 5 days and average relative humidity recorded as 40 %. Mean night temperature was 20.3°C while day temperature recorded as 38.9°C with 102.7 hours bright sunshine duration. Wind speed recorded as 2.6 Km/hr with mean direction *northerly*.

## 3. Ten days Weather advisory for Farmers (11<sup>th</sup> to 20<sup>th</sup> April, 2012)

### 3.1 Temperature Forecast:

Temperatures are likely to be normal/slightly above normal in most of the agricultural plains of the country during the 1st half & may rise (1-2°C) during the 2nd half of the decade.

### 3.2 Rain Forecast:

- ❖ **Punjab:** Light to moderate rain with thunderstorm is expected in 1<sup>st</sup> half & mostly dry weather in all agricultural plains of the province with dust storm in southern plains is expected during the 2<sup>nd</sup> half of the decade.
- ❖ **Khyber Pakhtoonkhawa:** Light to moderate rain with thunderstorm is expected in 1<sup>st</sup> half & mostly dry weather is expected during the 2<sup>nd</sup> half of the decade.
- ❖ **Sindh:** Mainly dry weather is expected during the decade.
- ❖ **Balochistan:** Light to moderate rain with thunderstorm is expected in Western parts during 1<sup>st</sup> half & mostly dry weather is expected during the 2<sup>nd</sup> half of the decade.
- ❖ **Kashmir & Gilgit-Baltistan:** Light rain with thunderstorm is expected in Gilgit-Baltistan & Kashmir during 1<sup>st</sup> half & mostly dry weather is expected during the 2<sup>nd</sup> half of the decade.

### 3.3 Wind Forecast:

Windy conditions likely to prevail in most of the agricultural plains of the country during 1<sup>st</sup> half and gusty winds along with dust storm is expected mostly in the lower half of the country during the period especially in Sindh.

### 3.4 Advisory for Farmers:

- ❖ Wheat crop is growing in wax to full maturity in the agriculture plains and harvesting/threshing is in progress in lower half of the country especially southern parts of Punjab & most of the agricultural plains of Sindh. Farmers are advised to start harvesting keeping the above forecast in mind. Farmers are also advised to harvest the full matured crop so that in time cultivation of the coming cotton crop may be possible.