

# DECADAL AGROMET BULLETIN OF PAKISTAN



2<sup>nd</sup> Decade July, 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 July, 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	2.0	1.0	-1.0	-0.5	0.0	32.2	37.3	37.4	35.5	34.4	33.8	31.3	79.7	6.8	59	6.1
2	SAKRAND ☆	0.4	0.0	-0.4	-1.6	-0.2	33.2	44.5	44.5	39.7	37.0	37.6	34.5	110.8	7.6	49	7.2
3	ROHRI	0.0	0.0	0.0	-6.5	-0.1	33.1	48.7	44.6	39.1	37.9	36.8	35.6	113.0	6.7	46	7.3
4	USTA MUHAMMAD	0.3	0.0	-0.3	0.7	1.3	36.9	50.2	47.3	45.0	41.5	39.5	39.0	***	5.2	47	6.9
5	QUETTA	0.3	0.0	-0.3	-2.4	0.1	27.8	40.1	36.2	31.4	23.9	28.7	27.5	102.5	5.2	27	6.1
6	KHANPUR	0.4	0.0	-0.4	-0.5	0.7	35.3	40.8	39.9	39.3	39.2	39.2	36.7	105.7	5.2	51	6.8
7	MULTAN	1.5	14.5	13.0	0.3	1.8	35.7	***	***	***	***	***	***	104.1	7.5	44	7.5
8	LAHORE	4.4	0.0	-4.4	1.2	6.7	34.5	42.2	39.6	36.4	35.0	***	31.3	95.5	5.0	51	6.4
9	FAISALABAD	2.9	40.0	37.1	1.3	2.4	34.3	40.4	38.4	35.8	34.6	33.7	31.9	89.1	6.6	50	6.6
10	SARGODHA	3.0	74.4	71.4	1.1	2.1	34.8	41.0	38.4	36.2	35.4	35.4	33.1	85.9	5.4	53	6.3
11	JHELMUM	4.1	99.0	94.9	0.9	3.6	34.2	43.6	42.3	39.1	37.9	37.7	***	84.2	5.6	47	6.3
12	RAWALPINDI	7.9	26.2	18.3	2.7	4.0	33.4	39.0	36.8	34.9	34.4	31.9	29.9	93.6	2.4	41	5.5
13	D I KHAN	2.7	76.0	73.3	0.1	2.0	33.9	***	***	***	***	***	***	102.1	4.4	52	6.3
14	PESHAWAR	1.4	0.0	-1.4	-0.2	2.9	34.0	38.3	35.3	33.7	32.5	30.8	28.2	88.7	4.0	48	6.0
15	SKARDU	0.4	0.0	-0.4	-0.3	2.7	23.8	***	***	***	***	***	***	88.7	5.7	28	5.6
16	GILGIT	0.1	0.0	-0.1	0.2	2.8	27.8	***	***	***	***	***	***	96.8	5.3	37	6.3

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<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> July, 2012)

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

### 1.1 Punjab

Light to moderate rainfall reported from most of the agricultural plains of Punjab during the decade, chief amount received at Jhelum, Sargodha and Islamabad etc (Fig. 1.a). Decadal maximum and minimum temperature both dropped above normal by 3.0 & 1.0°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 5.4 km/hr, 48 %, and 6.5 mm/day respectively (Fig 3-4).

### 1.2 Sindh

Light to moderate rainfall reported from few agricultural plains of Sindh; chief amount received at Chhor, Mithi and Jacobabad etc. Decadal maximum and minimum temperature both dropped below normal by 0.1 & 2.9°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 7.0 km/hr, 51 %, and 6.9 mm/day respectively.

### 1.3 Khyber Pakhtoon Khawa (KPK)

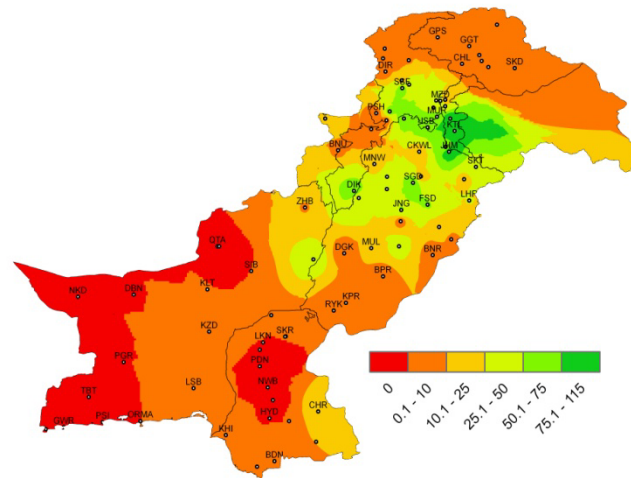
Light to moderate rainfall reported from most of the agricultural plains of KPK; chief amount received at Kakul, Malam Jabba and Parachinar etc. Decadal maximum temperature raised above normal by 2.5°C and minimum temperature dropped below normal by 0.1°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 4.2 km/hr, 50 %, and 6.2 mm/day respectively.

### 1.4 Balochistan

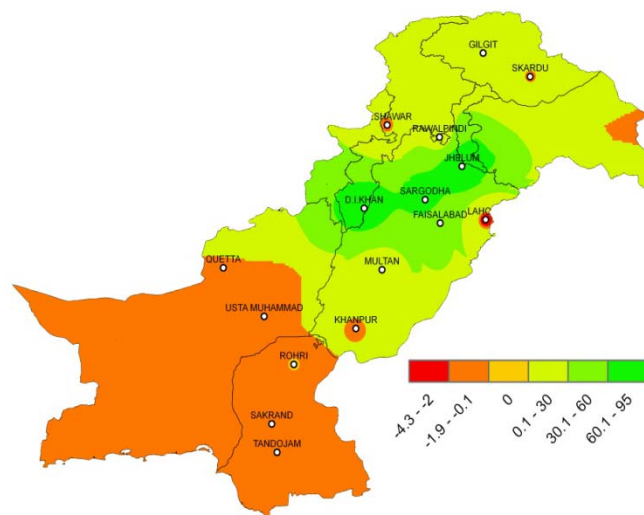
Light to moderate rainfall reported from few agricultural plains of Balochistan; chief amount received at Barkhan and Lasbella. In the northern Balochistan, decadal maximum temperature raised above normal by 0.7°C and minimum temperature dropped below normal by 0.9°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 5.2 km/hr, 37 %, and 6.5 mm/day respectively.

### 1.5 Gilgit Baltistan and Azad Jammu & Kashmir

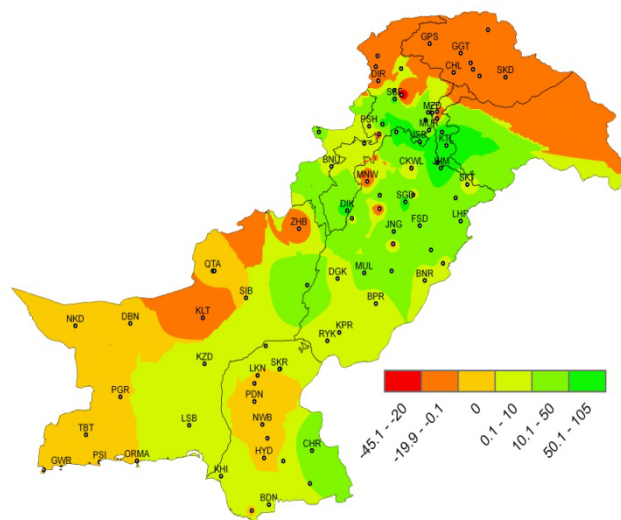
Light to moderate rainfall reported from most of the agricultural plains of Gilgit Baltistan and Azad Jammu & Kashmir; chief amount received at Rawalakot, Kotli and Muzaffarabad etc. In Gilgit Baltistan region; decadal maximum temperature raised above normal by 2.8 and minimum temperature dropped below normal by 0.1 respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded as 5.5 km/hr, 33 %, and 6.0 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> July, 2012) as per Table-1

### 2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 26.2 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 41%. Mean night temperature was 26.3°C while day temperature recorded as 40.4°C with 93.6 hours bright sunshine duration. Wind speed recorded as 2.4 Km/hr with mean direction *westerly*. Presently no crop is grown at the station.

### 2.2 RAMC, Tandojam (Lower Sindh)

Rainfall reported as 1.0 mm during the decade, weather remained cloudy for 9 days and average relative humidity recorded as 59%. Mean night temperature was 26.5°C while day temperature recorded as 37.8°C with 79.7 hours bright sunshine duration. Wind speed recorded as 6.8 Km/hr with mean direction *southerly*. Presently only one crop (irrigated conditions) is grown at the station as detailed below:

Cotton (BT-886): Good condition at Flowering stage.

### 2.3 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 40.0 mm during the decade, weather remained cloudy for 5 days and average relative humidity recorded as 50%. Mean night temperature was 28.3°C while day temperature recorded as 40.2°C with 89.2 hours bright sunshine duration. Wind speed recorded as 6.6 Km/hr with mean direction *south easterly*. Presently one crop (irrigated conditions) is grown at the station as detailed below:

Sugarcane: Very Good condition, Tillering stage completed.  
Cotton: Very Good condition, Budding stage.

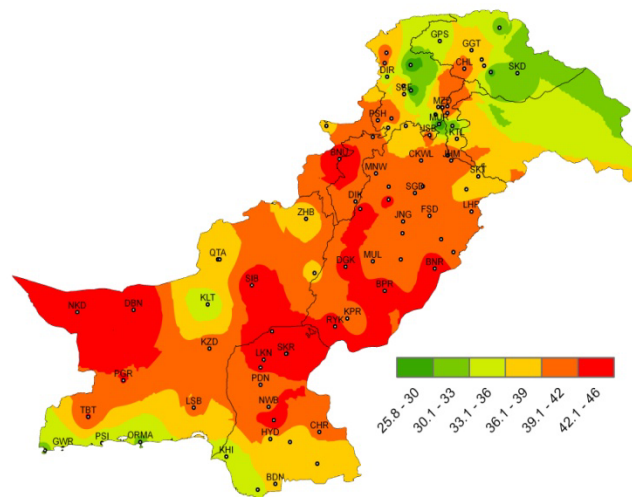
### 2.4 RAMC, Quetta (Northern Balochistan)

No rainfall reported during the decade, weather remained cloudy for 3 days and average relative humidity recorded as 27%. Mean night temperature was 19.1°C while day temperature recorded as 36.4°C with 102.5 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.

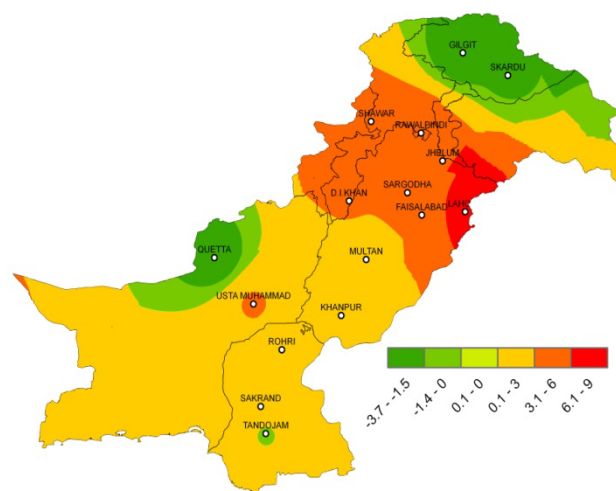
### 2.5 RAMC, Usta Muhammad (Eastern Balochistan)

No rainfall & cloudy day reported during the decade, average relative humidity recorded as 47%. Mean night temperature was 29.7°C while day temperature recorded as 44.0°C. Wind speed recorded as 5.2 Km/hr with mean direction *southerly*. Presently one crop (Irrigated conditions) is grown at the station as detailed below:

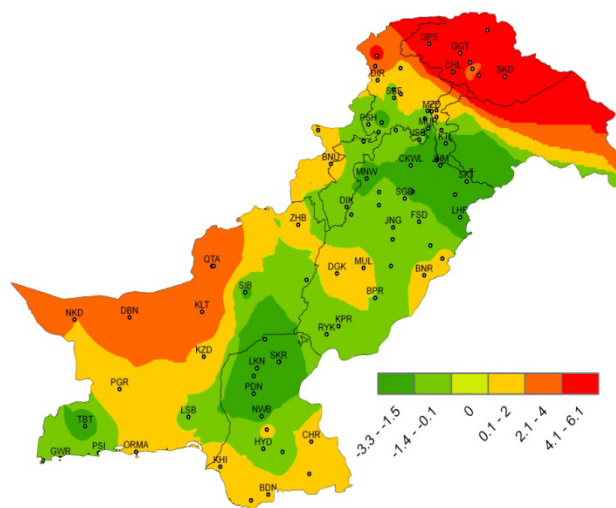
Rice: Plants transferred from nursery to fields.



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> July, 2012)

### 2.6 Rohri

No rainfall reported during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 46%. Mean night temperature was 23.8°C while day temperature recorded as 42.3°C with 111.3 hours bright sunshine duration. Wind speed recorded as 6.7 Km/hr with mean direction *southerly*.

### 2.7 Skardu

Rainfall reported as Trace (amount not measurable) during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 28%. Mean night temperature was 15.0°C while day temperature recorded as 32.6°C with 88.7 hours bright sunshine duration. Wind speed recorded as 5.7 Km/hr with variable wind.

### 2.8 Multan

Rainfall reported as 14.5 mm during the decade, weather remained cloudy for 3 days and average relative humidity recorded as 44%. Mean night temperature was 29.7°C while day temperature recorded as 41.7°C with 104.1 hours bright sunshine duration. Wind speed recorded as 7.5 Km/hr with mean direction *south westerly*.

### 2.9 Lahore

Rainfall reported as Trace (amount not measurable) during the decade, weather remained cloudy for 5 days and average relative humidity recorded as 51%. Mean night temperature was 28.9°C while day temperature recorded as 40.0°C with 95.5 hours bright sunshine duration. Wind speed recorded as 5.0 Km/hr with mean direction *south easterly*.

### 2.10 Peshawar

Rainfall reported as Trace (amount not measurable) during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 48%. Mean night temperature was 26.9°C while day temperature recorded as 41.1°C with 88.7 hours bright sunshine duration. Wind speed recorded as 4.0 Km/hr with variable wind.

### 2.11 Khanpur

No rainfall reported during the decade, weather remained cloudy for 3 days and average relative humidity recorded as 51%. Mean night temperature was 29.1°C while day temperature recorded as 41.5°C with 105.7 hours bright sunshine duration. Wind speed recorded as 5.2 Km/hr with mean direction *south westerly*.

### 2.12 Sargodha

Rainfall reported as 74.4 mm during the decade, weather remained cloudy for 5 days and average relative humidity recorded as 53 %. Mean night temperature was 29.0°C while day temperature recorded as 40.6°C with 85.9 hours bright

sunshine duration. Wind speed recorded as 5.4 Km/hr with variable wind.

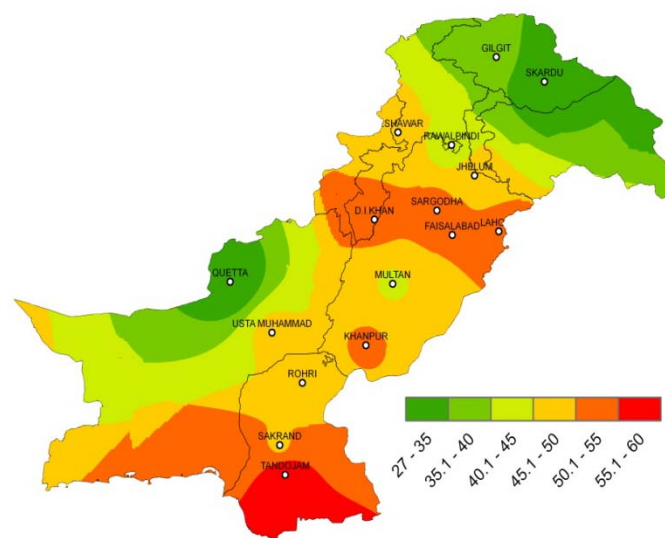


Figure.3: Relative Humidity in percentage

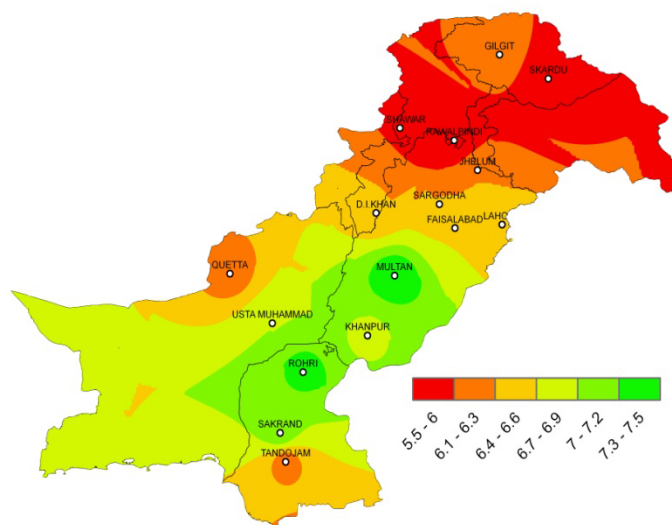


Figure.4: Reference Crop Evapotranspiration “ET<sub>0</sub>” in mm/day

### 2.13 Gilgit.

Rainfall reported as Trace (amount not measurable) during the decade however weather remained cloudy for 10 days and average relative humidity recorded as 37 %. Mean night temperature was 16.8°C while day temperature recorded as 38.8°C with 96.8 hours bright sunshine. Wind speed recorded as 5.3 Km/hr with mean direction *easterly*.

### 2.14 Jhelum

Rainfall reported as 99.0 mm during the decade however weather remained cloudy for 9 days and average relative humidity recorded as 47%. Mean night temperature was 27.6°C while day temperature recorded as 40.8°C with 84.2 hours bright sunshine duration. Wind speed recorded as 5.6 Km/hr with mean direction *south easterly*.

## 2.15 D.I. Khan

Rainfall reported as 76.0 mm during the decade, weather remained cloudy for 5 days and average relative humidity recorded as 52%. Mean night temperature was 26.6°C while day temperature recorded as 41.1°C with 102.1 hours bright sunshine duration. Wind speed recorded as 4.4 Km/hr with mean direction *easterly*.

## 2.16 Sakrand

No rainfall reported during the decade however weather remained cloudy for 3 days average relative humidity recorded as 49%. Mean night temperature was 26.0°C while day temperature recorded as 40.3°C with 110.8 hours bright sunshine duration. Wind speed recorded as 7.6 Km/hr with mean direction *southerly*.

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

### 3.1 Temperature Forecast:

Day time temperatures expected to be normal/below normal in most of the agricultural plains of the country during the decade.

### 3.2 Rain Forecast:

- ❖ **Punjab:** Isolated to scattered thundershower with few heavy falls expected in upper & central agricultural plains of the province during 1<sup>st</sup> half of the decade. However light to moderate rain with thunder at isolated places is expected during 2<sup>nd</sup> half of the decade.
- ❖ **Khyber Pakhtoonkhawa:** Isolated to scattered thundershower is expected in the agricultural plains of the province during the decade.
- ❖ **Sindh:** Mainly hot & humid weather is expected during the decade. However light rain/dust thunderstorm is expected in Southern parts of the province during 18<sup>th</sup> to 20<sup>th</sup> July.
- ❖ **Balochistan:** Mainly dry weather is expected during the decade. However intermittent rain/dust-thunderstorm is expected at isolated places of Zhob and Kalat divisions.
- ❖ **Kashmir & Gilgit-Baltistan:** Mostly partly cloudy to cloudy weather is expected during the decade. However thundershower with few heavy showers is likely at isolated to scattered places of Kashmir, while rainfall expected at isolated places of Gilgit Baltistan during the decade.

### 3.3 Wind Forecast:

Gusty winds may prevail occasionally in the monsoon belt and adjoining areas 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 during the monsoon season.
- ❖ Due to hot & humid weather expected in southern half of the country, farmers are advised to irrigate the crops as per requirement.
- ❖ Farmers of rainfed areas, obtaining crop water through tube wells are also advised to schedule the irrigation according to the expected weather mentioned above during the decade.
- ❖ During the dry & humid weather in monsoon season, farmers of cotton belt are advised to take in time precautionary measures to protect their cotton crop for the attack of pests especially attack of Melay Bug, Jassid, Thrips & Whitefly.
- ❖ Farmers are advised to start sowing of Jawar, Maize, Bajra etc due to sufficient moisture availability in Pothor region after 2<sup>nd</sup> decade.