

# DECADAL AGROMET BULLETIN OF PAKISTAN



1<sup>st</sup> Decade January, 2012



Regional Agromet Centre, Tandojam, located in lower Sindh

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

[http://www.pakmet.com.pk/WFF/weather\\_for\\_farmers](http://www.pakmet.com.pk/WFF/weather_for_farmers)

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**Meteorological conditions during 3<sup>rd</sup> decade of December, 2011**

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	0.4	0.0	-100.0	-3.2	-2.3	16.9	16.5	17.1	***	17.7	19.9	21.9	91.9	1.5	53	1.7
2	SAKRAND ☆	0.0	0.0	0.0	-1.7	-1.5	16.6	19.6	17.8	***	18.2	20.4	24.2	90.6	3.1	57	1.9
3	ROHRI	0.0	0.0	0.0	-1.8	-0.1	17.2	20.2	18.9	18.4	20.2	20.2	24.0	92.8	3.3	47	2.0
4	USTA MUHAMMAD	0.0	0.0	0.0	-2.4	-0.7	15.6	19.4	19.7	20.7	19.9	20.6	21.7	***	0.8	54	1.3
5	QUETTA	0.4	0.0	-100.0	-4.6	-1.1	4.5	10.1	8.1	4.9	0.4	6.8	10.9	99.6	4.2	30	1.6
6	KHANPUR	0.1	0.0	0.0	-3.5	-1.0	14.2	13.0	13.4	13.4	14.2	15.7	19.0	71.0	3.1	55	1.7
7	MULTAN	0.1	0.0	-100.0	-3.2	-0.6	14.2	***	***	***	***	***	***	75.3	1.3	51	1.3
8	LAHORE	0.3	0.0	-100.0	-1.9	0.0	14.8	13.0	12.9	12.7	13.3	***	18.2	83.0	1.1	58	1.2
9	FAISALABAD	0.2	0.0	-100.0	-3.0	0.6	13.3	15.8	14.2	12.0	12.1	14.2	18.2	80.3	2.3	57	1.4
10	SARGODHA	0.4	0.0	-100.0	-1.9	0.7	14.3	14.8	13.8	13.5	14.5	16.5	19.4	85.5	0.9	65	1.2
11	JHELUM	0.4	0.0	-100.0	-3.6	1.3	13.3	16.2	15.1	14.2	14.7	16.5	***	88.0	1.5	53	1.1
12	RAWALPINDI	0.5	0.0	-100.0	-2.3	0.4	11.8	12.4	11.1	9.9	10.4	11.3	15.1	87.9	1.6	55	1.0
13	D I KHAN	0.4	0.0	-100.0	-4.1	-1.0	12.6	***	***	***	***	***	***	89.3	2.9	46	1.5
14	PESHAWAR	0.6	0.0	-100.0	-4.3	0.8	11.1	12.9	10.7	10.0	11.3	13.2	15.7	77.6	1.6	58	1.0
15	SKARDU	0.5	0.0	-100.0	-2.0	1.3	-0.2	***	***	***	***	***	***	56.0	0.7	51	0.7
16	GILGIT	0.4	0.0	-100.0	-1.6	1.2	4.1	***	***	***	***	***	***	39.4	2.1	51	1.1

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 (21<sup>st</sup> December to 31<sup>st</sup> December, 2011):**

Mainly dry weather is reported from most of the agricultural plains of the country during the period. However, isolated rain/snow reported from AJK and GB.

### **1.1 Punjab**

Mainly dry weather is reported from most of the agricultural plains of Punjab however isolated rainfall in fewer amount reported from eastern and northern parts (Fig. 1.a). Decadal day time maximum temperature raised above normal by 0.2°C and night time minimum temperature dropped below normal by 2.8°C, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 1.7 km/hr, 56 %, and 1.3 mm/day respectively (Fig 3-4).

### **1.2 Sindh**

Dry weather is reported from most of the agricultural plains of Sindh. Decadal day time maximum temperature and night time minimum temperature dropped below normal by 1.3 °C & 2.2 °C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 2.6 km/hr, 52 %, and 1.9 mm/day respectively.

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

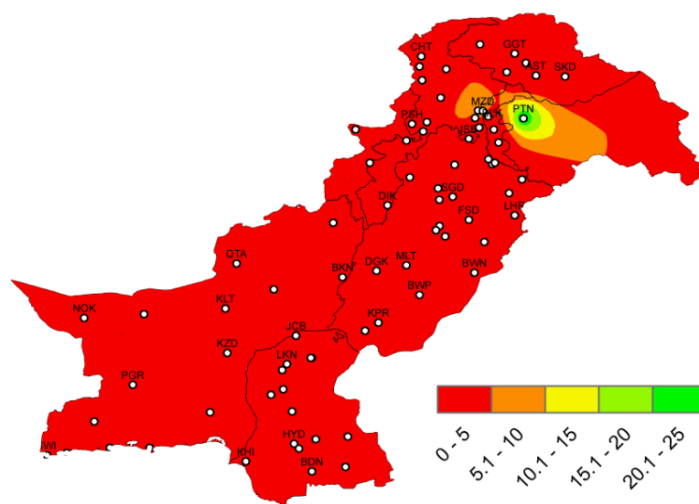
Normal to below normal rainfalls reported from isolated places of the agricultural plains of KPK; Balakot, Malamjabba, Dir, Kakul and Saidu Sharif. Decadal day time maximum temperature and night time minimum temperature dropped below normal by 0.1 °C & 4.2 °C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 2.3 km/hr, 52 %, and 1.3 mm/day respectively.

### **1.4 Balochistan**

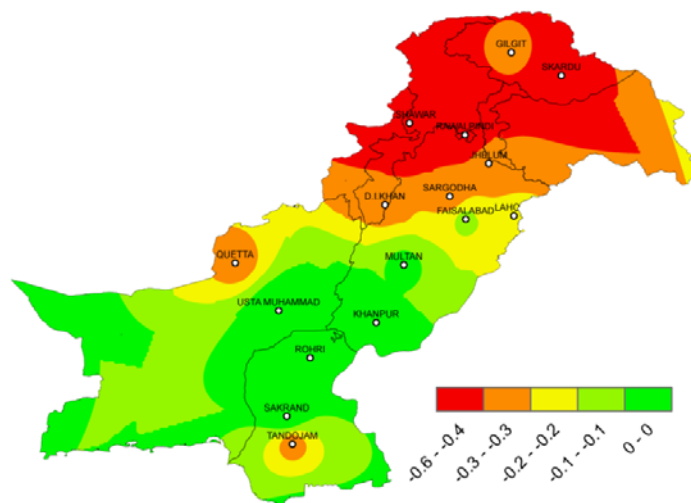
Dry weather is reported from most of the agricultural plains of Balochistan. In the northern Balochistan decadal day time maximum temperature and night time minimum temperature dropped below normal by 0.9 °C & 3.5 °C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 2.5 km/hr, 42 %, and 1.5 mm/day respectively.

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

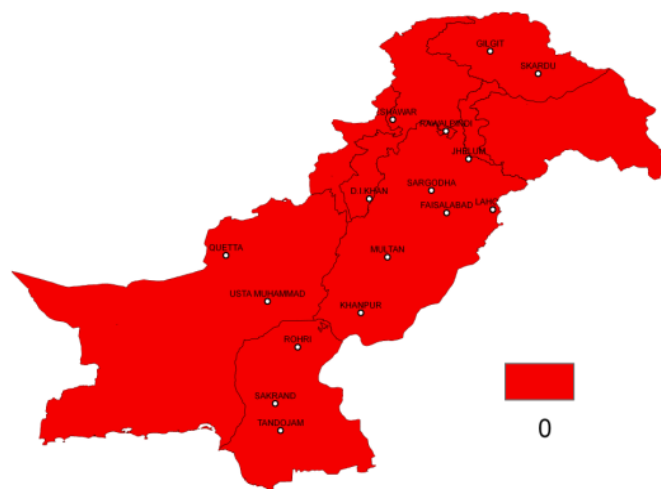
Mainly dry weather is reported from most of the agricultural plains of Gilgit Baltistan and Azad Jammu & Kashmir however around normal rainfalls reported from Pattan, Muzaffarabad and Rawalakot. In Gilgit Baltistan region; decadal day time maximum temperature raised above normal by 1.3 °C and night time minimum temperature dropped below normal by 1.8 °C, in the province. Whereas mean values of wind speed, relative humidity and ETo were recorded as 1.4 km/hr, 51 %, and 0.9 mm/day respectively.



a) Actual rainfall



b) Departure of rainfall



c) Departure of rainfall from Previous Decade

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

**2 (a) Past Weather for Major Agricultural Plains (21<sup>st</sup> December to 31<sup>st</sup> December, 2011) as per Table-1**

**2.1 RAMC, Rawalpindi (Potohar region)**

No rainfall occurred during the decade however weather remained cloudy for 3 days and relative humidity recorded as 55%. Mean night temperature was 1.0°C while day temperature recorded as 19.6°C with 87.9 hours bright sunshine duration. Wind speed recorded as 1.6 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 *Third Leaf* stage

**2.2 RAMC, Tandojam (Lower Sindh)**

Dry weather with clear skies observed during the decade and relative humidity recorded as 53 %. Mean night temperature was 5.9°C while day temperature recorded as 22.0°C with 91.9 hours bright sunshine duration. Wind speed recorded as 1.5 Km/hr with mean direction northerly. Presently only one crop (irrigated conditions) is grown at the station as detailed below.

Wheat (TD-I): Good condition at *Tillering* stage

**2.3 RAMC, Faisalabad (Central Punjab)**

Weather remained dry during the decade however weather remained cloudy for 3 days and relative humidity recorded as 57 %. Mean night temperature was 1.9°C while day temperature recorded as 21.1°C with 80.3 hours bright sunshine duration. Wind speed recorded as 2.3 Km/hr with mean direction north-westerly. Presently two crops (irrigated conditions) are grown at the station as detailed below.

Wheat: Good condition at *Tillering* stage  
Sugarcane: Good condition.

**2.4 RAMC, Quetta (Northern Balochistan)**

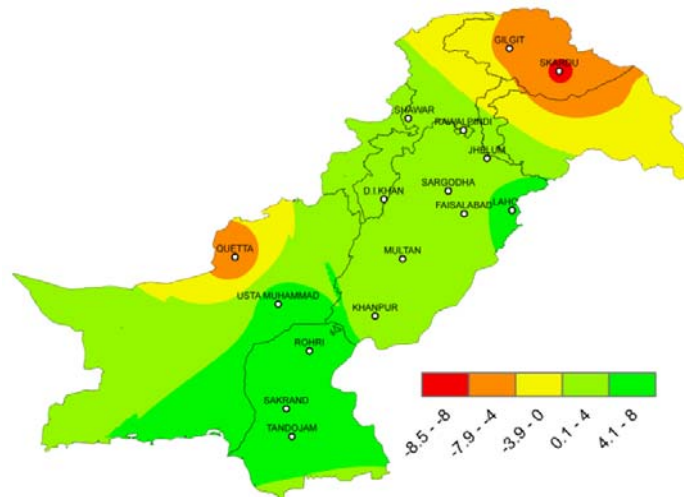
Weather remained dry during the decade however weather remained cloudy for 3 days and relative humidity recorded as 30 %. Mean night temperature was -6.7 °C while day temperature recorded as 11.7 °C with 99.6 hours bright sunshine duration and wind speed recorded as 4.2 Km/hr with mean direction north-easterly. Presently only one crop (rainfed conditions) is grown at the station as detailed below.

Wheat: Good condition at *Third Leaf* stage.

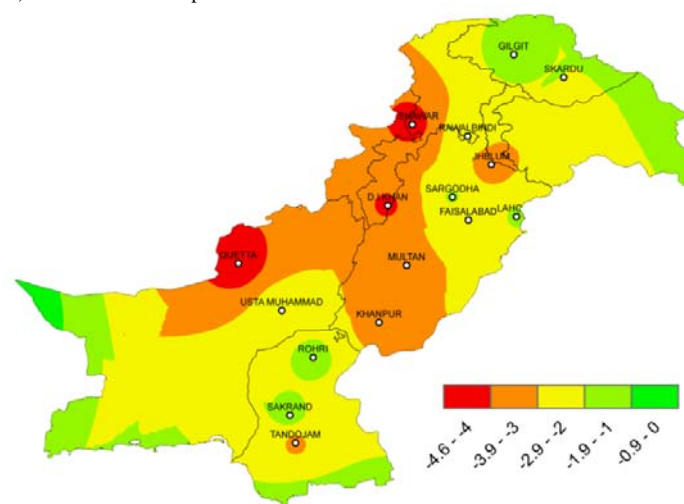
**2.5 RAMC, Usta Muhammad (Eastern Balochistan)**

Dry weather with clear skies observed during the decade and relative humidity recorded as 54 %. Mean night temperature was 5.5°C while day temperature recorded as 21.2°C. Wind speed recorded as 4.4 Km/hr with mean direction northerly. Presently two crops (irrigated conditions) are grown at the station as detailed below.

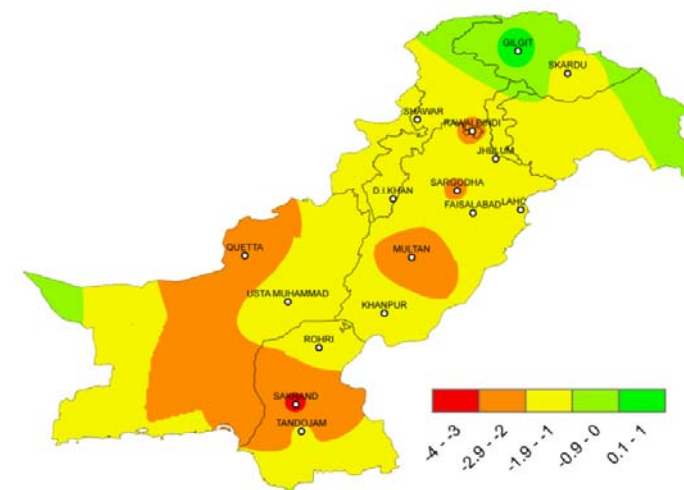
Wheat: Good condition at *Third Leaf* stage  
Mastard: Good condition.



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 (21<sup>st</sup> December to 31<sup>st</sup> December, 2011)**

**2.6 Rohri**

During the decade no rainfall occurred however weather remained cloudy for 2 days and relative humidity recorded as 47 %. Mean night temperature was 7.6°C while day temperature recorded as 22.8°C with 92.8 hours bright sunshine duration. Wind speed recorded as 3.3 Km/hr with mean direction northeasterly.

**2.7 Skardu**

During the decade no rainfall occurred however weather remained cloudy for 6 days and relative humidity recorded as 51 %. Mean night temperature was -8.5 °C while day temperature recorded as 7.1°C with 56.0 hours bright sunshine duration. Wind speed recorded as 0.7 Km/hr with mean direction westerly.

**2.8 Multan**

During the decade no rainfall occurred however weather remained cloudy for 2 days and relative humidity recorded as 51 %. Mean night temperature was 2.5°C while day temperature recorded as 20.8 °C with 75.3 hours bright sunshine duration. Wind speed recorded as 1.3 Km/hr with mean direction northerly.

**2.9 Lahore**

During the decade no rainfall occurred however weather remained cloudy for 2 days and relative humidity recorded as 58 %. Mean night temperature was 6.5°C while day temperature recorded as 19.7°C with 83.0 hours bright sunshine duration. Wind speed recorded as 1.1 Km/hr with mean direction northwesterly.

**2.10 Peshawar**

During the decade no rainfall occurred however weather remained cloudy for 2 days and relative humidity recorded as 58 %. Mean night temperature was 0.7 °C while day temperature recorded as 20.3 °C with 77.6 hours bright sunshine duration. Wind speed recorded as 1.6 Km/hr with mean direction northwesterly.

**2.11 Khanpur**

Weather remained dry during the decade however weather remained cloudy for 2 days and relative humidity recorded as 55%. Mean night temperature was 2.8°C while day temperature recorded as 21.1°C with 71.0 hours bright sunshine duration. Wind speed recorded as 1.7 Km/hr with mean direction north-easterly.

**2.12 Sargodha**

Weather remained dry during the decade however weather remained cloudy for one day and relative humidity recorded as 65%. Mean night temperature was 4.0°C while day temperature recorded as 21.4°C with 85.5 hours bright

sunshine duration. Wind speed recorded as 0.5 Km/hr with mean direction northerly.

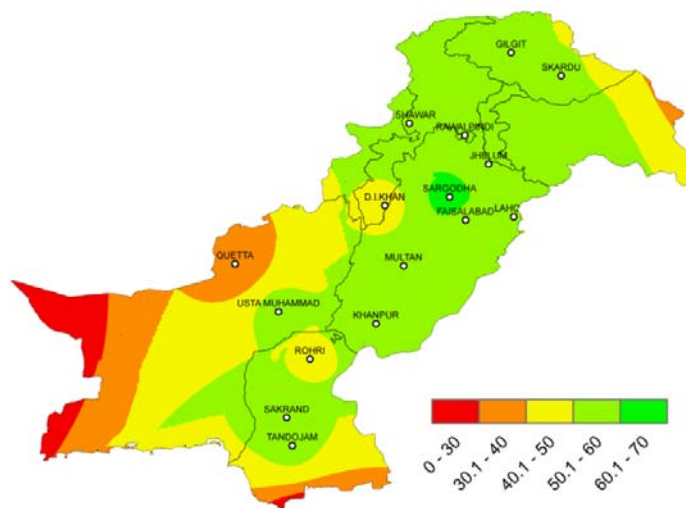


Figure.3: Relative Humidity in percentage

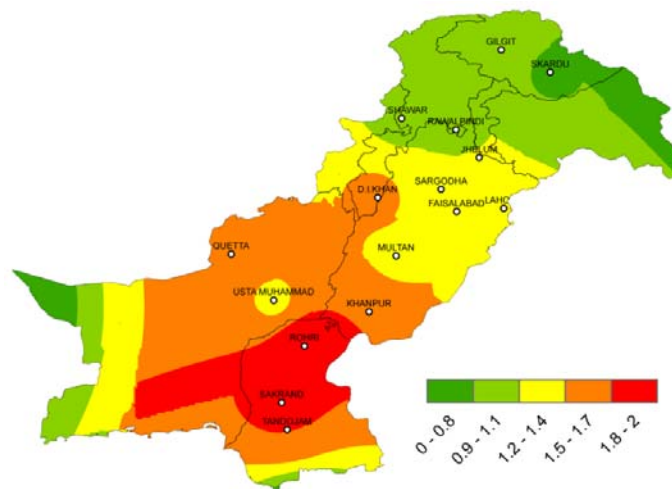


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

### 2.13 Gilgit.

During the decade no rainfall occurred however weather remained cloudy for 9 days and relative humidity recorded as 51 %. Mean night temperature was -4.2 °C while day temperature recorded as 12.7 °C with 39.4 hours bright sunshine. Wind speed recorded as 0.7 Km/hr with mean direction *easterly*.

### 2.14 Jhelum

Dry weather reported during the decade however weather remained cloudy for 3 days and relative humidity recorded as 53%. Mean night temperature was 2.0°C while day temperature recorded as 22.3°C with 88.0 hours bright sunshine duration. Wind speed recorded as 1.5 Km/hr with variable direction.

### 2.15 D.I. Khan

Dry weather with clear skies observed during the decade and relative humidity recorded as 46%. Mean night temperature was 2.0°C while day temperature recorded as 20.3°C with 89.3 hours bright sunshine duration. Wind speed recorded as 2.9 Km/hr with mean direction *north-westerly*.

### 2.16 Sakrand

During the decade no rainfall occurred however weather remained cloudy for 3 days and relative humidity recorded as 57%. Mean night temperature was 5.5°C while day temperature recorded as 20.9°C with 90.6 hours bright sunshine duration. Wind speed recorded as 3.1 Km/hr with mean direction *northerly*.

## 3. Ten days Weather advisory for Farmers (1<sup>st</sup> January to 10<sup>th</sup> January, 2012)

### 3.1 Temperature Forecast:

Day temperatures are likely to remain normal during the decade however night temperatures expected to remain 2-3°C below normal during the period 6<sup>th</sup> to 10<sup>th</sup> January, 2012 in Kashmir, Gilgit-Baltistan, Punjab, KPK and North Balochistan.

### 3.2 Rain Forecast:

➤ **Punjab:** Mainly dry weather is expected in most parts of the province during the period. However, plains of Punjab including Lahore, Gujranwala, Sargodha, Faisalabad, Multan and Bahawalpur may experience moderate to dense fog during morning hours. Mostly cloudy conditions with isolated light to moderate rain/light snowfall over the hills expected in Islamabad/Rawalpindi, Gujranwala divisions during the period 4<sup>th</sup> to 7<sup>th</sup> January, 2012.

➤ **Khyber Pakhtoonkhawa:** Mainly dry weather is expected in most parts of the province during the period. However plains of KPK including Peshawar, Charsada and Sawabi may experience moderate to dense fog during morning hours. Mostly cloudy conditions with isolated light to moderate rain/light snowfall over the hills expected in Malakand, Hazara divisions during the period 4<sup>th</sup> to 7<sup>th</sup> January, 2012.

➤ **Sindh:** Mainly dry weather is expected during the decade.

➤ **Balochistan:** Mainly dry weather is expected during the decade. However, Isolated light to moderate rain/light snowfall over the hills expected in Quetta, Kalat and Zhob divisions during the period 4<sup>th</sup> to 5<sup>th</sup> January, 2012.

➤ **Kashmir & Gilgit-Baltistan:** Mainly dry weather is expected during the decade. Mostly cloudy conditions with isolated light to moderate rain/light snowfall over the hills expected in Kashmir, Gilgit-Baltistan during the period 4<sup>th</sup> to 7<sup>th</sup> January, 2012.

### 3.3 Wind Forecast:

Normal wind pattern is likely in most parts of the country. However strong winds are likely in Upper Punjab, Upper KPK during the period 4<sup>th</sup> to 7<sup>th</sup> January, 2012.

### 3.4 Advisory for Farmers:

➤ Wheat crop is in development stages in the agriculture plains of the country. Farmers should irrigate the early sown crops as per requirement due to dry weather which prevailed in most of the agriculture plains.

➤ Removing weeds from standing crops is of particular importance as weeds consume considerable moisture and food from the field. As a result considerable loss in yield occurs every year. However operations against weeds should be started using weedicides or manually when the crop completely covers the field.