

DECADAL AGROMET BULLETIN OF PAKISTAN



2nd Decade February, 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 1st decade of February, 2012

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						Sunshine Duration (hours)	Wind Speed (km/hr)	R.H (%)	ET ₀ (mm/day)
		Normal	Actual	Dep	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	TANDOJAM	0.0	0.0	0.0	-4.2	-2.6	14.2	17.7	18.0	***	17.8	19.2	20.8	88.7	1.3	49	2.2
2	SAKRAND ☆	0.1	0.0	-0.1	-2.5	-2.2	13.6	22.1	19.9	***	18.2	19.9	21.8	101.1	3.1	48	2.5
3	ROHRI	0.4	0.0	-0.4	-4.1	-2.5	14.9	22.4	20.3	18.8	19.5	19.4	22.9	90.7	4.8	38	2.7
4	USTA MUHAMMAD	0.2	0.0	-0.2	-4.2	-2.6	13.3	21.3	19.4	18.0	16.4	19.4	21.4	***	1.2	42	1.9
5	QUETTA	1.8	14.7	12.9	-4.6	-1.1	3.1	3.9	3.8	3.0	-1.7	3.8	7.4	71.4	6.7	55	1.8
6	KHANPUR	0.9	0.0	-0.9	-4.0	-1.2	13.2	16.6	16.0	15.8	16.2	17.1	18.6	16.6	4.8	49	2.5
7	MULTAN	0.7	TR	-0.7	-2.2	-1.4	12.8	***	***	***	***	***	***	***	3.1	46	2.0
8	LAHORE	0.9	2.0	1.1	-2.3	-1.6	13.5	14.5	14.0	13.2	13.3	***	15.9	14.5	3.5	49	2.0
9	FAISALABAD	0.7	1.2	0.5	-1.7	-1.5	12.1	17.7	16.5	14.1	13.6	14.5	16.3	17.7	5.9	47	2.4
10	SARGODHA	1.0	7.1	6.1	-2.5	-1.5	12.1	16.6	14.9	14.1	14.7	16.0	17.7	16.6	2.8	60	1.7
11	JHELUM	1.8	11.3	9.5	-2.4	-1.1	12.2	14.2	13.3	12.5	12.5	13.5	***	14.2	3.5	55	1.9
12	RAWALPINDI	3.2	30.0	26.8	-0.9	-1.9	10.4	12.7	11.3	10.4	10.7	11.2	13.0	12.7	2.9	66	1.4
13	D I KHAN	1.3	2.9	1.6	-1.6	-1.9	12.1	***	***	***	***	***	***	68.8	5.8	38	2.5
14	PESHAWAR	2.5	7.0	4.5	-2.8	-2.0	10.3	14.0	11.9	10.9	12.2	12.6	14.2	47.4	1.6	58	1.2
15	SKARDU	0.8	1.8	1.0	1.3	0.1	1.0	***	***	***	***	***	***	36.4	1.9	60	1.0
16	GILGIT	0.1	0.2	0.1	1.0	0.3	6.4	***	***	***	***	***	***	35.0	4.2	46	1.6

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. **ET₀** stands for reference crop evapotranspiration. *** stands for no data and (☆) indicates the station with five years climatic (normal) data for computing departures.

Past Weather (1st February to 10th February, 2012):

Light to moderate rain with snowfall over hills is reported from the agricultural plains of KPK, Punjab, Balochistan, Kashmir and Gilgit Baltistan during the period. Whereas meager rain is reported from the agricultural plains of Sindh.

1.1 Punjab

Scattered rainfall in fewer amount reported from some of the agricultural plains of Punjab during the decade, chief amount recorded at Murree, Rawalpindi/Islamabad and Chakwal (Fig. 1.a). Decadal maximum temperature and minimum temperature both dropped below normal by 1.5°C & 2.3°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.8 km/hr, 53 %, and 2.0 mm/day respectively (Fig 3-4).

1.2 Sindh

Mainly cold and dry weather is reported from most of the agricultural plains of Sindh except few places like Jacobabad, Larkana, Thatta and Dadu etc where fewer rainfall occurred. Decadal maximum temperature and minimum temperature both dropped below normal by 2.4°C & 3.6°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.1 km/hr, 45 %, and 2.5 mm/day respectively.

1.3 Khyber Pakhtoon Khawa (KPK)

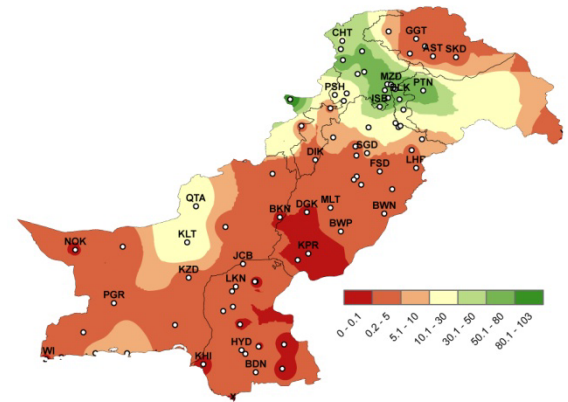
Rainfall in favourable amount reported from most of the agricultural plains of KPK; mainly from Parachinar, Dir, Kalam, Balakot and Malamjabba etc. Decadal maximum temperature and minimum temperature both dropped below normal by 2.0°C & 2.2°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.7 km/hr, 48 %, and 1.9 mm/day respectively.

1.4 Balochistan

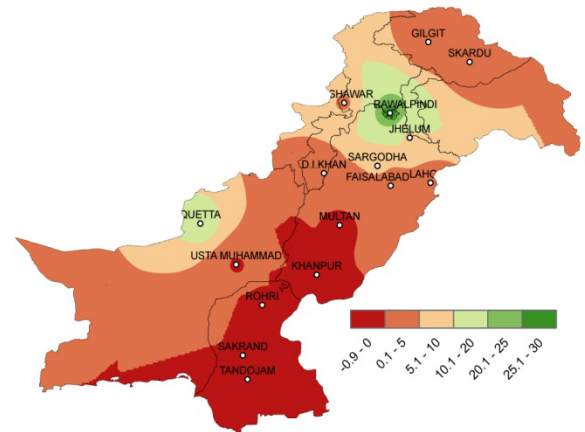
Mainly cold and dry weather is reported from most of the agricultural plains of Sindh except few places like Kallat, Quetta, Pasni and Ormara etc. In the northern Balochistan decadal maximum temperature and minimum temperature both dropped below normal by 1.9 & 4.4°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 4.0 km/hr, 49 %, and 1.9 mm/day respectively.

1.5 Gilgit Baltistan and Azad Jammu & Kashmir

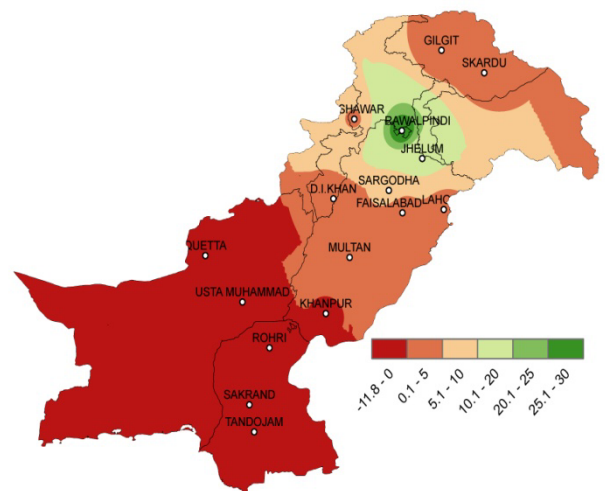
Rainfall in favourable amount reported from most of the agricultural plains Gilgit Baltistan and Azad Jammu & Kashmir mainly from Pattan, Muzaffarabad, Rawalakot and Gurhi Dopatta etc. In Gilgit Baltistan region; decadal maximum temperature and minimum temperature both raised above normal by 0.2°C & 1.2°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded as 3.1 km/hr, 53 %, and 1.3 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 (1st February to 10th February, 2012) as per Table-1

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 30.0 mm during the decade, weather remained cloudy for 3 days and average relative humidity recorded as 66%. Mean night temperature was 3.7°C while day temperature recorded as 17.0°C with 43.0 hours bright sunshine duration. Wind speed recorded as 2.9 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 6 days and average average relative humidity recorded as 49%. Mean night temperature was 4.6°C while day temperature recorded as 23.8°C with 88.7 hours bright sunshine duration. Wind speed recorded as 1.3 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 *Flowering* stage.

2.3 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 1.2 mm during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 47%. Mean night temperature was 4.5°C while day temperature recorded as 19.6°C with 68.5 hours bright sunshine duration. Wind speed recorded as 5.9 Km/hr with mean direction north-westerly. Presently two crops (irrigated conditions) are grown at the station as detailed below.

Wheat: Excelent condition at *Tillering* stage.

Sugarcane: Good condition at *Shooting* stage.

2.4 RAMC, Quetta (Northern Balochistan)

Rainfall reported as 47.5 mm during the decade, weather remained cloudy for 5 days and average relative humidity recorded as 55%. Mean night temperature was -5.1 °C while day temperature recorded as 11.2 °C with 71.4 hours bright sunshine duration and wind speed recorded as 6.7 Km/hr with mean direction southerly. Presently only one crop (rainfed conditions) is grown at the station as detailed below.

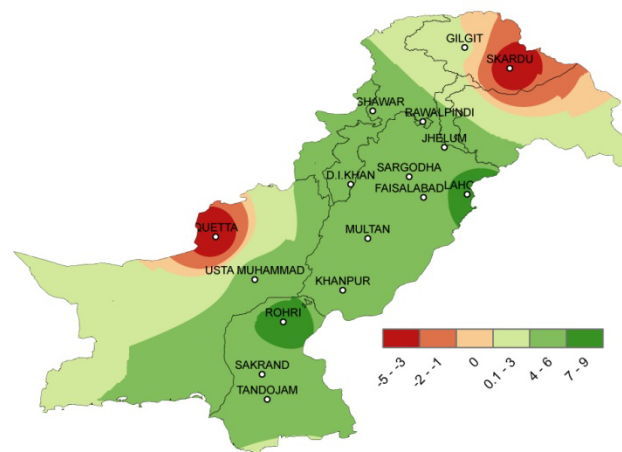
Wheat: Good condition at *Third Leaf* stage.

2.5 RAMC, Usta Muhammad (Eastern Balochistan)

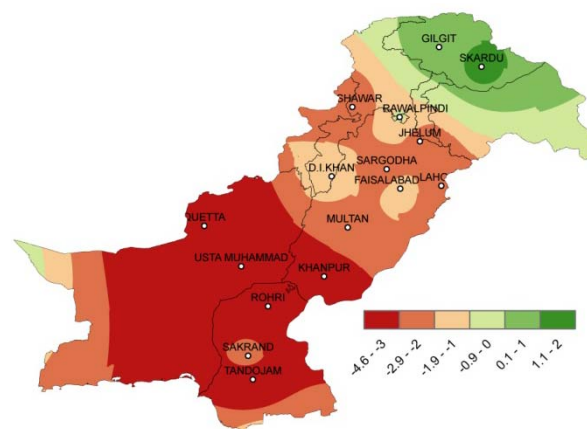
No rainfall reported during the decade however weather remained cloudy for 6 days and average relative humidity recorded as 42%. Mean night temperature was 4.3°C while day temperature recorded as 22.2°C. Wind speed recorded as 1.2 Km/hr with mean direction southerly. Presently two crops (irrigated conditions) are grown at the station as detailed below.

Wheat (Lasani): Good condition at *Shooting* stage.

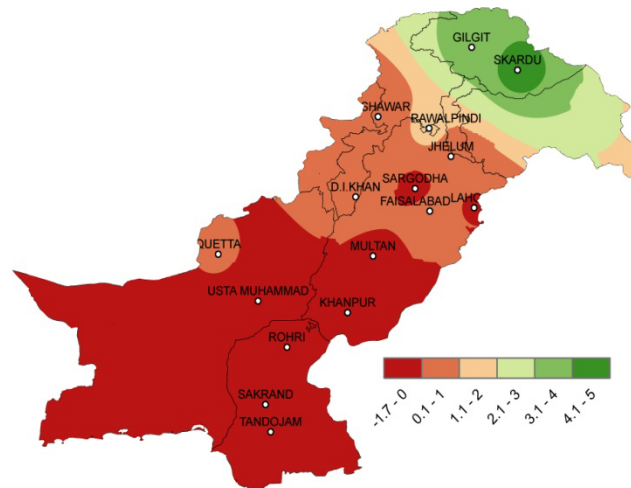
Mastard: Good condition at *Flowering* stage.



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 (1st February to 10th February, 2012)

2.6 Rohri

During the decade no rainfall occurred however weather remained cloudy for 6 days and average relative humidity recorded as 38 %. Mean night temperature was 7.5°C while day temperature recorded as 22.3°C with 90.7 hours bright sunshine duration. Wind speed recorded as 4.8 Km/hr with mean direction *north-easterly*.

2.7 Skardu

During the decade 1.8 inches snowfall occurred, weather remained cloudy for 8 days and average relative humidity recorded as 60 %. Mean night temperature was -4.6 °C while day temperature recorded as 6.5°C with 36.4 hours bright sunshine duration. Wind speed recorded as 1.9 Km/hr with mean direction *north-westerly*.

2.8 Multan

During the decade rainfall occurred as *Trace* (indeterminate rain) however weather remained cloudy for 6 days and average relative humidity recorded as 46 %. Mean night temperature was 4.9°C while day temperature recorded as 20.6°C with 63.1 hours bright sunshine duration. Wind speed recorded as 3.1 Km/hr with mean direction *northerly*.

2.9 Lahore

Rainfall reported as 2.0 mm during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 49 %. Mean night temperature was 7.6°C while day temperature recorded as 19.3°C with 73.6 hours bright sunshine duration. Wind speed recorded as 3.5 Km/hr with mean direction *north-westerly*.

2.10 Peshawar

Rainfall reported as 7.0 mm during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 58%. Mean night temperature was 3.7 °C while day temperature recorded as 16.9 °C with 47.4 hours bright sunshine duration. Wind speed recorded as 3.0 Km/hr with mean direction *northerly*.

2.11 Khanpur

During the decade no rainfall occurred however weather remained cloudy for 7 days and average relative humidity recorded as 49%. Mean night temperature was 4.2°C while day temperature recorded as 22.2°C with 80.4 hours bright sunshine duration. Wind speed recorded as 4.8 Km/hr with mean direction *north-easterly*.

2.12 Sargodha

Rainfall reported as 7.1 mm during the decade, however weather remained cloudy for 6 days and average relative humidity recorded as 60 %. Mean night temperature was

4.4°C while day temperature recorded as 19.7°C with 59.6 hours bright sunshine duration. Wind speed recorded as 2.8 Km/hr with mean direction *westerly*.

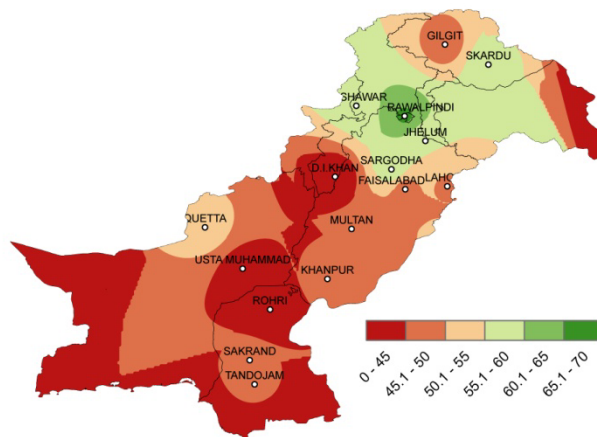


Figure.3: Relative Humidity in percentage

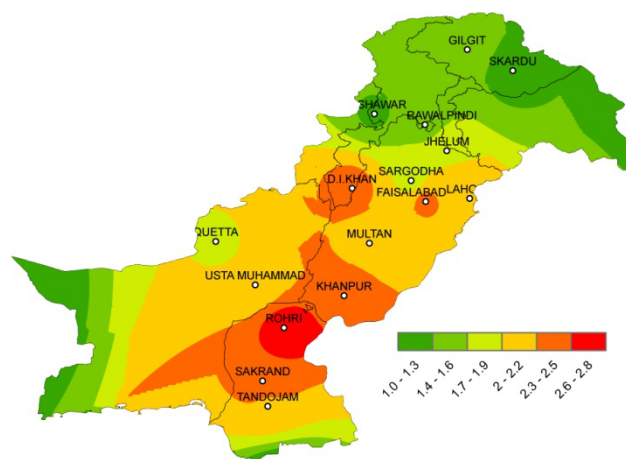


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

2.13 Gilgit.

Rainfall reported as 0.2 mm during the decade however weather remained cloudy for the entire period and average relative humidity recorded as 46 %. Mean night temperature was 0.1 °C while day temperature recorded as 12.7 °C with 35.0 hours bright sunshine. Wind speed recorded as 2.6 Km/hr with mean direction *westerly*.

2.14 Jhelum

Rainfall reported as 11.3 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 55%. Mean night temperature was 4.7°C while day temperature recorded as 19.6°C with 71.1 hours bright sunshine duration. Wind speed recorded as 3.5 Km/hr with mean direction *north-westerly*.

2.15 D.I. Khan

Rainfall reported as 2.9 mm during the decade, weather remained cloudy for 4 days and average relative humidity recorded as 38%. Mean night temperature was 4.7°C while day temperature recorded as 19.4°C with 68.8 hours bright sunshine duration. Wind speed recorded as 5.8 Km/hr with mean direction *north-westerly*.

2.16 Sakrand

During the decade no rainfall occurred however weather remained cloudy for 5 days and average relative humidity recorded as 48%. Mean night temperature was 4.7°C while day temperature recorded as 22.5°C with 101.1 hours bright sunshine duration. Wind speed recorded as 3.1 Km/hr with mean direction *northerly*.

3. Ten days Weather advisory for Farmers (11th February to 20th February, 2012)

3.1 Temperature Forecast:

Temperatures are likely to remain slightly below normal in most parts of the country. However parts of Kashmir, Gilgit- Baltistan, Upper KPK and Upper Punjab may experience 2-3°C below normal night temperatures from 15th-16th and 19th-20th February, 2012.

3.2 Rain Forecast:

- ❖ **Punjab:** Scattered rain with snowfall over the hills is expected in Upper Punjab on 12th-13th and 17th-18th February, 2012.
- ❖ **Khyber Pakhtoonkhawa:** Scattered rain with snowfall over the hills is expected in KPK on 12th-13th and 17th-18th February, 2012.
- ❖ **Sindh:** Mainly dry weather is expected during the decade.
- ❖ **Balochistan:** Scattered rain with snowfall over the hills is expected in Northeast Balochistan on 12th-13th and 17th-18th February, 2012.
- ❖ **Kashmir & Gilgit-Baltistan:** Scattered rain with snowfall over the hills is expected in Kashmir and Gilgit Baltistan on 12th-13th and 17th-18th February, 2012.

3.3 Wind Forecast:

Normal wind pattern is likely in most parts of the country.

3.4 Advisory for Farmers:

- ❖ Wheat crop is in shooting/flowering development stages in the agriculture plains of the country. Farmers should irrigate the crops as per requirement keeping the above forecast of coming rains in mind.
- ❖ Farmers should now accelerate weeds removing operations to save soil moisture and other nutrients from weeds.