

DECADAL AGROMET BULLETIN OF PAKISTAN



1st 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 3rd decade of January, 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	0.0	0.0	0.0	2.5	-2.4	14.4	17.7	18.1	***	17.9	19.2	21.1	92.9	1.8	54	2.3
2	SAKRAND ☆	0.0	0.0	0.0	-0.5	2.4	14.2	21.1	19.3	***	18.0	19.7	21.9	95.0	4.8	58	2.6
3	ROHRI	0.0	0.0	0.0	-1.9	-1.7	14.9	22.3	20.2	17.6	19.4	19.2	22.9	90.5	4.1	49	2.5
4	USTA MUHAMMAD	0.3	0.0	-0.3	-2.6	-0.7	13.0	14.5	15.4	17.4	18.2	15.4	20.5	***	1.5	56	1.8
5	QUETTA	0.5	26.5	26.0	-4.2	-5.2	0.3	3.2	3.3	2.8	-1.7	4.0	7.9	60.3	4.7	69	1.3
6	KHANPUR	0.0	TR	0.1	-1.9	-0.4	13.3	14.6	14.1	14.3	14.8	15.7	17.7	84.8	5.9	46	2.5
7	MULTAN	0.2	0.0	-0.2	-0.5	0.0	13.1	***	***	***	***	***	***	78.7	2.1	54	1.9
8	LAHORE	0.7	0.0	-0.7	-0.6	0.4	13.7	13.3	12.8	12.4	12.6	***	16.1	97.4	2.3	50	1.9
9	FAISALABAD	0.3	TR	-0.2	-0.9	5.9	14.8	18.4	16.6	13.6	13.1	14.1	16.3	86.3	4.5	49	2.6
10	SARGODHA	1.0	0.0	-1.0	-0.8	1.7	13.3	17.4	15.6	14.4	14.7	15.9	17.6	79.9	2.4	59	1.8
11	JHELUM	1.7	TR	-1.6	-1.4	0.7	12.7	13.9	12.9	11.8	11.9	13.2	***	82.8	3.4	50	1.9
12	RAWALPINDI	2.4	0.0	-2.4	-1.4	-0.7	10.1	11.2	10.4	9.4	9.7	10.4	13.1	74.9	1.5	57	1.4
13	D I KHAN	0.6	TR	-0.5	-1.2	0.5	12.2	***	***	***	***	***	***	81.9	3.6	45	2.6
14	PESHAWAR	1.7	2.7	1.0	-1.7	-0.5	11.0	14.3	11.5	10.6	11.2	12.1	14.3	63.8	3.3	52	1.7
15	SKARDU	0.8	0.0	-0.8	-1.0	-0.5	-2.5	***	***	***	***	***	***	41.0	0.7	58	0.8
16	GILGIT	0.2	0.0	-0.2	-1.3	0.7	4.1	***	***	***	***	***	***	35.2	3.5	43	1.5

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 (21st January to 31st January, 2012):

Light to moderate rain with snowfall over hills is reported from the agricultural plains of KPK, Punjab, Balochistan and Kashmir 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 except central parts where dry weather observed, the highest amount recorded at Murree as 16.2 mm (Fig. 1.a). Decadal maximum temperature raised above normal by 1.1 °C and minimum temperature dropped below normal by 1.1°C, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.2 km/hr, 52 %, 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 parts where rainfall occurred in traces (indeterminate rain). Decadal maximum temperature dropped below normal by 0.6°C and minimum temperature remained normal, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.6 km/hr, 54 %, and 2.5 mm/day respectively.

1.3 Khyber Pakhtoon Khawa (KPK)

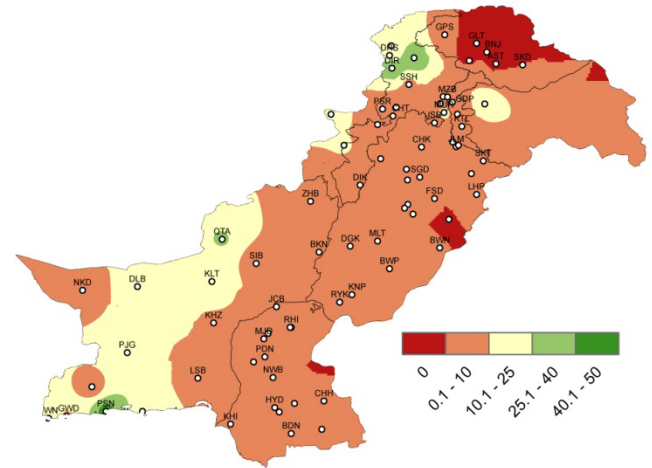
Rainfall in favourable amount reported from most of the agricultural plains of KPK; mainly from Dir, Kalam and Malamjabba etc. Decadal maximum temperature remained normal and minimum temperature dropped below normal by 11.5°C, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.5 km/hr, 49 %, and 2.2 mm/day respectively.

1.4 Balochistan

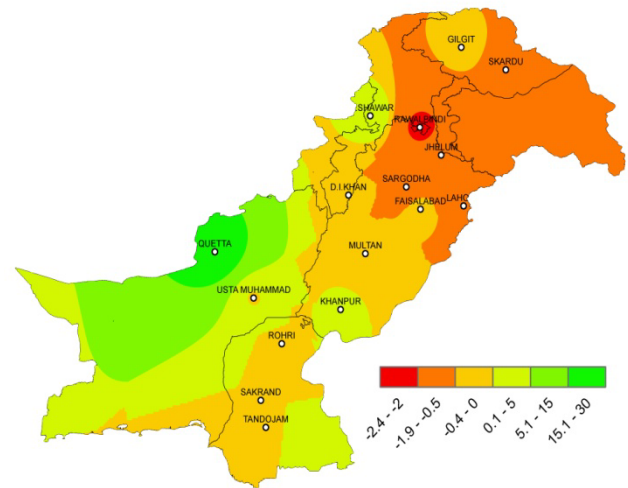
Rainfall in favourable amount reported from most of the agricultural plains of Balochistan mainly from Kallat, Panjgur, Pasni and Ormara etc. In the northern Balochistan decadal maximum temperature and minimum temperature both dropped below normal by 3.0 & 3.4°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 3.1 km/hr, 63 %, and 1.6 mm/day respectively.

1.5 Gilgit Baltistan and Azad Jammu & Kashmir

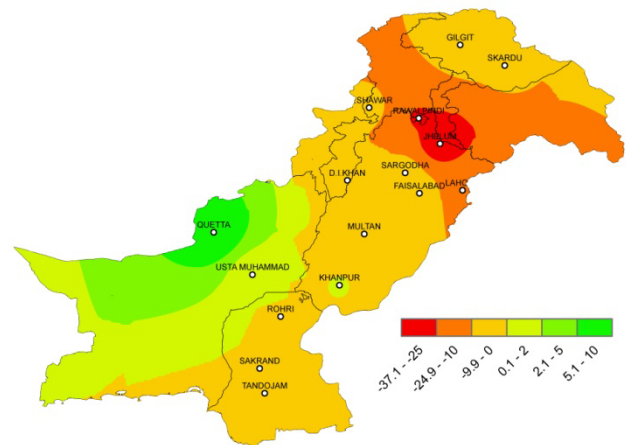
Scattered rainfall reported from few of the agricultural plains of of Gilgit Baltistan and Azad Jammu & Kashmir mainly from Pattan and Muzaffarabad etc. In Gilgit Baltistan region; decadal time maximum temperature raised slightly above normal by 0.1 °C and time minimum temperature dropped below normal by 1.2 °C. Whereas mean values of wind speed, relative humidity and ETo were recorded as 2.1 km/hr, 51 %, and 1.2 mm/day respectively.



a) Actual rainfall



b) Departure of rainfall from Normal



Departure of rainfall from Previous Decade

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

2 (a) Past Weather for Major Agricultural Plains (21st January to 31st January, 2012) as per Table-1

2.1 RAMC, Rawalpindi (Potohar region)

No rainfall reported during the decade, weather remained cloudy for 7 days and average average relative humidity recorded as 57%. Mean night temperature was 2.1°C while day temperature recorded as 18.0°C with 74.9 hours bright sunshine duration. Wind speed recorded as 1.5 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, weather remained cloudy for 4 days and average average relative humidity recorded as 54%. Mean night temperature was 6.0°C while day temperature recorded as 22.7°C with 92.9 hours bright sunshine duration. Wind speed recorded as 1.8 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, *Shooting* stage 70% completed and *Flowering* just started.

2.3 RAMC, Faisalabad (Central Punjab)

Rainfall reported as 0.1 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 49%. Mean night temperature was 4.0°C while day temperature recorded as 25.6°C with 86.3 hours bright sunshine duration. Wind speed recorded as 4.5 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.

2.4 RAMC, Quetta (Northern Balochistan)

Rainfall reported as 26.5 mm during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 69%. Mean night temperature was -5.3 °C while day temperature recorded as 5.9 °C with 60.3 hours bright sunshine duration and wind speed recorded as 4.7 Km/hr with mean direction southerly. Presently only one crop (rainfed conditions) is grown at the station as detailed below.

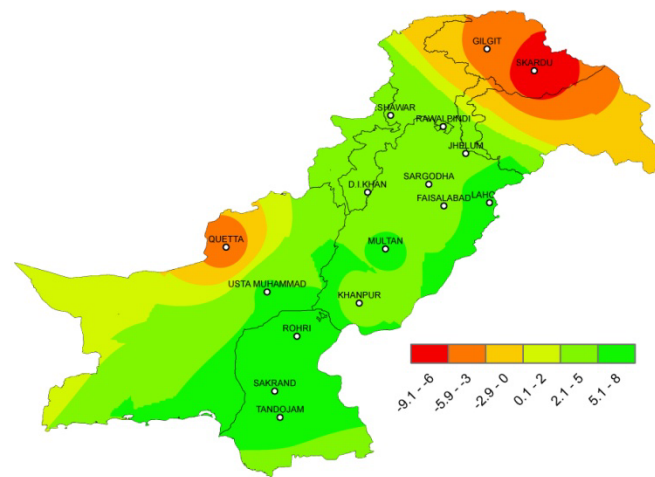
Wheat: Good condition at *Third Leaf* stage.

2.5 RAMC, Usta Muhammad (Eastern Balochistan)

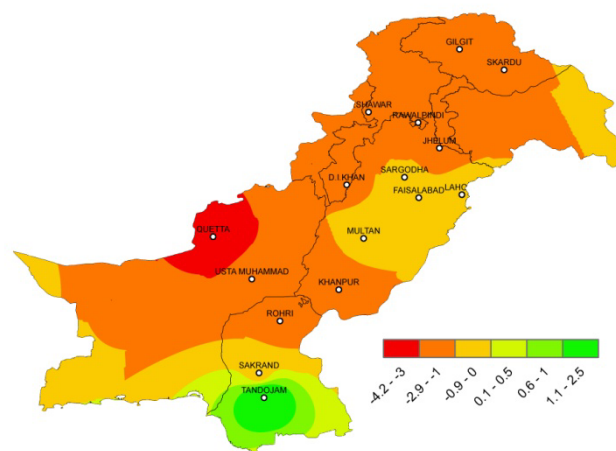
No rainfall reported during the decade, weather remained cloudy for 3 days and average relative humidity recorded as 56%. Mean night temperature was 5.0°C while day temperature recorded as 20.5°C. Wind speed recorded as 1.5 Km/hr with mean direction northerly. Presently two crops (irrigated conditions) are grown at the station as detailed below.

Wheat: Good condition at *Tillering* stage.

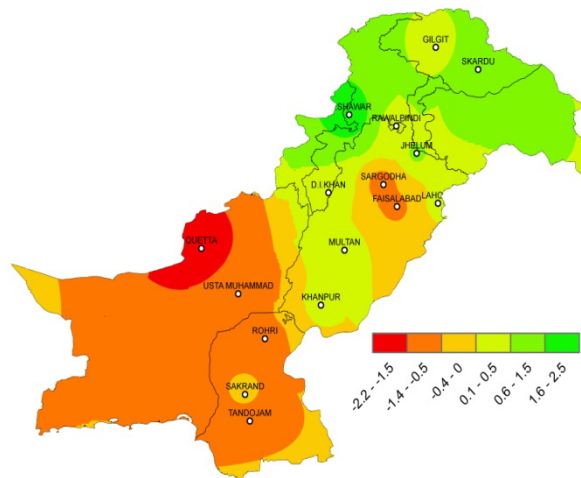
Mastard: Good condition at *Third Leaf* stage.



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 (21st January to 31st January, 2012)

2.6 Rohri

During the decade no rainfall occurred however weather remained cloudy for 6 days and average relative humidity recorded as 49 %. Mean night temperature was 8.0°C while day temperature recorded as 21.7°C with 90.5 hours bright sunshine duration. Wind speed recorded as 4.1 Km/hr with mean direction *easterly*.

2.7 Skardu

During the decade no rainfall occurred however weather remained cloudy for 6 days and average relative humidity recorded as 58 %. Mean night temperature was -9.1 °C while day temperature recorded as 4.1°C with 41.0 hours bright sunshine duration. Wind speed recorded as 0.7 Km/hr with mean direction *north-westerly*.

2.8 Multan

During the decade no rainfall occurred however weather remained cloudy for 9 days and average relative humidity recorded as 54 %. Mean night temperature was 5.3°C while day temperature recorded as 20.9°C with 78.7 hours bright sunshine duration. Wind speed recorded as 2.1 Km/hr with variable direction.

2.9 Lahore

During the decade no rainfall occurred however weather remained cloudy for 7 days and average relative humidity recorded as 50 %. Mean night temperature was 7.7°C while day temperature recorded as 19.7°C with 97.4 hours bright sunshine duration. Wind speed recorded as 2.3 Km/hr with mean direction *north-westerly*.

2.10 Peshawar

Rainfall reported as 2.7 mm during the decade, weather remained cloudy for 8 days and average relative humidity recorded as 52%. Mean night temperature was 3.7 °C while day temperature recorded as 18.3 °C with 63.8 hours bright sunshine duration. Wind speed recorded as 3.3 Km/hr with mean direction *north-westerly*.

2.11 Khanpur

Rainfall reported as Trace (indeterminate rain) during the decade, weather remained cloudy for 4 days and average relative humidity recorded as 46%. Mean night temperature was 4.5°C while day temperature recorded as 22.1°C with 84.8 hours bright sunshine duration. Wind speed recorded as 3.2 Km/hr with mean direction *easterly-northeasterly*.

2.12 Sargodha

During the decade no rainfall occurred however weather remained cloudy for 7 days and average relative humidity recorded as 59 %. Mean night temperature was 4.8°C while day temperature recorded as 21.7°C with 79.9 hours bright

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

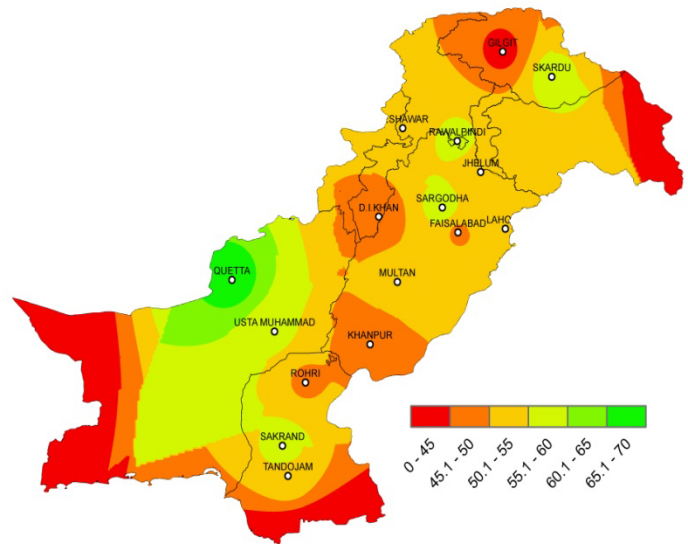


Figure.3: Relative Humidity in percentage

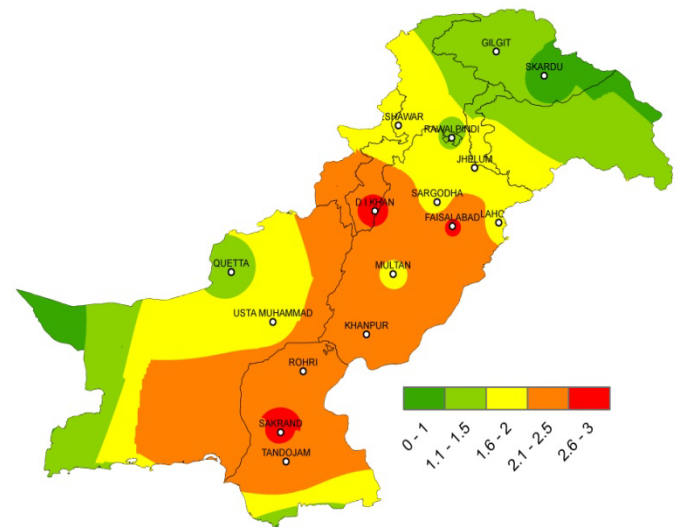


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

2.13 Gilgit.

During the decade no rainfall occurred however weather remained cloudy for 9 days and average relative humidity recorded as 43 %. Mean night temperature was -3.6 °C while day temperature recorded as 11.7 °C with 35.2 hours bright sunshine. Wind speed recorded as 2.2 Km/hr with mean direction *westerly*.

2.14 Jhelum

Rainfall reported as Trace (indeterminate rain) during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 50%. Mean night temperature was 4.4°C while day temperature recorded as 20.9°C with 82.8 hours bright sunshine duration. Wind speed recorded as 3.4 Km/hr with mean direction *north-westerly*.

2.15 D.I. Khan

Rainfall reported as Trace (indeterminate rain) during the decade, weather remained cloudy for 4 days and average relative humidity recorded as 45%. Mean night temperature was 3.8°C while day temperature recorded as 20.6°C with 81.9 hours bright sunshine duration. Wind speed recorded as 3.6 Km/hr with mean direction *north-westerly*.

2.16 Sakrand

During the decade no rainfall occurred however weather remained cloudy for 6 days and average relative humidity recorded as 58%. Mean night temperature was 6.4°C while day temperature recorded as 22.0°C with 95.0 hours bright sunshine duration. Wind speed recorded as 4.8 Km/hr with mean direction *northerly*.

3. Ten days Weather advisory for Farmers (1st February to 10th February, 2012)

3.1 Temperature Forecast:

Cold wave conditions are likely to grip most parts of the country from 4th February to 10th February, 2012.

3.2 Rain Forecast:

- ❖ **Punjab:** Scattered rain with snowfall over the hills is expected in Punjab from 3rd to 6th February 2012 and also heavy snowfall expected over the hills of Murree on 4th/5th February 2012.
- ❖ **Khyber Pakhtoonkhawa:** Scattered rain with snowfall over the hills is expected in KPK from 3rd to 6th February 2012 and also heavy snowfall expected over the hills on 4th/5th February 2012.
- ❖ **Sindh:** Mainly dry weather is expected during the decade.
- ❖ **Balochistan:** Scattered rain with snowfall over the hills is expected in Balochistan from 3rd to 6th February 2012.
- ❖ **Kashmir & Gilgit-Baltistan:** Widespread rain/snow is expected in Gilgit-Baltistan and Kashmir from 3rd to 6th February 2012.

3.3 Wind Forecast:

Normal wind pattern is likely in most parts of the country. However, gusty winds are expected, in areas, during the rainy spell.

3.4 Advisory for Farmers:

- ❖ Wheat crop is in tillering/shooting/flowering development stages (from south to north) in the agriculture plains of the country. Farmers should irrigate the crops as per requirement keeping the coming rains in mind. Generally next irrigation is given 20-22 days after the first.
- ❖ Farmers should now accelerate weeds removing operations to save soil moisture and other nutrients from weeds.