

DECADAL AGROMET BULLETIN OF PAKISTAN



1st Decade March, 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%20for%20farmers)

Phone: +92-51-9250592 email: dirnamc@yahoo.com

Meteorological conditions during 3rd 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 _o (mm/day)
		Normal	Actual	Dep	Tmin Dep	Tmax Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	TANDOJAM	0.0	0.0	0.0	-2.6	-3.4	19.0	21.9	22.4	20.8	19.9	20.6	20.9	84.0	2.1	44	3.1
2	SAKRAND ☆	0.0	0.0	0.0	-4.1	-2.9	17.2	24.1	21.9	***	19.1	20.5	21.8	94.2	3.9	45	3.4
3	ROHRI	0.5	0.0	-0.5	-3.8	-2.9	18.7	26.0	23.4	21.3	21.4	20.2	23.8	90.5	5.0	37	3.7
4	USTA MUHAMMAD	0.4	0.0	-0.4	-5.7	-4.4	16.0	23.5	22.9	19.5	18.9	20.1	21.2	***	3.4	42	3.1
5	QUETTA	1.2	TR	-1.2	-5.8	-6.6	4.1	9.7	8.4	5.7	0.6	5.3	7.7	78.3	5.9	43	2.4
6	KHANPUR	0.1	0.0	-0.1	-4.5	-1.5	16.7	18.2	17.5	17.5	17.8	18.2	19.2	81.2	5.6	44	3.5
7	MULTAN	0.5	TR	-0.5	-3.6	-0.8	16.5	***	***	***	***	***	***	75.1	3.2	33	2.9
8	LAHORE	0.5	TR	-0.5	-3.9	-1.4	16.4	19.3	17.9	15.9	15.2	***	16.3	83.2	3.5	41	2.9
9	FAISALABAD	0.3	0.0	-0.3	-3.4	-1.3	15.3	23.0	20.6	16.9	15.6	15.8	16.6	81.0	6.2	39	3.4
10	SARGODHA	0.3	TR	-0.3	-3.4	-0.6	16.0	22.0	19.1	16.7	16.3	16.8	17.5	77.8	3.3	53	2.7
11	JHELUM	1.0	TR	-1.0	-3.5	0.4	15.9	19.0	17.3	15.1	14.4	15.0	***	80.1	3.3	41	2.8
12	RAWALPINDI	1.4	2.0	0.6	-2.5	-0.7	13.5	15.8	13.8	12.5	12.5	12.3	13.2	69.9	4.3	64	2.4
13	D I KHAN	0.6	3.3	2.7	-3.6	-1.0	15.1	***	***	***	***	***	***	83.6	5.0	31	3.3
14	PESHAWAR	1.9	1.0	-0.9	-4.1	-0.9	13.3	18.0	14.8	13.3	13.1	13.5	14.3	64.2	2.6	41	2.3
15	SKARDU	1.1	11.8	10.7	-0.5	-2.4	2.4	***	***	***	***	***	***	19.0	9.3	67	1.5
16	GILGIT	0.3	1.0	0.7	-1.0	-3.1	7.2	***	***	***	***	***	***	24.6	4.5	49	1.9

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_o 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 February to 29th February, 2012):

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

1.1 Punjab

Light rainfall reported from most of the agricultural plains of northern and central Punjab during the decade, mainly from Murree, Mangla and Jouharabad (Fig. 1.a). Decadal maximum temperature and minimum temperature both dropped below normal by 0.8°C & 3.5°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 4.2 km/hr, 45 %, and 2.9 mm/day respectively (Fig 3-4).

1.2 Sindh

Mainly weather is reported from the entire agricultural plains of Sindh during the decade. Decadal maximum temperature and minimum temperature both dropped below normal by 3.1°C & 3.5°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.7 km/hr, 42 %, and 3.4 mm/day respectively.

1.3 Khyber Pakhtoon Khawa (KPK)

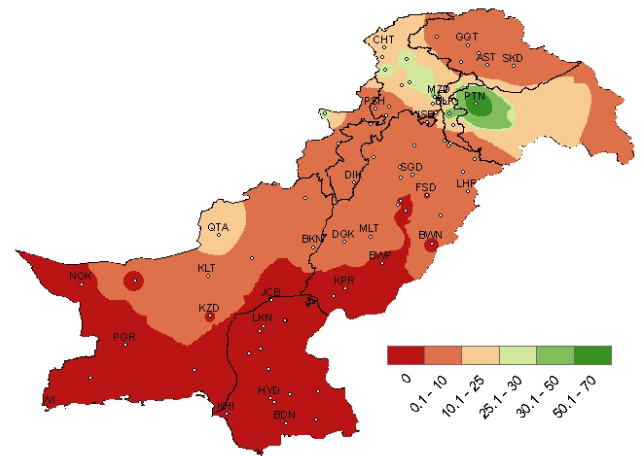
Rainfall in favourable amount reported from most of the agricultural plains of KPK; chief amount received at Balakot, Dir and Malamjabba etc. Decadal maximum temperature and minimum temperature both dropped below normal by 1.0°C & 3.9°C, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 3.8 km/hr, 36 %, and 2.8 mm/day respectively.

1.4 Balochistan

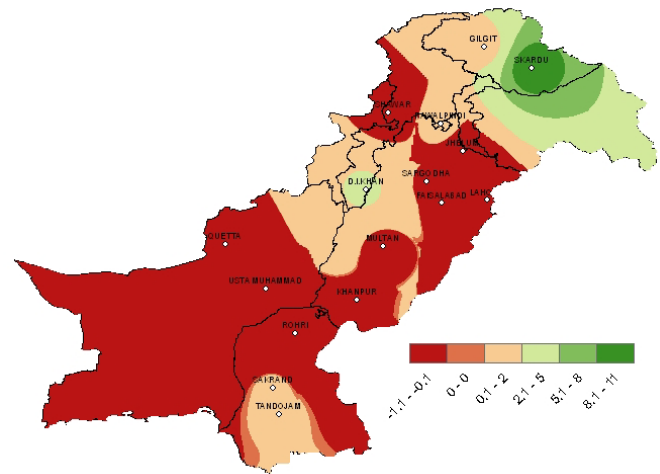
Mainly dry weather is reported from most of the agricultural plains of the province except few places in the northern parts like Zhob, Quetta and Kallat etc. In the northern Balochistan decadal maximum temperature and minimum temperature both dropped below normal by 5.5 & 5.8°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 4.7 km/hr, 42 %, and 2.8 mm/day respectively.

1.5 Gilgit Baltistan and Azad Jammu & Kashmir

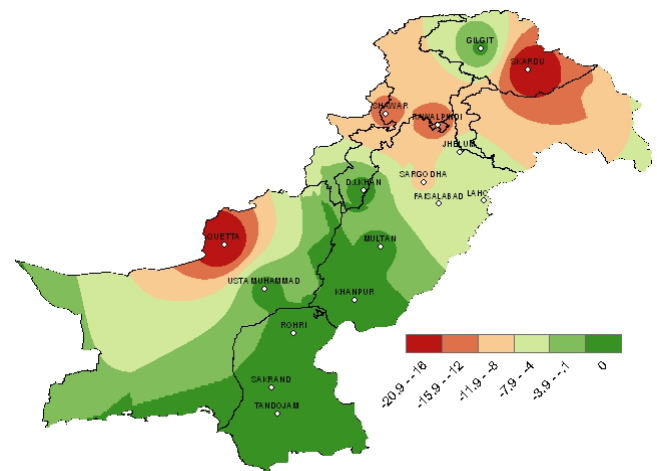
Rainfall in favourable amount reported from some of the agricultural plains of Gilgit Baltistan and Azad Jammu & Kashmir; chief amount received at Pattan, Rawalakot, Muzaffarabad and Gurhi Dopatta etc. In Gilgit Baltistan region; decadal maximum temperature and minimum temperature both dropped below normal by 2.8°C & 0.8°C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded as 6.9 km/hr, 58 %, and 1.7 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 February to 29th February, 2012) as per Table-1

2.1 RAMC, Rawalpindi (Potohar region)

Rainfall reported as 2.0 mm during the decade, weather remained cloudy for 2 days and average relative humidity recorded as 64%. Mean night temperature was 5.5°C while day temperature recorded as 21.4°C with 69.9 hours bright sunshine duration. Wind speed recorded as 4.3 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)

Mainly dry wheather with clear sky reported during the decade however average relative humidity recorded as 44%. Mean night temperature was 10.7°C while day temperature recorded as 27.3°C with 84.0 hours bright sunshine duration. Wind speed recorded as 2.1 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 *Wax-maturity* stage.

2.3 RAMC, Faisalabad (Central Punjab)

No rainfall reported during the decade however weather remained cloudy for 7 days and average relative humidity recorded as 39%. Mean night temperature was 6.9°C while day temperature recorded as 23.7°C with 81.0 hours bright sunshine duration. Wind speed recorded as 6.2 Km/hr with mean direction north-westerly. Presently two crops (irrigated conditions) are grown at the station as detailed below.

Wheat: Excelent condition at *Heading* stage.

Sugarcane: Good condition, *Tillering* stage completed.

2.4 RAMC, Quetta (Northern Balochistan)

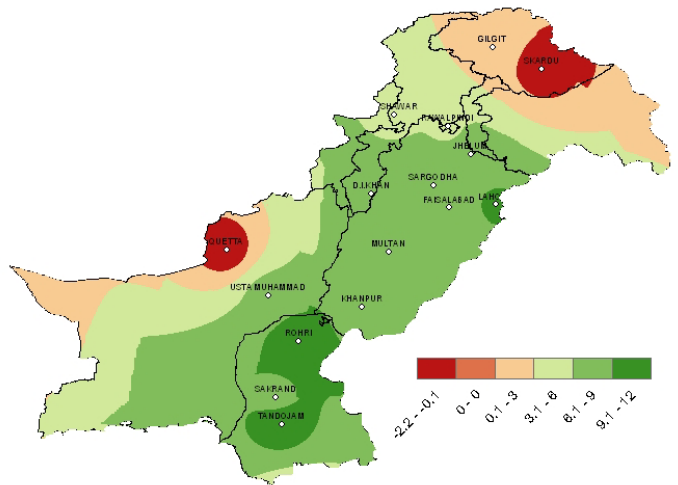
Rainfall reported as Trace (indeterminate amount) during the decade, weather remained cloudy for 4 days and average relative humidity recorded as 43%. Mean night temperature was -2.2 °C while day temperature recorded as 10.4 °C with 78.3 hours bright sunshine duration and wind speed recorded as 5.9 Km/hr with mean direction northerly. Presently only one crop (rainfed conditions) is grown at the station as detailed below.

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

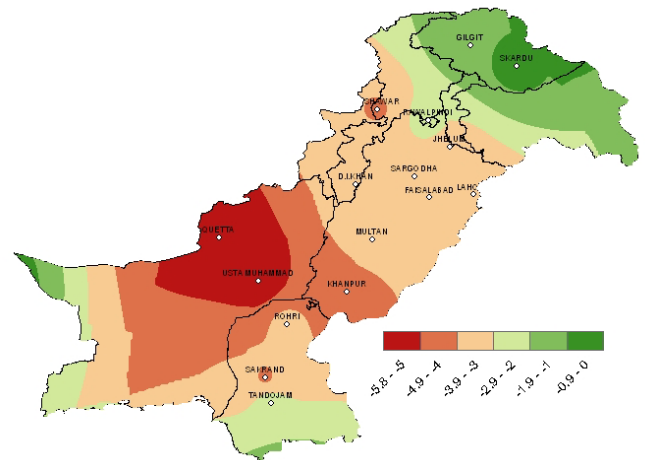
2.5 RAMC, Usta Muhammad (Eastern Balochistan)

No rainfall reported during the decade however weather remained cloudy for 3 days and average relative humidity recorded as 42%. Mean night temperature was 7.2°C while day temperature recorded as 24.8°C. Wind speed recorded as 3.4 Km/hr with mean direction southerly. Presently two crops (irrigated conditions) are grown at the station as detailed below.

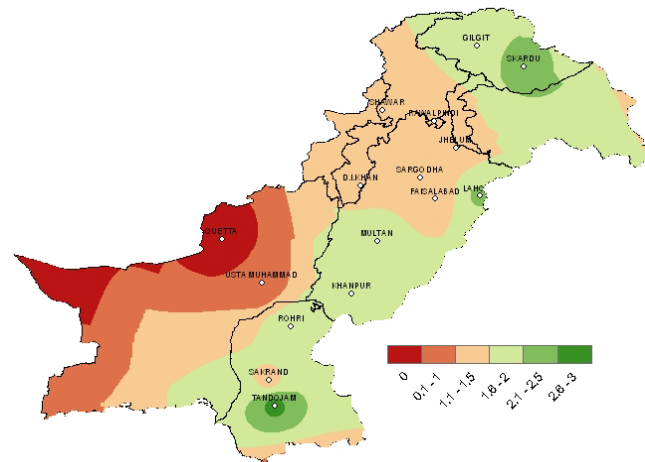
Wheat (Lasani): Good condition at *Milk-Maturity* stage.
Mastard: Good condition at *Full-Maturity* stage.



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 February to 29th February, 2012)

2.6 Rohri

During the decade no rainfall occurred however weather remained cloudy for 4 days and average relative humidity recorded as 37 %. Mean night temperature was 11.4°C while day temperature recorded as 25.9°C with 90.5 hours bright sunshine duration. Wind speed recorded as 5.0 Km/hr with mean direction *north-easterly*.

2.7 Skardu

During the decade rainfall occurred as 11.8 mm, weather remained cloudy for 6 days and average relative humidity recorded as 67 %. Mean night temperature was -2.1 °C while day temperature recorded as 6.9°C with 19 hours bright sunshine duration. Wind speed recorded as 9.3 Km/hr with mean direction *north-westerly*.

2.8 Multan

Rainfall reported as Trace (indeterminate amount) during the decade, however weather remained cloudy for 5 days and average relative humidity recorded as 33 %. Mean night temperature was 7.9°C while day temperature recorded as 25.1°C with 75.1 hours bright sunshine duration. Wind speed recorded as 3.2 Km/hr with mean direction *northerly*.

2.9 Lahore

Rainfall reported as Trace (indeterminate amount) during the decade, weather remained cloudy for 7 days and average relative humidity recorded as 41 %. Mean night temperature was 9.7°C while day temperature recorded as 23.0°C with 83.2 hours bright sunshine duration. Wind speed recorded as 3.5 Km/hr with mean direction *north-westerly*.

2.10 Peshawar

Rainfall reported as 1.0 mm during the decade, weather remained cloudy for 4 days and average relative humidity recorded as 41%. Mean night temperature was 5.6 °C while day temperature recorded as 20.9 °C with 64.2 hours bright sunshine duration. Wind speed recorded as 2.6 Km/hr with mean direction *north-westerly*.

2.11 Khanpur

During the decade no rainfall occurred however weather remained cloudy for 3 days and average relative humidity recorded as 44%. Mean night temperature was 7.4°C while day temperature recorded as 26.0°C with 81.2 hours bright sunshine duration. Wind speed recorded as 5.6 Km/hr with mean direction *north-easterly*.

2.12 Sargodha

Rainfall reported as Trace (indeterminate amount) during the decade, however weather remained cloudy for 7 days and average relative humidity recorded as 53 %. Mean night temperature was 7.5°C while day temperature recorded as

24.4°C with 7 7.8 hours bright sunshine duration. Wind speed recorded as 3.3 Km/hr with variable direction.

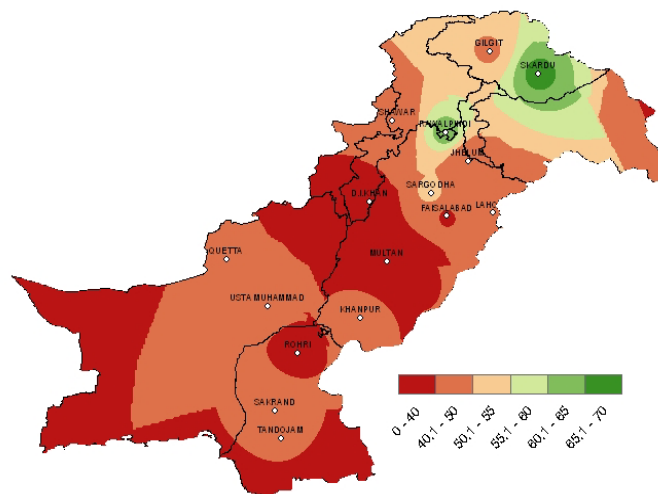


Figure.3: Relative Humidity in percentage

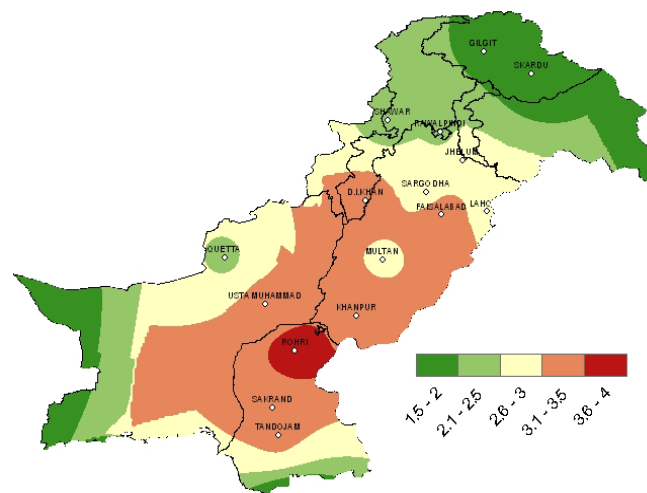


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

2.13 Gilgit.

Rainfall reported as 1.0 mm during the decade however weather remained cloudy for 9 days and average relative humidity recorded as 49 %. Mean night temperature was 1.6 °C while day temperature recorded as 12.7 °C with 24.6 hours bright sunshine. Wind speed recorded as 4.5 Km/hr with mean direction *easterly*.

2.14 Jhelum

Rainfall reported as Trace (indeterminate amount) during the decade, weather remained cloudy for 6 days and average relative humidity recorded as 41%. Mean night temperature was 7.2°C while day temperature recorded as 24.6°C with 80.1 hours bright sunshine duration. Wind speed recorded as 3.3 Km/hr with mean direction *north-westerly*.

2.15 D.I. Khan

Rainfall reported as 3.3 mm during the decade, weather remained cloudy for 2 days and average relative humidity recorded as 31%. Mean night temperature was 6.7°C while day temperature recorded as 23.4°C with 83.6 hours bright sunshine duration. Wind speed recorded as 5.0 Km/hr with mean direction *north-westerly*.

2.16 Sakrand

During the decade no rainfall occurred however weather remained cloudy for 2 days and average relative humidity recorded as 45%. Mean night temperature was 8.1°C while day temperature recorded as 26.3°C with 94.2 hours bright sunshine duration. Wind speed recorded as 3.9 Km/hr with mean direction *northerly*.

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

3.1 Temperature Forecast:

Above normal day temperatures are likely in parts of Punjab particularly in southern Punjab from 1st to 3rd March, 2012. Parts of Sindh may also experience abnormally high day temperatures from 1st to 5th March, 2012. While near normal temperature range is expected in other parts of the country.

3.2 Rain Forecast:

- ❖ **Punjab:** Scattered rain is expected over Upper Punjab from 4th to 7th March, 2012. Possibility of hail storm during the period, particularly in the Potohar region cannot be ruled out.
- ❖ **Khyber Pakhtoonkhawa:** Scattered rain is expected over Khyber Pakhtoonkhawa from 4th to 7th March, 2012.
- ❖ **Sindh:** Mainly dry weather is expected during the decade.
- ❖ **Balochistan:** Isolated rain is expected in Northeast Balochistan from 4th to 5th March, 2012.
- ❖ **Kashmir & Gilgit-Baltistan:** Rain/snow over the hills is also expected at scattered places of Gilgit-Baltistan and Kashmir from 3rd to 8th March, 2012.

3.3 Wind Forecast:

Dust raising winds are expected in parts of Sindh and Balochistan from 5th to 7th March, 2012. Thunderstorm along with strong gusty winds is expected in parts of Upper Punjab and KPK from 4th to 7th March, 2012.

3.4 Advisory for Farmers:

- ❖ Wheat crop is at shooting to wax-maturity stages in most of the agriculture plains of the country (from north to south). Farmers should irrigate the crops as per requirement keeping the above forecast of coming rains in mind.
- ❖ Farmers should accelerate weeds removing operations to save soil moisture and other nutrients from weeds.