

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Dry weather reported from most parts of the country during the decade.
- ❖ Highest amount of rainfall recorded 8 mm at Parachinar during the last decade.
- ❖ Lowest minimum temperature was recorded -5.8°C in sakrdu during the last decade.
- ❖ Lowest values of relative humidity recorded 31% in Balochistan, lowest minimum relative humidity recorded at Quetta.
- ❖ Highest values of ETo (above 2.0 mm/day) recorded in agricultural plains of Sindh and Punjab provinces.
- ❖ Day time temperatures expected to be dropped $1-2^{\circ}\text{C}$ but night temperatures may drop $2-3^{\circ}\text{C}$ in most of the agricultural plains of the country during the next decade.
- ❖ Normal wind pattern may prevail in most parts of the country during the next decade.
- ❖ Generally dry weather with clear skies expected in most parts of the country except hilly areas of KP, Kashmir and GB where light rain is expected from 16th to 18th of November during the next decade.

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

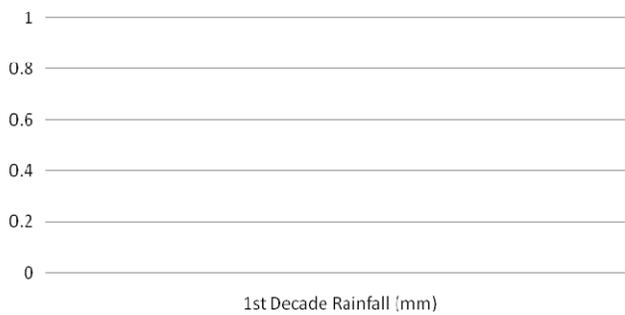
Phone: +92-51-9250592 email: dirnamc@yahoo.com

Chief Editor: Dr. Khalid M. Malik, Director, NAMC Islamabad

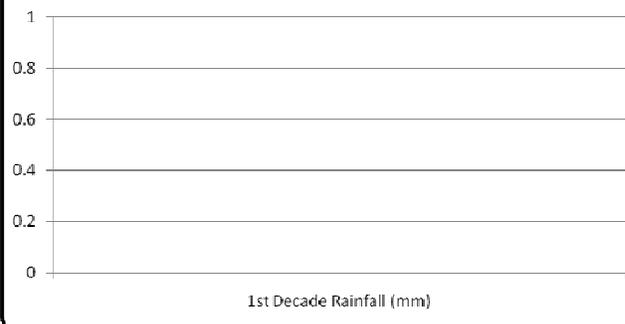
Editor: M. Zeeshan Javed, Assistant Meteorologist, NAMC Islamabad

Graphs for Rainfall (mm) during November 2012

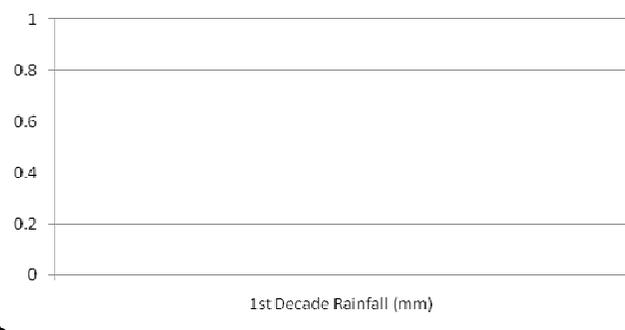
RAMC RAWALPINDI



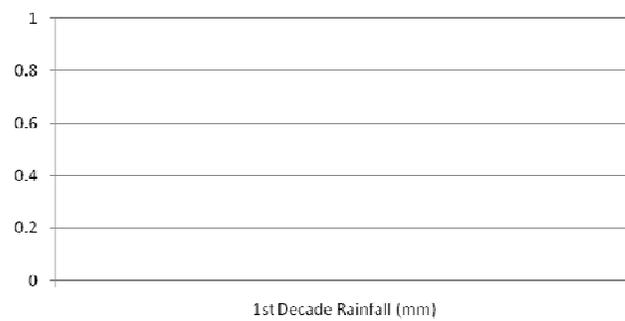
RAMC FAISALABAD



RAMC QUETTA



RAMC TANDOJAM



Note: No rainfall recorded during the specified period (1st to 10th November, 2012).

Meteorological conditions during 1st decade of November, 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	-1.4	0.9	25.0	28.8	30.1	27.6	26.4	27.1	27.8	88.0	1.1	54	3.1
2	SAKRAND ☆	0.0	0.0	0.0	-3.2	1.4	23.8	33.5	30.3	35.2	27.9	29.2	30.6	101.6	1.1	52	3.2
3	ROHRI	0.0	0.0	0.0	-2.4	0.4	24.8	30.8	29.7	27.7	27.5	27.7	30.4	99.7	1.7	43	3.5
4	QUETTA	0.1	0.0	-0.1	-1.0	-1.1	12.4	21.2	19.3	15.8	15.0	15.5	19.1	99.0	5.5	31	3.2
5	KHANPUR	0.0	0.0	0.0	-1.4	1.2	23.6	24.5	24.1	24.4	25.0	25.8	26.9	92.8	4.2	54	2.8
6	MULTAN	0.0	0.0	0.0	-0.2	1.3	23.5	***	***	***	***	***	***	84.2	2.1	53	2.8
7	LAHORE	0.0	0.0	0.0	-2.4	0.5	22.2	23.9	23.2	22.1	22.0	***	24.5	89.5	1.0	57	2.6
8	FAISALABAD	0.0	0.0	0.0	-1.0	1.2	21.8	24.5	23.9	22.0	21.8	22.8	25.0	70.0	3.3	55	2.8
9	SARGODHA	0.0	0.0	0.0	0.2	1.5	23.0	26.1	24.1	22.9	23.2	24.7	25.5	76.8	0.7	66	2.4
10	JHELUM	0.1	0.0	-0.1	-3.1	2.4	21.3	23.0	22.1	21.2	21.1	22.4	***	84.0	1.4	64	2.6
11	RAWALPINDI	0.3	0.0	-0.3	-1.5	1.3	19.0	24.0	21.3	20.5	20.9	20.7	22.3	91.3	1.9	53	2.3
12	DI KHAN	0.0	0.0	0.0	-1.1	1.0	21.8	***	***	***	***	***	***	83.2	1.1	62	2.8
13	PESHAWAR	0.4	TR	-0.4	-2.3	2.1	20.0	23.2	21.3	20.5	21.8	22.1	23.2	72.8	1.0	63	2.1
14	SKARDU	0.1	0.0	-0.1	-5.1	3.4	7.5	***	***	***	***	***	***	68.2	0.0	42	1.2
15	GILGIT	0.2	0.0	-0.2	-2.5	3.9	13.0	***	***	***	***	***	***	75.1	1.1	49	2.1

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 (1st to 10th November, 2012):

Light rainfall reported at a few places in agricultural plains of, KP, Kashmir and Gilgit Baltistan region where as dry weather reported from rest of the country during the decade.

1.1 Punjab

Dry weather reported from most of the places in the province however rainfall in meager amount reported from a single location “Islamabad”(Fig. 1.a). Maximum temperature raised above normal by 1.3 °C and minimum temperature dropped below normal by 1.3°C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 2.2 km/hr, 57 %, and 2.1 mm/day respectively (Fig 3-4).

1.2 Sindh

Dry weather reported from all over the province. Decadal maximum temperature raised above normal by 0.9 °C and decadal minimum temperature dropped below normal by 2.3 °C respectively, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 1.3 km/hr, 50 %, and 2.5 mm/day respectively.

1.3 Khyber Pakhtoonkhawa (KP)

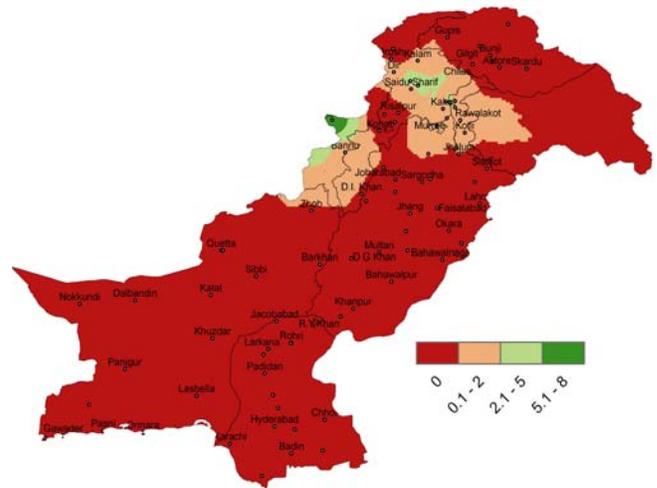
Light to moderate rainfall reported at a few places in agricultural plains of KP; chief amount received at Parachinar, Lower Dir and Balakot etc. In KP region; Decadal maximum temperature raised above normal by 1.6 and decadal minimum temperature dropped below normal by 1.7°C, in the province. Mean values of wind speed, relative humidity and ETo were recorded as 1.1 km/hr, 63 %, and 1.6 mm/day respectively.

1.4 Balochistan

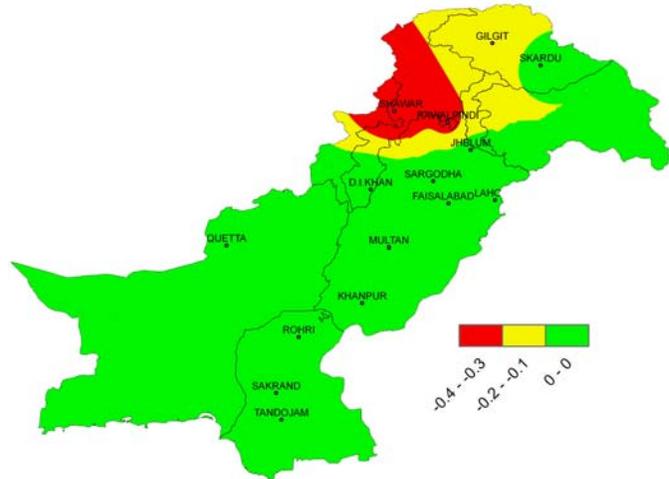
Dry weather reported from most of the places in the province. Decadal maximum temperature & minimum temperature both dropped below normal by 1.1°C and 1.0°C respectively. Whereas mean values of wind speed, relative humidity and ETo were 5.5 km/hr, 31%, and 2.5 mm/day respectively.

1.5 Gilgit Baltistan and Azad Jammu & Kashmir

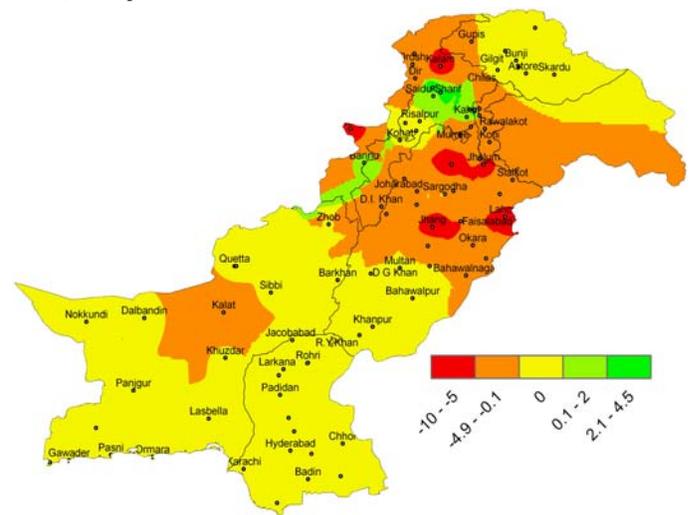
Light rainfall reported at a single place in the agricultural plains of Kashmir & Gilgit Baltistan region; chief amount received at Muzaffarabad,. In GB & AJK region; decadal maximum raised above normal by 0.7°C, & decadal minimum below normal 6.5 °C respectively. Whereas mean values of wind speed, relative humidity and ETo were recorded 0.6 km/hr, 42 %, and 1.2 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 to 10th November, 2012) as per Table-1

2.1 RAMC, Rawalpindi (Potohar region)

No rainfall reported during the decade, weather remained cloudy for 6 days, average relative humidity recorded as 53%. Mean night temperature was 9.0°C while day temperature recorded as 29.0°C with 91.3 hours bright sunshine duration. Wind speed recorded as 1.9 Km/hr with mean direction *westerly*. Presently no crop is grown at the station.

2.2 RAMC, Tandojam (Lower Sindh)

No rainfall reported during the decade, weather remained cloudy for 7 days, average relative humidity recorded as 54%. Mean night temperature was 15.0°C while day temperature recorded as 35.0°C with 88.0 hours bright sunshine duration. Wind speed recorded as 1.1 km/hr with mean direction North westerly.

Cotton: Good condition, Emergence stage.

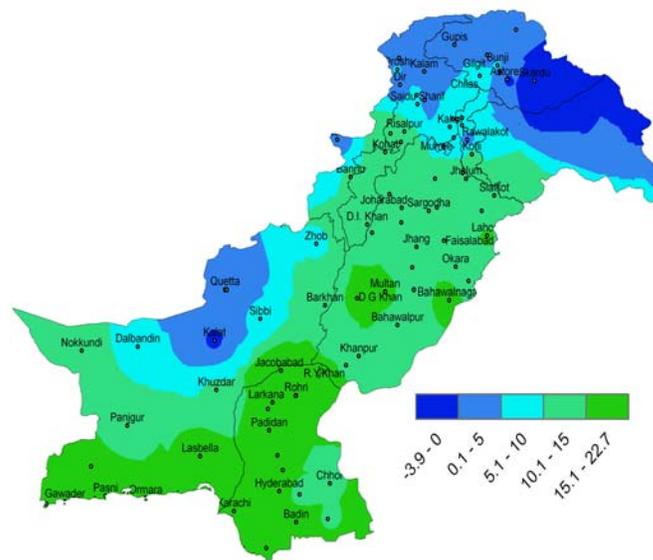
2.3 RAMC, Faisalabad (Central Punjab)

No rainfall reported during the decade, weather remained cloudy for 1 days during the decade, average relative humidity recorded as 55%. Mean night temperature was 12.5°C while day temperature recorded as 31.0°C with 70.0 hours bright sunshine duration. Wind speed recorded as 3.3 Km/hr with mean direction *South westerly*.

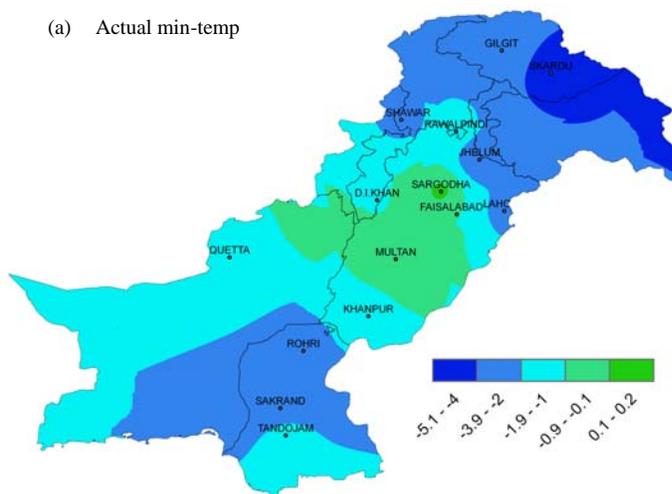
Sugarcane: Very Good condition, Third leaf completed.
 Cotton: Very Good condition, Boll opening completed.

2.4 RAMC, Quetta (Northern Balochistan)

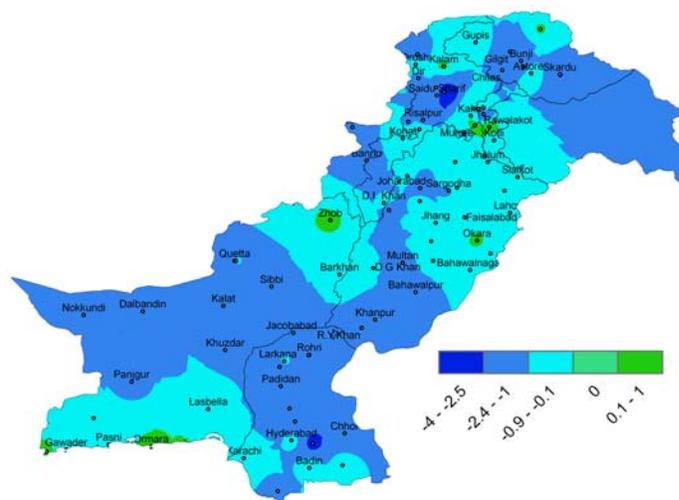
No rainfall reported during the decade, weather remained cloudy for 1 days during the decade, average relative humidity recorded as 31%. Mean night temperature was 3.5°C while day temperature recorded as 21.3°C with 99.0 hours bright sunshine duration and wind speed recorded as 5.5 Km/hr with mean direction *north westerly*. Presently no crop is grown at the station.



(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 to 10th November, 2012)

2.6 Rohri

No rainfall reported during the decade, weather remained clear during all the decade. Average relative humidity recorded as 43%. Mean night temperature was 16.0°C while day temperature recorded as 33.5°C with 99.7 hours bright sunshine duration. Wind speed recorded as 1.7 Km/hr with mean direction *North easterly*.

2.7 Skardu

No rainfall reported during the decade, weather remained cloudy for 1 days, average relative humidity recorded as 42%. Mean night temperature was -5.8°C while day temperature recorded as 20.7°C with 68.2 hours bright sunshine duration. Wind remained calm during the decade.

2.8 Multan

No rainfall reported during the decade, weather remained clear during all the decade, average relative humidity recorded as 53%. Mean night temperature was 14.7°C while day temperature recorded as 32.2°C with 84.2 hours bright sunshine duration. Wind speed recorded as 2.1 Km/hr with mean direction *Southerly*.

2.9 Lahore

No rainfall reported during the decade, weather remained clear during all the decade, average relative humidity recorded as 57%. Mean night temperature was 14.5°C while day temperature recorded as 29.8°C with 89.5 hours bright sunshine duration. Wind speed recorded as 1.0 Km/hr with mean direction *North westerly*.

2.10 Peshawar

Rainfall reported amounting Trace (non measureable) during the decade, weather remained cloudy for 6 day, average relative humidity recorded as 63%. Mean night temperature was 10.9°C while day temperature recorded as 29.0°C with 72.8 hours bright sunshine duration. Wind speed recorded as 1.0 Km/hr with mean direction *North north westerly*.

2.11 Khanpur

No rainfall reported during the decade, weather remained clear during all the decade, average relative humidity recorded as 54%. Mean night temperature was 13.8°C while day temperature recorded as 33.4°C with 92.8 hours bright sunshine duration. Wind speed recorded as 4.2 Km/hr with mean direction *South westerly*.

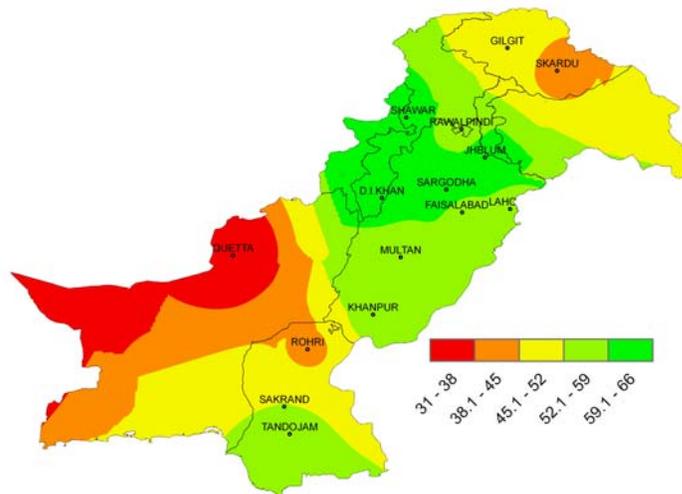


Figure.3: Relative Humidity in percentage

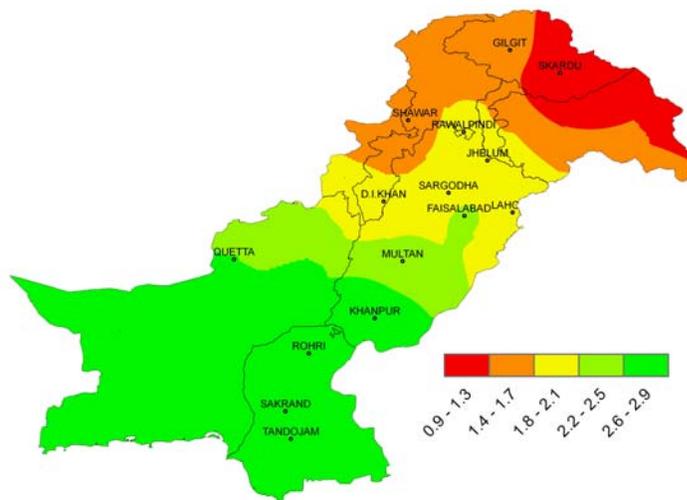


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

2.12 Sargodha

No rainfall reported during the decade, weather remained cloudy for 1 days, average relative humidity recorded as 66%. Mean night temperature was 15.0°C while day temperature recorded as 31.0°C with 76.8 hours bright sunshine duration. Wind speed recorded as 0.7 Km/hr with mean direction *Easterly*.

2.13 Gilgit.

No rainfall reported during the decade, weather remained cloudy for 08 days and average relative humidity recorded as 49%. Mean night temperature was -0.5°C while day temperature recorded as 26.5°C with 75.1 hours bright sunshine. Wind speed recorded as 1.1 Km/hr with mean direction *Northly*.

2.14 Jhelum

No rainfall reported during the decade, weather remained, however weather remained cloudy for 3 days and average relative humidity recorded as 64%. Mean night temperature was 10.6°C while day temperature recorded as 32.0°C with 84.0 hours bright sunshine duration. Wind speed recorded as 1.4 Km/hr with mean direction *South westerly*.

2.15 D.I. Khan

No rainfall reported during the decade, weather remained clear during all the decade, average relative humidity recorded as 62%. Mean night temperature was 12.5°C while day temperature recorded as 31.0°C with 83.2 hours bright sunshine duration. Wind speed recorded as 1.1 Km/hr with mean direction *South easterly*.

2.16 Sakrand

No rainfall reported during the decade, weather remained clear during all the decade and average relative humidity recorded as 52%. Mean night temperature was 13.0°C while day temperature recorded as 34.5°C with 101.6 hours bright sunshine duration. Wind speed recorded as 1.1 Km/hr with mean direction *North easterly*.

3. Ten days Weather advisory for Farmers

(11th to 20th November, 2012)

3.1 Temperature Forecast:

Day time temperatures expected to be dropped $1-2^{\circ}\text{C}$ but night temperatures may drop $2-3^{\circ}\text{C}$ in most of the agricultural plains of the country during the decade.

3.2 Rain Forecast:

- ❖ **Punjab:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Khyber Pakhtoonkhawa:** Lightrain/Thunderstorm at isolated places (Malakand division) on 16th to 18th is expected in the province during the decade.
- ❖ **Sindh:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Balochistan:** Mainly dry weather is expected in most parts of the province during the decade.
- ❖ **Kashmir & Gilgit-Baltistan:** Cold and dry weather with chances of light rain on 17th and 18th is expected in the province during the decade.

3.3 Wind Forecast:

Normal wind pattern may prevail in most of the agricultural plains of the country during the decade.

3.4 Advisory for Farmers:

- ❖ Farmers of irrigated and Barani areas are advised to complete sowing of wheat till the end of this month to get optimum yield.