

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of Punjab, K.P, G.B & Kashmir however dry weather reported in the agricultural plains of the Sindh & Balochistan during the last decade.
- ❖ Highest amount of rainfall reported as 98.0mm at Dir during the last decade.
- ❖ Lowest Minimum temperature recorded -6.0°C at both Skardu & Astore during the last decade.
- ❖ Light to moderate rainfall (with snowfall over the hills) is expected in different upper parts of country.
- ❖ Wheat crop is in tillering/shooting/heading stages. Farmers are advised to stop irrigation the crops by keeping in view the expected rain in the agricultural plains of the country.
- ❖ At this stage of wheat crop, farmers should control weeds further growth by manual practices or any recommended spray.
- ❖ Farmers of irrigated/barani areas are advised to remove weeds from the fields, so that the present soil moisture may fully be utilized.
- ❖ Farmers in the lower half of the country especially those in central regions are advised to take up poultry rearing houses to maintain optimum room temperature and take care against the rapid changes in air temperature and relative humidity.
- ❖ Falling leaves from trees negatively affect standing Rabi crops like wheat and other crops. Framers should collect leaves from the crops as early as possible so that crop normal growth may not be disturbed.

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

Patron-in-Chief: *Dr. Ghulam Rasul, Director General*

Editor-in-Chief: *Muhammad Aslam, Director*

Editor: *Asma Jawad Hashmi, Deputy Director*

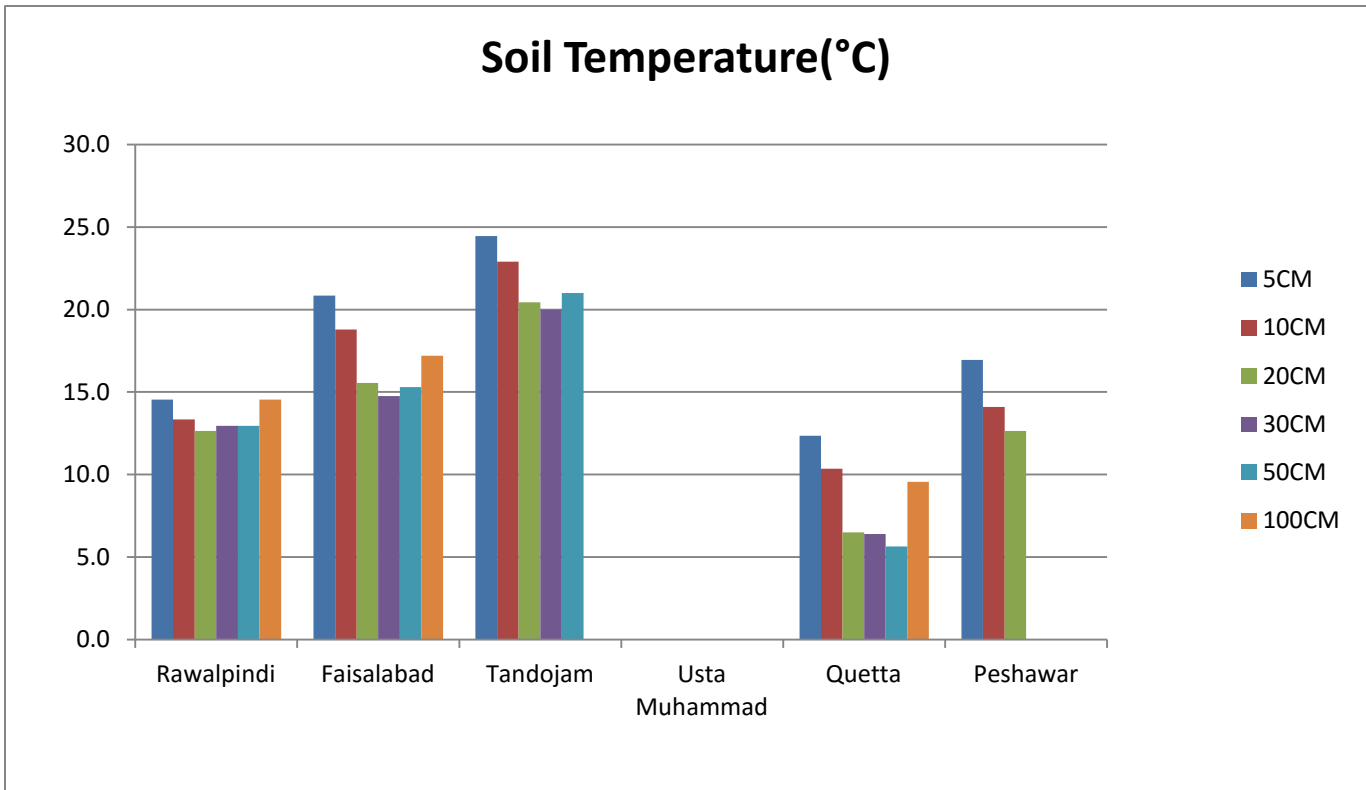
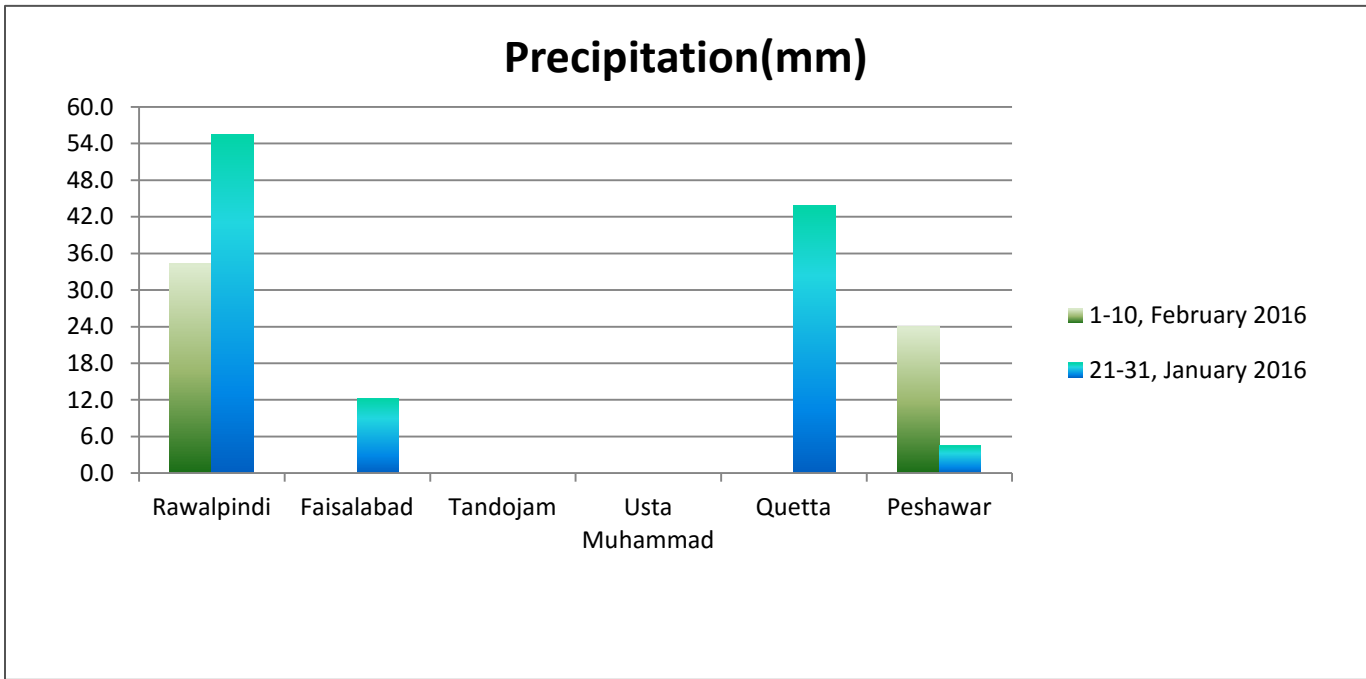
Phone: [+92-51-9250592](tel:+92-51-9250592) Email: info@namc.pmd.gov.pk

Meteorological conditions during 1st decade of February, 2016

Sr. No.	Station	Precipitation (mm)			Air Temperature (°C)			Soil Temperatures (°C)						R.H (%)	Sunshine Duration(hours)	Wind Speed (km/hr)	ETo (mm/day)
		Normal	Actual	Dep	Tmax Dep	Tmin Dep	Mean	5cm	10cm	20cm	30cm	50cm	100cm				
1	RAWALPINDI	3.2	34.3	31.1	-0.3	1.4	12.3	14.6	13.4	12.7	13.0	13.0	14.6	60	67.0	3.0	1.7
2	FAISALABAD	0.7	0.0	-0.7	2.1	-0.2	14.6	20.9	18.8	15.6	14.8	15.3	17.2	56	78.2	2.5	2.1
3	JHELUM	1.8	10.0	8.2	2.7	-0.5	15.0	15.8	14.7	13.8	13.6	14.6	***	58	77.8	1.7	2.0
4	LAHORE	0.9	0.0	-0.9	1.5	-1.7	15.3	15.9	15.3	14.5	14.4	***	17.4	66	78.7	1.3	1.8
5	SARGODHA	1.0	0.0	-1.0	2.3	1.7	16.1	19.1	17.5	16.1	16.1	15.6	17.7	66	56.8	2.8	1.9
6	MULTAN	0.7	0.0	-0.7	1.8	0.5	15.7	***	***	***	***	***	***	54	78.8	2.2	2.1
7	KHANPUR	0.9	0.0	-0.9	3.0	-1.9	16.4	***	16.5	17.2	17.5	18.4	19.8	47	87.2	2.7	2.5
8	TANDOJAM	0.0	0.0	0.0	1.9	-0.1	15.0	17.2	16.0	14.9	14.9	15.4	17.3	58	74.9	2.3	2.0
9	SAKRAND ☆	0.1	0.0	-0.1	1.3	-0.5	18.0	24.5	22.9	20.5	20.0	21.0	***	42	91.8	2.4	2.9
11	D I KHAN	1.3	0.0	-1.3	2.2	0.7	17.4	25.3	23.3	***	***	***	23.4	57	97.3	4.2	3.2
11	PESHAWAR	2.5	24.0	21.5	0.0	0.0	0.0	***	***	***	***	***	***	0	0.0	0.0	***
12	USTA MUHAMMAD	0.2	0.0	-0.2	1.2	0.1	11.8	24.9	23.1	20.5	20.0	21.0	23.4	33	63.0	2.2	3.1
13	QUETTA	1.8	0.0	-1.8	2.8	-2.3	14.1	***	***	***	***	***	***	57	81.2	***	3.1
14	SKARDU	0.8	0.0	-0.8	3.0	-1.4	13.5	17.0	14.1	12.7	***	***	***	63	49.9	1.4	1.5
15	GILGIT	0.1	0.0	-0.1	2.9	-1.9	13.8	17.0	14.1	12.7	***	***	***	60	65.6	1.4	2.3

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.

Graph at RAMC's during February, 2016



Past Weather (1st to 10th February, 2016)

Light to moderate rainfall reported in the agricultural plains of Punjab, K.P, G.B & Kashmir however dry weather reported in the agricultural plains of the Sindh & Balochistan during the last decade.

1.1 Punjab

Light to moderate rainfall reported in the agricultural plains of Punjab. Chief amount of rainfall received in Islamabad, Chakwal & Murree. Decadal maximum raised above normal by 1.9°C & minimum dropped below normal by 0.1°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 58%, 74.9hrs, 2.3km/hr and 2.0mm/day respectively.

1.2 Sindh

Dry weather reported in the agricultural plains of Sindh. Decadal maximum & minimum temperature both raised above normal by 1.2°C & 0.1°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 33%, 63.0hrs, 2.2km/hr and 3.1mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

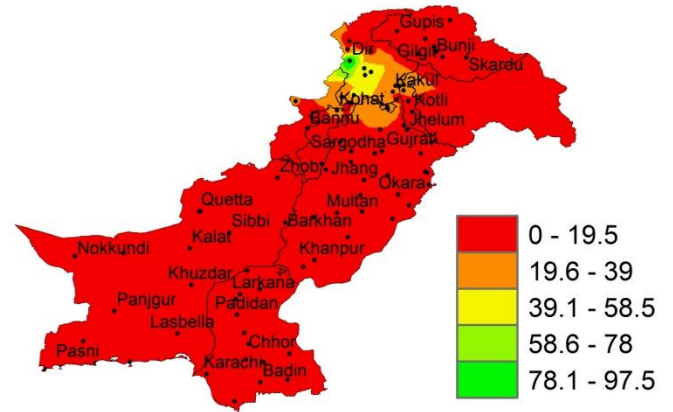
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Dir, Saidu Sharif & Risalpur. Decadal maximum raised above normal by 2.9°C & minimum temperature dropped below normal by 1.9°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 60%, 65.6hrs, 1.4km/hr and 2.3mm/day respectively.

1.4 Balochistan

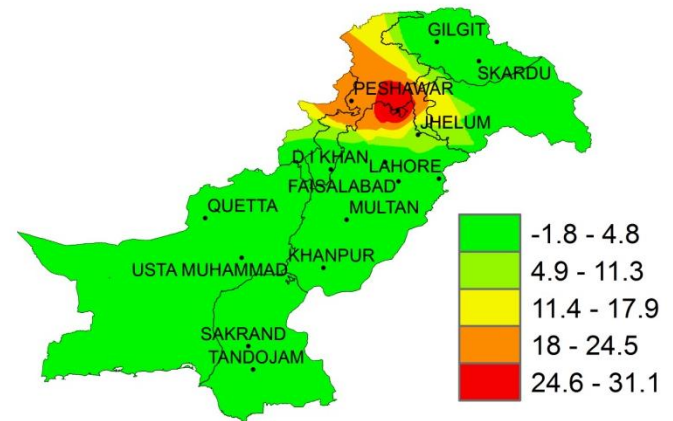
Dry weather reported in the agricultural plains of Balochistan. Decadal maximum raised above normal by 1.0°C & minimum temperature dropped below normal by 1.8°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 48%, 92.9hrs, 15.1km/hr and 2.8mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

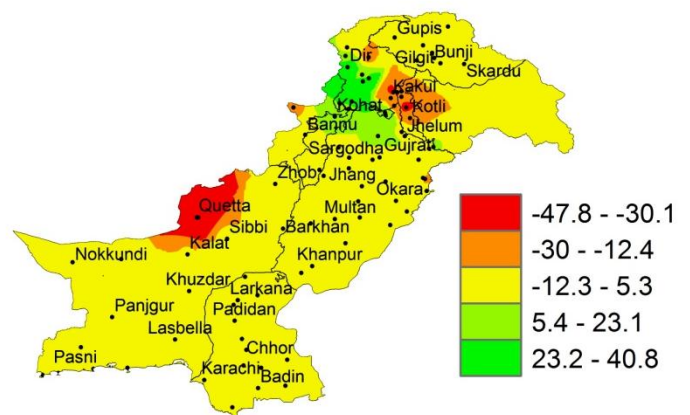
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Muzaffarabad, Garhi Doppatta & Rawalakot. Decadal maximum & minimum both raised above normal by 3.4°C & 1.0°C respectively, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 52%, 53.0hrs, 1.8km/hr and 1.4mm/day respectively.



I. Actual rainfall



II. Departure of rainfall from Normal



III. 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 February, 2016)

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

Rainfall reported as 34.3mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 60%. Mean day temperature was 18.6°C while night temperature recorded as 6.0°C with 67.0hours bright sunshine duration. Wind speed recorded as 3.0km/hr with mean wind direction *westerly*.

Wheat (Chakwal-97): Good condition, tillering stage.

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

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 56%. Mean day temperature was 23.2°C while night temperature recorded as 6.0°C with 78.15hours bright sunshine duration. Wind speed recorded as 2.5km/hr with mean wind direction *south westerly*.

Wheat: Very Good condition, shooting stage completed.

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

Dry weather reported during the decade however weather remained clear. Average relative humidity recorded as 42%. Mean day temperature was 27.7°C while night temperature recorded as 8.3°C with 91.8hours bright sunshine duration. Wind speed recorded as 2.4km/hr with mean wind direction *north easterly*.

Wheat (TJ-83): Good condition, shooting stage.

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

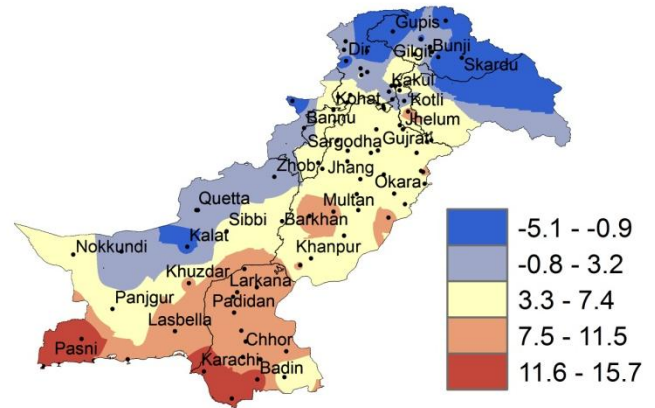
Dry weather reported during the decade however weather remained clear throughout the decade. Average relative humidity recorded as 59%. Mean day temperature was 23.6°C while night temperature recorded as 6.6°C. Wind speed recorded as 24.9km/hr with mean wind direction *south westerly*.

Wheat (Zardana): Good condition, stem extension stage.

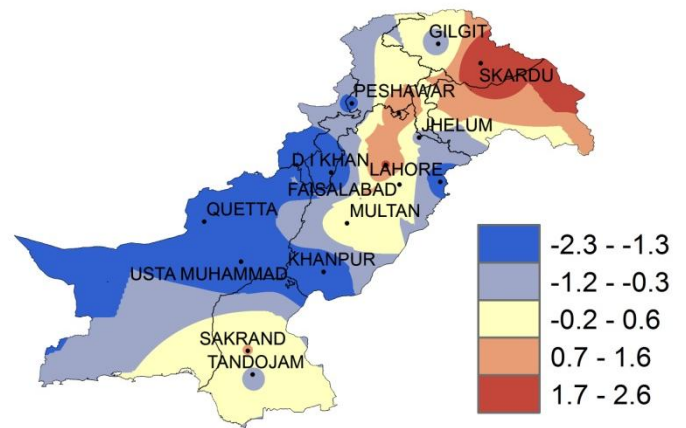
2.5 **RAMC, Quetta (Northern Balochistan)**

Dry weather reported during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 37%. Mean day temperature was 13.5°C while night temperature recorded as -2.2°C with 92.9hours bright sunshine duration and wind speed recorded as 5.3km/hr with mean wind direction *north westerly*.

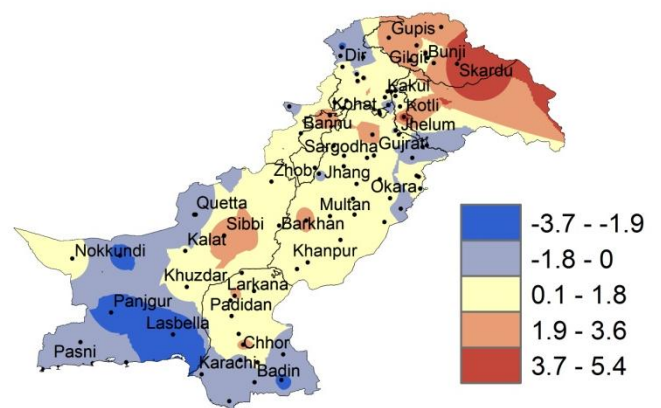
Wheat: Good condition, tillering stage.



I. Actual min-temp



II. Departure of min-temp from Normal



III. 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 February, 2016)**

2.6 **Jhelum**

Rainfall reported as 10.0mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 58%. Mean day temperature was 23.4°C while night temperature recorded as 6.6°C with 77.8hours bright sunshine duration. Wind speed recorded 1.7km/hr with wind direction *north westerly*.

2.7 **Lahore**

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 66%. Mean day temperature was 22.4°C while night temperature recorded as 8.2°C with 78.7hours bright sunshine duration. Wind speed recorded as 1.3km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 66%. Mean day temperature was 23.5°C while night temperature recorded as 8.6°C with 56.8hours bright sunshine duration. Wind speed recorded 2.8km/hr with mean wind direction *variable*.

2.9 **Multan**

Dry weather reported during the decade however weather remained cloudy for 03days. Average relative humidity recorded as 54%. Mean day temperature was 23.8°C while night temperature recorded as 7.6°C with 78.8hours bright sunshine duration. Wind speed recorded 2.2km/hr with mean wind direction *southerly*.

2.10 **Khanpur**

Dry weather reported during the decade however weather remained cloudy for 04days. Average relative humidity recorded as 47%. Mean day temperature was 26.4°C while night temperature recorded as 6.3°C with 87.2hours bright sunshine duration. Wind speed recorded 2.7km/hr with mean wind direction *south westerly*.

2.11 **Sakrand**

Dry weather reported during the decade however weather remains cloudy for 01day. Average relative humidity recorded as 57%. Mean day temperature was 26.9°C while night temperature recorded as 7.9°C with 97.3hours bright sunshine duration. Wind speed recorded 4.2km/hr with wind direction *north westerly*.

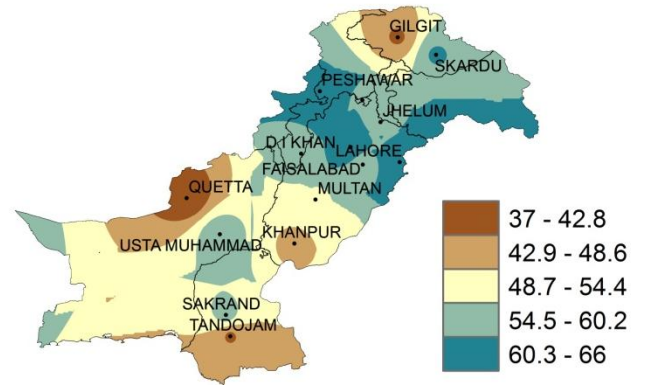


Figure.3: Relative Humidity in percentage (%)

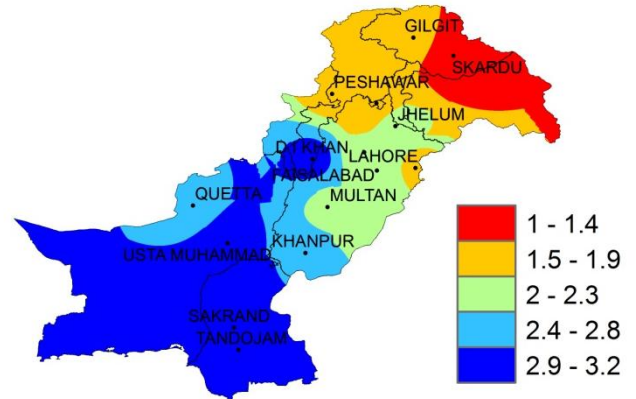


Figure.4: Reference Crop Evapotranspiration “ETo” in mm/day

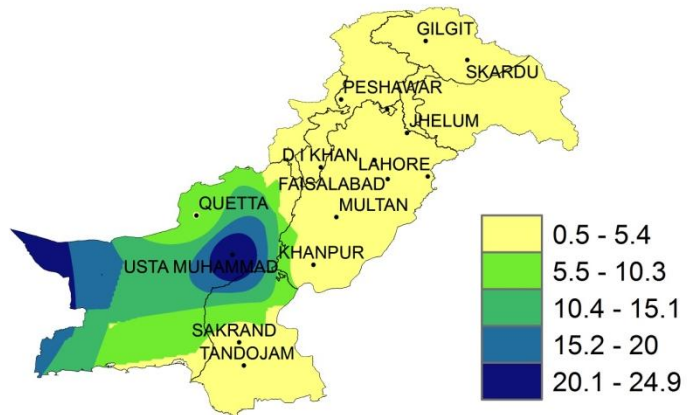


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 D.I. Khan

Dry weather reported during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 57%. Mean day temperature was 24.1°C while night temperature recorded as 4.0°C with 81.2hours bright sunshine duration.

2.13 Peshawar

Rainfall reported as 24.0mm during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 63%. Mean day temperature was 21.9°C while night temperature recorded as 5.1°C with 49.9hours bright sunshine duration. Wind speed recorded as 1.4km/hr with mean wind direction *south westerly*.

2.14 Skardu

Dry weather reported during the decade however weather remained cloudy for 08days. Average relative humidity recorded as 61%. Mean day temperature was 9.6°C while night temperature recorded as -3.3°C with 57.1hours bright sunshine duration. Wind speed recorded as 0.5km/hr with mean wind direction *north westerly*.

2.15 Gilgit

Dry weather reported during the decade however weather remained cloudy for 10days. Average relative humidity recorded as 42%. Mean day temperature was 16.0°C while night temperature recorded as -1.5°C with 48.9hours bright sunshine duration. Wind speed recorded as 3.1km/hr with mean wind direction *westerly*.

**3. Ten Days Weather Advisory for Farmers
(11th to 20th February, 2016)****3.1 Temperature Forecast**

Night temperatures are expected to drop slightly (1-2°C) in most of the agricultural plains of the country especially in upper parts of the country during the decade.

3.2 Wind Forecast

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

3.3 Rain Forecast

❖ **Punjab:** Mostly dry weather is expected during the decade. However light to moderate rain (with light snowfall over the hills) is expected in most parts of the province including Gujranwala, Rawalpindi, Lahore divisions from 11th to 12th and light to moderate

rainfall is expected in D.G Khan, Bahawalpur, Faisalabad, Gujranwala, Lahore, Rawalpindi & Lahore divisions from 18th to 20th of the decade.

- ❖ **Khyber Pakhtunkhwa:** Mainly cold and cloudy weather is expected in the province. However light to moderate rainfall (with light snowfall over the hills) is expected in Hazara, Peshawar & Malakand divisions from 11th to 12th and light to moderate rainfall is expected in Hazara, Peshawar & Malakand from 19th to 20th the decade.
- ❖ **Sindh:** Mainly dry weather expected during the decade. However light rainfall is expected in most parts of the province including Karachi, Larkana & Mirpur Khas divisions from 19th to 20th of the decade.
- ❖ **Balochistan:** Mainly cold and dry weather is expected in most parts of the Balochistan however light to moderate rain (with light snowfall over the hills) is expected in Makran, Kalat from 19th to 20th of the decade.
- ❖ **Gilgit Baltistan:** Mainly cold and cloudy weather is expected in most parts of the G.B however light to moderate rain (with light snowfall over the hills) is expected Gilgit, Skardu & Hunza during the decade.
- ❖ **Kashmir:** Widespread rain-thunderstorm (with snowfall over the hills) is expected in most parts of the Kashmir including Muzaffarabad, Rawalakot, Kotli from 11th to 17th of the decade.

3.4 Advisory for Farmers

- ❖ Wheat crop is in tillering/shooting/heading stages. Farmers are advised to stop irrigation the crops by keeping in view the expected rain in the agricultural plains of the country.
- ❖ At this stage of wheat crop, farmers should control weeds further growth by manual practices or any recommended spray.
- ❖ Farmers of irrigated/barani areas are advised to remove weeds from the fields, so that the present soil moisture may fully be utilized.
- ❖ Farmers in the lower half of the country especially those in central regions are advised to take up poultry rearing houses to maintain optimum room temperature and take care against the rapid changes in air temperature and relative humidity.
- ❖ Removing weeds from the standing crops is very important as weeds utilize moisture and food which may be utilized by the crop. 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 fields.

- ❖ Falling leaves from trees negatively affect standing Rabi crops like wheat and other crops. Framers should collect leaves from the crops as early as possible so that crop normal growth may not be disturbed.
- ❖ Farmers are advised to ensure field sanitation and spray prophylactic fungicidal sprays to prevent spread of diseases on vegetables.