

Decadal Agromet Bulletin of Pakistan



Highlights....

- ❖ Light to moderate rainfall reported in the agricultural plains of Punjab, K.P, Balochistan, G.B & Kashmir however light rainfall reported in the agricultural plains of the Sindh during the last decade.
- ❖ Highest amount of rainfall reported as 36.0mm at Dir during the last decade.
- ❖ Lowest minimum temperature recorded -9.8°C at Skardu during the last decade.
- ❖ 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.
- ❖ The upcoming rain is beneficiary for all rabi crops.
- ❖ Farmers of irrigated/barani areas are advised to remove weeds from the fields, so that the present soil moisture may fully be utilized.
- ❖ 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.

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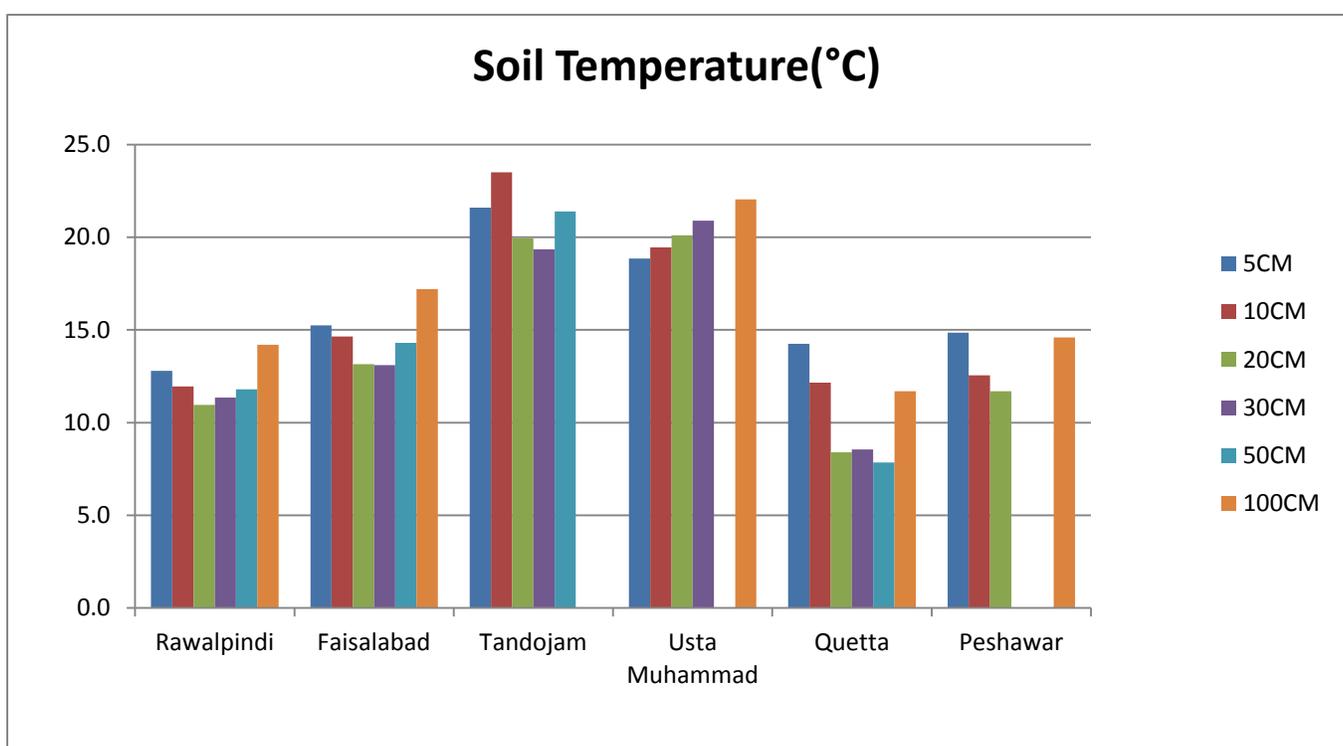
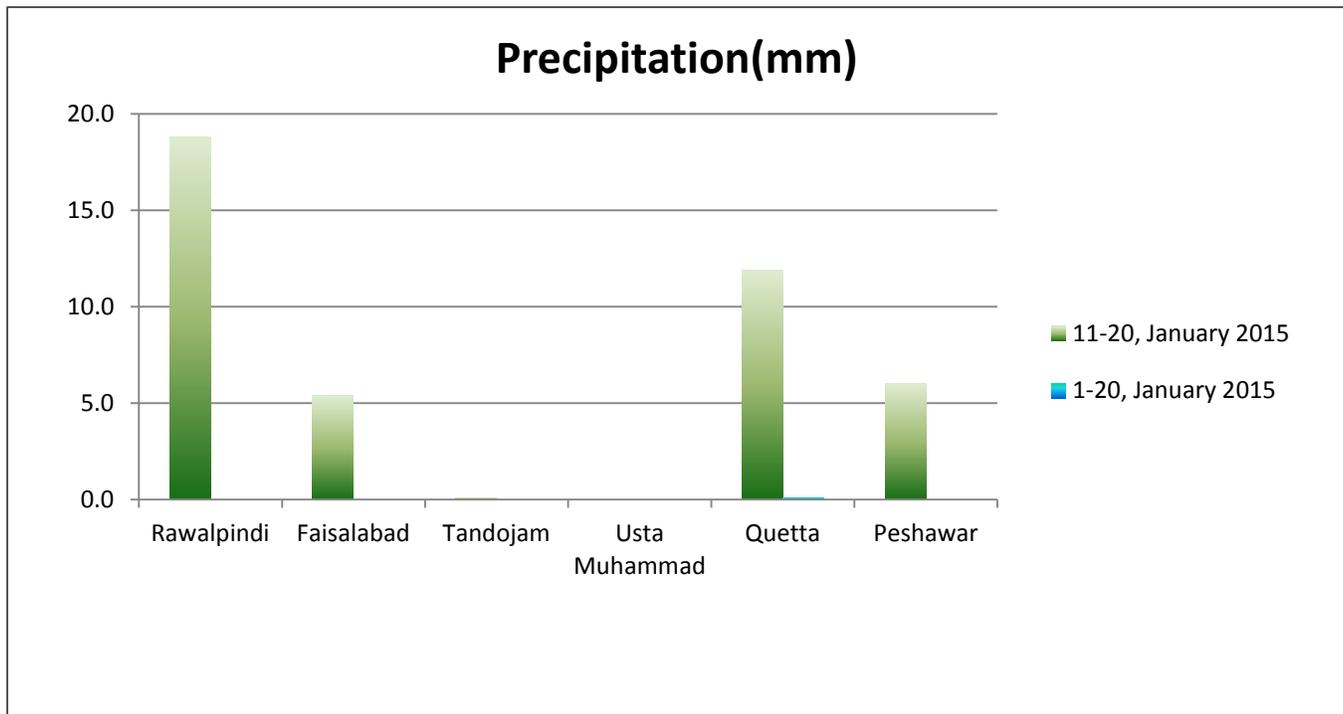
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Meteorological conditions during 2nd decade of January, 2015

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	1.1	18.8	17.7	0.1	2.3	12.1	12.8	12.0	11.0	11.4	11.8	14.2	55	61.1	2.8	1.5
2	FAISALABAD	0.3	5.4	5.1	-0.5	1.3	12.0	15.3	14.7	13.2	13.1	14.3	17.2	71	49.4	2.3	1.3
3	JHELUM	1.4	13.5	12.1	0.3	-0.4	12.3	13.4	12.8	12.2	12.5	13.9	***	71	53.2	2.1	1.3
4	LAHORE	0.3	14.3	14.0	-0.5	-0.3	12.6	14.1	13.8	13.2	13.3	***	17.0	77	53.9	2.0	1.3
5	SARGODHA	0.2	6.5	6.3	-0.3	1.3	12.6	15.1	13.7	13.4	13.9	15.0	17.4	76	43.1	0.4	1.0
6	MULTAN	0.2	1.4	1.2	-0.2	0.3	12.9	***	***	***	***	***	***	69	57.6	3.6	1.7
7	KHANPUR	1.0	0.1	-0.9	0.3	0.4	13.3	***	14.8	15.3	16.4	17.1	19.4	71	58.2	3.4	1.7
8	TANDOJAM	0.0	0.1	0.1	0.0	0.3	16.7	21.6	23.5	20.0	19.4	21.4	***	67	83.1	1.4	2.0
9	SAKRAND ☆	0.4	0.0	-0.4	4.6	-2.8	13.6	24.3	20.3	***	***	***	23.5	62	85.0	3.7	2.3
10	ROHRI	0.6	0.0	-0.6	0.4	0.1	15.8	21.7	20.8	18.8	20.4	19.4	24.6	63	85.6	2.0	1.9
11	DI KHAN	0.1	9.9	9.8	0.5	-1.2	11.2	***	***	***	***	***	***	70	56.1	***	1.9
12	PESHAWAR	1.6	6.0	4.4	1.2	-0.5	12.1	14.9	12.6	11.7	***	***	14.6	64	44.3	0.1	0.8
13	USTA MUHAMMAD	0.1	0.0	-0.1	1.0	-2.1	14.5	18.9	19.5	20.1	20.9	***	22.1	68	***	***	2.5
14	QUETTA	0.9	11.9	11.0	3.5	2.1	8.2	14.3	12.2	8.4	8.6	7.9	11.7	34	73.4	5.1	2.2
15	SKARDU	1.5	1.0	-0.5	3.6	0.2	0.3	***	***	***	***	***	***	56	36.6	0.3	0.7
16	GILGIT	0.3	0.0	-0.3	2.6	-0.9	5.1	***	***	***	***	***	***	52	38.2	1.9	1.1

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; $\text{Dep} \div \text{Normal} \times 100$. 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 January, 2015



Past Weather (11th to 20th January, 2015)

Light to moderate rainfall reported in the agricultural plains of Punjab, K.P, Balochistan, G.B & Kashmir however light rainfall reported in the agricultural plains of the Sindh 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, Gujrat & Lahore. Decadal maximum dropped below normal by 0.1°C & minimum raised above normal by 0.7°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 70%, 53.8hrs, 2.4km/hr and 1.4mm/day respectively.

1.2 Sindh

Light rainfall reported in the agricultural plains of Sindh. Chief amount of rainfall received in Sukkur, Moen Jo Daro & Karachi. Decadal maximum raised above normal by 1.7°C & minimum dropped below normal by 0.8°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 64%, 84.6hrs, 2.4km/hr and 2.1mm/day respectively.

1.3 Khyber Pakhtunkhwa (KP)

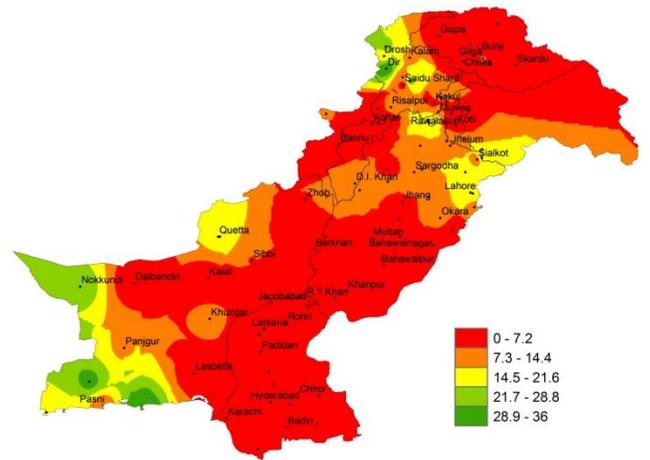
Light to moderate rainfall reported in the agricultural plains of KP. Chief amount of rainfall received in Dir, Malam Jabba & Chitral. Decadal maximum raised above normal by 0.9°C & minimum dropped below normal by 0.9°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 67%, 50.2hrs, 0.1km/hr and 1.4mm/day respectively.

1.4 Balochistan

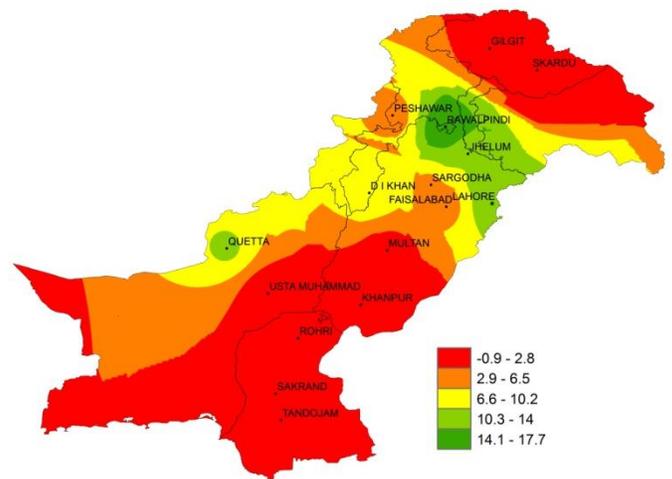
Light to moderate rainfall reported in the agricultural plains of Balochistan. Chief amount of rainfall received in Ormara, Turbat & Nokkundi. Decadal maximum raised above normal by 2.3°C & minimum temperature remains normal, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 51%, 73.4hrs, 5.1km/hr and 2.4mm/day respectively.

1.5 Gilgit-Baltistan and Azad Jammu & Kashmir

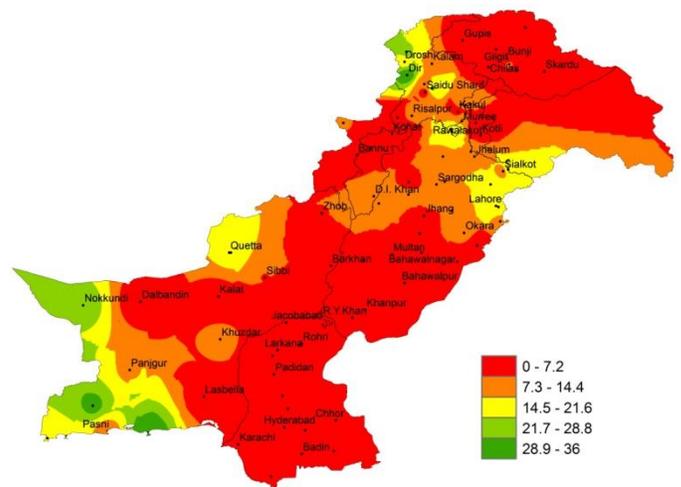
Light to moderate rainfall reported in the agricultural plains of GB & Kashmir. Chief amount of rainfall received in Rawalakot, Muzaffarabad & Garhi Doppatta. Decadal maximum raised above normal by 3.1°C & minimum dropped below normal by 0.4°C, in the province. Whereas mean values of relative humidity, sunshine hour, wind speed & ETo were recorded as 54%, 37.4hrs, 1.1km/hr and 0.9mm/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 (11th to 20th January, 2015)**

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

Rainfall reported as 18.8mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 64%. Mean day temperature was 18.9°C while night temperature recorded as 5.3°C with 61.1hours bright sunshine duration. Wind speed recorded as 2.8km/hr with mean wind direction *westerly*.

Wheat (Chakwal-97): Poor condition, 3rd leaf stage.

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

Rainfall reported as 5.4mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 71%. Mean day temperature was 17.9°C while night temperature recorded as 6.0°C with 49.40hours bright sunshine duration. Wind speed recorded as 2.3km/hr with mean wind direction *south westerly*.

Wheat: Excellent condition, tillering stage completed.

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

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 67%. Mean day temperature was 24.5°C while night temperature recorded as 8.8°C with 83.1hours bright sunshine duration. Wind speed recorded as 1.4km/hr with mean wind direction *north easterly*.

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

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

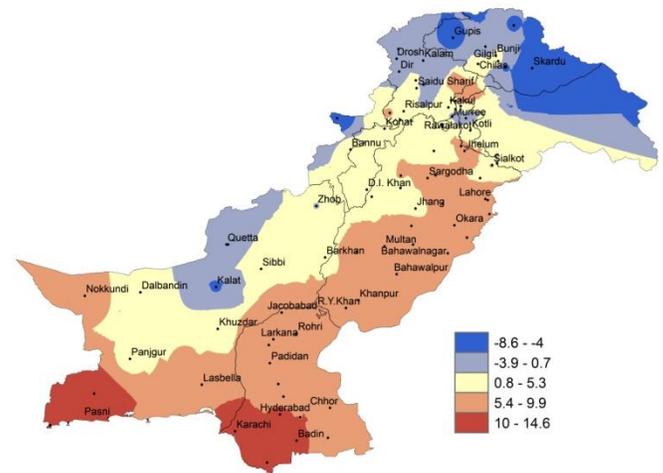
Dry weather reported during the decade however weather remained clear throughout the decade. Average relative humidity recorded as 68%. Mean day temperature was 22.4°C while night temperature recorded as 6.6°C.

Wheat (Zardana): Good condition, shooting stage.

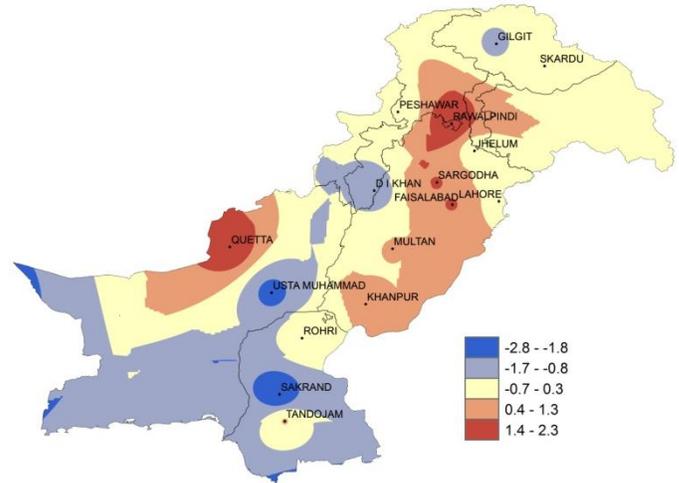
2.5 **RAMC, Quetta (Northern Balochistan)**

Rainfall reported as 11.9mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 34%. Mean day temperature was 15.4°C while night temperature recorded as 0.9°C with 73.4hours bright sunshine duration and wind speed recorded as 5.1km/hr with mean wind direction *southerly*.

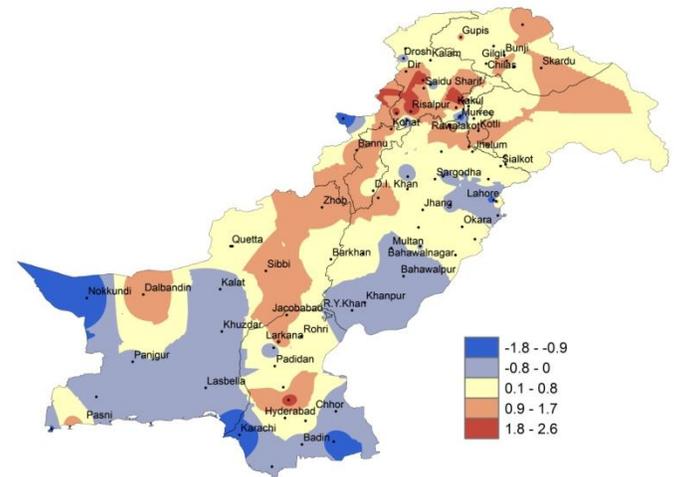
Wheat: Good condition, 3rd leaf stage.



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 (11th to 20th January, 2015)**

2.6 **Jhelum**

Rainfall reported as 13.5mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 71%. Mean day temperature was 19.1°C while night temperature recorded as 5.5°C with 53.2hours bright sunshine duration. Wind speed recorded 2.1km/hr with wind direction *north westerly*.

2.7 **Lahore**

Rainfall reported as 14.3mm during the decade however weather remained cloudy for 06days. Average relative humidity recorded as 77%. Mean day temperature was 17.7°C while night temperature recorded as 7.4°C with 53.9hours bright sunshine duration. Wind speed recorded as 2.0km/hr with mean wind direction *north westerly*.

2.8 **Sargodha**

Rainfall reported as 6.5mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 76%. Mean day temperature was 18.3°C while night temperature recorded as 6.8°C with 43.1hours bright sunshine duration. Wind speed recorded as 0.37km/h with mean wind direction *north easterly*.

2.9 **Multan**

Rainfall reported as 1.4mm during the decade however weather remained cloudy for 07days. Average relative humidity recorded as 69%. Mean day temperature was 19.7°C while night temperature recorded as 6.0°C with 57.6hours bright sunshine duration. Wind speed recorded 3.6km/hr with mean wind direction *northerly*.

2.10 **Khanpur**

Rainfall reported as Trace (not measureable) during the decade however weather remained cloudy for 01 day. Average relative humidity recorded as 71%. Mean day temperature was 20.6°C while night temperature recorded as 5.9°C with 58.2hours bright sunshine duration. Wind speed recorded 3.4km/hr with mean wind direction *north easterly*.

2.11 **Sakrand**

Dry weather reported during the decade however weather remains cloudy for 01day. Average relative humidity recorded as 62%. Mean day temperature was 23.0°C while night temperature recorded as 4.1°C with 85.0hours bright sunshine duration. Wind speed recorded 3.7km/hr with wind direction *northerly*.

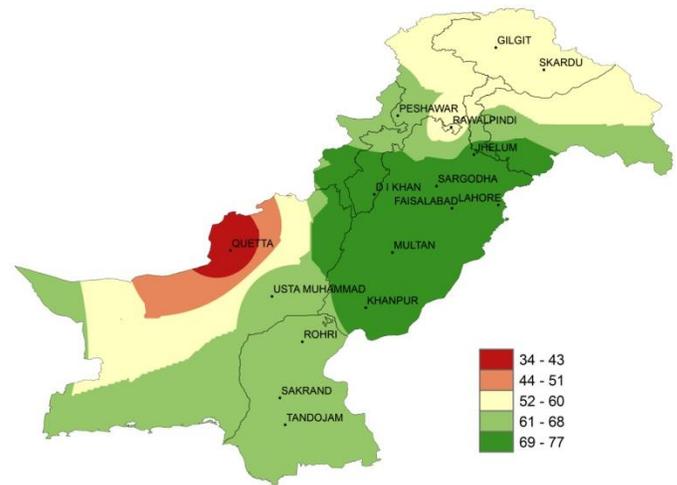


Figure.3: Relative Humidity in percentage (%)

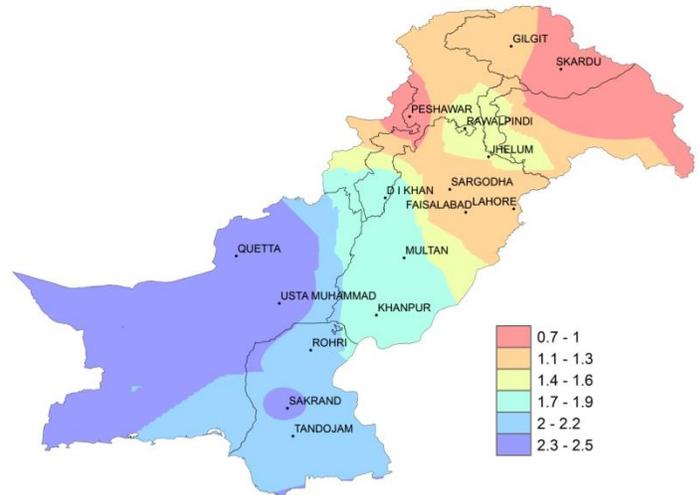


Figure.4: Reference Crop Evapotranspiration "ETo" in mm/day

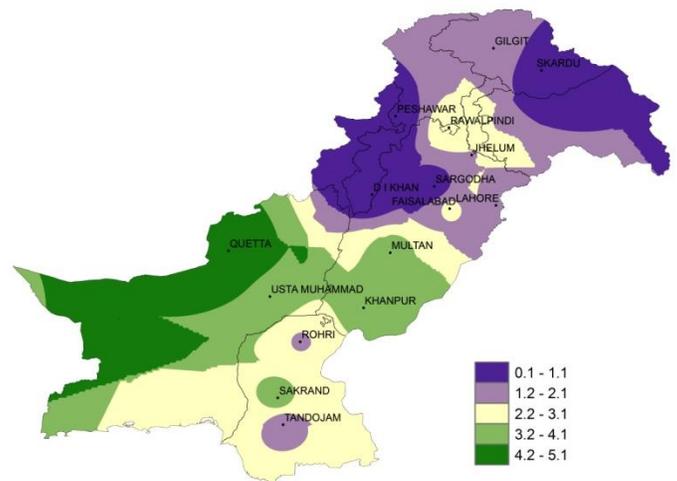


Figure 5: Wind Speed in kilometer per hour (km/h)

2.12 Rohri

Dry weather reported during the decade however weather remained cloudy for 01 day. Average relative humidity recorded as 63%. Mean day temperature was 22.1°C while night temperature recorded as 9.4°C with 85.6hours bright sunshine duration. Wind speed recorded as 2.0km/hr with mean wind direction *northerly*.

2.13 D.I. Khan

Rainfall reported as 9.9mm during the decade however weather remained cloudy for 02days. Average relative humidity recorded as 70%. Mean day temperature was 19.0°C while night temperature recorded as 3.4°C with 56.1hours bright sunshine duration.

2.14 Peshawar

Rainfall reported as 6.0mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 64%. Mean day temperature was 19.9°C while night temperature recorded as 4.3°C with 44.3hours bright sunshine duration. Wind speed recorded as 0.1km/hr with mean wind direction *northerly*.

2.15 Skardu

Rainfall reported as 1.0mm during the decade however weather remained cloudy for 05days. Average relative humidity recorded as 56%. Mean day temperature was 7.1°C while night temperature recorded as -7.2°C with 36.6hours bright sunshine duration. Wind speed recorded as 0.3km/hr with mean wind direction *south-east southerly*.

2.16 Gilgit

Dry weather reported during the decade however weather remained cloudy for 09days. Average relative humidity recorded as 52%. Mean day temperature was 13.2°C while night temperature recorded as -3.1°C with 38.2hours bright sunshine duration. Wind speed recorded as 1.9km/hr with mean wind direction *variable*.

3. Ten Days Weather Advisory for Farmers**(21st to 31st January, 2015)****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 cold and dry weather is expected during the decade. However light rainfall is expected in most parts of the province during the 1st half of 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 decade.
- ❖ **Sindh:** Mostly dry weather expected in most of the parts of Sindh however light to moderate rain is expected in 1st of the decade.
- ❖ **Balochistan:** Mainly cold and cloudy weather is expected in most parts of the Balochistan however light to moderate rain (with light snowfall over the hills) is expected in 1st half 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 in decade.
- ❖ **Kashmir:** Widespread rain-thunderstorm (with snowfall over the hills) is expected in most parts of the Kashmir during 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.
- ❖ The upcoming rain is beneficiary for all rabi crops.
- ❖ Farmers of irrigated/barani areas are advised to remove weeds from the fields, so that the present soil moisture may fully be utilized.
- ❖ 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.