

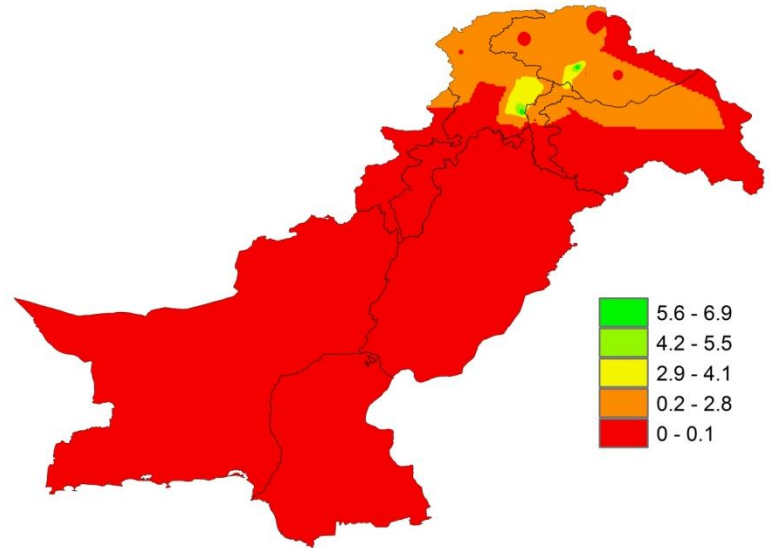
# Weekly Weather and Crop Bulletin for Pakistan

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Rainfall Distribution (mm) during the  
Previous Week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)



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## Highlights of Past Weather (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)

Slightly below normal night temperatures reported from most parts of the country.

Province wise distribution of rainfall reported as follows:

- Light rainfall was recorded at few places in Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB) and Kashmir.
- Light rainfall was recorded at isolated places in Punjab.
- Dry weather reported from Sindh and Balochistan.

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

**Editor-in-Chief: Dr. Azmat Hayat Khan (Director)**

**Editor: Khalida Noureen (Meteorologist)**

## Past Weather of Provinces (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)

### Punjab

Light rainfall was recorded at isolated places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 22.2°C & 6.4°C respectively. For the present season on average 65.1 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 0.8/2.1 Knots. During the previous week the highest amount of rainfall was recorded as 0.01 mm at Sialkot & the lowest minimum temperature was recorded as -0.5°C at Murree.

### Sindh

Dry weather was recorded at Sindh during the week. Weekly maximum and minimum temperatures recorded as 25.6°C & 8.0°C respectively. For the present season, on average 83.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 0.7/3.0 Knots. During the previous week the lowest minimum temperature was recorded as 2.0°C at Moin-jo-Daro.

### Khyber Pakhtunkhwa

Light rainfall was recorded at few places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 15.7°C & 1.2°C respectively. For the present season on average 43.7 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 59% and wind speed in the morning/evening recorded as 1.2/2.2 Knots. During the previous week the highest amount of rainfall was recorded as 7.0 mm at Balakot & the lowest minimum temperature was recorded as -11.0°C at Kalam.

### Balochistan

Dry weather was reported from Balochistan during the week. Weekly maximum and minimum temperatures recorded as 19.7°C & 4.5°C respectively. For the present season on average 54.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 0.6/2.6 Knots. During the previous week the lowest minimum temperature was recorded as -8.0°C at Kalat.

### Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall was recorded at few places in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 12.0°C & -7.0°C respectively. For the present season on average 32 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 0.8/1.0 Knots. During the previous week the highest amount of rainfall was recorded as 2.0 mm at Chilas & the lowest minimum temperature was recorded as -12.2°C at Skardu.

**Past Weather for Major Agricultural Plains  
(from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.9/1.3 Oktas while, average relative humidity observed as 68%. Mean night time temperature recorded as 6.0°C & for the present season 62.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.9 Knots.

**Faisalabad (Central Punjab)**

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.0/1.4 Oktas while, average relative humidity observed as 58.5%. Mean night time temperature recorded as 4.9°C & for the present season 68.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.6 Knots.

**Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 54%. Mean night time temperature recorded as 6.8°C & for the present season 75.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.8 Knots.

**Usta Muhammad (Eastern Balochistan)**

Rainfall reported from 2.0 mm during the week; however, cloudiness in the morning/evening recorded 0.4/1.0 Oktas while, average relative humidity observed as 57%. Mean night time temperature recorded as 7.2°C & for the present season 74.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.6 Knots.

**Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.3/1.8 Oktas while, average relative humidity observed as 47%. Mean night time temperature recorded as -1.1°C at the end of last week. Wind speed recorded in the morning/evening as 2.0/2.8 Knots.

**Past Weather for Sub-Regional Agricultural  
Plains (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.3/0.7 Oktas while, average relative humidity observed as 58.4%. Mean night time temperature recorded as 7.5°C & for the present season 70.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/4.0 Knots.

**Lahore**

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.3/1.9 Oktas while, average relative humidity observed as 60%. Mean night time temperature recorded as 9.3°C & for the present season 75.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

**Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.7/1.7 Oktas while, average relative humidity observed as 49.4%. Mean night time temperature recorded as -2.0°C by the end of last week. Wind speed recorded in the morning/evening as 1.4/4.1 Knots.

**Murree**

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.3/2.6 Oktas while, average relative humidity observed as 55.3%. Mean night time temperature recorded as 1.0°C by the end of last week. Wind speed recorded in the morning/evening as 3.6/1.1 Knots.

**D.I. Khan**

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.1/1.1 Oktas while, average relative humidity observed as 50.5%. Mean night time temperature recorded as 6.4°C & for the present season 70.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/0.6 Knots.

**Peshawar**

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.1/3.6 Oktas while, average relative humidity observed as 58%. Mean night time temperature recorded as 6.1°C & for the present season 62.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/4.0 Knots.

**Kalam**

Rainfall reported from 2.0 mm during the week; however, cloudiness in the morning/evening recorded as 2.7/2.9 Oktas while, average relative humidity observed as 79%. Mean night time temperature recorded as -3.2°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

**Gilgit**

Rainfall reported from 1.4 mm during the week; However, cloudiness in the morning/evening recorded as 5.4/5.6 Oktas while, average relative humidity observed as 62%. Mean night time temperature recorded as -0.3°C & for the present season 7.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 6.0/0.0 Knots.

**Skardu**

Dry weather reported from Skardu during the week;; however, cloudiness in the morning/evening recorded as 5.0/5.6 Oktas while, average relative humidity observed as 79.3%. Mean night time temperature recorded as -9.1°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

**Crop Situation for Major Agricultural Plains**  
**(Based on data from Regional Agromet Centres)****Potohar Region (Rawalpindi)**

There is presently no crop grown in the fields of RAMC Rawalpindi.

**Central Punjab (Faisalabad)**

There is presently one crop (irrigated conditions) grown in the fields of RAMC Faisalabad.

**Wheat:** Very good condition, *Shooting stage* completed.

**Lower Sindh (Tandojam)**

There is presently one crop (irrigated conditions) grown in the fields of RAMC Tandojam.

**Wheat (Imdad):** Good condition at *Milk maturity stage*.

**Northern Balochistan (Quetta)**

There is presently one crop (irrigated conditions) grown in the fields of RAMC Quetta.

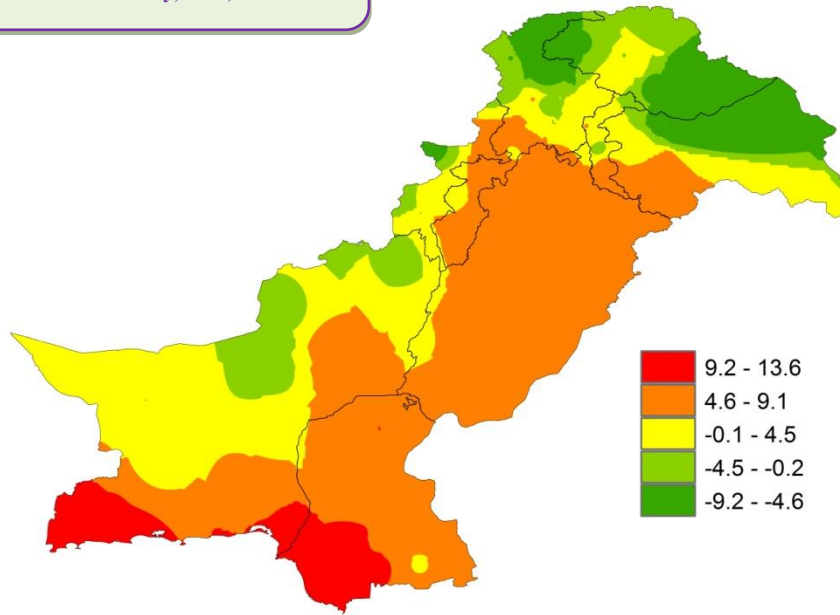
**Wheat (Local white):** Good condition at *Tillering stage*.

**Eastern Balochistan (Usta Muhammad)**

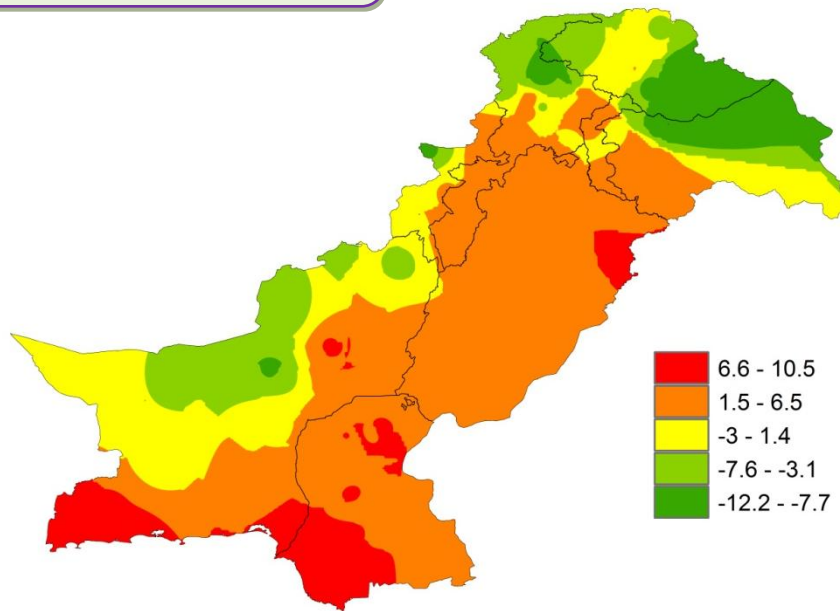
There is presently one crop (irrigated conditions) grown in the fields of RAMC Usta Muhammad.

**Wheat:** Good condition at *Stem extension stage*.

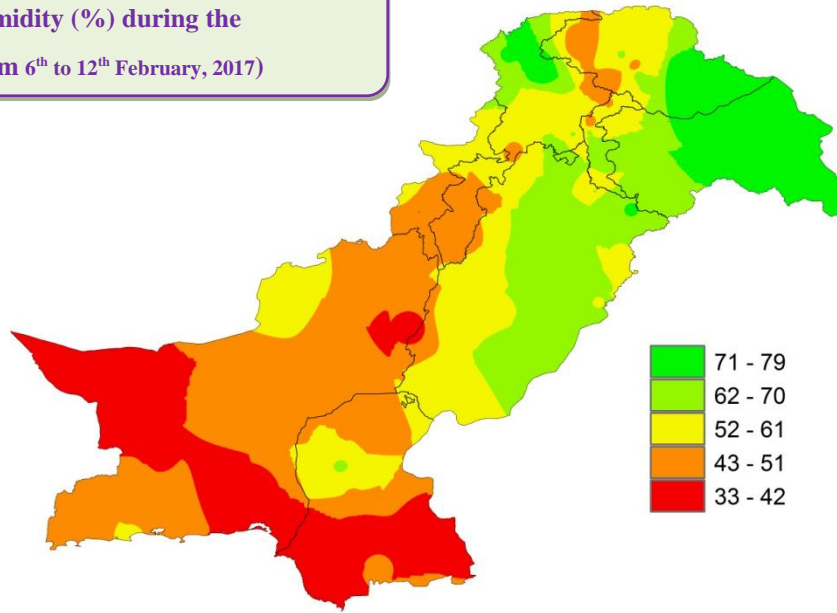
Mean lowest Temperature (°C) during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)



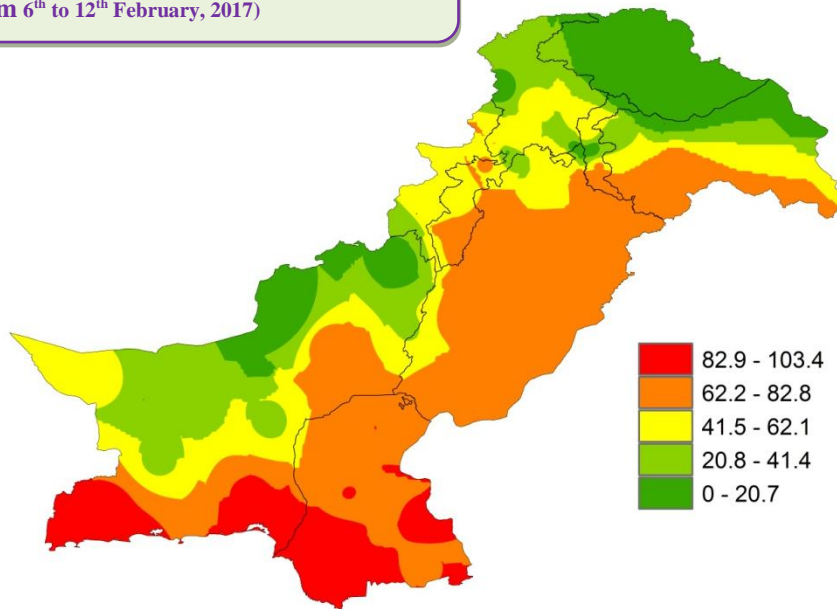
Lowest Minimum Temperature (°C) during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)



Mean Relative Humidity (%) during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)

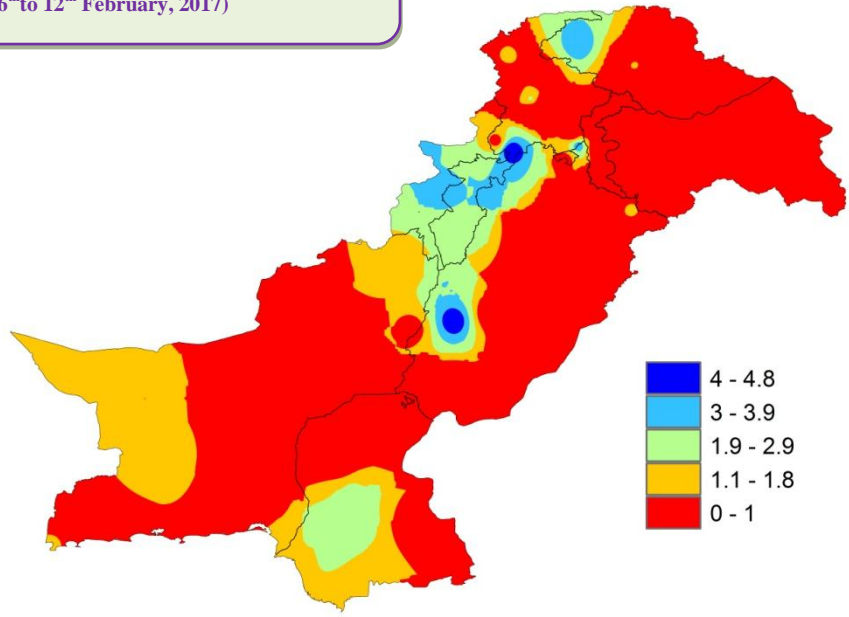


Total Growing Degree Days accumulated during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)

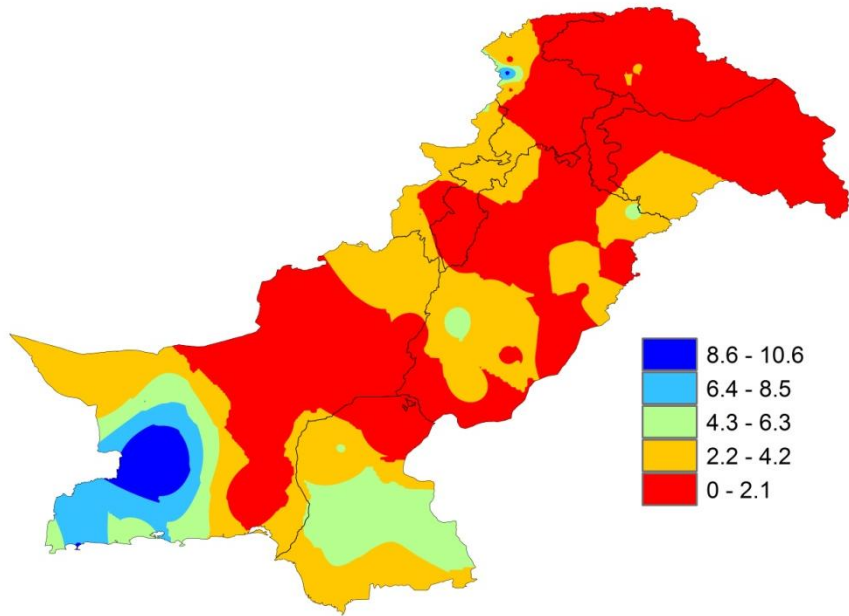




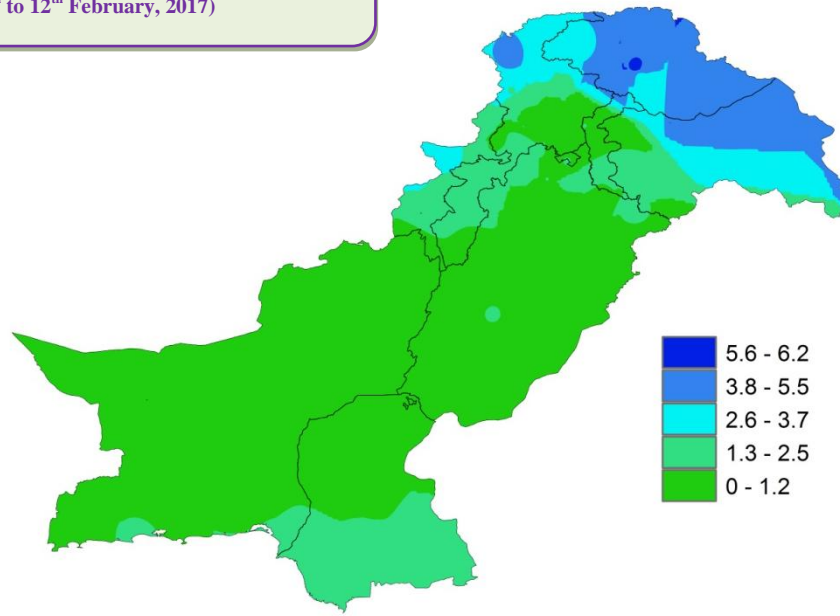
Mean Wind Speed (Knots) at 0800PST during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)



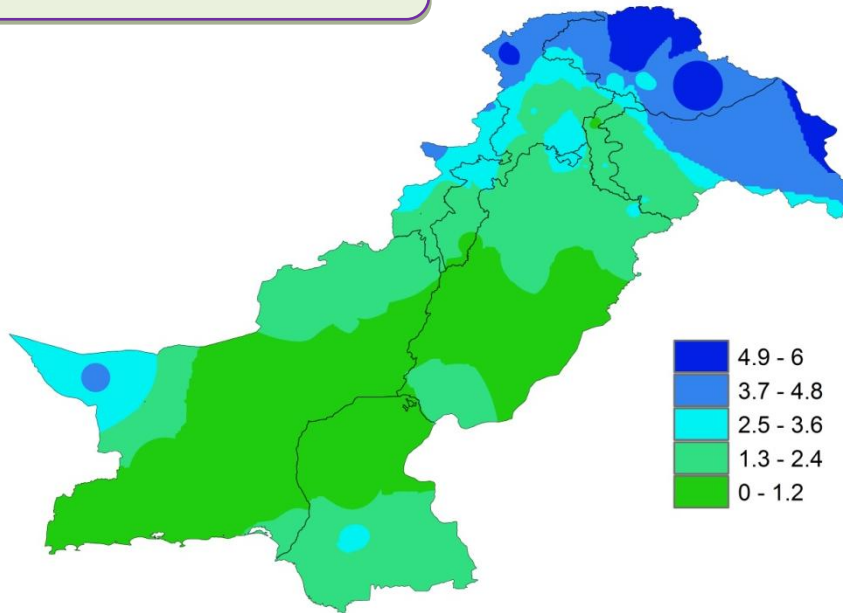
Mean Wind Speed (Knots) at 1700PST during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)





**Weekly Weather Advisory for Farmers****(From 13<sup>th</sup> to 19<sup>th</sup> February, 2017)**

Continental air would prevail over most parts of the country during next 3-4 days. A westerly wave is likely to approach western parts of the country on Wednesday.

**MONDAY****13-02-2017**

Mainly cold and dry weather is expected in most parts of the country.

**TUESDAY****14-02-2017**

Mainly cold and dry weather is expected in most parts of the country. However, light rain (with light snow over the hills) is expected at isolated places in upper FATA and Malakand division.

**WEDNESDAY****15-02-2017**

Mainly cold and dry weather is expected in most parts of the country. However, light rain (with light snow over the hills) is expected at isolated places in Malakand division and Gilgit-Baltistan.

**THURSDAY****16-02-2017**

Mainly cold and dry weather is expected in most parts of the country. However, light rain (with light snow over the hills) is expected at isolated places in Malakand division, Kashmir and Gilgit-Baltistan.

**FRIDAY****17-02-2017**

Mainly cold and dry weather is expected in most parts of the country. However, rain (with snowfall over the hills) is expected at scattered places in Malakand, Hazara, Peshawar, Mardan divisions, upper FATA, Kashmir and Gilgit-Baltistan, while at isolated places in Quetta division.

**SATURDAY****18-02-2017**

Mainly cold and dry weather is expected in most parts of the country. However, rain (with snowfall over the hills) is expected at scattered places in Malakand, Hazara, Peshawar, Mardan divisions, upper FATA, Kashmir and Gilgit-Baltistan, while at isolated places in Quetta, Zhob, Kalat divisions, Islamabad and upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha divisions).

**SUNDAY****19-02-2017**

Mainly cold and dry weather is expected in most parts of the country. However, rain (with snowfall over the hills) is expected at scattered places in Malakand, Hazara, Peshawar, Mardan divisions, upper FATA, Kashmir and Gilgit-Baltistan, while at isolated places in Quetta, Zhob, Kalat divisions, Islamabad and upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha divisions).

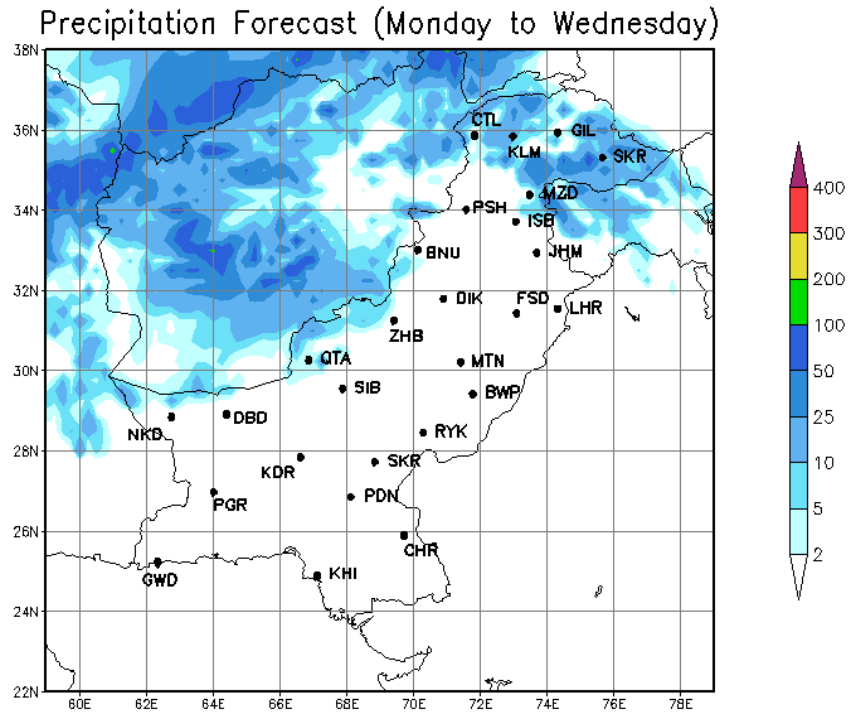
**ADVISES FOR FARMERS**

During the last week, weather remained cold and dry in most parts of the country. This may continue in the same manner in coming days as well. However, light rain (with light snow over the hills) is expected at isolated places in upper FATA and Malakand division. Keeping in view the expected weather conditions following advises are suggested for farming community.

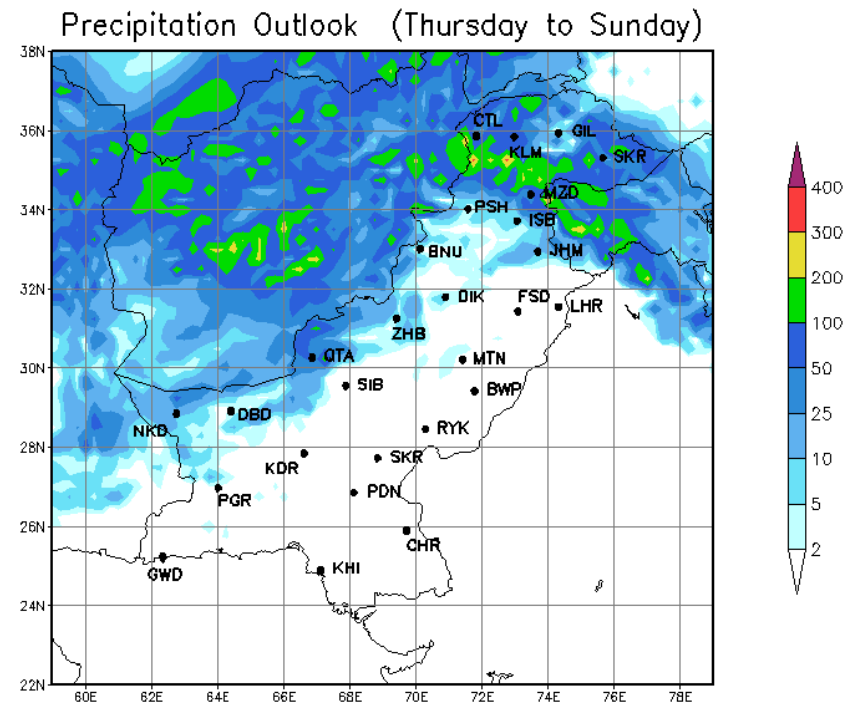
- Farmers of irrigated areas should irrigate the crop as per requirement keeping expected weather in mind.
- Farmers of barani areas are advised to remove weeds from the fields, so that the present soil moisture may fully be utilized.
- Removing weeds from the standing crops is very important as weeds 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.
- Measures should be taken to preserve the crops and livestock from the expected frost during clear nights in high elevated plains.

### Weather Outlook from 13<sup>th</sup> to 19<sup>th</sup> February, 2017

The forecast from 13<sup>th</sup> to 15<sup>th</sup> February, 2017 shows that light to moderate rainfall is expected at few places in upper KP, north western Balochistan, GB and Kashmir. However, dry weather may prevail in rest of the country.



The outlook from 16<sup>th</sup> to 19<sup>th</sup> February, 2017 shows that moderate to heavy rainfall is expected in KP, GB, Kashmir, north and northwestern Balochistan and upper Punjab.



**National Weather Data of Selected Cities**  
**(Weekly Data from 6<sup>th</sup> to 12<sup>th</sup> February, 2017)**

Stations	Maximum/Night time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800 PST	Cloudiness (Oktas) 1700 PST	Wind Speed (Knots) 0800 PST	Wind Speed (Knots) 1700 PST
	Mean	Lowest							
Astore	-9.3	-12.0	***	62	0.0	2.9	3.6	0.6	0.0
Badin	10.7	10.0	92.9	43	0.0	1.3	1.7	1.1	2.9
Bahawalnagar	7.2	4.5	68.9	64	0.0	0.7	0.4	0.0	1.1
Bahawalpur	6.1	4.5	68.4	64	0.0	0.7	0.7	0.3	2.0
Balakot	3.0	2.2	44.8	57	7.0	1.1	2.6	0.0	0.9
Bannu	3.1	1.8	49.4	49	0.0	2.1	2.3	3.1	2.0
Barkhan	3.4	3.0	38.9	39	0.0	1.0	1.0	0.6	1.4
Bunji	2.8	1.7	16.9	47	0.0	6.3	6.1	1.1	2.3
Cherat	3.8	2.0	18.0	49	0.0	1.6	1.6	4.9	4.0
Chhor	6.1	4.5	85.9	41	0.0	1.4	1.4	0.0	4.6
Chilas	2.2	0.5	20.0	49	2.0	4.9	3.3	0.6	2.0
Chitral	-4.7	-5.7	**	73	0.0	4.0	5.1	1.1	1.7
D G Khan	5.8	2.8	67.7	59	0.0	0.7	0.4	4.6	4.6
D.I. Khan	6.4	5.0	70.5	51	0.0	1.1	1.1	2.0	0.6
Dir	-3.5	-4.5	8.8	63	2.0	2.4	3.6	0.0	2.0
Drosh	-3.0	-3.7	**	62	1.5	3.7	4.4	0.6	8.9
Faisalabad	4.9	3.5	68.8	59	0.0	1.0	1.4	0.3	1.1
Gawader	11.2	10.0	90.6	51	0.0	0.4	1.1	0.0	8.6
Garhi Dopatta	3.9	2.5	54.5	63	0.0	0.4	1.6	0.3	0.6
Gilgit	-0.3	-2.0	7.0	62	1.4	5.4	5.6	0.6	0.0
Gupis	-5.4	-6.0	***	47	0.0	3.1	3.7	3.7	2.0
Hyderabad	11.4	7.5	92.6	37	0.0	1.6	2.7	2.6	5.7

Islamabad	5.0	4.0	55.6	68	0.0	1.3	2.4	0.6	0.6
Jacobabad	8.1	5.5	77.3	48	0.0	0.0	0.4	0.9	0.3
Jhang	6.0	4.8	69.2	65	0.0	0.9	1.4	0.0	1.1
Jhelum	6.9	5.6	70.9	61	0.0	0.6	2.3	0.3	1.7
Jawani	13.6	10.0	102.3	48	0.0	1.0	1.0	1.1	4.9
Kakul	0.9	0.0	25.0	61	0.0	1.0	3.4	0.0	1.7
Kalam	-8.4	-11.0	***	79	2.0	2.7	2.9	0.0	0.0
Kalat	-2.7	-8.0	***	44	0.0	0.0	0.0	0.0	0.0
Karachi	12.0	10.5	103.9	35	0.0	2.4	1.7	1.7	3.7
Khanpur	5.2	3.2	67.9	59	0.0	1.0	1.4	0.0	2.6
Khuzdar	1.4	0.5	36.4	47	0.0	0.0	0.4	0.3	1.7
Kotli	6.9	6.3	66.0	61	0.0	2.1	2.4	0.6	1.7
Larkana	8.2	7.0	80.7	50	0.0	0.6	1.1	0.3	2.3
Lasbella	8.2	5.5	88.9	38	0.0	0.7	1.0	0.0	1.1
Lahore	9.3	8.0	75.3	60	0.0	0.3	1.9	0.3	1.4
Lower Dir	4.9	4.0	51.0	58	0.0	2.3	1.7	2.0	2.0
Malam Jabba	-4.2	-5.0	**	53	0.0	0.9	1.6	0.0	0.0
Mandibahudin	6.8	5.5	70.4	67	0.0	0.3	2.0	0.0	0.6
Mangla	6.2	5.6	67.8	58	0.0	1.7	2.1	0.0	2.0
Mir Khani	0.3	-2.2	10.1	64	6.5	3.1	2.7	0.0	2.1
Moinjodaro	4.9	2.0	67.5	52	0.0	0.3	0.4	0.0	4.6
Multan	7.5	5.3	70.3	58	0.0	1.3	0.7	0.0	4.0
Murree	1.0	-0.5	8.1	55	0.0	0.3	2.6	3.6	1.1
Muzaffarabad	4.8	3.4	51.4	54	1.4	1.3	2.1	0.3	2.0
Nokkundi	3.1	-1.0	42.5	33	0.0	1.1	3.7	1.6	2.3
Okara	7.1	5.0	69.3	62	0.0	0.7	0.7	0.3	2.0

Padidan	5.9	4.5	70.1	62	0.0	0.6	1.0	0.6	3.1
Panjgur	1.7	-2.0	35.5	42	0.0	0.4	1.0	1.4	10.6
Parachinar	-7.6	-8.5	**	59	0.0	3.7	3.9	3.0	3.0
Pasni	11.6	9.5	92.8	52	0.0	1.4	1.0	0.7	5.4
Peshawar	6.1	5.0	62.5	58	0.0	1.1	3.6	0.6	4.0
Quetta	-1.1	-6.0	3.1	47	0.0	1.3	1.8	2.0	2.8
R.Y.Khan	5.2	4.2	71.6	59	0.0	0.6	1.3	0.0	1.1
Rawalakot	-2.2	-3.1	8.1	64	0.0	0.7	2.0	0.0	0.6
Rawalpindi	6.0	5.2	62.3	68	0.0	0.9	1.3	0.3	0.9
Rohri	10.1	8.0	84.6	48	0.0	0.0	0.6	0.0	1.1
Sahiwal	6.8	6.2	66.2	61	0.0	0.4	0.3	0.6	2.9
Saidu Sharif	3.9	2.7	41.6	60	0.0	0.7	2.6	0.0	0.0
Shaheed Benazirabad	8.6	7.0	84.9	51	0.0	0.5	0.9	2.2	5.7
Sialkot	7.9	6.4	65.9	71	0.0	1.4	2.4	1.0	4.4
Sibbi	8.6	7.0	82.8	43	0.0	0.0	1.1	0.7	0.6
Skardu	-9.1	-12.2	**	79	0.0	5.0	5.6	0.0	0.0
Tandojam	6.8	5.5	75.8	54	0.0	0.0	0.0	0.0	1.8
Usta Muhamad	7.2	4.5	74.0	57	2.0	0.4	1.0	0.3	0.6
Zhob	-2.0	-4.0	8.0	49	0.0	0.7	1.7	1.4	4.1

\*\*\* Shows that data was not available.

## Findings of AgMIP Pakistan, University of Agriculture, Faisalabad

1. There would be significant increase in temperature i.e., 2.8°C in day and 2.2°C in the night during mid-century (2040-2069)
2. There would be significant variability in rainfall patterns (about 25% increase in summer & 12% decrease in winter during 2040-2069)
3. Climate Change will affect the crop yields negatively (about 17% for rice and 14 % for wheat)
4. If there will be no adaptation to Climate Change, majority of farmers would be the economic losers
5. With Adaptation to Climate Change (through technology and management), there would be significant decrease in poverty and improvement in the livelihood of farming community.

*(Agricultural Model Inter-comparison and Improvement Project (AgMIP) Pakistan  
2012-2014)*

- 1- سال 2040-69 کے دوران درجہ حرارت میں قابل ذکر اضافہ ہو سکتا ہے۔ جو کہ دن کے وقت 2.8°C اور رات کو 2.2°C تک ہوگا۔
- 2- گرمیوں کی بارش میں 25 فیصد اضافہ اور سردیوں کی بارش میں 12 فیصد تک کمی کا امکان ہے۔
- 3- مندرجہ بالا موسمی تغیرات کی وجہ سے دھان کی پیداوار میں 17 فیصد اور گندم کی پیداوار میں 14 فیصد تک کمی ہو سکتی ہے۔
- 4- اگر موسمی تغیرات کا مناسب بندوبست نہ کیا گیا۔ تو کسانوں کی اکثریت کو معاشی نقصان کا سامنا کرنا پڑے گا۔
- 5- موسمی تغیرات کے سبب (بذریعہ نئی ٹیکنالوجی کا استعمال اور بہتر نظم و نسق) سے غربت میں کمی اور کسانوں کی زندگی میں خوشحالی لائی جاسکتی ہے۔

(ایگمپ پاکستان 2012-2014)