

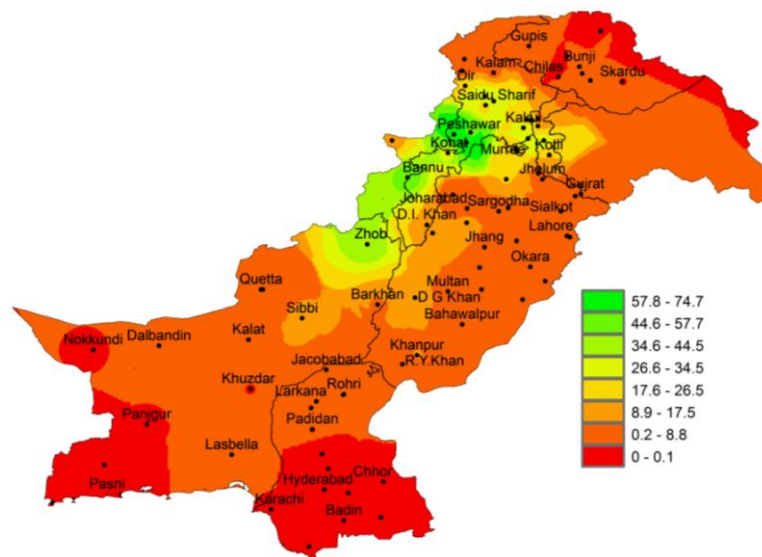
# Weekly Weather and Crop Bulletin for Pakistan

NATIONAL AGROMET CENTRE  
PAKISTAN METEOROLOGICAL  
DEPARTMENT SECTOR H-8/2,  
ISLAMABAD.

Phone: +92-51-9250299

Email: dirnamc@yahoo.com

Rainfall Distribution (mm) during the previous  
Week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)



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## Highlights of Past Weather (13<sup>th</sup> to 19<sup>th</sup> November, 2017)

Below normal night time temperatures were observed in Punjab, KP and Baluchistan, above normal night time temperatures reported from Gilgit-Baltistan and Kashmir while mix trend observed in Sindh during this week.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from most places of Punjab and KP during this week.
- Light rainfall occurred at scattered places in Baluchistan and Sindh while at a few places in Kashmir and Gilgit-Baltistan during this week.

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

**Editor-in-Chief: Dr. Khalid M. Malik (Director)**

**Editor: Dr. Dildar H. Kazmi (Meteorologist)**

## Past Weather of Provinces (13<sup>th</sup> to 19<sup>th</sup> November, 2017)

### Punjab

Light to moderate rainfall reported from most places of Punjab during the week. Weekly maximum and minimum temperatures recorded as 22.4°C & 10.9°C respectively. For the recent week on average 81.3 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 75% and wind speed in the morning/evening recorded as 1.2/2.1 knots. During the previous week highest amount of rainfall reported as 30.8 mm at Murree while lowest minimum temperature was recorded as 1°C at Murree.

### Balochistan

Light rainfall reported from scattered places of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 22.2°C & 8.7°C respectively. For the recent week on average 72.1 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 1.9/5.0 knots. During the previous week highest amount of rainfall reported as 42 mm at Zhob while lowest minimum temperature was recorded as -6°C at Kalat.

### Khyber Pakhtunkhwa

Light to moderate rainfall reported from most places of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 17.5°C & 6.4°C respectively. For the recent week on average 48.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 0.9/1.8 knots. During the previous week highest amount of rainfall reported as 72 mm at Cherat while the lowest minimum temperature was recorded as -4.5°C at Kalam.

### Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall reported from a few places of Kashmir and Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 15.8°C & 4.3°C respectively. For the recent week on average 35.4 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 1.1/1.5 knots. During the previous week highest amount of rainfall reported as 34.5 mm at Muzaffarabad while the lowest minimum temperature was recorded as -4.3°C at Skardu.

### Sindh

Light rainfall reported from scattered places of Sindh during the week. Weekly maximum and minimum temperatures recorded as 28.2°C & 14.4°C respectively. For the recent week, on average 112.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 1.3/4.1 knots. During the previous week highest amount of rainfall reported as 6 mm at Jaccobabad while week lowest minimum temperature was recorded as 9°C at Moin-Jo-Daro.

### Past Weather for Major Agricultural Plains (13<sup>th</sup> to 19<sup>th</sup> November, 2017)

#### **Rawalpindi (Potohar region)**

Rainfall reported as 31.7 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.0/2.6 Oktas while average relative humidity observed as 80%. Mean night time temperature recorded as 9°C & for the recent week 73.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

#### **Faisalabad (Central Punjab)**

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.1/2.7 Oktas while average relative humidity observed as 77%. Mean night time temperature recorded as 10.4°C & for the recent week 81.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/1.0 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 63%. Mean night time temperature recorded as 11.6°C & for the recent week 103.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/1.6 knots.

#### **Usta Muhammad (Eastern Balochistan)**

Rainfall reported as *trace* from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.0/0.0 Oktas while average relative humidity observed as 75%. Mean night time temperature recorded as 14.4°C & for the recent week 105.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.6 knots.

#### **Quetta (Northern Baluchistan)**

Rainfall reported as 2.4 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.1/2.1 Oktas while average relative humidity observed as 52%. Mean night time temperature recorded as 2.7°C & for the recent

week 19.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/3.6 knots.

### Past Weather for Sub-Regional Agricultural Plains (13<sup>th</sup> to 19<sup>th</sup> November, 2017)

#### **Multan**

Rainfall reported as 5.6 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 1.8/1.1 Oktas while average relative humidity observed as 73%. Mean night time temperature recorded as 11.8°C & for the recent week 86.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/3.1 knots.

#### **Lahore**

Rainfall reported as 6.6mm Lahore during the week; however, cloudiness in the morning/evening recorded as 0.6/1.9 Oktas while average relative humidity observed as 71%. Mean night time temperature recorded as 11.0°C & for the recent week 8.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

#### **Zhob**

Rainfall reported as 42 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.6/3.0 Oktas while average relative humidity observed as 68%. Mean night time temperature recorded as 4.3°C & for the recent week 26.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.2/5.0 knots.

#### **Murree**

Rainfall reported as 30.8 mm weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 2.4/4.7 Oktas while average relative humidity observed as 74%. Mean night time temperature recorded as 3.8°C & for the recent week 19.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.8/8.3 knots.

**D.I. Khan**

Rainfall reported as 14.0mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.8/3.5 Oktas while average relative humidity observed as 71%. Mean night time temperature recorded as 11.3°C & for the recent week 79.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/1.7 knots.

**Peshawar**

Rainfall reported as 69.0mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 4.4/4.5 Oktas while average relative humidity observed as 83%. Mean night time temperature recorded as 10.3°C & for the recent week 70.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/1.0 knots.

**Kalam**

Rainfall reported as 5 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 5.8/5.6 Oktas while average relative humidity observed as 72%. Mean night time temperature recorded as -0.4°C & for the recent week 4.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.1 knots.

**Gilgit**

Dry weather reported from Gilgit during the week; However, cloudiness in the morning/evening recorded as 6.0/6.9 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 1.7°C & for the recent week 29.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 knots.

**Skardu**

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 5.8/6.3 Oktas while average relative humidity observed as 55%. Mean night time temperature recorded as -2.2°C & for the recent week 2.5 growing degree days accumulated 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 Agro met Centers)****Potohar Region (Rawalpindi)**

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

**Central Punjab (Faisalabad)**

There is presently no crop in the fields of RAMC Faisalabad.

**Lower Sindh (Tandojam)**

There is presently one crop in the fields of RAMC Tandojam.

**Wheat: *Sowing***, Sowing date 16-11-2017

**Northern Baluchistan (Quetta)**

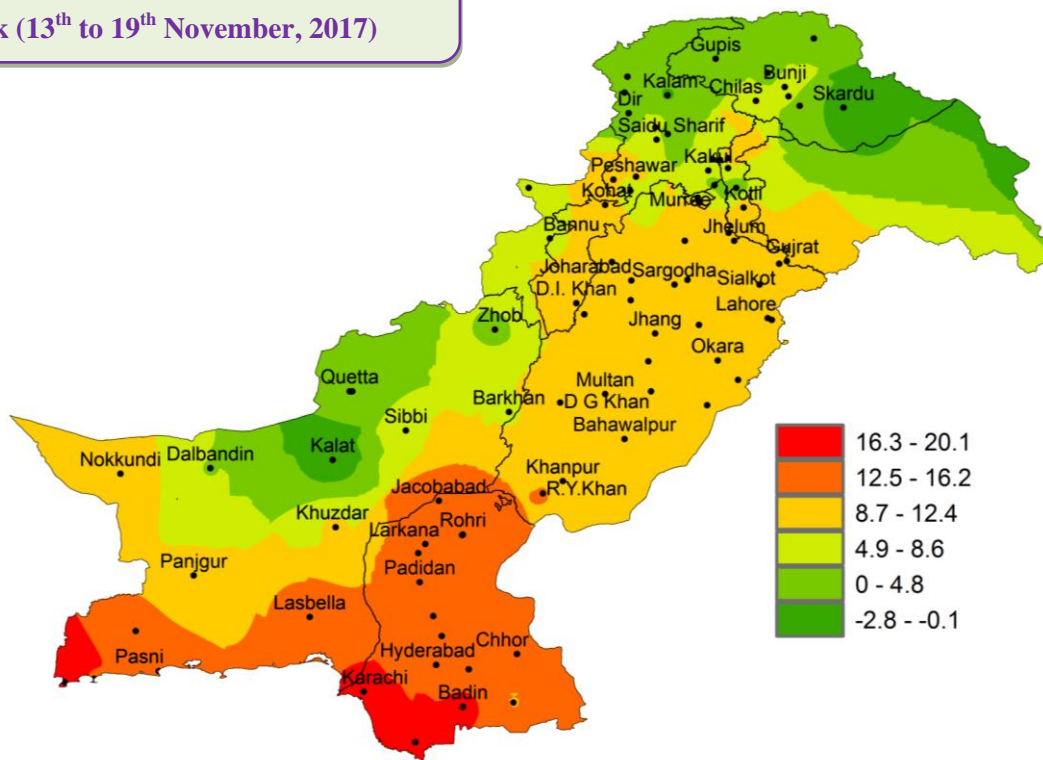
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Baluchistan (Usta Muhammad)**

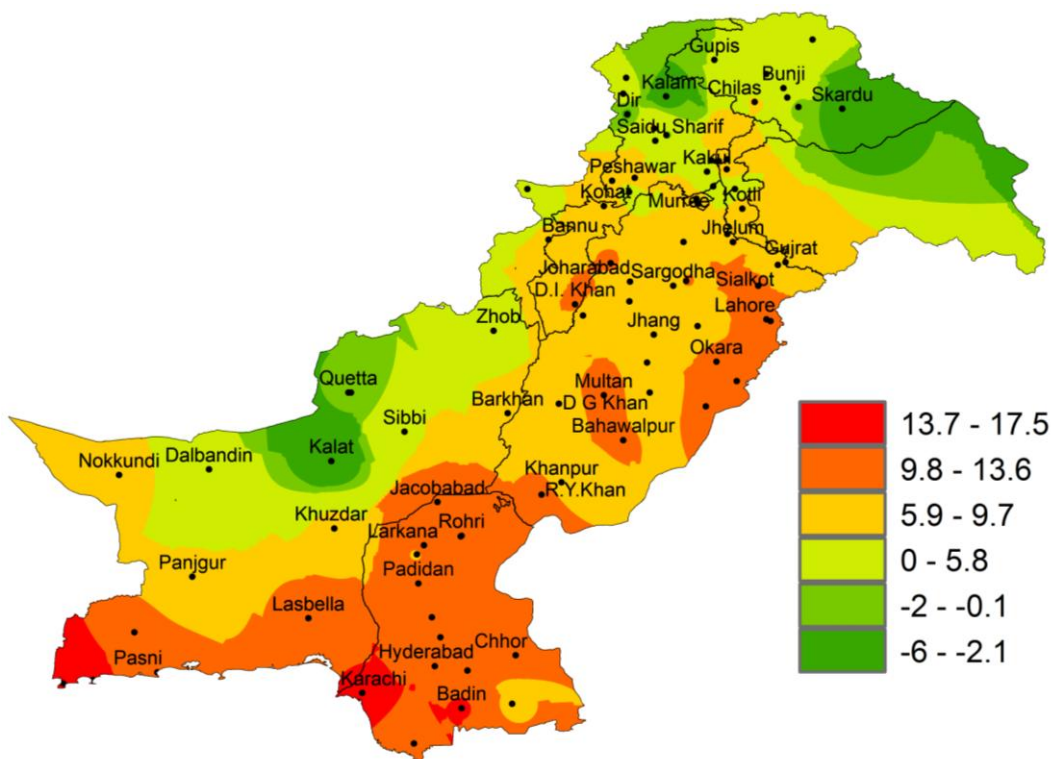
There is presently one crop (irrigated conditions) grown in the fields of RAMC Usta Muhammad.

**Rice: *Harvesting***

Mean Minimum Temperature (°C) during the Previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)

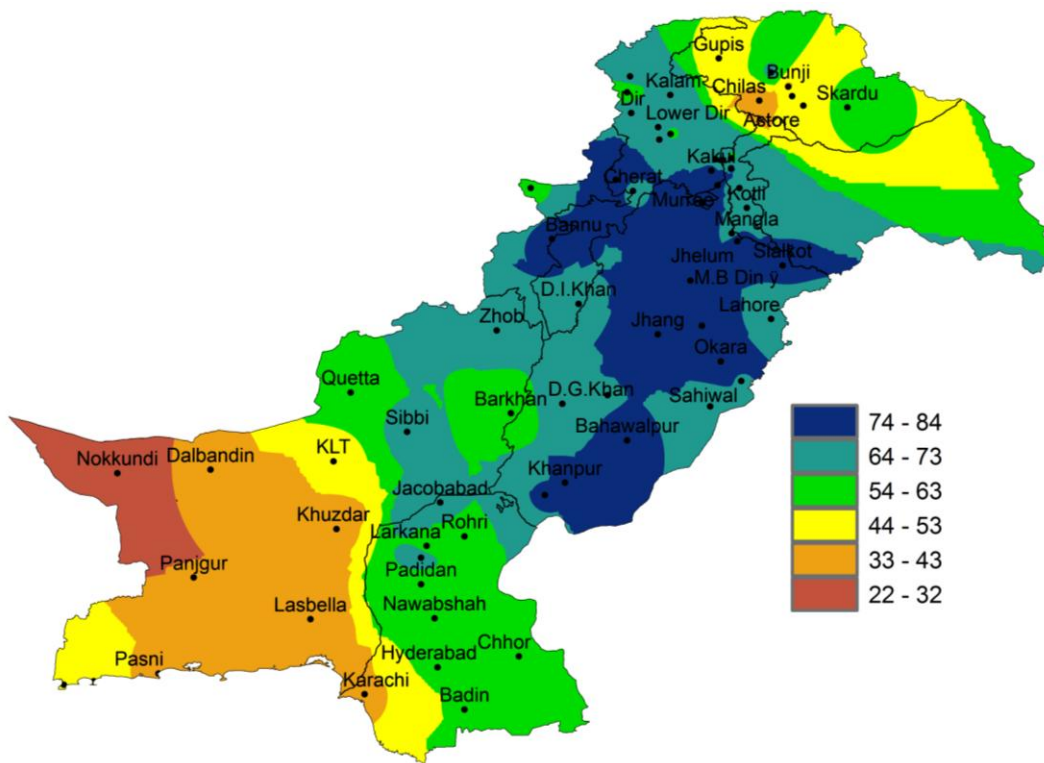


Lowest Minimum Temperature (°C) during the Previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)

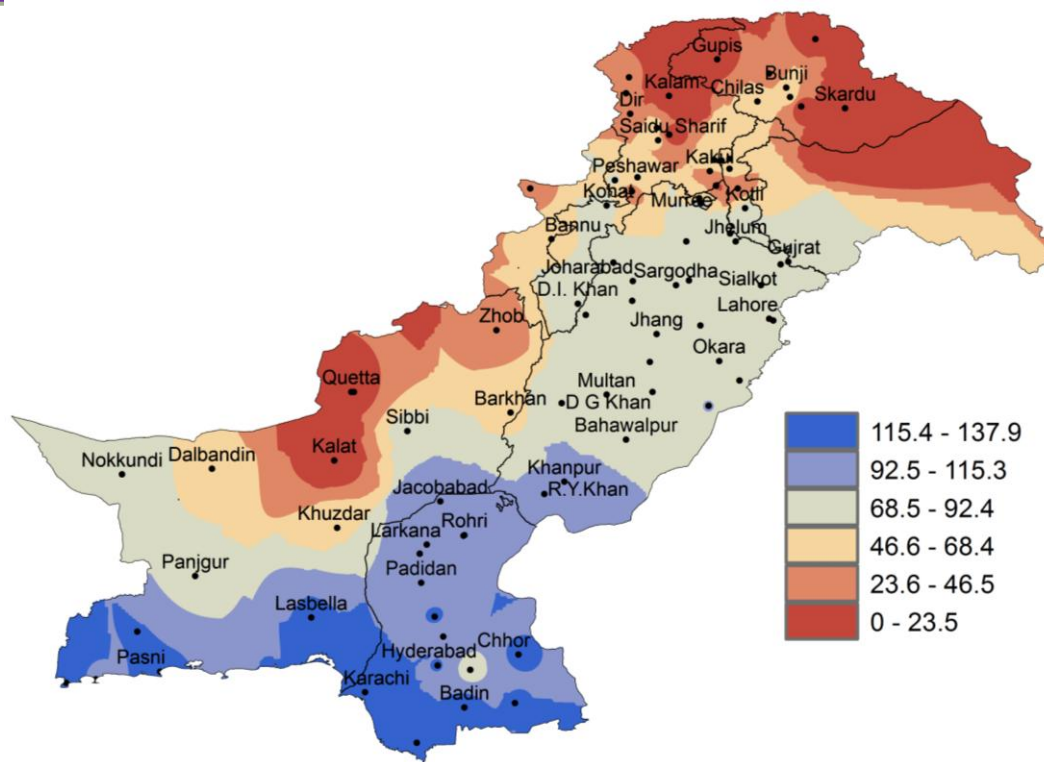




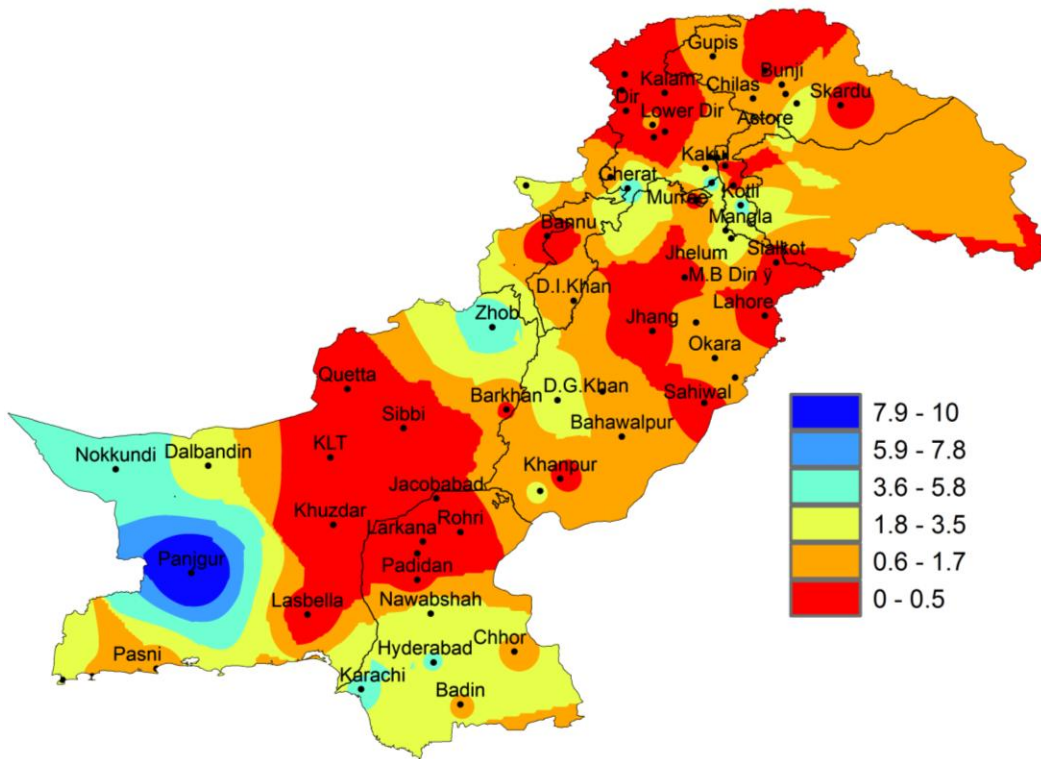
Mean Relative Humidity (%) during the previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)



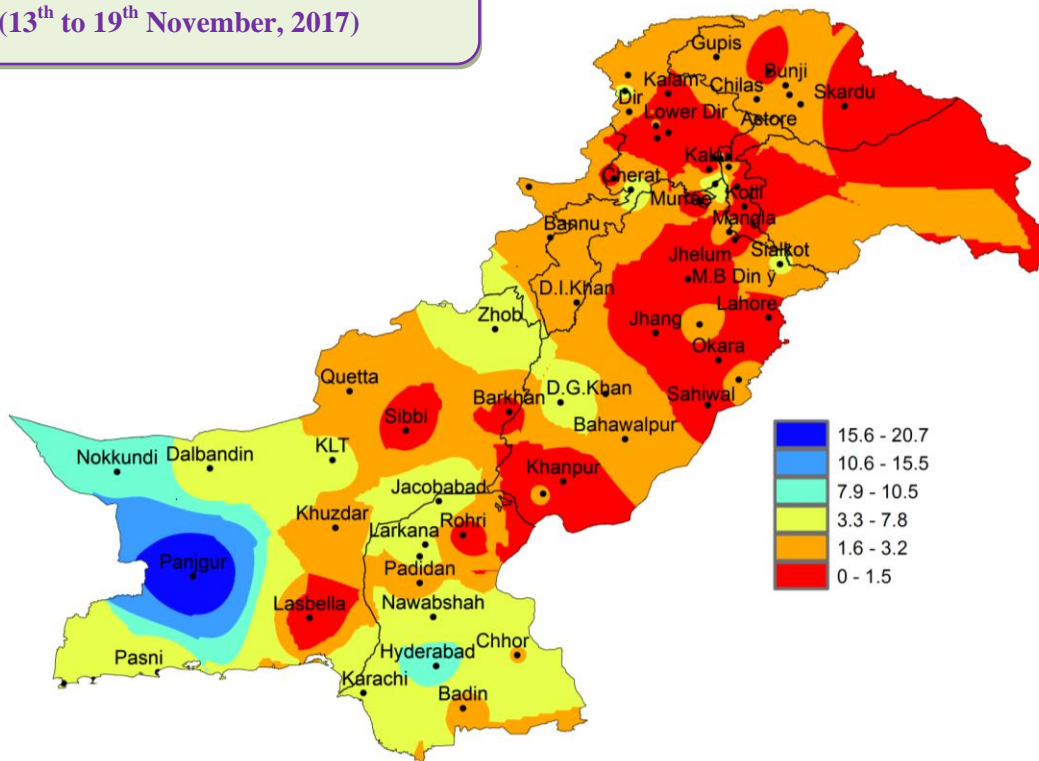
Total Growing Degree Days accumulated during the previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)



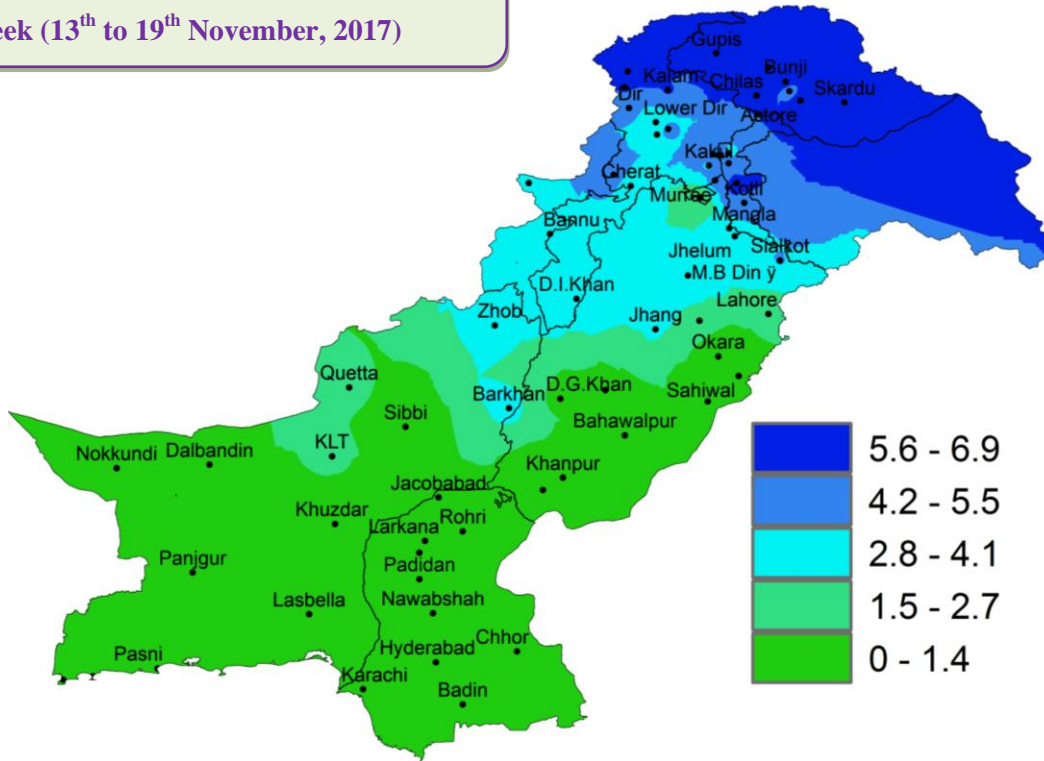
Mean Wind Speed (Knots) at 0800PST during the previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)



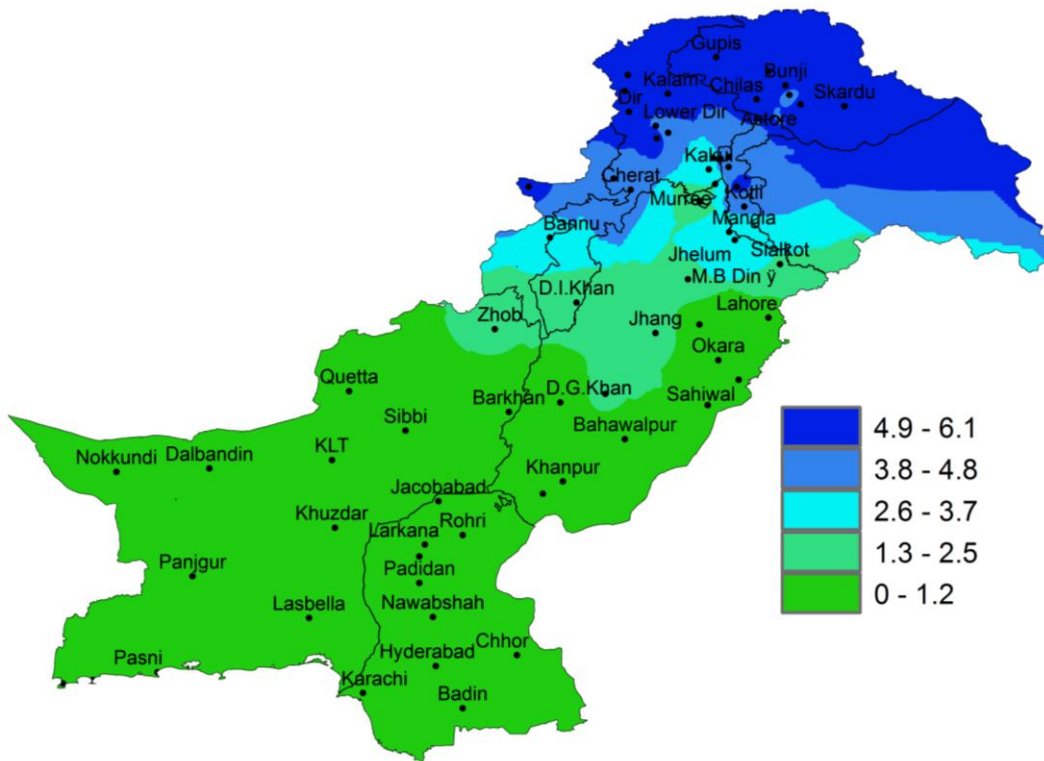
Mean Wind Speed (Knots) at 1700PST during the previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)



Mean Cloudiness (Oktas) at 0800PST during the previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)



Mean Cloudiness (Oktas) at 1700PST during the previous week (13<sup>th</sup> to 19<sup>th</sup> November, 2017)





**Weekly Weather Advisory for Farmers**  
**(20<sup>th</sup> to 26<sup>th</sup> November, 2017)**

Continental air is prevailing over most parts of the country.

**MONDAY**

**20-11-2017**

Mainly cold and dry weather is expected in most parts of the country. More rain thunderstorm with snowfall over the hills is expected at a few places in Kashmir and Gilgit- Baltistan.

**TUESDAY**

**21-11-2017**

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

**WEDNESDAY**

**22-11-2017**

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

**THURSDAY**

**23-11-2017**

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

**FRIDAY**

**24-11-2017**

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

**SATURDAY**

**25-11-2017**

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

**SUNDAY**

**26-11-2017**

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

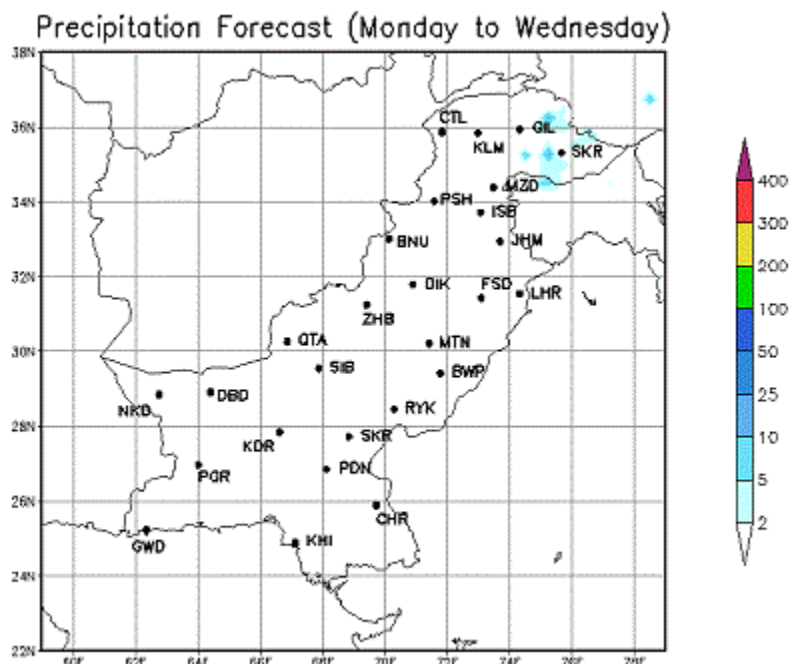
**ADVISES FOR FARMERS**

During the last week, rainfall occurred in most parts of the agricultural plains of the country. In next week, mainly dry weather is expected at most parts of the country. Accordingly, following advises are suggested for the farming community.

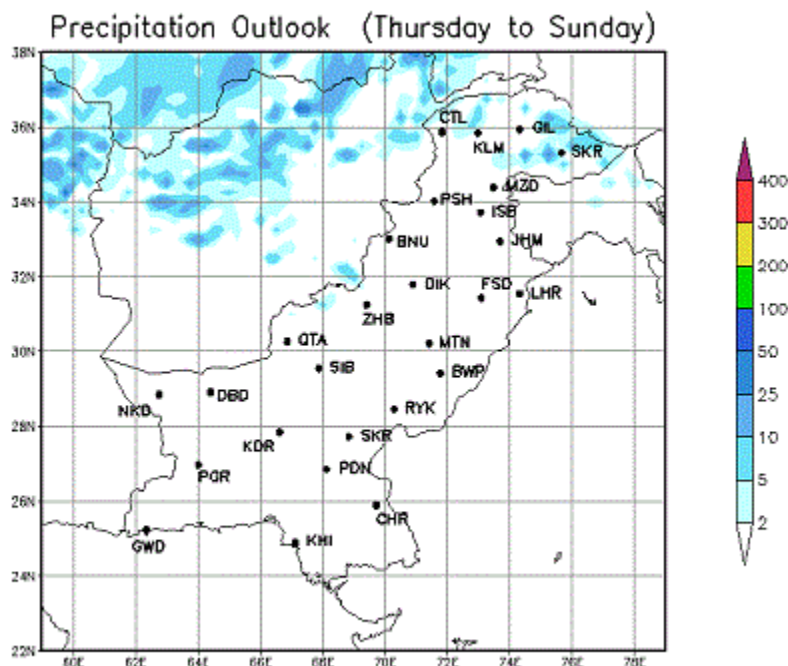
- The fields became fallow after Kharif crops may be ploughed well and *Suhaga* may better be applied to preserve the soil moisture for the upcoming Rabi crops.
- The recent rain spell over agricultural plains of the country could be very useful for upcoming Rabi crops. Specially farmers of rainfed areas are advised to utilize moisture in the field produced by fresh rain spell and may complete sowing at the earliest.

## Weather Outlook from 20<sup>th</sup> to 26<sup>th</sup> November, 2017

The outlook for the period 20<sup>th</sup> to 22<sup>nd</sup> November, 2017 shows that dry weather is expected in most parts of the country however light rainfall is expected at isolated places of Gilgit-Baltistan.



The outlook for the period 23<sup>rd</sup> to 26<sup>th</sup> November, 2017 shows that dry weather is expected in most parts of the country however light rainfall is expected at a few places in Gilgit-Baltistan, Kashmir and upper KP.



**National Weather Data of Selected Cities (13<sup>th</sup> to 19<sup>th</sup> November, 2017)**

Stations	Minimum 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	0.1	-2.5	2.0	50	0.00	5.2	6.0	3.2	2.6
Badin	17.5	14.0	126.0	54	0.00	0.0	0.6	1.6	2.3
Bahawalnagar	11.5	10.0	92.6	70	3.00	0.0	1.0	0.0	1.0
Bahawalpur	12.3	9.7	91.5	75	1.00	0.0	0.1	1.5	2.6
Balakot	6.9	5.7	57.7	69	16.60	2.8	4.4	1.0	0.7
Bannu	7.9	6.0	61.4	77	52.00	3.2	3.7	0.0	2.3
Barkhan	8.2	6.5	62.1	53	8.00	0.0	3.0	0.4	1.1
Bunji	7.3	4.4	51.2	41	0.00	6.2	6.1	0.8	2.6
Cherat	5.5	3.5	32.9	71	75.00	3.8	3.7	4.4	4.3
Chhor	13.1	10.0	118.6	60	0.00	0.0	0.3	1.6	3.1
Chilas	8.7	6.0	62.9	35	0.00	5.2	5.7	1.2	2.6
Chitral	2.3	-0.1	25.6	69	2.60	5.6	6.1	0.4	1.4
D.G.Khan	12.4	9.0	89.3	72	14.00	0.0	1.1	3.2	4.0
D.I.Khan	11.3	10.0	79.5	71	14.00	1.8	3.5	0.8	1.7
Dalbandin	4.7	1.5	59.1	38	1.00	0.0	1.0	2.0	5.1
Dir	1.2	-2.5	26.8	73	26.00	5.5	4.4	0.0	1.4
Drosh	3.4	1.6	27.4	55	3.60	5.6	5.6	0.0	4.0
Faisalabad	10.4	7.5	81.4	77	0.00	1.1	2.7	0.4	1.0
Gari dopatta	8.3	7.8	57.8	75	18.31	4.6	5.0	0.0	2.3
Gawader	16.0	14.5	109.9	45	0.00	0.0	0.7	1.6	7.1
Gilgit	1.7	0.0	29.5	67	0.00	6.0	6.9	0.0	0.3
Gupis	0.7	0.0	11.9	44	1.00	6.0	6.0	0.8	2.9

Hyderabad	15.4	13.5	116.8	54	0.00	0.0	0.4	3.6	9.7
Islamabad	7.6	6.0	65.4	80	24.00	2.0	1.4	0.0	0.0
Jacobabad	14.1	12.0	104.5	67	6.00	0.0	1.1	0.4	5.7
Jhang	10.9	8.7	81.9	79	7.00	2.2	2.8	0.0	0.3
Jhelum	11.3	9.7	84.1	77	6.71	2.8	3.3	2.4	0.9
Jiwani	20.1	17.5	138.0	49	0.00	0.0	0.7	2.4	5.1
Kakul	5.3	3.5	44.8	76	30.00	3.2	4.0	1.6	0.3
Kalam	-0.4	-4.5	4.9	72	5.00	5.8	5.6	0.0	1.1
Kalat	-2.9	-6.0	-2.5	45	7.00	0.0	1.6	0.0	3.7
Karachi	16.8	14.0	128.3	40	0.00	0.0	0.6	3.6	5.7
Khanpur	11.7	9.0	92.6	74	9.40	0.0	0.3	0.0	0.0
Khuzdar	8.9	7.0	65.5	38	0.00	0.0	0.3	0.0	2.9
Kotli	10.4	9.4	76.2	68	17.20	3.8	5.3	4.0	0.9
Lahore	11.0	9.8	86.4	71	6.61	0.6	1.9	0.0	0.6
Larkana	14.4	13.0	108.9	61	3.00	0.0	1.0	0.0	3.4
Lasbella	13.9	11.3	119.0	38	1.00	0.0	0.9	0.0	0.6
Lower Dir	7.1	6.5	55.9	69	34.00	4.8	3.3	0.8	1.7
M.B Din	11.6	10.0	81.3	84	8.00	2.2	4.0	0.0	0.3
Malam Jabba	1.1	-1.0	-0.9	61	32.00	4.4	4.3	0.0	1.1
Mangla	10.7	9.4	83.5	71	8.30	3.6	3.9	1.6	2.3
Mir Khani	6.7	5.0	63.6	50	10.50	4.0	5.0	0.4	2.7
Moinjodaro	12.5	9.0	101.0	66	4.00	0.0	1.0	0.0	4.0
Multan(PBO)	11.8	10.2	86.7	73	5.60	1.8	1.1	0.8	3.1
Murree	3.8	1.0	19.6	74	30.80	2.4	4.7	4.8	8.3
Muzaffarabad	7.6	5.8	56.9	70	34.50	4.8	5.4	0.8	2.4
Nawabshah	14.4	13.0	116.2	61	0.00	0.0	0.3	2.8	6.6



Nokkundi	11.0	7.5	83.0	22	0.01	0.0	0.4	5.0	10.3
Okara	11.7	10.0	84.4	78	6.00	0.0	0.0	0.8	0.3
Padidan	13.9	12.0	110.8	60	0.01	0.0	0.3	0.0	1.4
Panjgur	8.9	6.0	73.8	32	0.00	0.0	0.0	10.0	20.7
Parachinar	5.4	2.5	33.5	59	12.00	5.2	4.0	3.0	3.2
Pasni	14.5	12.5	120.0	41	0.00	0.0	0.3	1.0	4.7
Pattan	9.8	9.0	66.8	60	0.00	4.0	3.4	1.0	0.3
Peshawar	10.3	8.6	70.8	83	69.00	4.4	4.5	0.4	1.0
Quetta	2.7	-0.2	19.8	52	2.40	2.1	2.1	1.2	3.6
Rahim Yar Khan	12.5	10.5	98.3	74	0.01	0.0	0.0	2.0	1.7
Rawalakot	2.5	2.0	25.5	71	30.90	5.2	5.9	0.0	0.0
Rawalpindi	9.0	8.5	73.3	80	31.70	2.0	2.6	0.0	0.6
Rohri	13.3	11.0	112.4	60	2.00	0.0	0.0	0.0	0.6
Sahiwal	12.0	10.5	87.1	73	0.02	0.0	1.1	1.2	2.3
Saidu Sharif	6.4	4.5	56.3	73	23.00	5.0	4.1	0.0	0.0
Sialkot	11.3	8.9	85.9	74	2.02	2.4	4.1	0.0	3.4
Sibbi	8.0	5.5	81.0	67	11.00	0.6	0.4	0.0	0.9
Skardu	-2.2	-4.7	2.5	55	0.00	5.8	6.3	0.0	0.0
Tandojam	11.6	9.5	103.5	63	0.00	0.0	0.0	0.2	1.6
Usta. M	14.4	13.5	105.5	75	0.01	0.0	0.0	0.0	2.6
Zhob	4.3	3.0	26.0	68	42.00	1.6	3.0	4.2	5.0

\*\*\* 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 سدباب (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 2014-2012)