

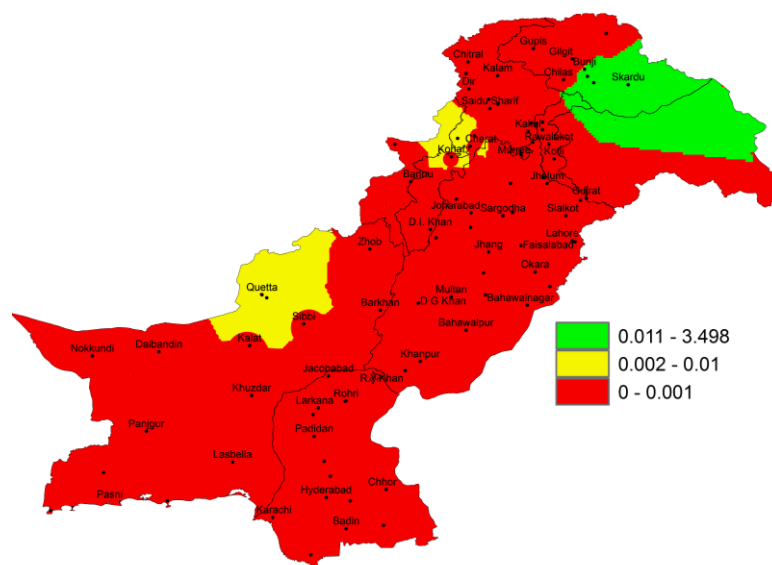
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the previous  
Week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)**



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## Highlights of Past Weather (20<sup>th</sup> to 26<sup>th</sup> November, 2017)

Below normal night time temperatures were observed in most parts of the country during this week.

Province wise distribution of rainfall reported as follows:

- Light rainfall reported from single place of Gilgit-Baltistan (Astora) while traces were observed at single places in KP (Peshawar) and Baluchistan (Quetta) during the previous week.
- Dry weather prevailed in Punjab and Sindh.

**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 (20<sup>th</sup> to 26<sup>th</sup> November, 2017)**

### **Punjab**

Dry weather reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 25.7°C & 7.8°C respectively. For the recent week on average 82.4 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 0.7/1.1 knots. During the previous week lowest minimum temperature was recorded as 3.7°C at Islamabad.

### **Balochistan**

Light rainfall (*trace*) reported from single place of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 24.3°C & 6.6°C respectively. For the recent week on average 74.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 1.2/3.3 knots. During the previous week highest amount of rainfall reported as 0.01 mm at Quetta while lowest minimum temperature was recorded as -7.0°C at Kalat.

### **Khyber Pakhtunkhwa**

Light rainfall (*trace*) reported from single place of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 20.8°C & 3.8°C respectively. For the recent week on average 54.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 1.0/1.7 knots. During the previous week highest amount of rainfall reported as 0.01 mm at Peshawar while the lowest minimum temperature was recorded as -5.0°C at Kalam.

### **Gilgit-Baltistan and Azad Jammu & Kashmir**

Light rainfall reported from a single place of Gilgit-Baltistan during the week while dry weather observed in Kashmir. Weekly maximum and minimum temperatures recorded as 16.4°C & 0.8°C respectively. For the recent week on average 39.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 50% and wind speed in the morning/evening recorded as 0.5/0.5 knots. During the previous week highest amount of rainfall reported as 3.5 mm at Astore while the lowest minimum temperature was recorded as -8.6°C at Skardu.

### **Sindh**

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 29.0°C & 10.7°C respectively. For the recent week, on average 102.5 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 0.7/2.1 knots. During the previous week lowest minimum temperature was recorded as 3°C at Jaccobabad.

**Past Weather for Major Agricultural Plains  
(20<sup>th</sup> to 26<sup>th</sup> November, 2017)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.4/0.9 Oktas while average relative humidity observed as 69%. Mean night time temperature recorded as 5.6°C & for the recent week 68.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/0.5 knots.

**Faisalabad (Central Punjab)**

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.3/0.0 Oktas while average relative humidity observed as 59%. Mean night time temperature recorded as 6.6°C & for the recent week 81.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/0.3 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 9.1°C & for the recent week 98.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

**Usta Muhammad (Eastern Balochistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.8/0.0 Oktas while average relative humidity observed as 68%. Mean night time temperature recorded as 11.7°C & for the recent week 98.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

**Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.6/2.0 Oktas while average relative humidity observed as 28%. Mean night time temperature recorded as 2.0°C & for the recent

week 32.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/3.3 knots.

**Past Weather for Sub-Regional Agricultural  
Plains (20<sup>th</sup> to 26<sup>th</sup> November, 2017)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.3/2.4 Oktas while average relative humidity observed as 50%. Mean night time temperature recorded as 9.7°C & for the recent week 91.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.6 knots.

**Lahore**

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.9/0.4 Oktas while average relative humidity observed as 57%. Mean night time temperature recorded as 9.8°C & for the recent week 88.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.4 knots.

**Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/1.0 Oktas while average relative humidity observed as 45%. Mean night time temperature recorded as 3.1°C & for the recent week 41.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/4.0 knots.

**Murree**

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 1.1/3.0 Oktas while average relative humidity observed as 48%. Mean night time temperature recorded as 5.2°C & for the recent week 39.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.3/0.8 knots.

**D.I. Khan**

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while average relative humidity observed as 59%. Mean night time temperature recorded as 8.5°C & for the recent week 92.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

**Peshawar**

Rainfall reported as 0.01mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.1/2.0 Oktas while average relative humidity observed as 71%. Mean night time temperature recorded as 7.0°C & for the recent week 74.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.0 knots.

**Kalam**

Dry weather from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.2/2.4 Oktas while average relative humidity observed as 56%. Mean night time temperature recorded as -3.0°C & for the recent week 10.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.2/0.0 knots.

**Gilgit**

Dry weather reported from Gilgit during the week; However, cloudiness in the morning/evening recorded as 2.4/3.6 Oktas while average relative humidity observed as 62%. Mean night time temperature recorded as -4.1°C & for the recent week 9.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

**Skardu**

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 2.9/2.6 Oktas while average relative humidity observed as 48%. Mean night time temperature recorded as -6.9°C & for the recent week 0 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.

**Cotton:** *Harvested on 24-11-2017*

**Lower Sindh (Tandojam)**

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

**Wheat:** *Sown on 16-11-2017*

**Northern Baluchistan (Quetta)**

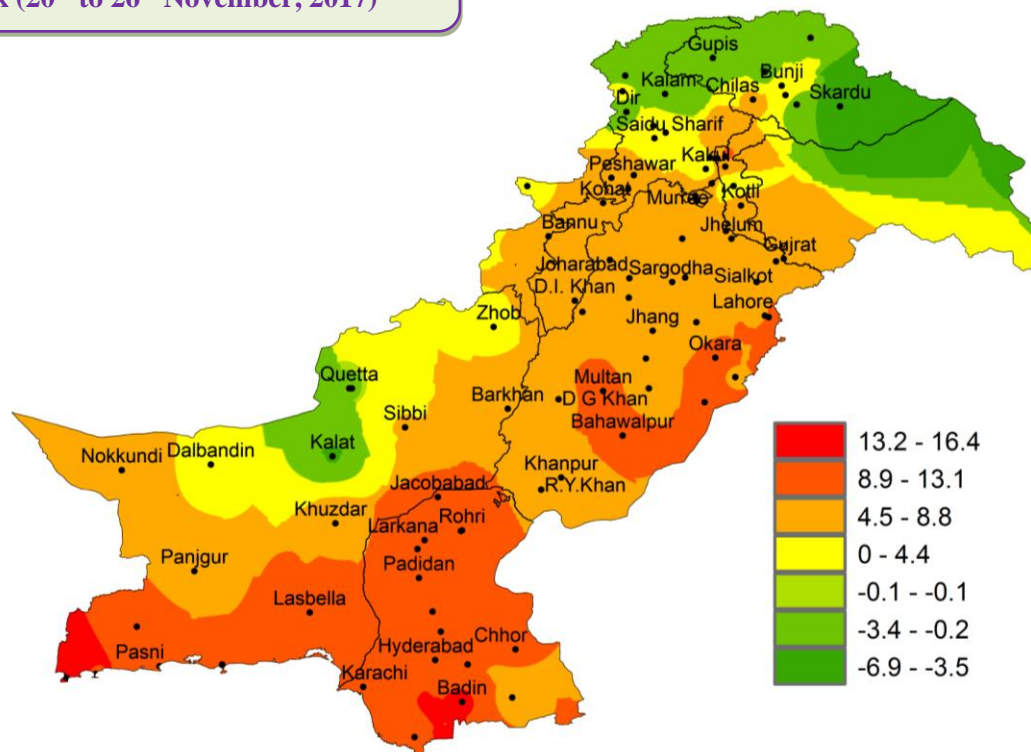
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Baluchistan (Usta Muhammad)**

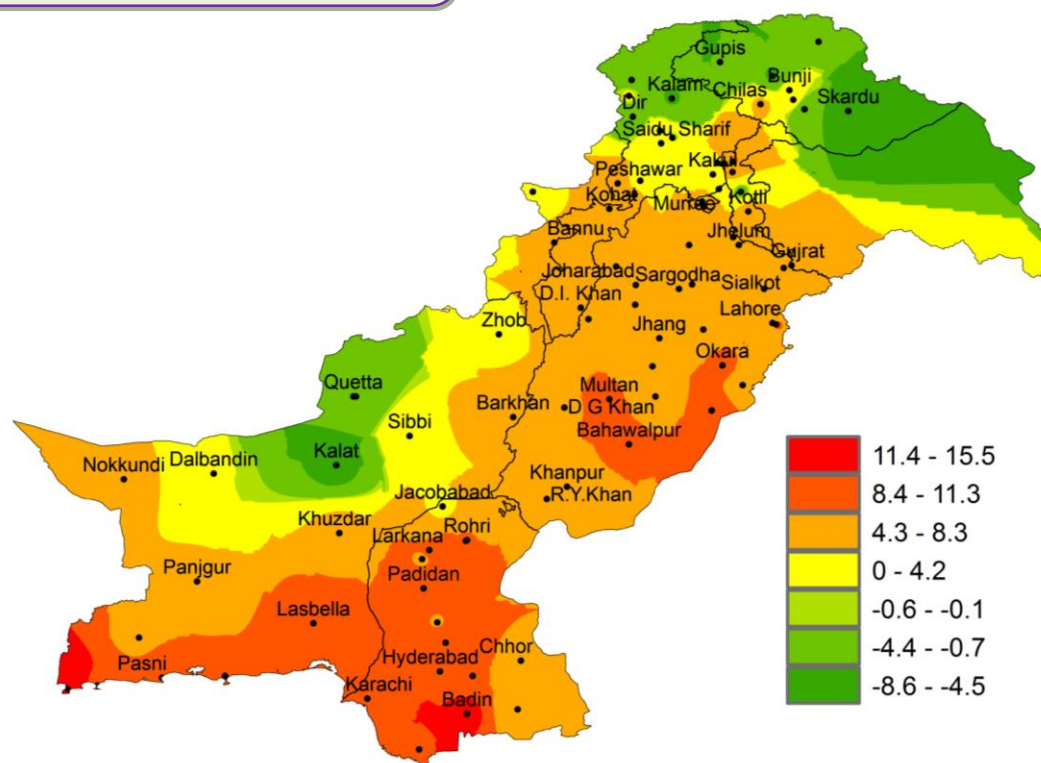
There is presently one crop (irrigated conditions) grown in the fields of RAMC Usta Muhammad.

**Rice:** *Harvesting in progress.*

**Mean Minimum Temperature (°C) during the  
Previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)**

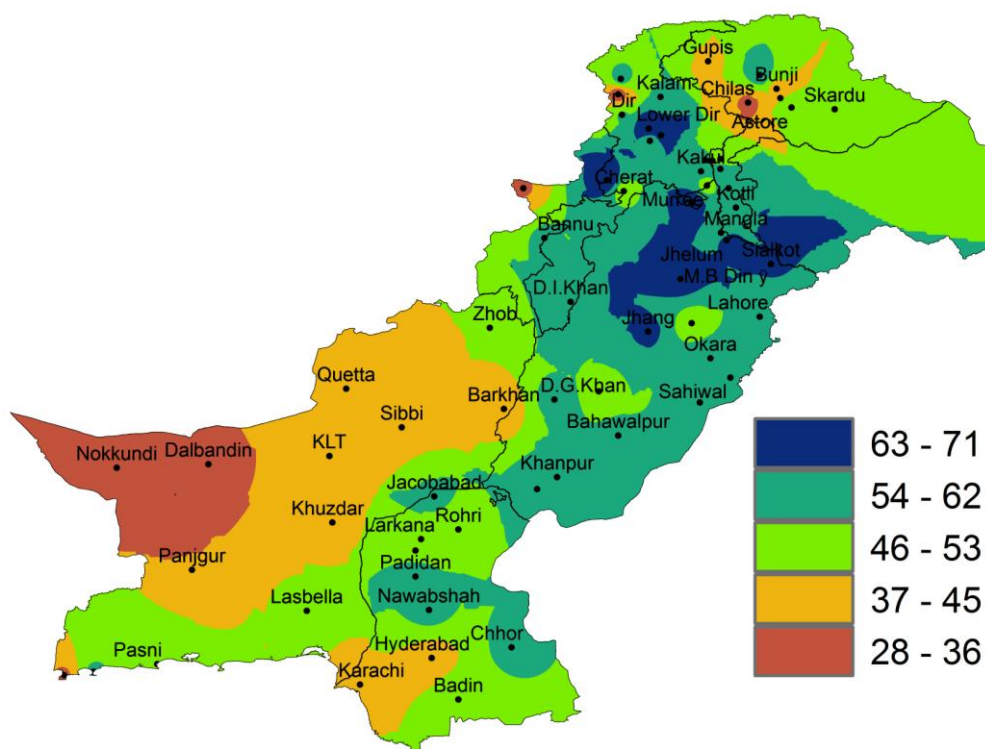


**Lowest Minimum Temperature (°C) during the  
Previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)**

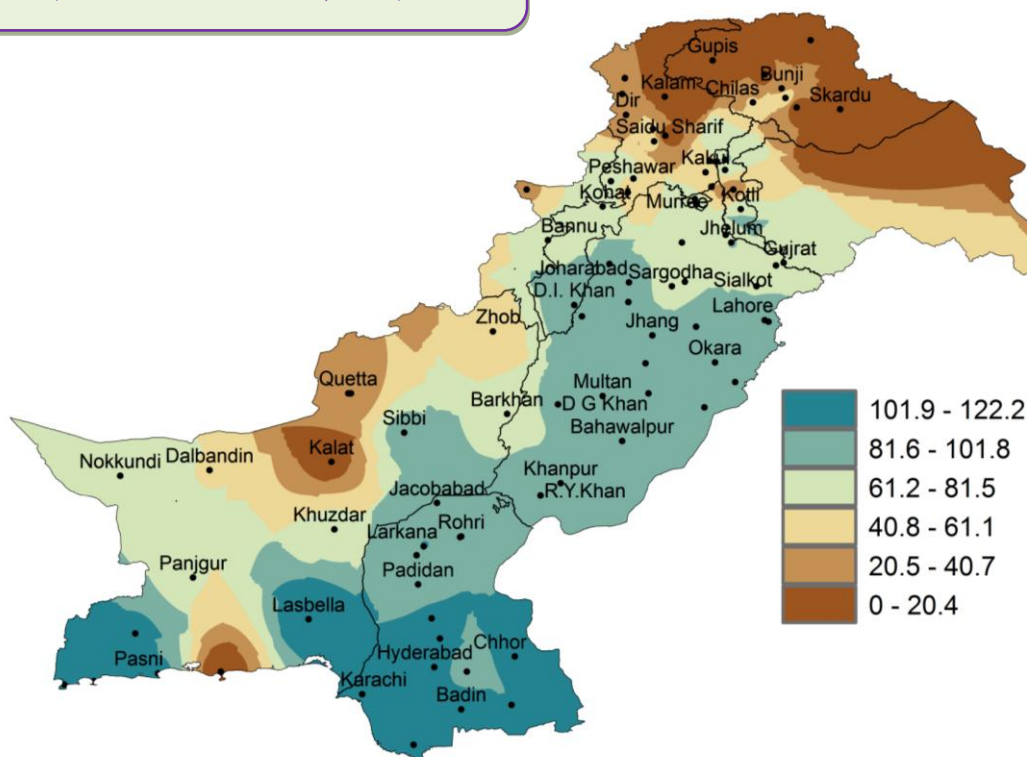




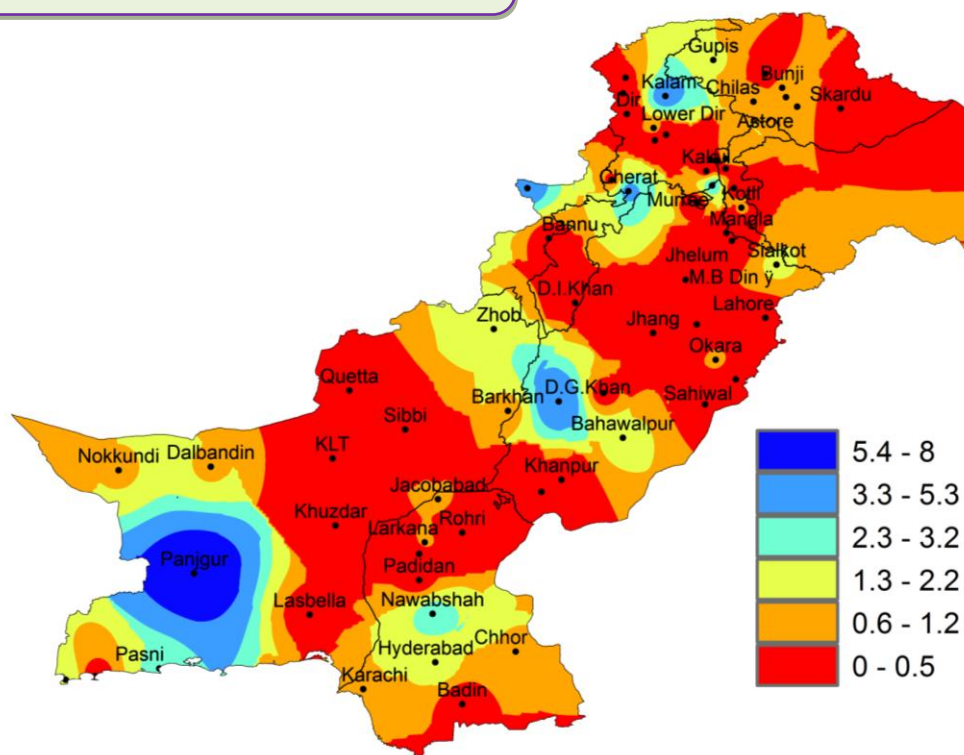
Mean Relative Humidity (%) during the previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)



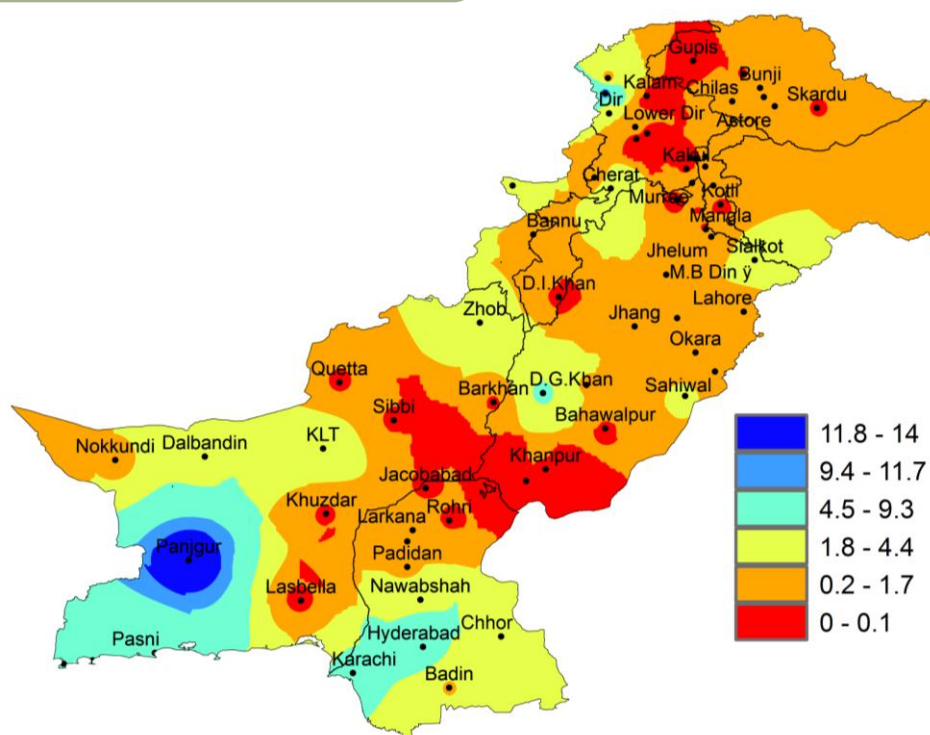
Total Growing Degree Days accumulated during the previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)



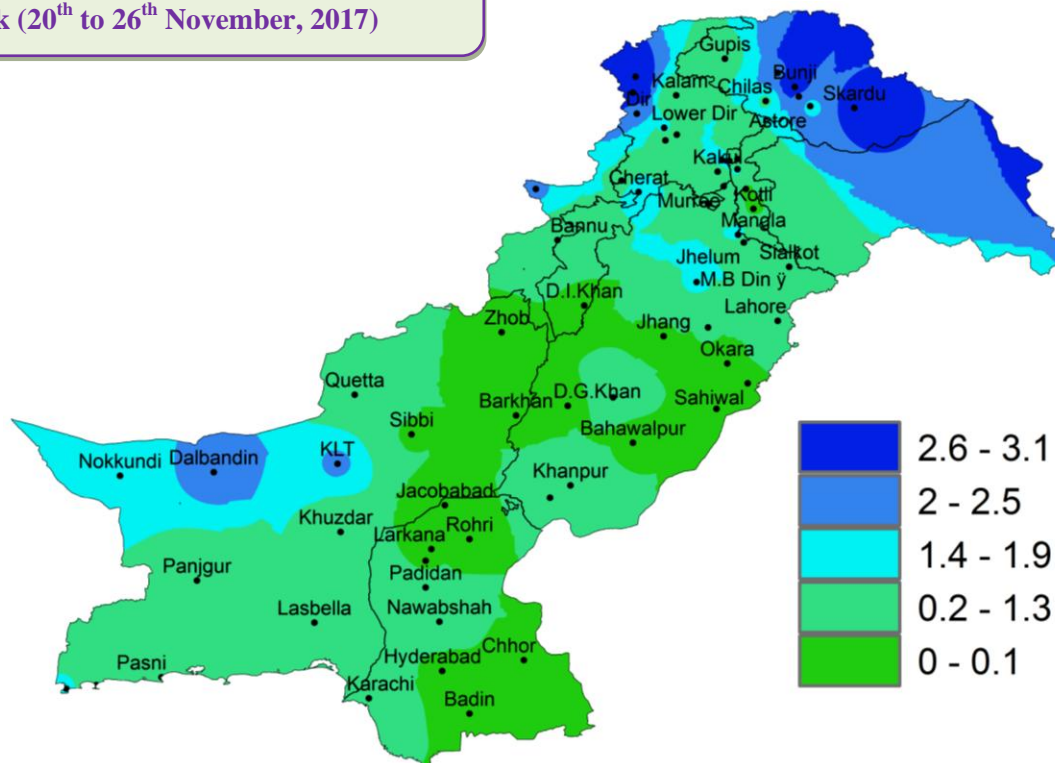
Mean Wind Speed (Knots) at 0800PST during the previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)



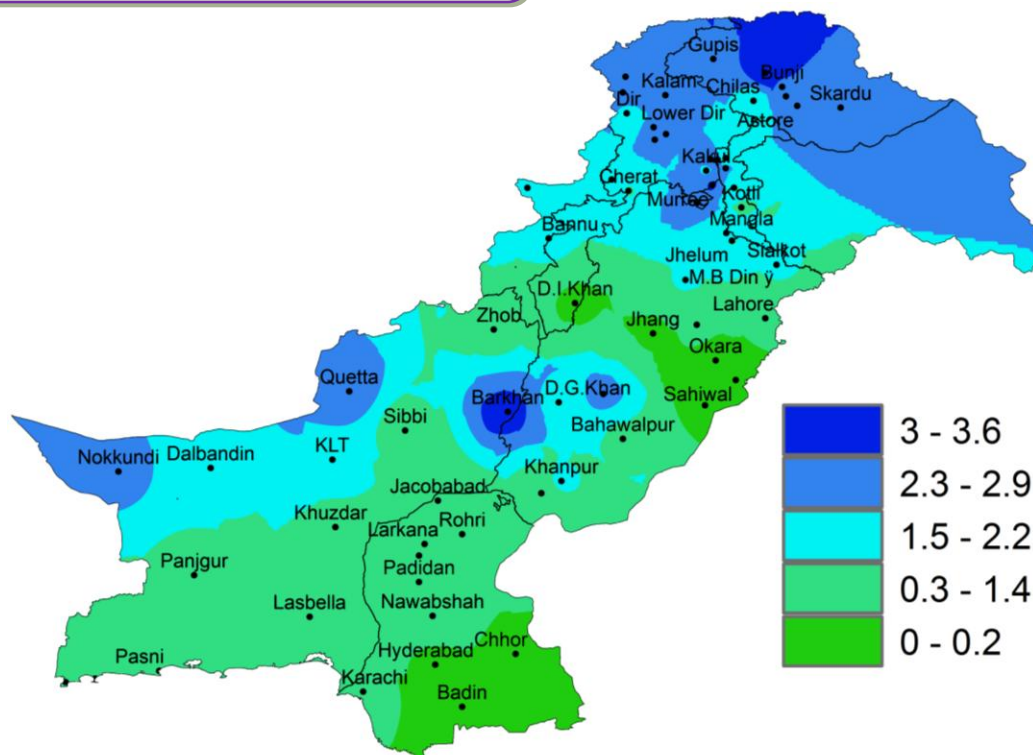
Mean Wind Speed (Knots) at 1700PST during the previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)



Mean Cloudiness (Oktas) at 0800PST during the previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)



Mean Cloudiness (Oktas) at 1700PST during the previous week (20<sup>th</sup> to 26<sup>th</sup> November, 2017)





**Weekly Weather Advisory for Farmers**  
**(27<sup>th</sup> November to 03<sup>th</sup> December, 2017)**

Continental air is prevailing over most parts of the country. A shallow westerly wave is affecting northern parts of the country.

**MONDAY**

**27-11-2017**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

**TUESDAY**

**28-11-2017**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

**WEDNESDAY**

**29-11-2017**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail in few plain areas of Punjab and upper Sindh during morning hours. However light rain is expected at few places in FATA.

**THURSDAY**

**30-11-2017**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail in few plain areas of Punjab and upper Sindh during morning hours. However light rain is expected at few places in Gilgit-Baltistan.

**FRIDAY**

**01-12-2017**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail in few plain areas of Punjab and upper Sindh during morning hours.

**SATURDAY**

**02-12-2017**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail in few plain areas of Punjab and upper Sindh during morning hours. However light rain is expected at few places in Malakand division.

**SUNDAY**

**03-12-2017**

Mainly cold and dry weather is expected in most parts of the country. However, light rain is expected at a few places in Malakand, Hazara divisions, Kashmir and Gilgit-Baltistan. Foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

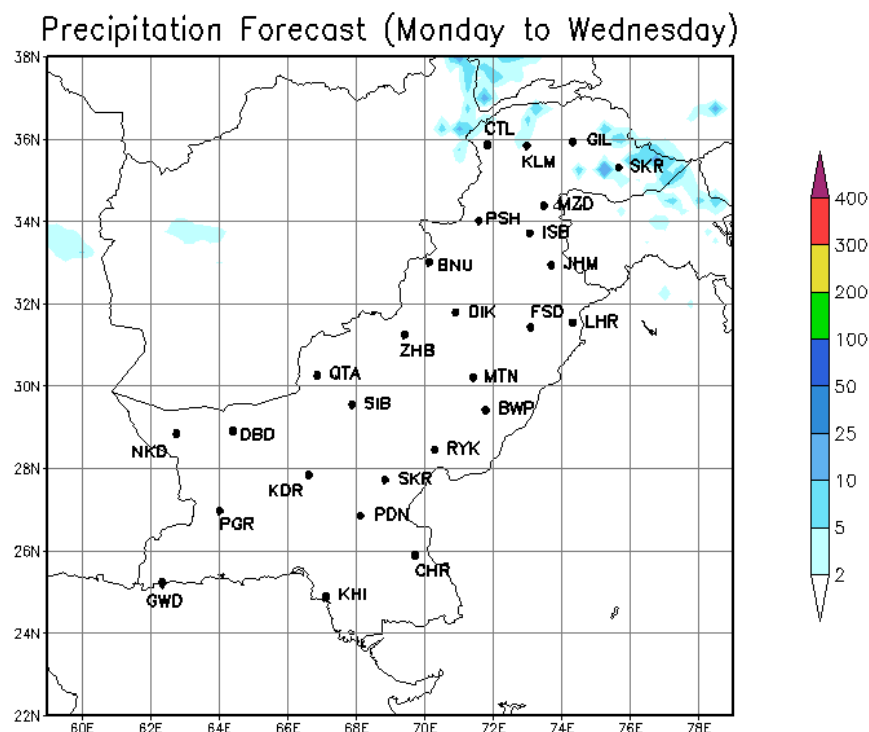
**ADVISES FOR FARMERS**

During the last week, no rainfall occurred in most parts of the agricultural plains of the country. In next week as well, mainly dry weather is expected at most parts of the country. Accordingly, following advises are suggested for the farming community.

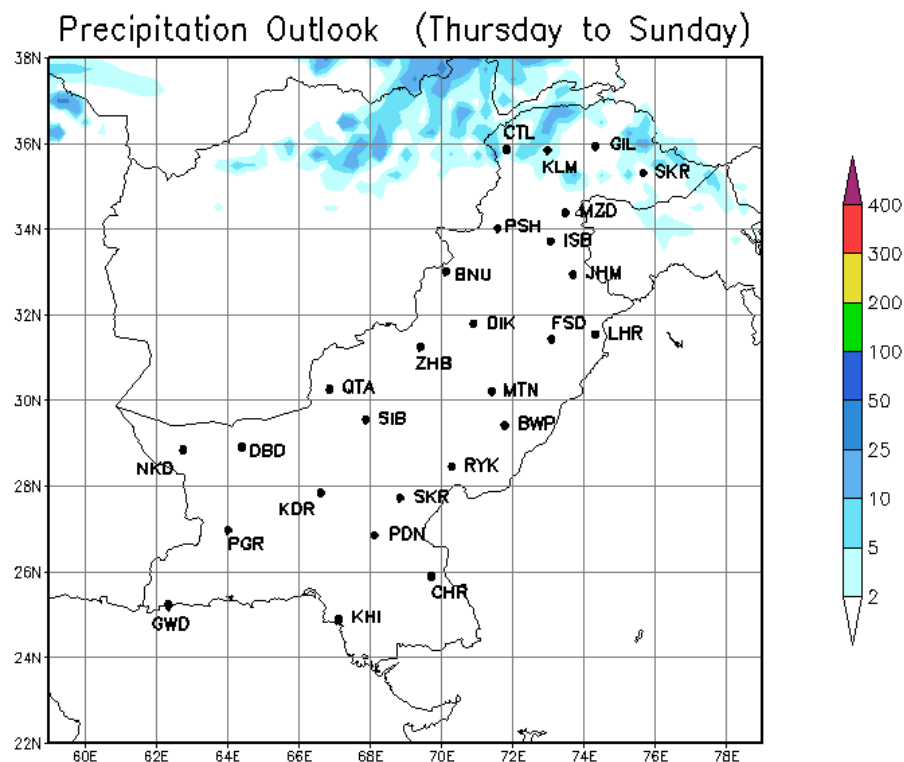
- The recent rain spell over agricultural plains of the country could be very useful for upcoming Rabi crops. Specially farmers of rainfed areas are advised to utilize the available moisture in the field and may complete sowing at the earliest.

## Weather Outlook from 27<sup>th</sup> November to 3<sup>rd</sup> December, 2017

The outlook for the period 27<sup>th</sup> to 29<sup>th</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 30<sup>th</sup> November to 03<sup>th</sup> December, 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 and upper KP.



**National Weather Data of Selected Cities (20<sup>th</sup> to 26<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	-3.6	-4.5	**	47	3.50	1.7	2.4	0.6	1.6
Badin	14.0	13.0	115.3	50	0.00	0.0	0.0	0.0	1.6
Bahawalnagar	9.5	9.5	97.0	55	0.00	0.0	0.0	0.0	2.0
Bahawalpur	9.5	8.9	98.3	54	0.00	0.0	1.2	1.7	0.0
Balakot	4.0	2.7	56.9	57	0.00	1.7	2.6	0.0	0.0
Bannu	6.0	5.0	74.9	55	0.00	0.5	1.8	0.0	0.8
Barkhan	6.8	6.5	68.0	38	0.00	0.0	3.3	0.7	0.0
Bunji	3.0	1.1	29.9	41	0.00	3.0	2.8	0.6	1.6
Cherat	6.1	4.5	42.3	48	0.00	1.4	1.4	3.7	4.4
Chhor	9.3	7.5	107.4	56	0.00	0.0	0.0	1.0	2.8
Chilas	5.6	5.0	42.5	34	0.00	1.1	1.5	1.1	0.5
Chitral	-2.0	-2.4	19.9	59	0.00	3.1	2.8	0.3	0.8
D.G.Khan	8.2	8.0	85.1	57	0.00	0.0	1.8	5.1	4.8
D.I.Khan	8.5	8.0	92.5	59	0.00	0.0	0.0	0.0	0.0
Dalbandin	2.5	0.0	60.3	34	0.00	2.2	1.8	1.0	3.2
Dir	-2.1	-3.0	30.2	54	0.00	2.1	2.0	0.0	2.0
Drosh	1.3	0.5	28.6	29	0.00	3.0	2.6	0.0	10.8
Faisalabad	6.6	5.5	81.8	59	0.00	0.3	0.0	0.2	0.3
Gari dopatta	6.0	5.3	66.5	61	0.00	1.4	2.4	0.0	0.8
Gawader	12.9	10.5	114.5	55	0.00	0.3	0.4	0.0	7.2
Gilgit	-4.1	-5.5	9.0	62	0.00	2.4	3.6	0.0	0.0
Gupis	-3.1	-4.5	**	43	0.00	1.0	2.8	1.3	0.0

Hyderabad	12.6	10.5	109.8	40	0.00	0.0	0.0	1.7	6.0
Islamabad	4.9	3.7	62.5	70	0.00	0.9	2.6	0.0	0.0
Jacobabad	9.7	3.0	95.0	55	0.00	0.0	0.4	0.6	0.0
Jhang	6.9	6.2	83.6	64	0.00	0.0	0.0	0.0	0.4
Jhelum	7.6	6.7	81.6	66	0.00	0.7	1.4	0.0	0.8
Jiwani	16.4	15.5	122.2	35	0.00	1.4	1.0	2.0	5.6
Kakul	3.1	2.0	45.3	57	0.00	0.7	2.0	0.0	0.0
Kalam	-3.0	-5.0	10.2	56	0.00	0.2	2.4	4.2	0.0
Kalat	-3.7	-7.0	11.0	38	0.00	2.0	2.0	0.0	4.0
Karachi	12.7	11.0	115.8	43	0.00	0.4	0.4	0.9	4.8
Khanpur	7.6	7.0	91.2	58	0.00	0.4	1.6	0.0	0.0
Khuzdar	7.4	6.5	69.5	40	0.00	0.6	1.2	0.0	0.0
Kotli	8.2	7.0	82.5	62	0.00	0.0	1.4	0.6	0.0
Lahore	9.8	8.8	88.1	57	0.00	0.9	0.4	0.0	0.4
Larkana	11.1	8.8	103.4	52	0.00	0.0	0.6	0.7	1.2
Lasbella	12.1	10.5	122.1	47	0.00	0.3	0.4	0.0	0.0
Lower Dir	3.2	1.5	46.5	70	0.00	1.4	2.2	0.9	0.4
M.B Din	7.9	7.5	81.5	67	0.00	1.4	1.6	0.0	1.6
Malam Jabba	0.0	-0.5	**	63	0.00	1.0	2.2	0.0	0.0
Mangla	7.2	6.1	80.4	55	0.00	1.6	1.8	0.0	0.0
Mir Khani	3.1	2.4	64.8	45	0.00	2.4	2.6	1.1	1.6
Moinjodaro	9.2	8.0	86.5	53	0.00	0.0	0.6	0.0	1.2
Multan(PBO)	9.7	8.8	91.1	50	0.00	0.3	2.4	0.0	1.6
Murree	5.2	3.8	39.1	48	0.00	1.1	3.0	3.3	0.8
Muzaffarabad	5.5	4.8	57.8	52	0.00	1.3	2.4	0.0	0.0
Nawabshah	10.0	8.0	102.5	57	0.00	0.3	0.8	2.9	4.4



Nokkundi	8.3	6.0	81.0	28	0.00	1.7	2.4	1.0	1.2
Okara	9.3	9.0	89.6	59	0.00	0.0	0.0	0.6	0.4
Padidan	10.9	10.0	98.8	54	0.00	0.6	0.6	0.0	1.2
Panjgur	5.6	5.0	61.5	36	0.00	0.4	1.0	8.0	14.0
Parachinar	2.4	2.0	35.8	35	0.00	2.0	1.6	4.0	4.2
Pasni	12.9	11.0	109.0	53	0.00	0.9	0.8	2.6	5.6
Pattan	10.7	9.5	89.3	43	0.00	0.0	1.2	1.4	0.4
Peshawar	7.0	5.5	74.5	71	0.01	1.1	2.0	0.3	0.0
Quetta	2.0	-1.0	32.1	28	0.00	1.6	2.0	2.5	3.3
Rahim Yar Khan	8.2	6.8	94.9	56	0.00	0.3	0.8	0.0	0.0
Rawalakot	-0.6	-2.0	22.2	60	0.00	0.0	1.4	0.0	0.8
Rawalpindi	5.6	4.5	68.9	69	0.00	1.4	0.9	0.2	0.5
Rohri	9.1	8.0	96.5	50	0.00	0.0	0.6	0.0	0.0
Sahiwal	8.6	7.0	86.9	54	0.00	0.0	0.0	0.3	0.8
Saidu Sharif	3.5	2.2	50.0	57	0.00	0.7	2.2	0.0	0.0
Sialkot	7.7	6.8	74.9	62	0.00	1.1	1.6	1.4	3.4
Sibbi	4.8	3.5	94.3	38	0.00	0.0	0.8	0.0	0.0
Skardu	-6.9	-8.6	**	48	0.00	2.9	2.6	0.0	0.0
Tandojam	9.1	8.0	98.5	54	0.00	0.0	0.0	0.0	0.6
Usta. M	11.7	10.0	98.7	68	0.00	0.8	0.0	0.0	0.0
Zhob	3.1	2.5	41.5	45	0.00	0.0	1.0	2.0	4.0

\*\*\* 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)