

# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the  
Previous Week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)**



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## Highlights of Past Weather (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)

Slightly above normal day time temperature was reported in Gilgit-Baltistan, Balochistan and Khyber Pakhtunkhwa, Sindh and slightly below day time temperature was recorded in Punjab.

Province wise distribution of rainfall reported as follows:

- Dry weather was reported in all parts of the country.

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

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

**Editor: Asma Jawad Hashmi (Deputy Director)**

## **Past Weather of Provinces (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)**

### **Punjab**

Dry weather reported in Punjab during the week. Weekly maximum and minimum temperatures recorded as 27.4°C & 9.8°C respectively. For the present season on average 95.1 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 0.5/0.8 Knots. During the previous week the lowest minimum temperature was recorded as 5.0°C at Okara.

### **Sindh**

Dry weather reported in Sindh during the week. Weekly maximum and minimum temperatures recorded as 31.5°C & 12.4°C respectively. For the present season, on average 120.6 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 0.7/1.9 Knots. During the previous week the lowest minimum temperature recorded as 6.5°C at Mithi.

### **Khyber Pakhtunkhwa**

Dry weather reported in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 22.9°C & 5.7°C respectively. For the present season on average 65.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 52% and wind speed in the morning/evening recorded as 0.5/1.3 Knots. During the previous week the lowest minimum temperature recorded as -1.5°C at Kalam.

### **Balochistan**

Dry weather reported in Balochistan during the week. Weekly maximum and minimum temperatures recorded as 28.0°C & 8.9°C respectively. For the present season on average 92.9 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 1.3/2.8 Knots. During the previous week the lowest minimum temperature was recorded as -4.0°C at Quetta.

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

Dry weather reported in Gilgit-Baltistan & Kashmir regions during the week. Weekly maximum and minimum temperatures recorded as 18.8°C & 1.9°C respectively. For the present season on average 37.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 0.3/0.4 Knots. During the previous week the lowest minimum temperature recorded as -6.8°C at Skardu.

**Past Weather for Major Agricultural Plains  
(from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)****Rawalpindi (Potohar region)**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 1.8/1.2 Oktas while, average relative humidity observed as 73%. Mean night time temperature recorded as 6.8°C & for the present season 77.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

**Faisalabad (Central Punjab)**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.3/0.0 Oktas while, average relative humidity observed as 70%. Mean night time temperature recorded as 9.9°C & for the present season 96.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

**Tandojam (Lower Sindh)**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 1.3/1.0 Oktas while, average relative humidity observed as 68%. Mean night time temperature recorded as 24.6°C & for the present season 179.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.9/5.7 Knots.

**Quetta (Northern Baluchistan)**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.3/1.0 Oktas while, average relative humidity observed as 27%. Mean night time temperature recorded as 3.2°C & for the present season 51.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.5/2.1 Knots.

**Usta Muhammad (Eastern Balochistan)**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded 0.0/0.0 Oktas while, average relative humidity observed as 58%. Mean night time temperature recorded as 10.4°C & for the present season 103.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.1 Knots.

**Past Weather for Sub-Regional Agricultural  
Plains (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)****Multan**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.7 Oktas while, average relative humidity observed as 63%. Mean night time temperature recorded as 12.5°C & for the present season 104.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

**Lahore**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.9/0.4 Oktas while, average relative humidity observed as 58%. Mean night time temperature recorded as 9.8°C & for the present season 99.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.6 Knots.

**Zhob**

Dry weather was reported during the week; however cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 33%. Mean night time temperature recorded as 6.1°C & for the present season 72.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

**D.I. Khan**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 0.0/0.7 Oktas while, average relative humidity observed as 72%. Mean night time temperature recorded as 9.9°C & for the present season 98.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

**Peshawar**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 2.3/2.7 Oktas while, average relative humidity observed as 71%. Mean night time temperature recorded as 8.3°C & for the present season 85.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

**Murree**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 1.1/1.0 Oktas while, average relative humidity observed as 40%. Mean night time temperature recorded as 7.4°C & for the present season 57.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.4 Knots.

**Kalam**

Dry weather was reported during the week, cloudiness in the morning/evening recorded as 0.9/2.4 Oktas while, average relative humidity observed as 45%. Mean night time temperature recorded as -0.9°C & for the present season 27.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 Knots.

**Gilgit**

Dry weather was reported during the week, cloudiness in the morning/evening recorded as 1.6/4.9 Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as -1.1°C & for the present season 29.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 Knots.

**Skardu**

Dry weather was reported during the week; cloudiness in the morning/evening recorded as 2.3/5.4 Oktas while, average relative humidity observed as 56%. Mean night time temperature recorded as -5.8°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

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

**Potohar Region (Rawalpindi)**

There is presently no crop in fields of RAMC Rawalpindi.

**Central Punjab (Faisalabad)**

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

**Cotton:** Good condition at *First picking* stage.

**Lower Sindh (Tandojam)**

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

**Cotton:** Good condition at *Boll opening* stage.

**Northern Balochistan (Quetta)**

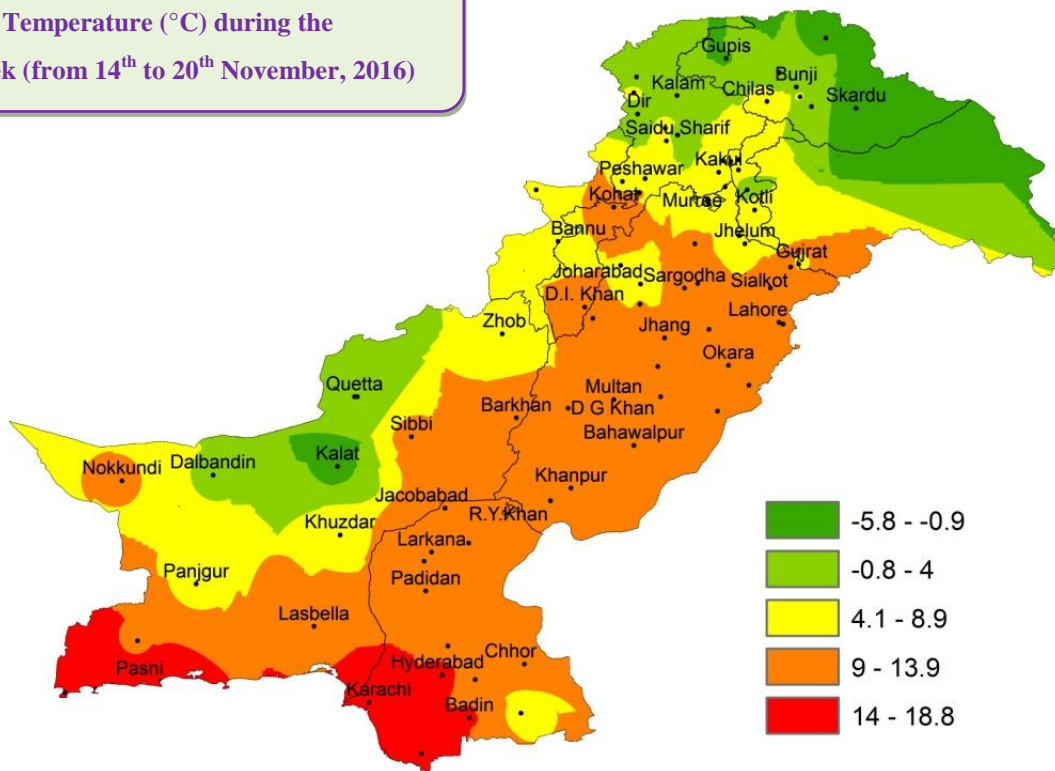
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Balochistan (Usta Muhammad)**

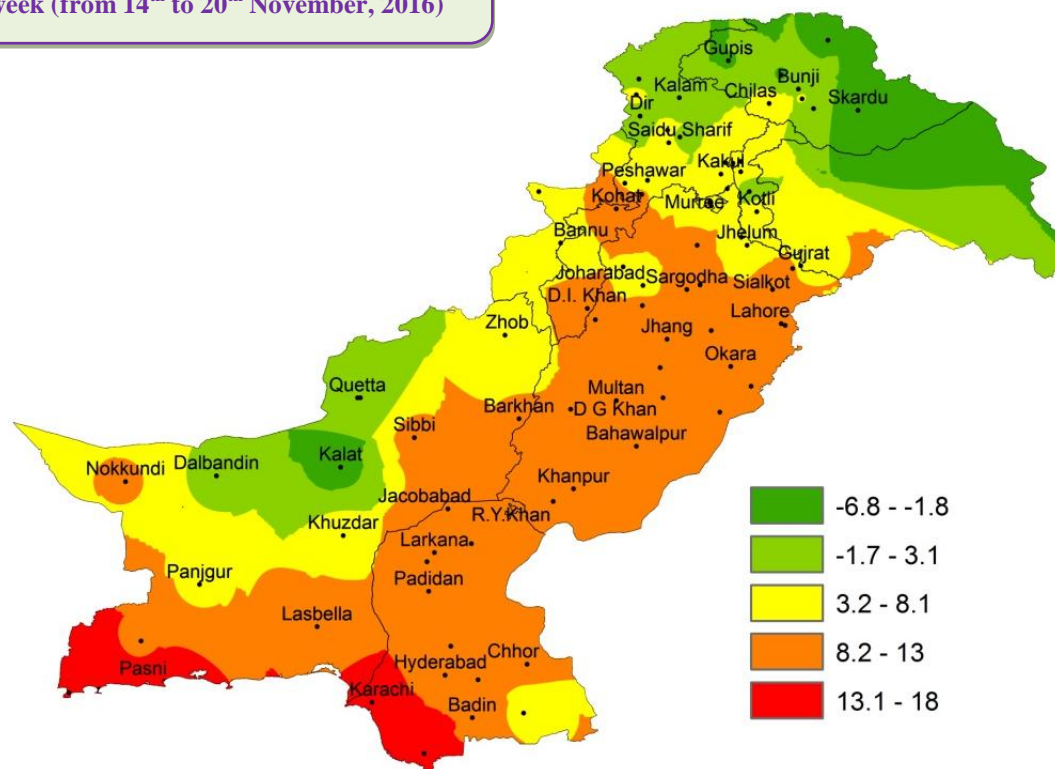
There is presently one crop (irrigated condition) grown in the fields of RAMC Usta Muhammad.

**Rice:** normal condition at *Harvesting* stage.

Mean lowest Temperature (°C) during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)

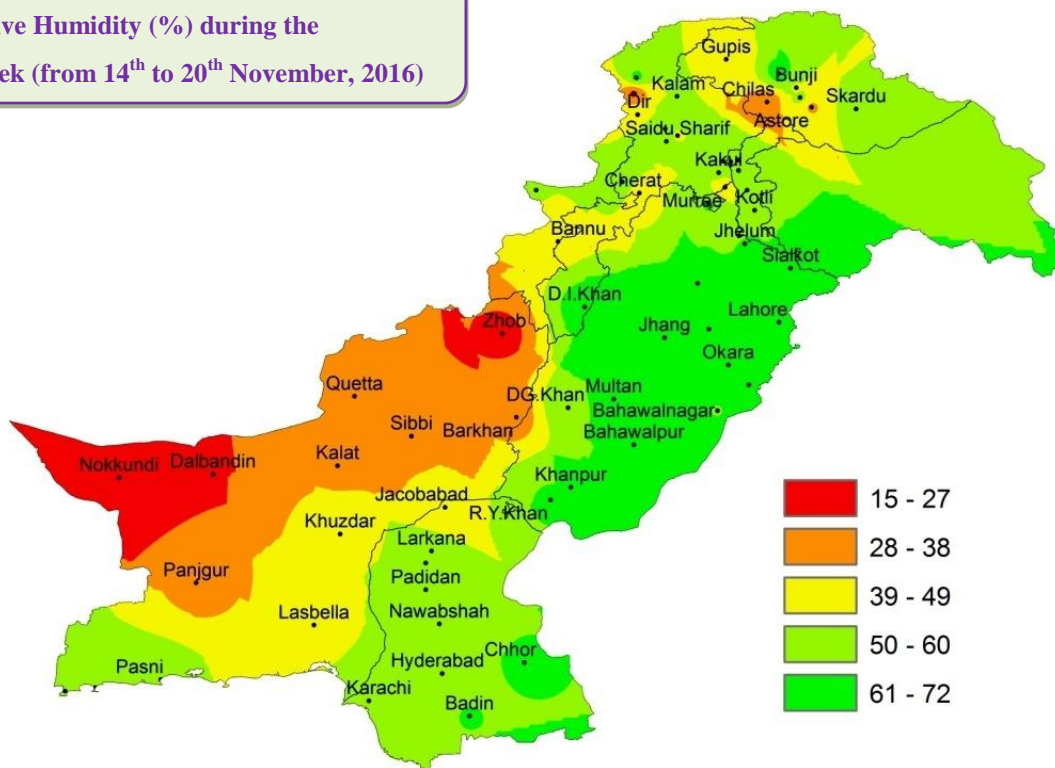


Lowest Minimum Temperature (°C) during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)

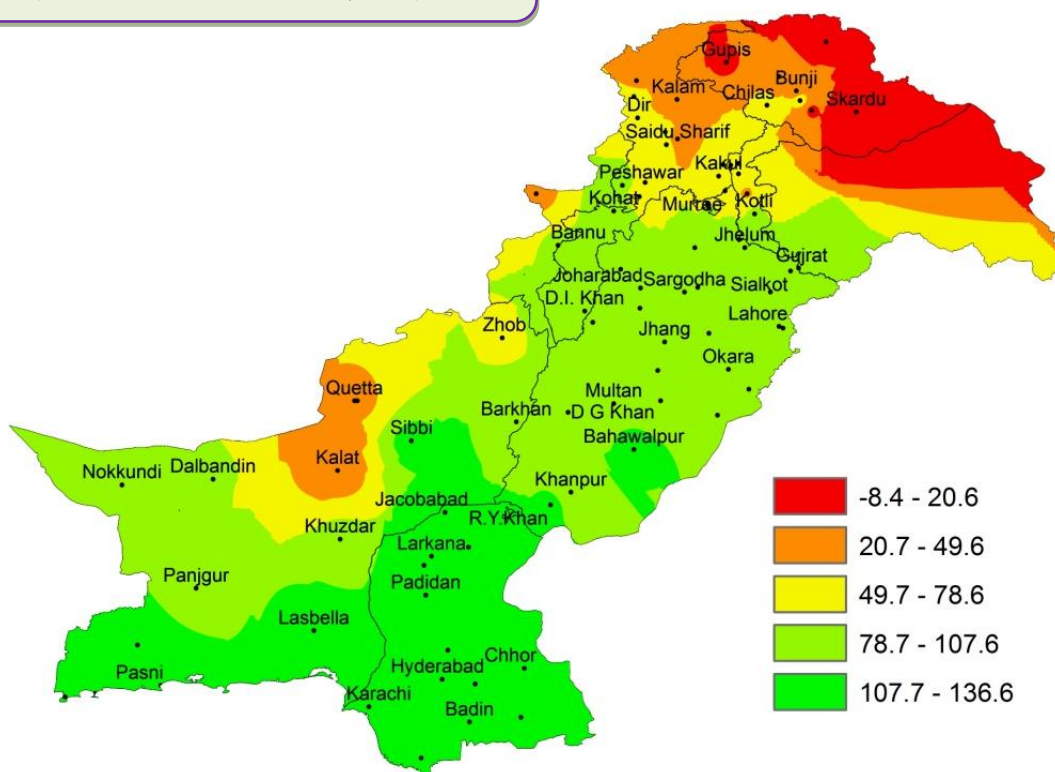




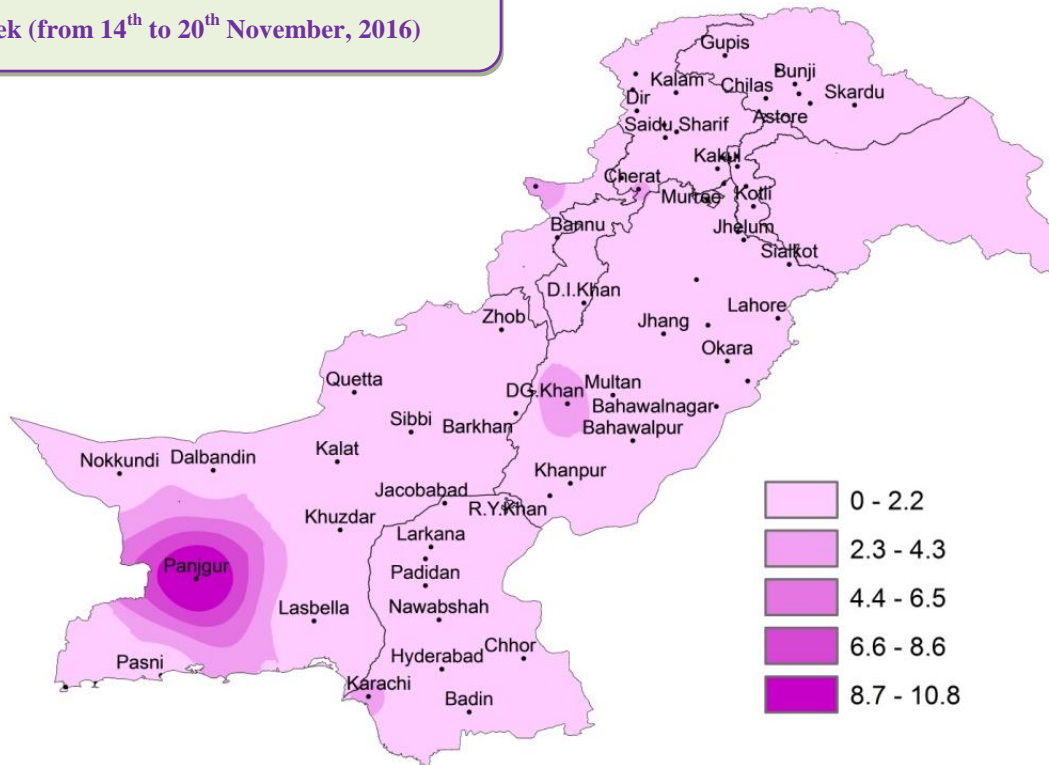
Mean Relative Humidity (%) during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)



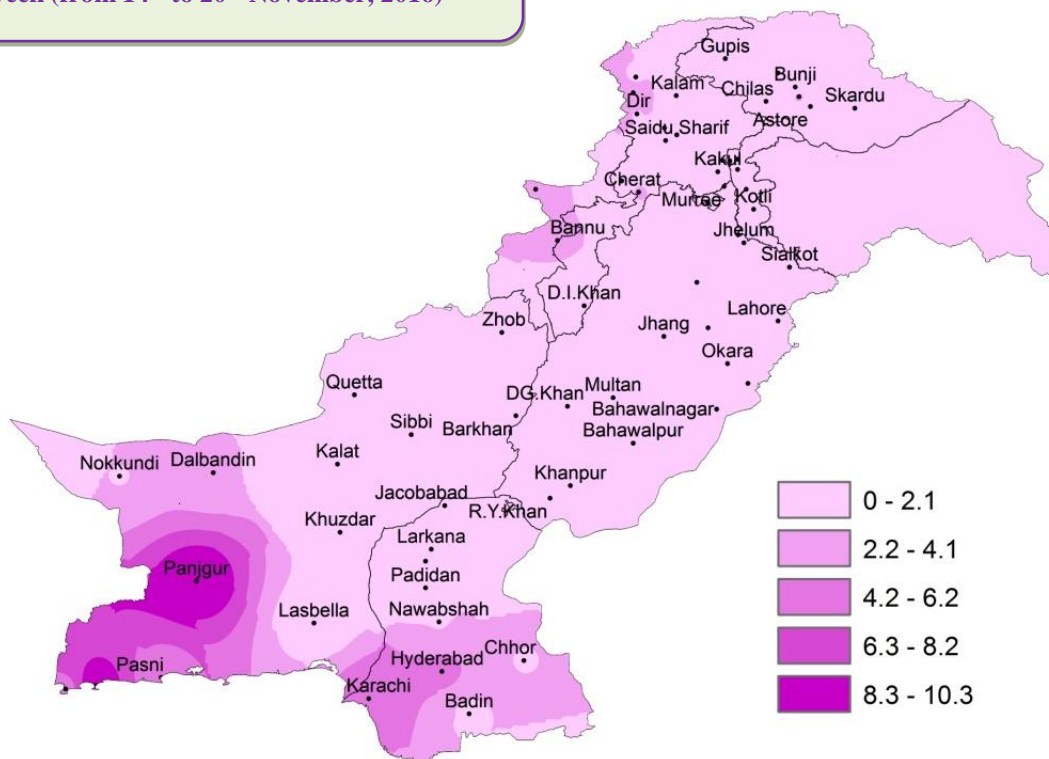
Total Growing Degree Days accumulated during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)



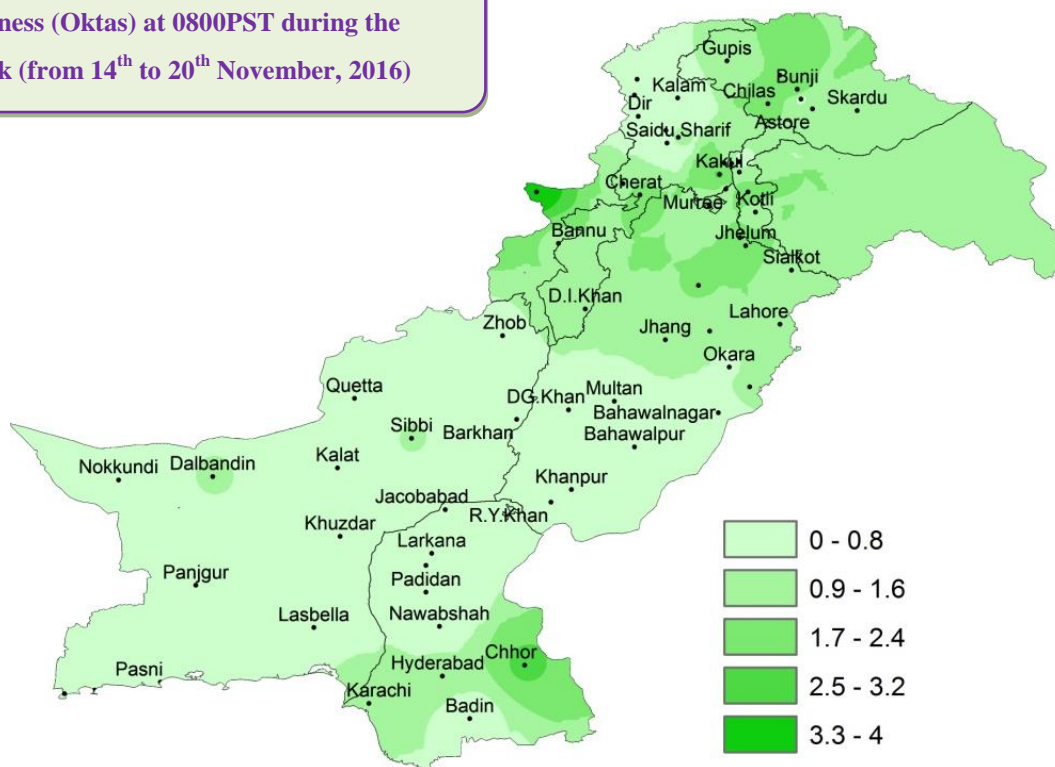
Mean Wind Speed (Knots) at 0800PST during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)



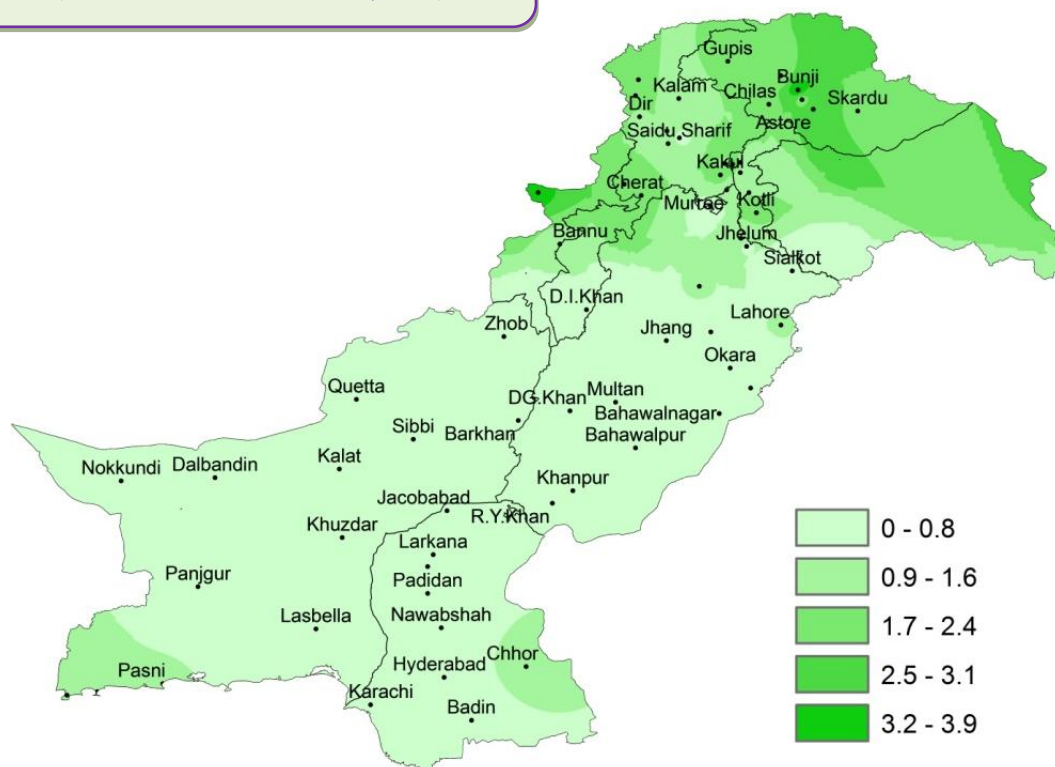
Mean Wind Speed (Knots) at 1200PST during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)



Mean Cloudiness (Oktas) at 0800PST during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)



Mean Cloudiness (Oktas) at 1200 PST during the  
Previous week (from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)





**Weekly Weather Advisory for Farmers****(From 21<sup>st</sup> to 27<sup>th</sup> November, 2016)**

A fresh westerly wave is affecting northern parts of the country and likely to persist for next few days.

**MONDAY****21-11-2016**

Cloudy weather conditions are expected in most upper parts of the country. However light rain- thunderstorm (with light snowfall over the hills) is expected at isolated places of Malakand, Hazara divisions, Gilgit-Baltistan, Kashmir and its adjoining hilly areas. Cold and dry weather is expected in other parts of the country. Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours.

**TUESDAY****22-11-2016**

Partly cloudy weather conditions are expected in upper parts of the country. However light rain- thunderstorm (with light snowfall over the hills) is expected at isolated places of Malakand division & Gilgit-Baltistan. Cold and dry weather is expected in other parts of the country. Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours.

**WEDNESDAY****23-11-2016**

Partly cloudy to cloudy weather conditions in upper parts of the country with chances of rain-thunderstorm (with snowfall over the hills) is expected at isolated places in Malakand division, Gilgit-Baltistan & Kashmir. Cold and dry weather is expected in other parts of the country. Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours.

**THURSDAY****24-11-2016**

Partly cloudy to cloudy weather conditions in upper parts of the country with chances of rain-thunderstorm (with snowfall over the hills) is expected at isolated places in Malakand division, Gilgit-Baltistan & Kashmir. Cold and dry weather is expected in other parts of the country. Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours.

**FRIDAY****25-11-2016**

Partly cloudy to cloudy weather conditions in upper parts of the country with chances of rain-thunderstorm (with snowfall over the hills) is expected at isolated places in Malakand, Hazara, divisions, Gilgit-Baltistan & Kashmir. Cold and dry weather is expected in other parts of the country. Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours.

**SATURDAY****26-11-2016**

Mainly cold and dry weather is expected in most parts of the country. However, light rain with snowfall over the hills is expected in Malakand divisions, Gilgit-Baltistan & Kashmir. Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours.

**SUNDAY****27-11-2016**

Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours. Shallow foggy conditions likely to occur in plain areas of Punjab during morning hours.

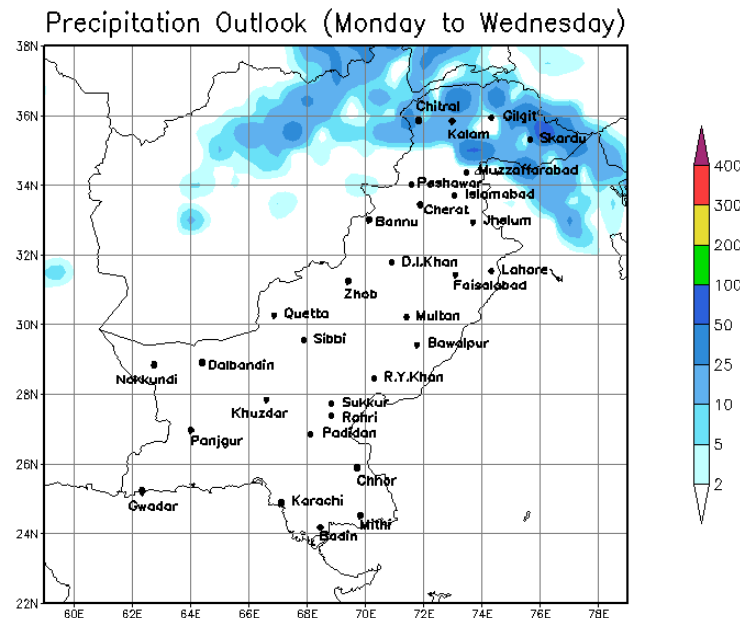
**ADVISES FOR CROPS**

During the last two months dry weather has been reported in most parts of agricultural plains of the country and is likely to prevail by mid of December. Keeping in view the present and expected dry atmospheric soil conditions following advises are given to farming community especially for rainfed areas of KP and Punjab.

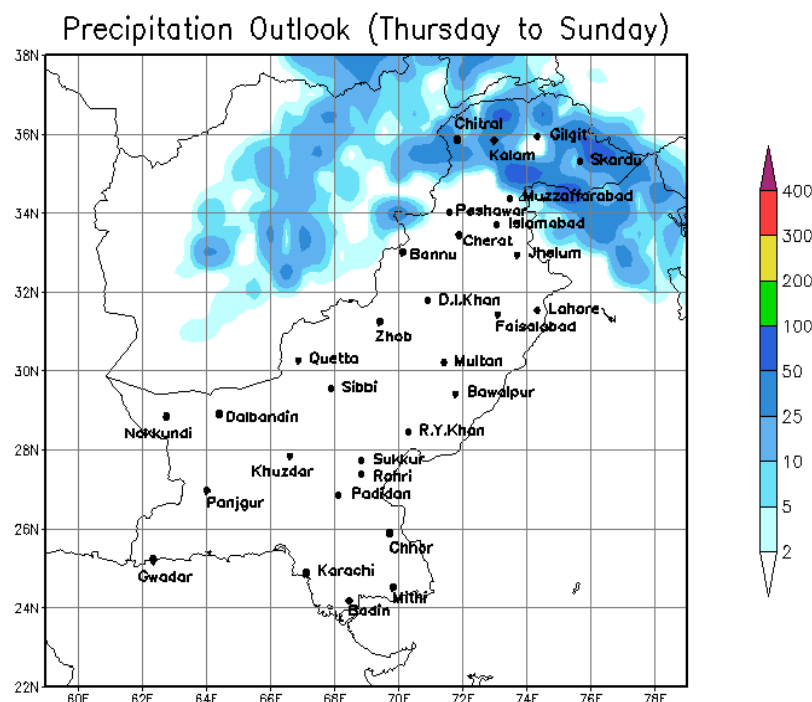
- Farmers of rainfed areas obtaining water through tube wells are advised to schedule the irrigation as per crop requirement.
- In areas like Potohar region and adjoining areas of KP where rain water storages are available. Farmers are advised to irrigate crops by using available irrigation methods like sprinkler irrigation etc.
- Farmers are advised to complete sowing of wheat crop in the month of November. Late varieties may be cultivated in December and seed should be specially treated before sowing in consultation with Agricultural offices.
- Farmers are advised to cultivate winter vegetables in time.

## Weather Outlook from 21<sup>st</sup> to 27<sup>th</sup> November, 2016

The outlook from 21<sup>st</sup> to 23<sup>rd</sup> November, 2016 shows that light to moderate rainfall is expected at upper parts of the country including Malakand division & Gilgit-Baltistan. Dry weather is expected in the other parts of the country.



The outlook from 24<sup>th</sup> to 27<sup>th</sup> November, 2016 shows that dry weather is expected in most parts of the country. However, rainfall is expected at the upper parts of the country including KP, Gilgit-Baltistan & Kashmir.



**National Weather Data of Selected Cities**  
**(Weekly Data from 14<sup>th</sup> to 20<sup>th</sup> November, 2016)**

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	0.1	-1	13.6	36	0.0	2.9	3.4	0.9	1.1
Badin	14.2	13	125.6	55	0.0	0.0	0.4	0.6	1.7
Bahawalnagar	11.7	10	107.2	61	0.0	0.0	0.0	0.0	0.3
Bahawalpur	11.9	11.6	110.1	58	0.0	0.0	0.0	1.4	0.6
Balakot	5.1	4.5	77.1	59	0.0	1.0	1.7	0.0	0.0
Bannu	7.3	6.2	82.8	44	0.0	1.1	1.0	1.4	2.3
Barkhan	11.3	8.5	97.8	27	0.0	0.4	0.0	1.1	0.9
Bunji	3.5	2.8	37.0	45	0.0	4.0	5.3	0.6	1.1
Cherat	9.2	8.5	65.8	44	0.0	1.6	0.9	2.6	2.3
Chhor	9.9	8.5	117.9	51	0.0	1.3	0.0	0.9	2.0
Chilas	6.9	6	59.5	26	0.0	2.0	3.4	0.0	0.0
Chitral	0.7	0	42.3	69	0.0	1.6	2.7	0.0	1.7
D.I.Khan	9.9	9	98.4	72	0.0	0.0	0.7	0.0	0.3
Dalbandin	3.3	1.5	80.9	29	0.0	0.0	0.0	1.1	2.3
DG.Khan	9.6	8.5	96.0	56	0.0	0.0	0.3	3.7	1.7
Dir	0.4	0	50.5	44	0.0	1.4	1.7	0.0	2.0
Drosh	5.4	5	59.2	22	0.0	2.3	3.3	0.0	3.4
Faisalabad	9.9	9	96.5	70	0.0	0.3	0.0	0.3	0.3
Garidopatta	5.2	4.5	63.1	59	0.0	0.7	1.3	0.0	0.3
Gawader	17.4	17	136.6	62	0.0	1.1	0.7	0.6	10.0
Gilgit	-1.1	-2.5	29.4	67	0.0	1.6	4.9	0.0	0.6
Gupis	-1.0	-2	17.2	40	0.0	1.9	5.3	1.1	0.6

Hyderabad	15.1	12.5	129.2	46	0.0	0.0	0.0	1.1	4.9
Islamabad	5.4	5	72.3	68	0.0	0.4	1.1	0.0	0.6
Jacobabad	12.9	12	110.9	60	0.0	0.4	0.0	0.0	0.0
Jhang	10.1	9.8	98.3	69	0.0	0.4	0.4	0.0	0.3
Jhelum	8.2	5.6	91.5	71	0.0	0.6	0.0	0.0	0.6
Jiwani	18.8	18	135.2	66	0.0	0.9	0.0	1.7	5.4
Kakul	4.3	3.5	63.6	47	0.0	2.0	2.3	0.0	0.6
Kalam	-0.9	-1.5	27.0	45	0.0	0.9	2.4	0.0	0.6
Kalat	-2.3	-4	27.0	24	0.0	0.0	0.0	0.0	0.6
Karachi	15.4	14	132.0	47	0.0	0.6	0.4	2.3	5.7
Khanpur	9.9	8.7	103.3	59	0.0	0.0	0.0	0.0	1.1
Khuzdar	7.4	5	85.5	38	0.0	0.0	0.0	0.0	0.6
Kotli	7.1	6	83.7	58	0.0	1.9	1.6	0.3	0.0
Lahore	9.8	9.2	99.2	58	0.0	0.9	0.4	0.3	0.6
Larkana	13.9	12.5	121.5	51	0.0	0.3	0.0	0.3	0.3
Lasbella	12.5	11.8	127.0	42	0.0	0.0	0.0	0.3	0.3
Lower Dir	5.1	4.5	64.1	59	0.0	1.4	1.9	0.9	1.4
M.B Din	10.8	10	96.6	71	0.0	0.9	1.0	0.0	0.3
Malam Jabba	2.6	2	22.1	51	0.0	0.6	1.1	0.3	0.0
Mangla	7.9	7.2	87.7	58	0.0	1.4	1.4	0.0	1.7
Mir Khani	4.5	3.6	64.1	51	0.0	1.9	3.4	0.0	2.3
Moinjodaro	10.0	10	127.5	61	0.0	0.0	0.0	0.0	0.0
Multan	12.5	12.2	104.9	63	0.0	0.0	0.7	0.0	0.0
Murree	7.4	5.8	57.4	40	0.0	1.1	1.0	1.1	1.4
Muzaffarabad	6.6	5.6	67.9	52	0.0	3.4	3.9	0.0	0.0
Nawabshah	15.4	14	132.0	57	0.0	0.0	0.0	1.6	2.0



Nokkundi	9.4	8.5	102.1	14	0.0	0.0	0.0	1.0	2.0
Okara	12.3	11.3	104.6	65	0.0	0.0	0.4	0.0	0.6
Padidan	12.4	11.5	118.8	58	0.0	0.0	0.0	0.0	0.9
Panjgur	7.5	7	84.0	33	0.0	0.0	0.0	10.9	10.3
Parachinar	5.6	5	37.7	46	0.0	3.4	3.6	3.0	3.0
Pasni	17.3	16	132.3	58	0.0	0.9	0.0	0.9	4.6
Pattan	8.2	7	78.0	49	0.0	0.9	1.7	0.0	0.0
Peshawar	8.3	8	85.2	71	0.0	2.3	2.7	0.0	0.0
Quetta	3.2	2.5	51.0	27	0.0	0.3	1.0	1.5	2.1
R.Y.Khan	10.4	9	109.4	64	0.0	0.3	0.0	0.0	1.7
Rawalakot	1.1	0	46.8	51	0.0	1.6	1.3	0.0	0.3
Rawalpindi	6.8	6.5	77.5	73	0.0	1.8	1.2	0.0	0.3
Sahiwal	9.3	8.5	95.1	62	0.0	0.0	0.0	0.3	0.0
Saidu Sharif	4.6	4	64.4	60	0.0	1.1	1.1	0.0	0.0
Sialkot	9.4	8.6	87.5	73	0.0	0.0	0.4	0.0	0.0
Sibbi	11.0	10.5	120.3	46	0.0	0.4	0.0	0.0	0.3
Skardu	-5.8	-6.8	-8.4	56	0.0	2.3	5.4	0.0	0.9
Tandojam	24.6	23.5	179.3	68	0.0	1.3	1.0	2.9	5.7
Usta.M	10.4	10	103.3	58	0.0	0.0	0.0	0.0	1.1
Zhob	6.1	5	72.6	33	0.0	0.0	0.0	0.0	0.7

\*\*\* 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)