

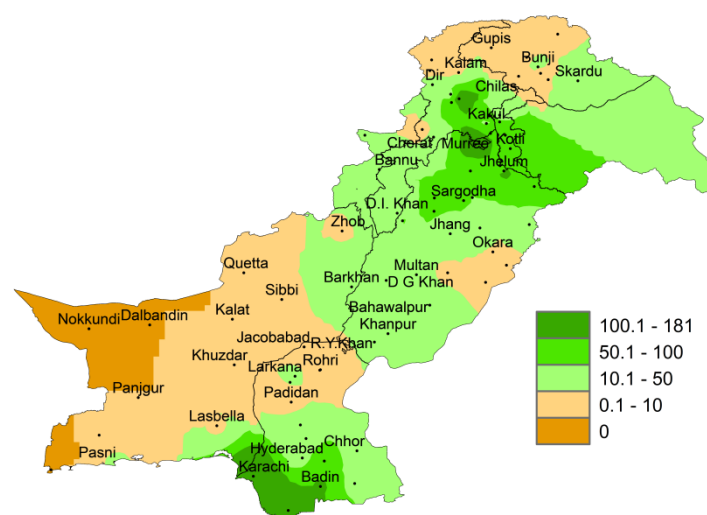
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the  
Previous Week (5<sup>th</sup> August- 11<sup>th</sup> August, 2019)**



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## Highlights of Past Weather (5<sup>th</sup> August-11<sup>th</sup> August, 2019)

Above normal day time temperatures were observed in Balochistan, Khyber Pakhtunkhwa, Gilgit Baltistan and Sindh while mix trend was observed in Punjab during the last week.

Province wise distribution of rainfall reported as follows during the last week:

1. Light to moderate rainfall observed in Balochistan and Gilgit Baltistan.
2. Moderate to heavy rainfall observed in Punjab, Khyber Pakhtunkhwa and Sindh.

**Patron-in-Chief: Muhammad Riaz ( Director General)**

**Editor-in-Chief: Dr Muhammad Afzaal (Director)**

**Editor: Saeeda Saleh (Assit. Meteorologist)**

## **Past Weather of Provinces (5<sup>th</sup> August-11<sup>th</sup> August, 2019)**

### **Punjab**

Moderate to heavy rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.7°C & 26.8°C respectively. For the recent week on average 183.9 growing degree days were accumulated. Average relative humidity recorded as 77% and wind speed in the morning/evening recorded as 3.0/3.3 Knots. During the previous week the highest precipitation was recorded as 173.50 mm at Islamabad while maximum temperature was recorded as 43°C at Noor Pur Thal.

### **Baluchistan**

Light to moderate rainfall was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 36.8°C & 24.6°C respectively. For the recent week on average 176.8 growing degree days were accumulated. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 0.4/6.0 Knots. During the previous week the highest precipitation was recorded as 38.00 mm at Barkhan while maximum temperature was recorded as 47.5°C at Nokkundi.

### **Khyber Pakhtunkhwa**

Moderate to heavy rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.5°C & 22.6°C respectively. For the recent week on average 161.2 growing degree days were accumulated. Average relative humidity recorded as 76% and wind speed in the morning/evening recorded as 1.5/3.4 Knots. During the previous week the highest precipitation recorded as 170.00 mm at Malam Jabba while maximum temperature was recorded as 44.0°C at Pattan.

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

Light to moderate rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 33.6°C & 20.8°C respectively. For the recent week

on average 146.4 growing degree days were accumulated. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 0.6/2.2 Knots. During the previous week the highest precipitation recorded as 81.80 mm at Rawalakot while maximum temperature was recorded as 44°C at Chilas.

### **Sindh**

Moderate to heavy rainfall was observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 36.6°C & 27.2°C respectively. For the recent week, on average 189.6 growing degree days were accumulated. Average relative humidity recorded as 70% and wind speed in the morning/evening recorded as 4.1/5.1 Knots. During the previous week the highest precipitation recorded as 180.82 at Karachi while maximum temperature was recorded as 43.5°C at Rohri.

**Past Weather for Major Agricultural Plains****(5<sup>th</sup> August-11<sup>th</sup> August, 2019)****Rawalpindi (Potohar region)**

89.40 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.7/5.7 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded 33.8°C & for the recent week 174.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.5 Knots.

**Faisalabad (Central Punjab)**

45.50 mm rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.7/4.5 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 36.8°C & for the recent week 194.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/0.9 Knots.

**Tandojam (Lower Sindh)**

90.40 mm rainfall reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 5.4/3.9 Oktas while, average relative humidity observed as 80%. Mean day time temperature recorded as 35.2°C & for the recent week 178.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/2.0 Knots.

**Usta Muhammad (Eastern Baluchistan)**

10.00 mm rainfall reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 4.1/4.4 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 39.1°C & for the recent week 176.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.7 Knots.

**Quetta (Northern Baluchistan)**

0.01 mm (Trace) rainfall reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.6/4.3 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 34.4°C & for the recent week 174.2 growing degree days

accumulated. Wind speed recorded in the morning/evening as 3.3/3.8 Knots.

**Past Weather for Sub-Regional Agricultural Plains (5<sup>th</sup> August-11<sup>th</sup> August, 2019)****Multan**

18.70 mm rainfall reported from Multan during the week; however, cloudiness in the morning/evening recorded as 4.0/5.0 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 37.4°C & for the recent week 195.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 7.1/6.6 Knots.

**Lahore**

170.00 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 6.9/7.3 Oktas while, average relative humidity observed as 84%. Mean day time temperature recorded as 21.4°C & for the recent week 95.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.3/6.0 Knots.

**Zhob**

7.00 mm rainfall reported from reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 3.3/4.3 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 33.4°C & for the recent week 165.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/6.0 Knots.

**Murree**

82.20 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 5.0/7.7 Oktas while, average relative humidity observed as 87%. Mean day time temperature recorded as 23.4°C & for the recent week 106.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/0.6 Knots.

**D.I. Khan**

20.02 mm rainfall reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 5.7/3.4 Oktas while, average relative humidity observed as 76%. Mean day time temperature recorded as 37.1°C & for the recent week 188.3 growing degree days

accumulated. Wind speed recorded in the morning/evening as 0.9/0.6 Knots.

### **Peshawar**

5.41 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.6/4.3 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 36.5°C & for the recent week 184.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.3/3.8 Knots.

### **Kalam**

4.00 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.1/4.4 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded as 26.6°C & for the recent 115.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.7 Knots.

### **Gilgit**

8.21 mm rainfall reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 2.7/4.9 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 37.0°C & for the recent week 165.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

### **Skardu**

24.80 mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.0/4.9 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 32.5°C & for the recent week 135.7 growing degree days accumulated. Calm wind recorded in the morning/evening during the previous week.

## **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)**

Presently cotton crop is sown in the fields of RAMC Faisalabad.

**Cotton: V.Good, Flowering Stage Completed.**

### **Lower Sindh (Tandojam)**

Presently cotton crop is sown in the fields of RAMC Tandojam.

**Cotton (Shahbaz 95): Good, Boll opening stage.**

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

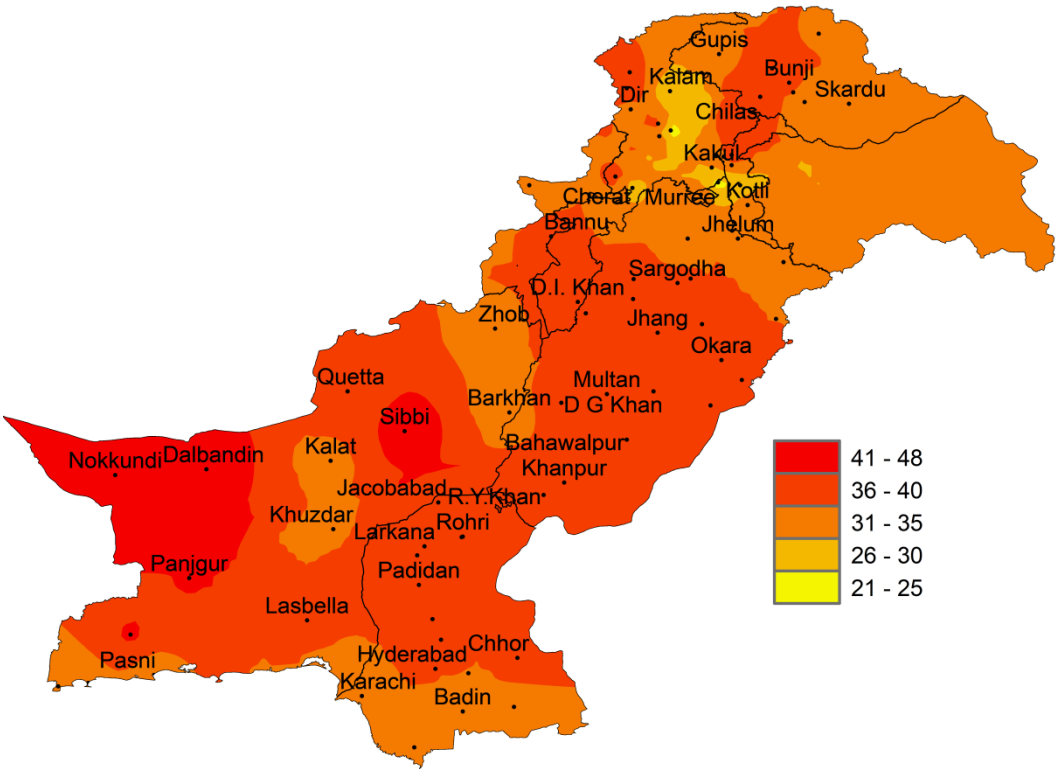
There is presently no crop grown in the fields of RAMC Quetta.

### **Eastern Baluchistan (Usta Muhammad)**

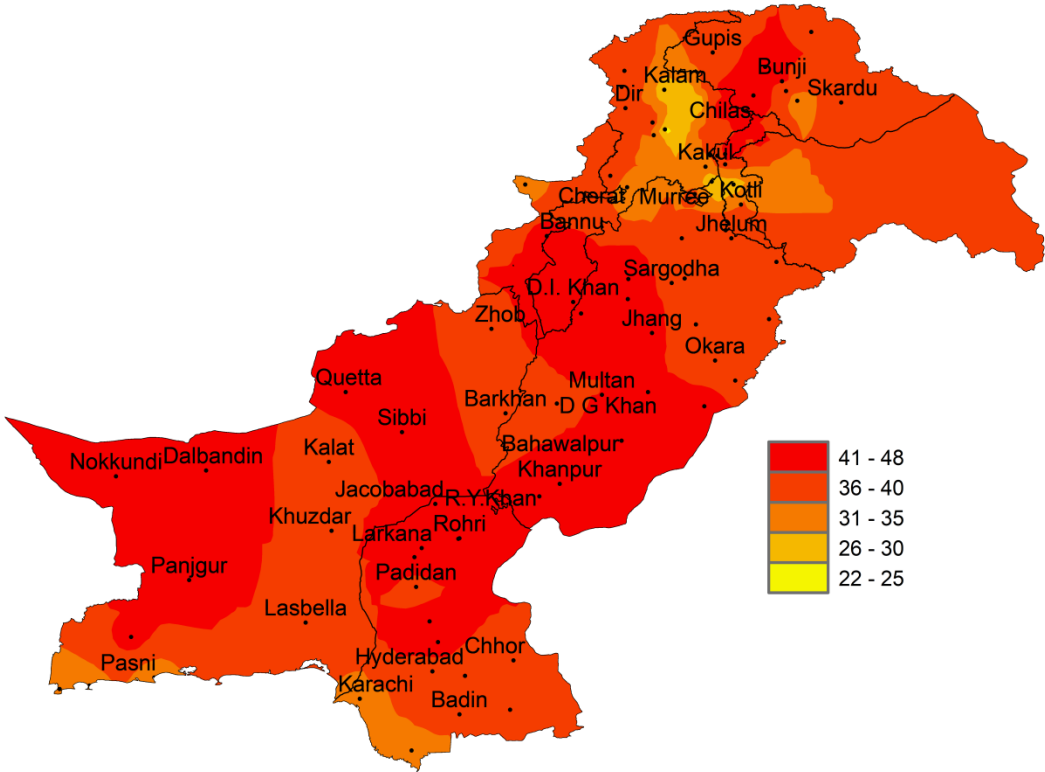
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice: Good, Third Leaf Stage.**

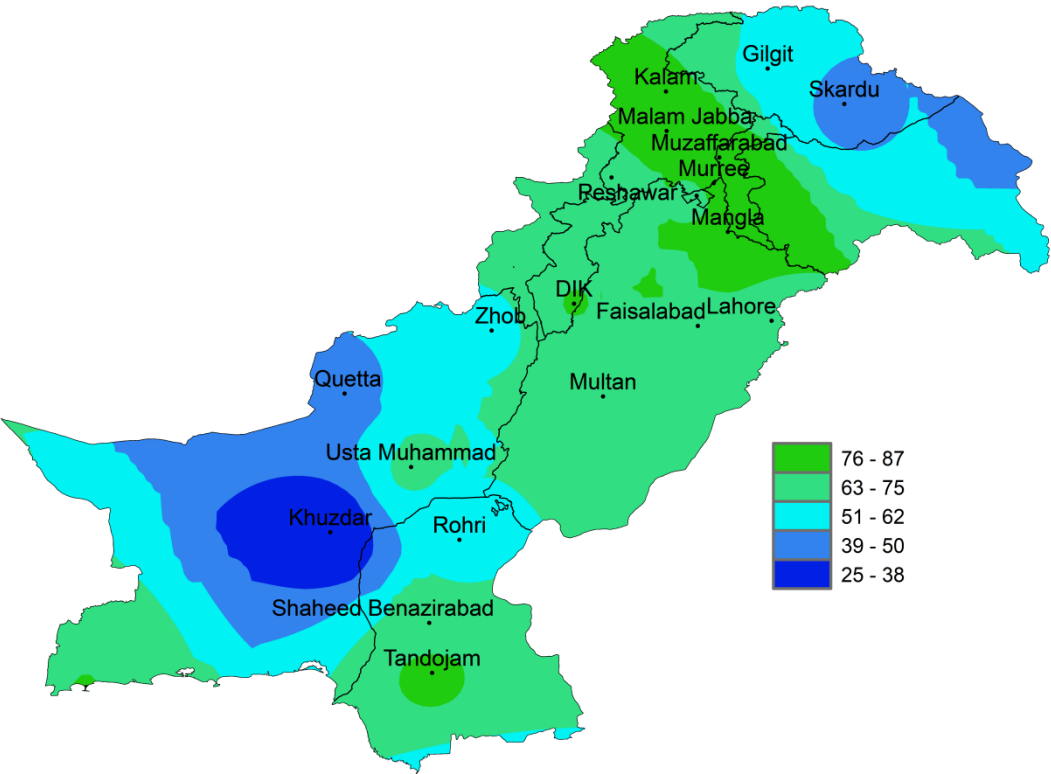
Mean Maximum temperature (°C) during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)



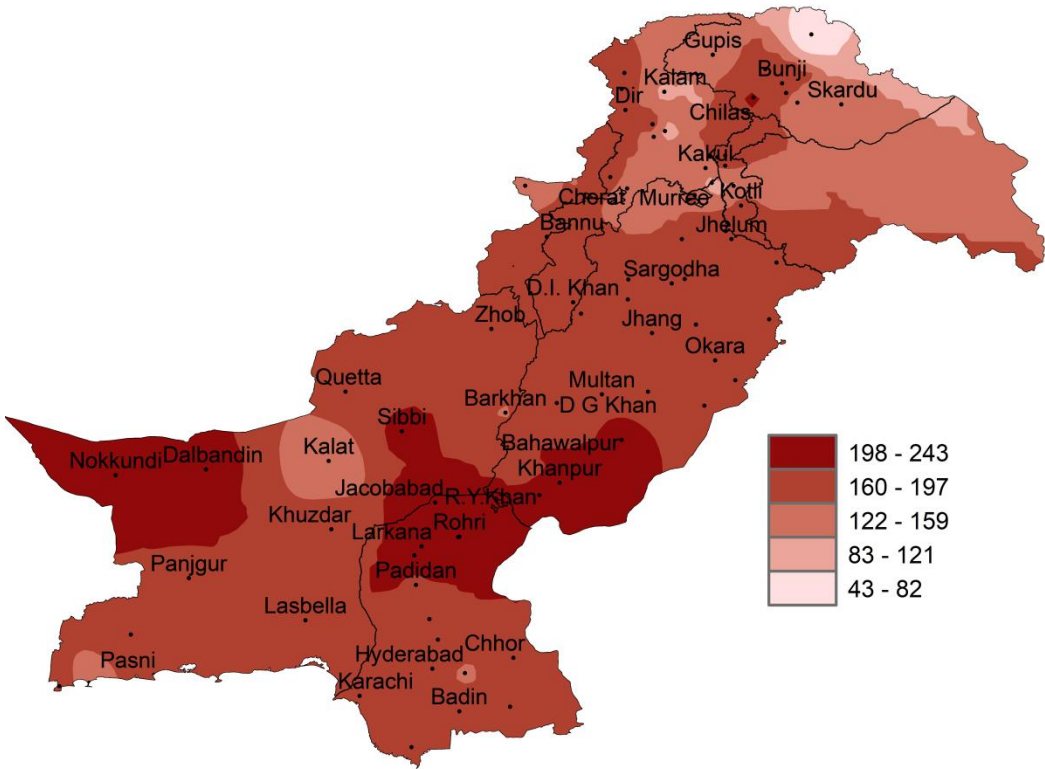
Highest Maximum Temperature (°C) during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)



Mean Relative Humidity (%) during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)

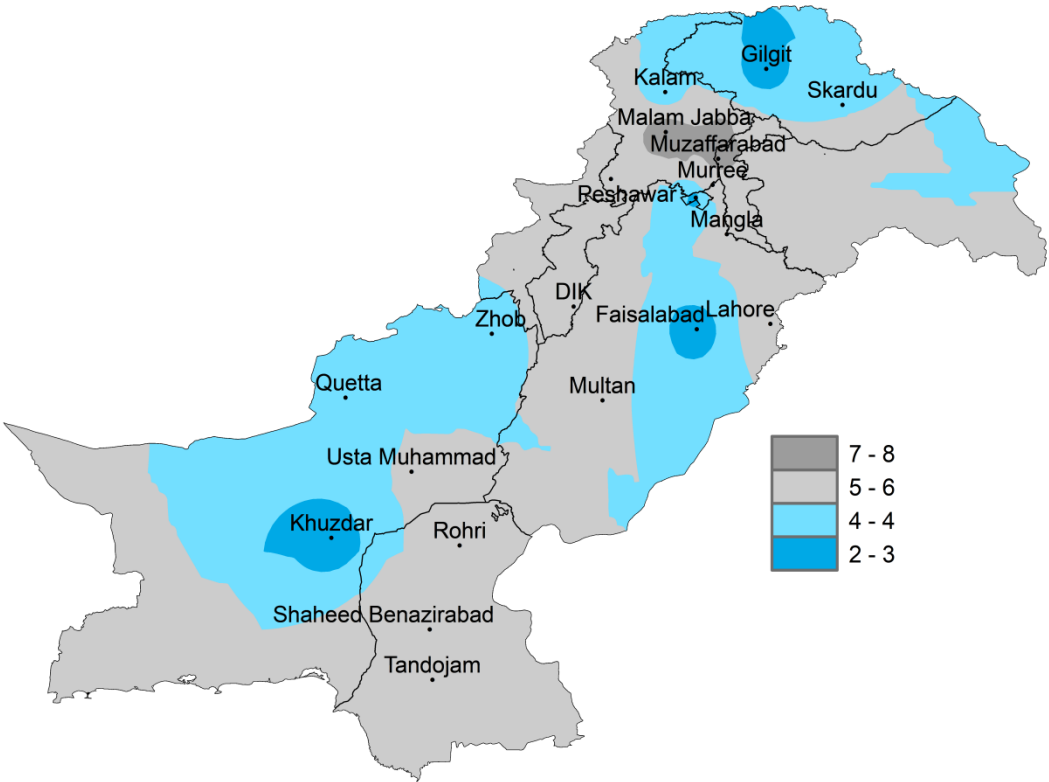


Total Growing Degree Days accumulated during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)

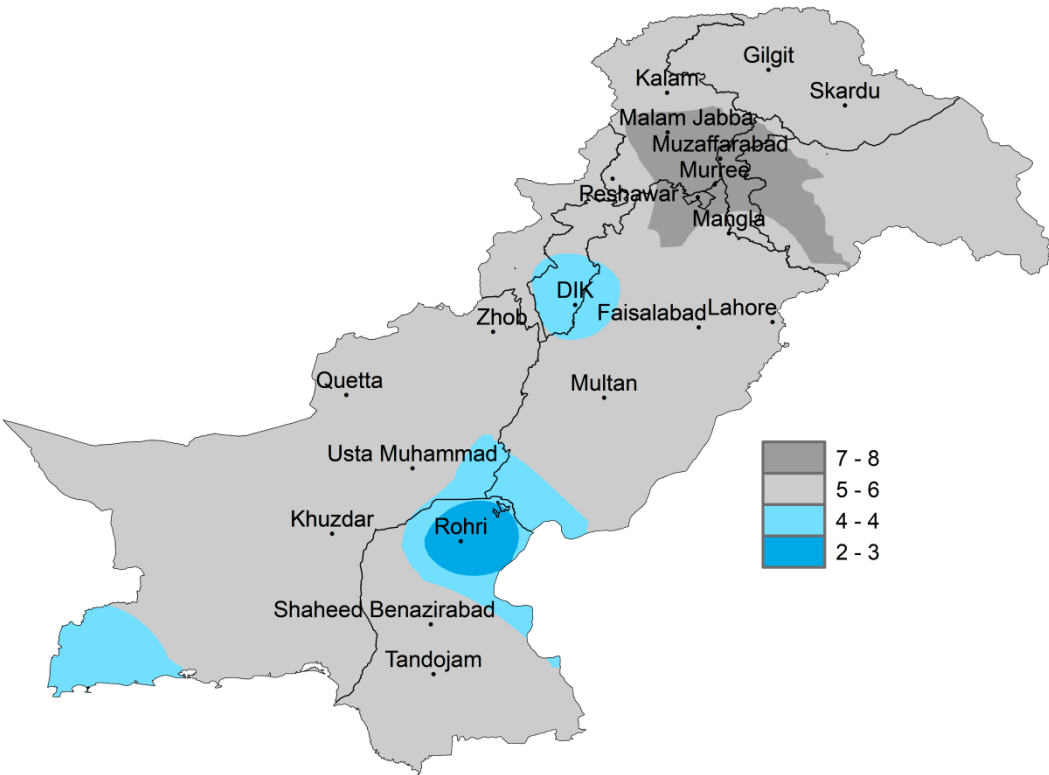




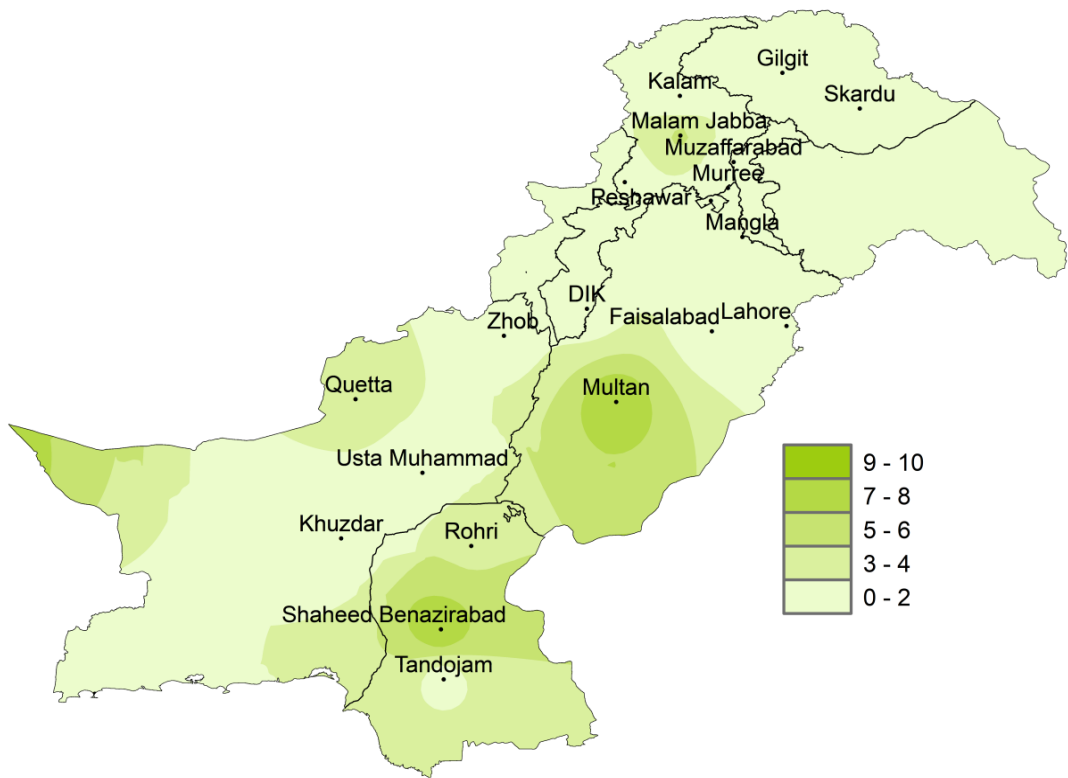
Mean Cloudiness (Oktas) at 0800PST during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)



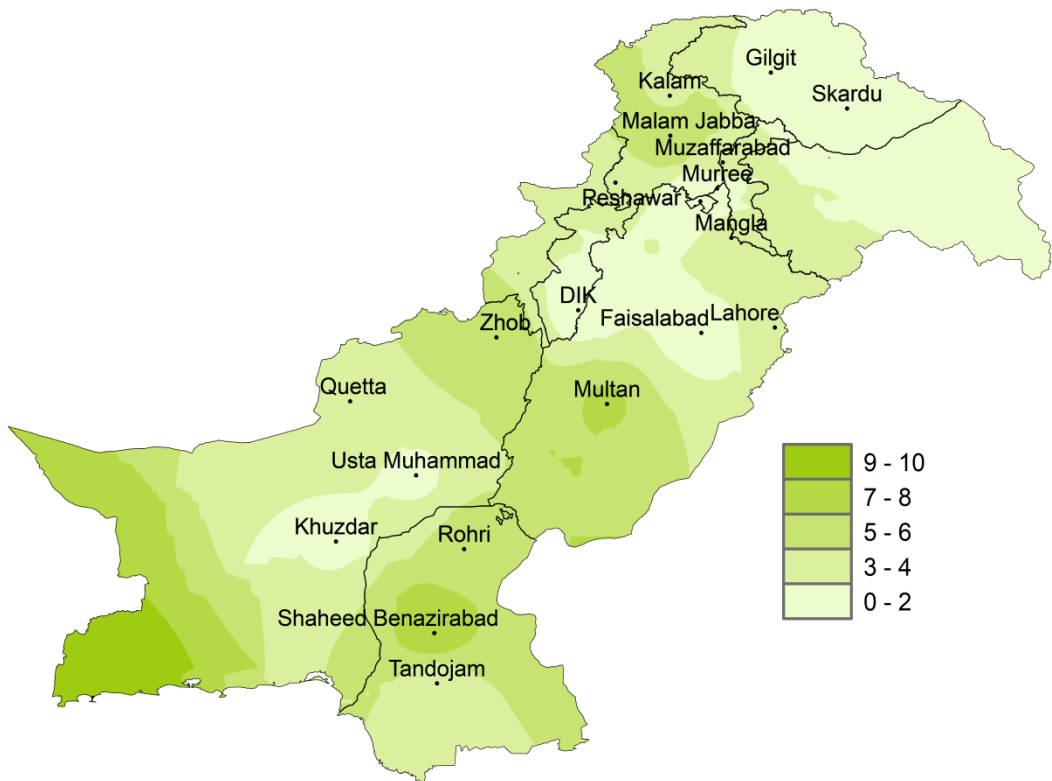
Mean Cloudiness (Oktas) at 1700PST during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (5<sup>th</sup> August-11<sup>th</sup> August, 2019)





### **Weekly Weather Advisory for Farmers** **(16<sup>th</sup> August to 18<sup>th</sup> August, 2019)**

Seasonal low lies over north Balochistan. Monsoon currents are reaching upper and central parts of the country, while weak monsoon currents in southern parts of the country. A westerly wave is also present over upper parts of the country.

#### **FRIDAY**

**16-08-2019**

Scattered rains/wind-thunderstorm (with isolated heavy falls) are expected in Malakand, Hazara, Mardan, Peshawar, Kohat, Rawalpindi, Gujranwala, Lahore divisions, Islamabad and Kashmir. While at isolated places in Bannu, D.I Khan, Sargodha, Faisalabad, Sahiwal, Multan, D.G Khan, Bahawalpur divisions and Gilgit Baltistan. Isolated activity is also expected in Mirpurkhas, Sukkur and Zhob divisions. Hot and humid weather is expected elsewhere in the country.

#### **SATURDAY**

**17-08-2019**

Scattered rains/wind-thunderstorm (with isolated heavy falls) are expected in Hazara, Rawalpindi, Gujranwala, Sargodha, Faisalabad, Lahore divisions, Islamabad and Kashmir. While at isolated places in Malakand, Peshawar, Kohat, Bannu, Sahiwal, Multan, D.G Khan, Bahawalpur divisions and Gilgit Baltistan. Hot and humid weather is expected elsewhere in the country.

#### **SUNDAY**

**18-08-2019**

Scattered rains/wind-thunderstorm are expected in Peshawar, Kohat, Bannu, Mardan, Rawalpindi, Gujranwala, Lahore divisions, Islamabad and Kashmir, while at isolated places in Zhob, Multan, D.G Khan, Sahiwal, Faisalabad divisions and Gilgit Baltistan. Hot and humid weather is expected elsewhere in the country.

### **ADVISORY FOR FARMERS**

During the last week, moderate to heavy rainfall occurred at Punjab, KPK and Sindh, while light to moderate rainfall prevailed over GB and Balochistan. Keeping in view the expected weather conditions following advisories are suggested for farming community.

1. Due to the higher temperature worm attack is expected on Cotton crop, so farmers are advised to take adoptive measures especially the use of PB ropes in consultancy with plant protection department.
2. After the recent rainfall spell, measures may be taken to flush out the extra water from the fields of Cotton crops and vegetables.
3. Farmers of potohar areas may take measures to remove weeds from peanut weeds.

**National Weather Data of Selected Cities from (5<sup>th</sup> August to 11<sup>th</sup> August, 2019)**

Stations	Maximum/Day 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	Highest							
D.I. Khan	37.1	42.0	188.3	76	20.02	5.7	3.4	0.9	0.6
Faisalabad	36.7	38.5	192.1	74	13.40	2.7	4.5	0.8	0.9
Gawadar	33.3	34.0	146.8	75	0.00	6.0	3.4	0.0	10.3
Gilgit	37.0	41.0	165.0	57	8.21	2.7	4.9	0.0	0.9
Kalam	26.6	28.5	115.8	75	4.00	3.1	4.4	0.0	3.7
Khuzdar	34.7	39.0	173.5	25	4.10	2.7	5.6	0.0	1.7
Lahore	35.0	36.5	186.1	74	22.02	4.7	5.7	0.6	2.9
Malam Jabba	21.4	22.5	95.8	84	170.00	6.9	7.3	4.3	6.0
Mangla	34.7	36.5	177.9	78	48.41	4.4	4.9	1.7	4.0
Multan (PBO)	37.4	40.0	195.4	70	18.70	4.0	5.0	7.1	6.6
Murree	23.4	26.1	106.4	87	82.20	5.0	7.7	1.4	0.6
Muzaffarabad	34.7	36.5	168.0	77	58.00	6.7	5.9	0.6	3.9
Nawabshah	38.4	40.5	194.5	70	27.30	5.0	4.7	0.9	3.1
Peshawar	36.5	39.0	184.5	46	5.41	3.6	4.3	3.3	3.8
Quetta	34.4	38.0	174.2	69	0.01	2.7	5.7	0.1	0.5
Rawalpindi	33.8	36.6	174.2	58	89.40	4.7	2.3	3.7	5.1
Rohri	39.7	43.5	243.0	63	2.00	5.6	4.9	7.4	8.3
Skardu	32.5	37.1	135.7	46	24.80	4.0	4.9	0.0	0.0
Tandojam	35.2	37.5	178.5	80	90.40	5.4	3.9	1.1	2.0
Usta. M	39.1	40.0	176.3	65	10.00	4.1	4.4	0.8	1.7
Zhob	33.4	39.0	165.5	58	7.00	3.3	4.3	1.1	6.0

\*\*\* 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 2012-2014)