

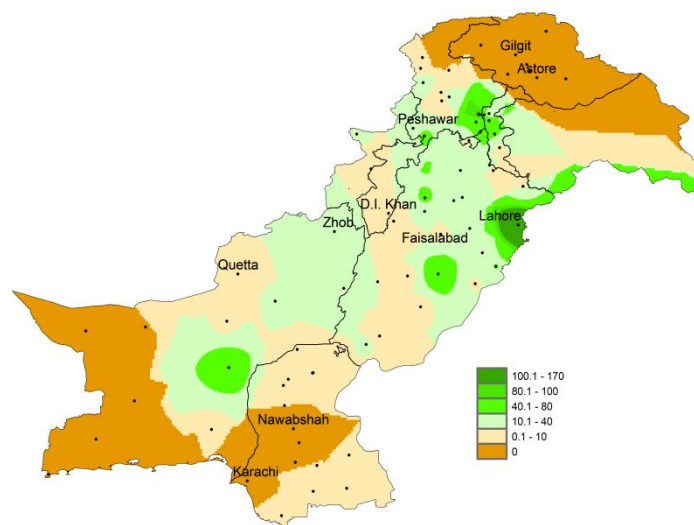
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the  
Previous Week (15<sup>th</sup> July- 21<sup>st</sup> July, 2019)**



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## Highlights of Past Weather (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)

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

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

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

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

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

**Past Weather of Provinces (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)****Punjab**

Moderate to heavy rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.2°C & 25.6°C respectively. For the recent week on average 177.9 growing degree days were accumulated. Average relative humidity recorded as 74% and wind speed in the morning/evening recorded as 2.7/3.2 Knots. During the previous week the highest precipitation was recorded as 167.81 mm at Lahore while maximum temperature was recorded as 42.0°C at Rahim Yar Khan.

**Baluchistan**

Light to moderate rainfall observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.6°C & 25.8°C respectively. For the recent week on average 186.8 growing degree days were accumulated. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 0.7/4.8 Knots. During the previous week the highest precipitation was recorded as 65.00 mm at Khuzdar while maximum temperature was recorded as 47.0°C at Nokundi.

**Khyber Pakhtunkhwa**

Moderate to heavy rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.5°C & 21.2°C respectively. For the recent week on average 154.4 growing degree days were accumulated. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 1.4/2.4 Knots. During the previous week the highest precipitation recorded as 111 mm at Balakot while maximum temperature was recorded as 41.5°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 34.4°C & 20.2°C respectively. For the recent week on average 146.5 growing degree days were accumulated. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 0.6/4.9 Knots. During the previous week the highest precipitation recorded as 77.00

mm at Muzaffarabad while maximum temperature was recorded as 43.0°C at Chilas.

**Sindh**

Light rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 39.8°C & 28.0°C respectively. For the recent week on average 202.9 growing degree days were accumulated. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 5.3/5.8 Knots. During the previous week the highest precipitation was recorded as 10.00 mm at Jacobabad while maximum temperature was recorded as 45.0°C at Dadu.

## **Past Weather for Major Agricultural Plains (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)**

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

76.1 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 5.9/4.1 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded 34.4°C & for the recent week 171.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.9 Knots.

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

30.00 mm rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 3.3/5.0 while, average relative humidity observed as 75%. Mean day time temperature recorded as 35.1°C & for the recent week 175.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/2.2 Knots.

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

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.1/0.7 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 38.1°C & for the recent week 190.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 5.1/6.1 Knots.

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

10.00 mm rainfall reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 2.2/1.5 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 39.9°C & for the recent week 210.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5 /2.0 Knots.

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

26.2 mm rainfall reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.1/4.7 Oktas while, average relative humidity observed as 31%. Mean day time temperature recorded as 35.5°C & for the recent week 166.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.9/3.8 Knots.

## **Past Weather for Sub-Regional Agricultural Plains**

### **Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.9/4.4 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 38.0°C & for the recent week 198.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.0/6.6 Knots.

### **Lahore**

167.81 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 4.3/6.3 Oktas while, average relative humidity observed as 81%. Mean day time temperature recorded as 32.7°C & for the recent week 163.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.1/2.0 Knots.

### **Zhob**

33.0 mm rainfall reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.1/5.0 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 33.5°C & for the recent week 165.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/6.1 Knots.

### **Murree**

66.60 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 4.6/7.0 Oktas while, average relative humidity observed as 83%. Mean day time temperature recorded as 22.3°C & for the recent week 95.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.9 Knots.

### **D.I. Khan**

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 6.3/1.9 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 38.6°C & for the recent week 194.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/0.9 Knots.

**Peshawar**

11.01 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.1/4.7 Oktas while, average relative humidity observed as 31%. Mean day time temperature recorded as 35.6°C & for the recent week 146.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.9/3.8 Knots.

**Kalam**

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 2.0/5.4 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 26.7°C & for the recent 107.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.0 Knots.

**Gilgit**

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 1.4/3.3 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 38.8°C & for the recent week 165.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.6 Knots.

**Skardu**

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.0/0.7 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 34.0°C & for the recent week 136.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 8.0/9.4 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)**

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

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

**Lower Sindh (Tandojam)**

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

**Cotton (Shahbaz 95):** Good, *Flowering Stage*.

**Northern Baluchistan (Quetta)**

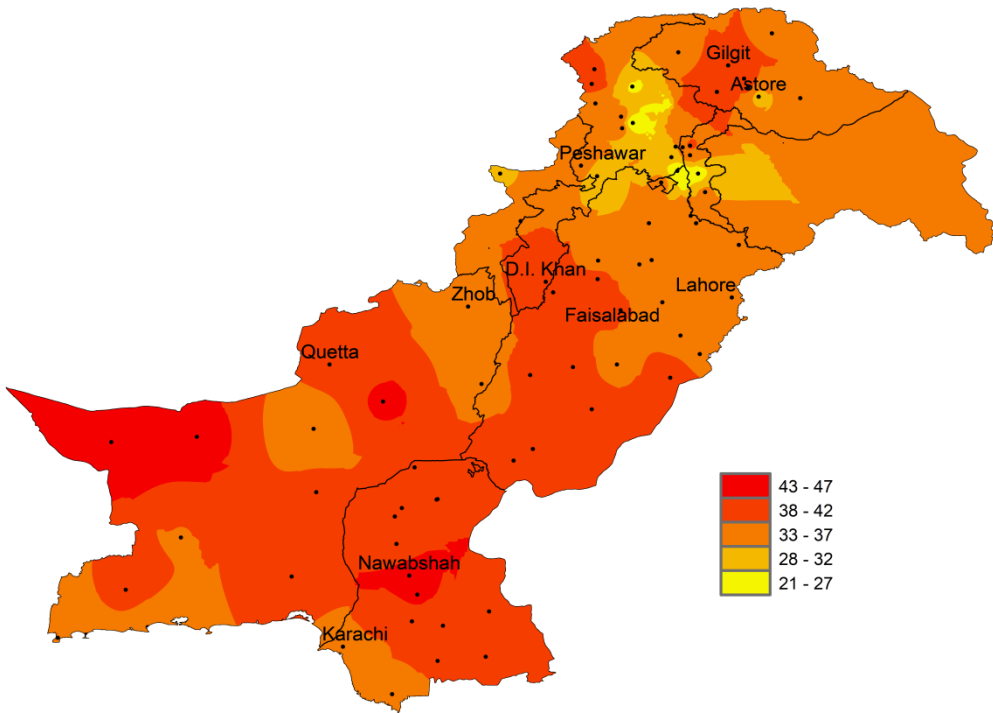
There is presently no crop grown in the fields of RAMC Quetta.

**Eastern Baluchistan (Usta Muhammad)**

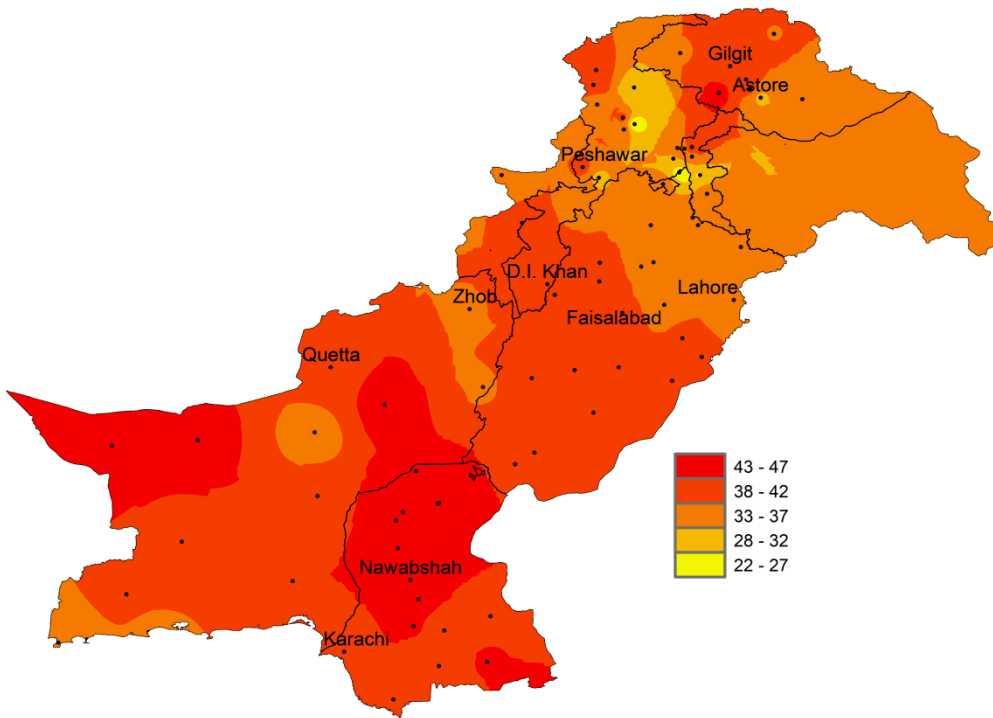
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice:** Good, *Germination Stage*.

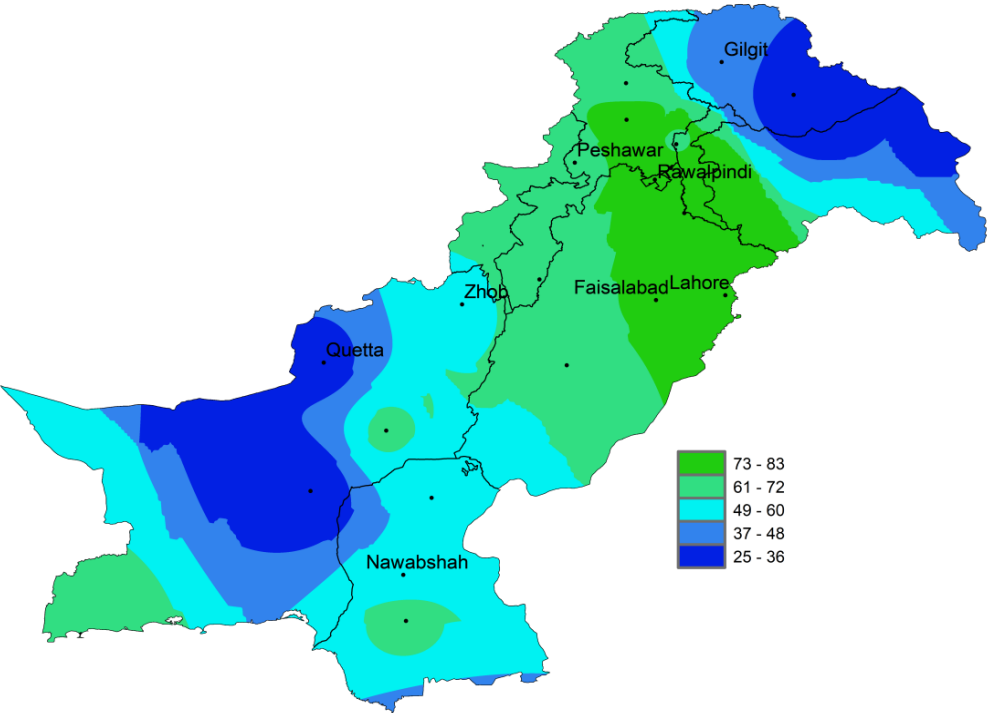
Mean Maximum temperature (°C) during the  
Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)



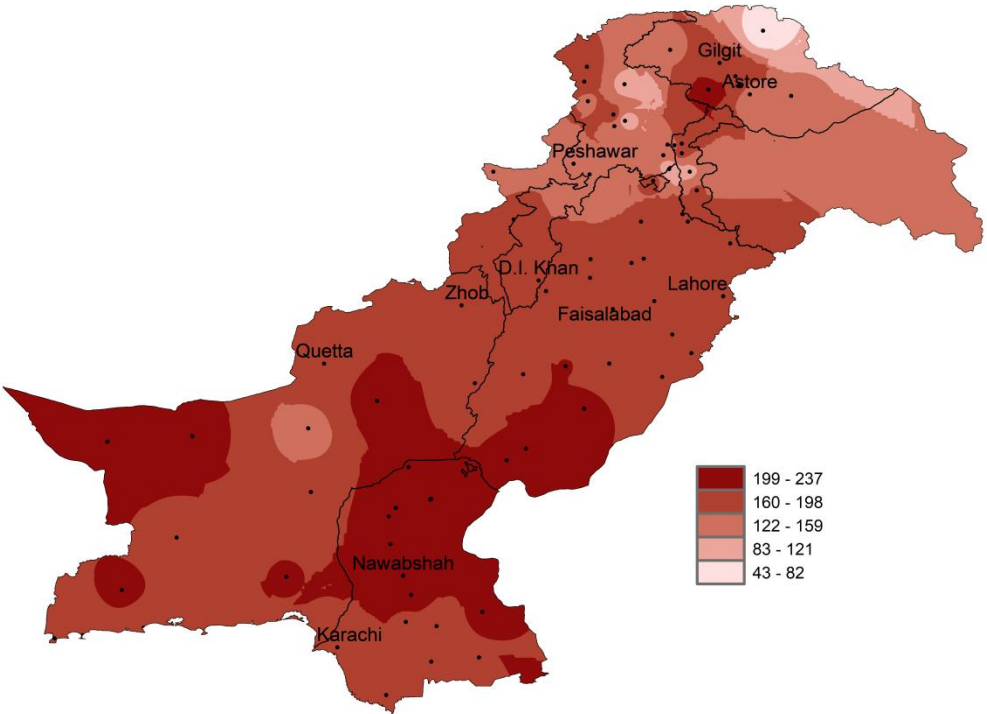
Highest Maximum Temperature (°C) during the  
Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)



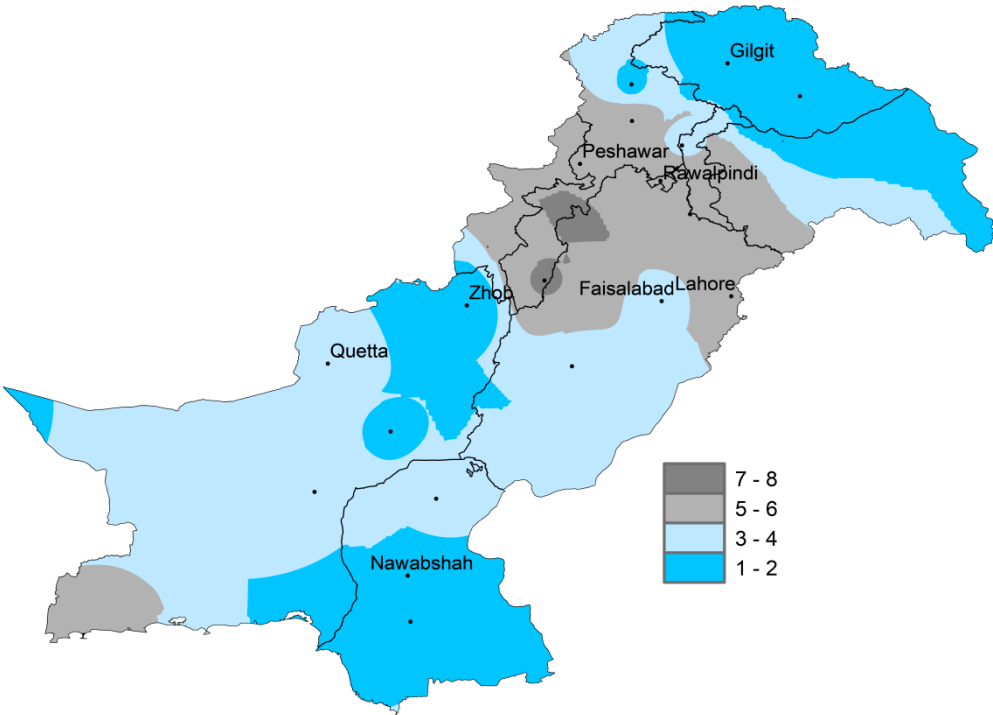
Mean Relative Humidity (%) during the  
Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)



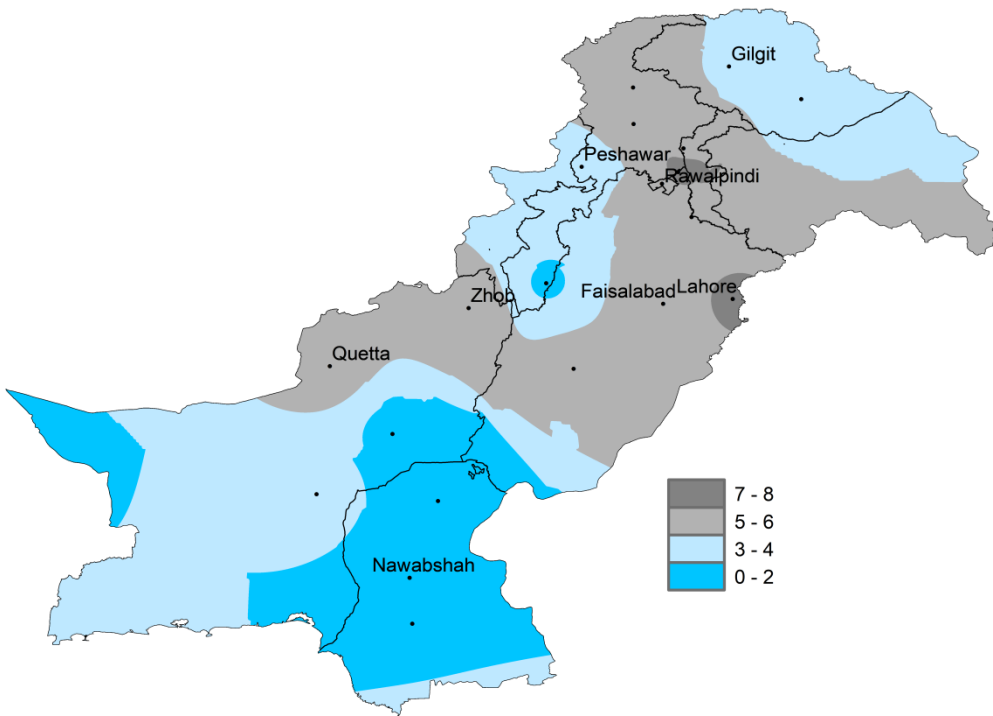
Total Growing Degree Days accumulated during the  
Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)

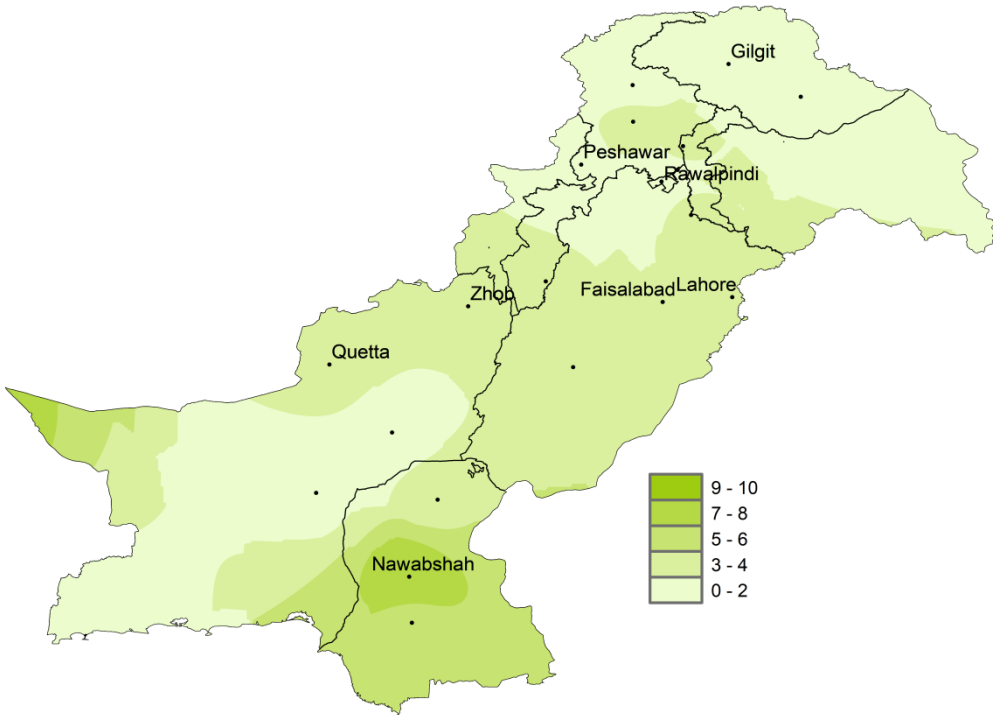


Mean Cloudiness (Oktas) at 1700PST during the Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)

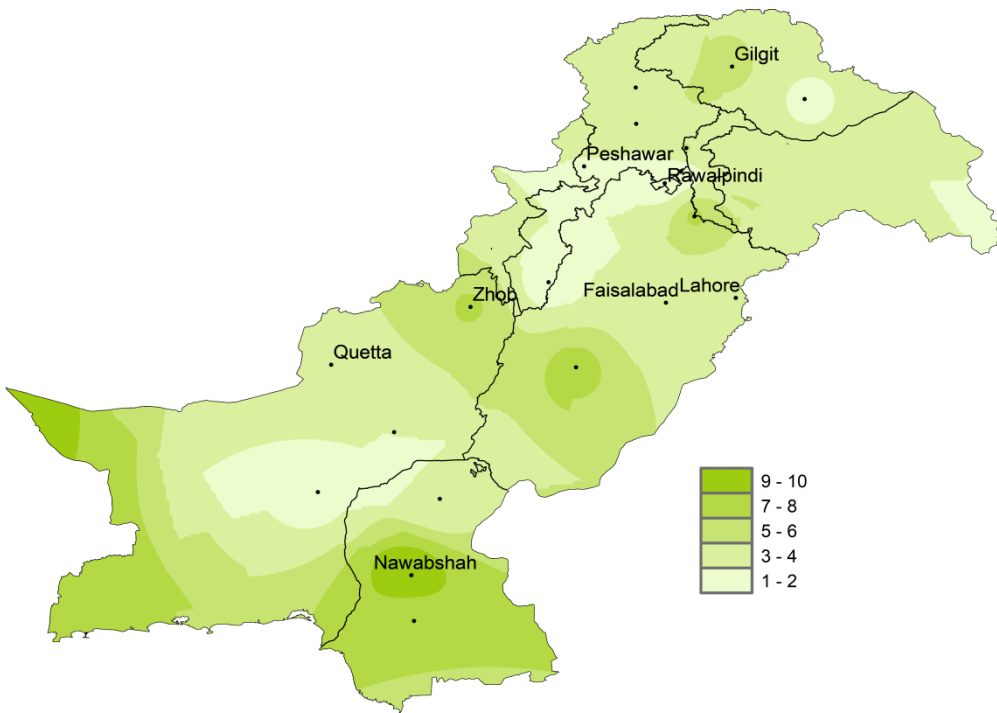




Mean Wind Speed (Knots) at 0800PST during the Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (15<sup>th</sup> July – 21<sup>st</sup> July, 2019)





## **Weekly Weather Advisory for Farmers** **(22<sup>nd</sup> July to 28<sup>th</sup> July, 2019)**

Weak monsoon currents from Arabian Sea are continuously penetrating in upper and central parts of the country. However, strong monsoon currents from Arabian Sea and Bay of Bengal are likely to enter in upper parts of the country from Wednesday (evening/night) and likely to spread central and southern parts from Thursday to Saturday.

### **MONDAY**

**22-07-2019**

Mainly hot and humid weather is expected in most parts of the country. However, rains/wind-thunderstorm is expected at isolated places in Peshawar, Kohat, Quetta, Zhob, Kalat, Mirpurkhas, Hyderabad, Hazara, Lahore, Gujranwala, Rawalpindi, Sahiwal divisions, Islamabad and Kashmir.

### **TUESDAY**

**23-07-2019**

Mainly hot and humid weather is expected in most parts of the country. However, rains/wind-thunderstorm is expected at isolated places in Peshawar, Kohat, Quetta, Zhob, Kalat, Makran, Mirpurkhas, Hyderabad, Hazara, Lahore, Gujranwala, Rawalpindi divisions, Islamabad and Kashmir.

### **WEDNESDAY**

**24-07-2019**

Mainly hot and humid weather is expected in most parts of the country. However, rains/wind-thunderstorm is expected at scattered places in Hazara, Rawalpindi, Gujranwala, Lahore divisions, Islamabad and Kashmir while at isolated placers in Peshawar, Kohat, Sargodha, D.G Khan and Kalat divisions.

### **THURSDAY**

**25-07-2019**

Widespread rains/wind-thunderstorm (isolated heavy to very heavy falls) are expected in Rawalpindi, Sargodha, Gujranwala, Lahore, Faisalabad, Hazara, Malakand, Peshawar, Mardan divisions, Islamabad and Kashmir, while scattered rains/wind-thunderstorm (isolated moderate to heavy falls) are also expected in Kohat, Bannu, D.I Khan, Zhob, Kalat, D.G Khan, Sahiwal divisions and Gilgit Baltistan.

### **FRIDAY**

**26-07-2019**

Widespread rains/wind-thunderstorm (isolated heavy to very heavy falls) are expected in Rawalpindi, Sargodha, Gujranwala, Lahore, Faisalabad, Hazara, Malakand, Peshawar, Mardan divisions, Islamabad and Kashmir,

while scattered rains/wind-thunderstorm (isolated moderate to heavy falls) are also expected in Kohat, Bannu, D.I Khan, Zhob, Kalat, Sibbi, Naseerabad, D.G Khan, Multan, Sahiwal, Bahawalpur divisions and Gilgit Baltistan.

### **SATURDAY**

**27-07-2019**

Widespread rains/wind-thunderstorm (with isolated heavy) are expected in Hazara, Rawalpindi, Gujranwala, Lahore, D.G Khan, Kalat divisions and Kashmir, while scattered rains/wind-thunderstorm are also expected in Kohat, Bannu, D.I Khan, Zhob, Sibbi, Naseerabad, Multan, Sahiwal, Bahawalpur divisions, southeastern Sindh and Gilgit Baltistan.

### **SUNDAY**

**28-07-2019**

Scattered rains/wind-thunderstorm is expected in Hazara, Peshawar, Kohat, Rawalpindi, Gujranwala, Lahore divisions and Kashmir while isolated rains/wind-thunderstorm is expected in D.G Khan, Zhob, Kalat, Bahawalpur, Sukkur, Larkana and Mirpurkhas divisions.

### **ADVISORY FOR FARMERS**

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

1. Rice growers are advised to sow the crop "paneeri" in accordance with the recommendations by the agriculture experts.
2. Farmers of southern Punjab and Sindh are advised to complete the sowing of cotton and other Kharif crops to utilize the maximum soil moisture.
3. In the upper half of the country where the fields which are just vacated after the recent wheat crops, the fields may be ploughed and "Suhaga" applied to conserve the soil moisture for the upcoming Kharif crops.
4. Farmers of upper Sindh and southern Punjab are advised to complete the transplant the paneeri.

**National Weather Data of Selected Cities from (15<sup>th</sup> July to 21<sup>st</sup> July, 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	38.6	41.0	194.3	65	0.00	6.3	1.9	1.7	0.9
Faisalabad	35.1	36.5	175.0	75	30.00	3.3	5.0	1.6	2.2
Gawadar	36.5	34.5	179.3	71	0.00	4.0	2.3	0.0	7.1
Gilgit	38.8	39.5	165.3	39	0.00	1.4	3.3	0.0	4.6
Kalam	26.7	28.0	107.4	64	0.00	2.0	5.4	0.0	4.0
Khuzdar	38.3	39.0	166.0	25	65.00	3.1	3.1	0.0	1.1
Lahore	32.7	36.0	163.1	81	167.81	4.3	6.3	3.1	2.0
Malam Jabba	21.0	22.0	92.3	80	20.00	5.1	4.7	2.6	2.6
Mangla	33.9	36.1	170.1	73	17.01	4.9	4.7	2.3	6.3
Multan (PBO)	38.0	39.2	198.7	62	0.00	2.9	4.4	4.0	6.6
Murree	22.3	24.8	95.0	83	66.60	4.6	7.0	1.1	0.9
Muzaffarabad	33.0	35.5	152.3	69	77.0	3.0	5.7	2.3	4.4
Nawabshah	42.6	44.5	213.3	66	0.00	6.0	2.4	1.1	2.0
Peshawar	35.6	38.5	146.8	31	11.01	3.1	4.7	2.9	3.8
Quetta	35.5	37.4	166.9	75	26.20	5.9	4.1	0.3	0.9
Rawalpindi	34.4	36.2	171.4	52	76.10	2.9	0.4	2.9	2.0
Rohri	41.8	43.0	257.5	28	0.01	1.3	3.0	0.0	1.7
Skardu	34.0	35.6	136.1	53	0.00	2.0	0.7	8.0	9.4
Tandojam	38.1	41.5	190.3	65	0.00	1.1	0.7	5.1	6.1
Usta. M	39.9	40.0	210.5	63	10.00	2.2	1.5	0.5	2
Zhob	33.5	36.5	165.5	57	33.00	1.1	5.0	2.0	6.1

\*\*\* 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 سدّ باب (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)