

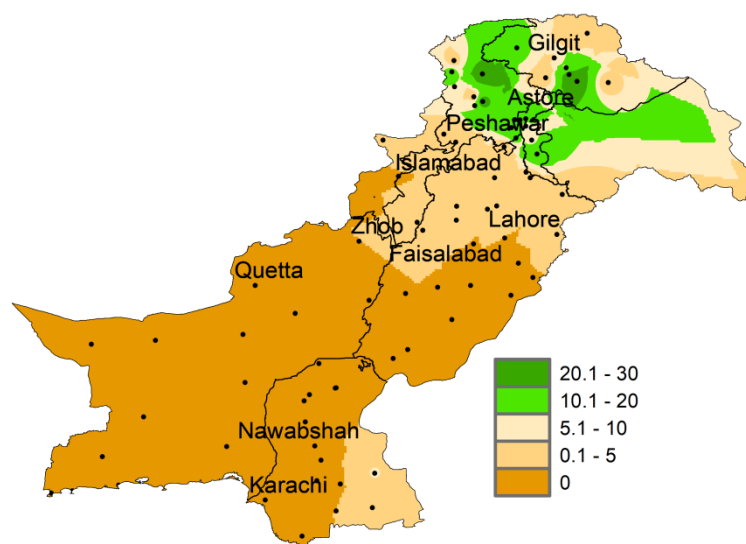
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous  
Week (3<sup>rd</sup> June -9<sup>th</sup> June, 2019)**



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## Highlights of Past Weather (3<sup>rd</sup> June - 9<sup>th</sup> June, 2019)

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

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

1. Light to moderate rainfall observed in Khyber Pakhtunkhwa & Gilgit Baltistan.
2. Light rainfall observed in Punjab and Eastern Sindh.
3. Dry weather observed in Baluchistan during the week.

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

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

**Editor: Saeeda Saleh (Assistant Meteorologist)**

**Past Weather of Provinces (3<sup>rd</sup> June - 9<sup>th</sup> June, 2019)****Punjab**

Light rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 42.2°C & 26.1°C respectively. For the recent week on average 203.0 growing degree days were accumulated. Average relative humidity recorded as 36% and wind speed in the morning/evening recorded as 3.7/3.8 Knots. During the previous week the highest precipitation was recorded as 11.02 mm at Murree while maximum temperature was recorded as 48.5°C at Bahawalnagar

**Baluchistan**

Dry weather was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 38.6°C & 25.2°C respectively. For the recent week on average 188.0 growing degree days were accumulated. Average relative humidity recorded as 41.3% and wind speed in the morning/evening recorded as 1.3/6.8 Knots. During the previous week the maximum temperature was recorded as 48.5°C at Turbat.

**Khyber Pakhtunkhwa**

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.3°C & 17.4°C respectively. For the recent week on average 144.3 growing degree days were accumulated. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 1.8/2.4 Knots. During the previous week the highest precipitation recorded as 27.00 mm at Malam Jabba while maximum temperature was recorded as 45.5°C at D I Khan.

**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 28.1°C & 14.5°C respectively. For the recent week

on average 115.5 growing degree days were accumulated. Average relative humidity recorded as 46% and wind speed in the morning/evening recorded as 1.4/4.3 Knots. The highest precipitation recorded as 24.4 mm at Astore while maximum temperature was recorded as 40.6°C at Kotli.

**Sindh**

Light rainfall was observed in Eastern Sindh during the week. Weekly maximum and minimum temperatures recorded as 45.0°C & 27.9°C respectively. For the recent week, on average 224.8 growing degree days were accumulated. Average relative humidity recorded as 43% and wind speed in the morning/evening recorded as 2.2/3.4 Knots. The highest precipitation recorded as 1.00 mm at Mithi while maximum temperature was recorded as 50.0°C at Jacobabad.

### **Past Weather for Major Agricultural Plains (3<sup>rd</sup> June - 9<sup>th</sup> June, 2019)**

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

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.6 /5.4 Oktas while, average relative humidity observed as 45%. Mean day time temperature recorded 39.9°C & for the recent week 172.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.5 Knots.

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

Dry weather was reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 3.1/2 Oktas while, average relative humidity observed as 32%. Mean day time temperature recorded as 43.2°C & for the recent week 211.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.4/0.4 Knots.

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

Dry weather reported from Tandojam during the week; however, clear sky recorded in the morning/evening while, average relative humidity observed as 58%. Mean day time temperature recorded as 42.6°C & for the recent week 204.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/2 Knots.

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

Dry weather was reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.2/0 Oktas while, average relative humidity observed as 25%. Mean day time temperature recorded as 48.8°C & for the recent week 244.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/1.4 Knots.

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

Dry weather was reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.9/1.9 Oktas while, average relative humidity observed as 21%. Mean day time temperature recorded as 31.4°C & for the recent week 133.9 growing degree days accumulated.

Wind speed recorded in the morning/evening as 3.1/3.3 Knots.

### **Past Weather for Sub-Regional Agricultural Plains (3<sup>rd</sup> June - 9<sup>th</sup> June, 2019)**

#### **Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.7/0.9 Oktas while, average relative humidity observed as 28%. Mean day time temperature recorded as 43.7°C & for the recent week 220.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.9/4.9 Knots.

#### **Lahore**

0.01 mm (trace) rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 0.3/2.4 Oktas while, average relative humidity observed as 29%. Mean day time temperature recorded as 43.1°C & for the recent week 210.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.1/3.7 Knots.

#### **Zhob**

Dry weather reported was reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/2.1 Oktas while, average relative humidity observed as 33%. Mean day time temperature recorded as 36.3°C & for the recent week 192.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.0/8.7 Knots.

#### **Murree**

11.02 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 3.1/3.6Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 26.1° C & for the recent week 108.2 growing degree days accumulated Wind speed recorded in the morning/evening as 3.1/2.9 Knots.

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

Dry weather reported from D.I. Khan during the week; however, clear sky recorded in the

morning/evening while, average relative humidity observed as 37%. Mean day time temperature recorded as 43.4 °C & for the recent week 207.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/0.6 Knots.

#### **Peshawar**

5.01 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.9/1.9 Oktas while, average relative humidity observed as 21%. Mean day time temperature recorded as 38.4°C & for the recent week 156.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.1/3.3 Knots.

#### **Kalam**

25.60 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.1/3.1 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 23.6°C & for the recent 74.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

#### **Gilgit**

4.91 mm rainfall was reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 5.7/6.0 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 27.9°C & for the recent week 111.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/3.4 Knots.

#### **Skardu**

1.12 mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.7/5.7 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 24.2°C & for the recent week 87.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.0 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)**

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

**Cotton: Very Good**, Third leaf stage completed.

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

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

**Cotton (Shahbaz 95): Good**, Budding stage.

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

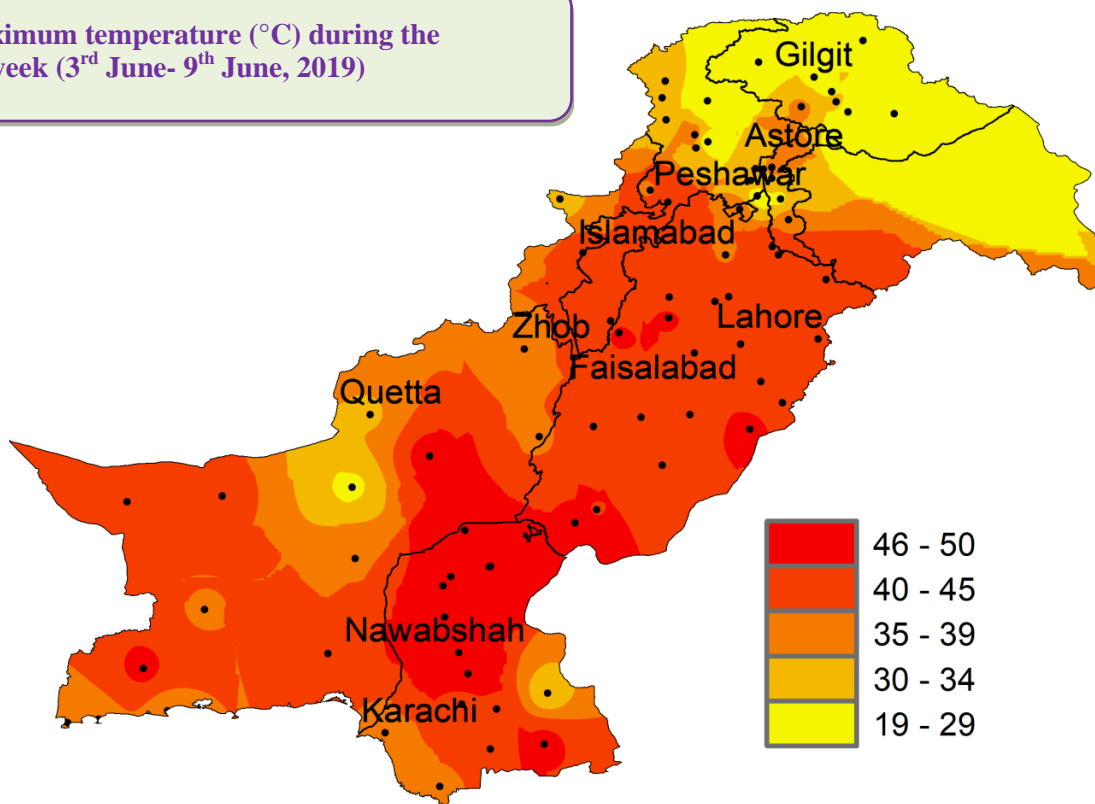
There is presently no crop grown in the fields of RAMC Quetta.

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

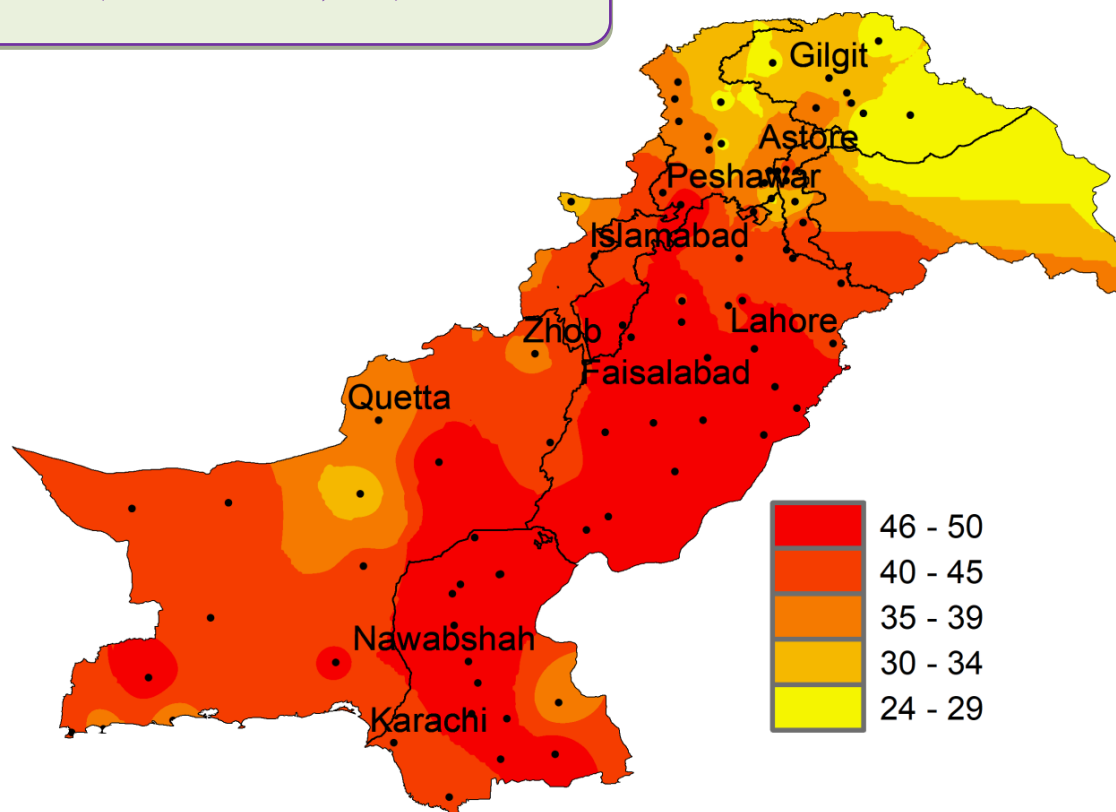
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice: Good**, *Rice panery stage*

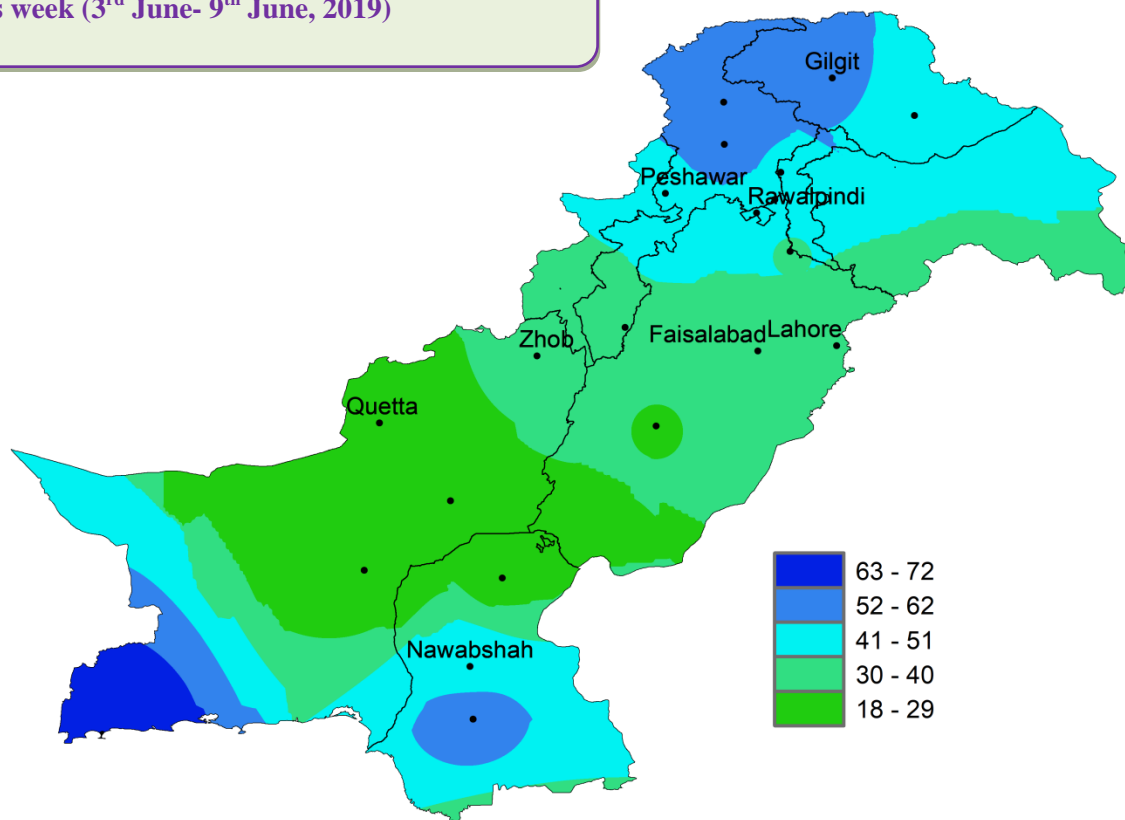
Mean Maximum temperature (°C) during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)



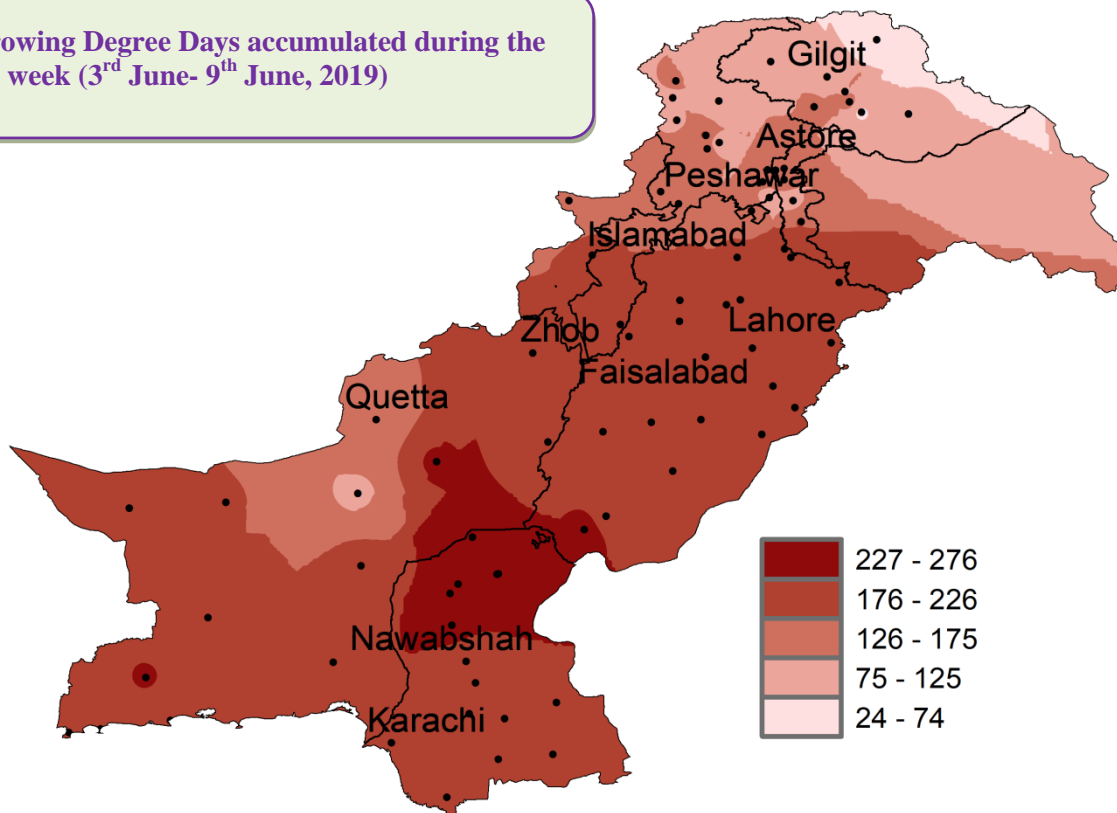
Highest Maximum Temperature (°C) during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)



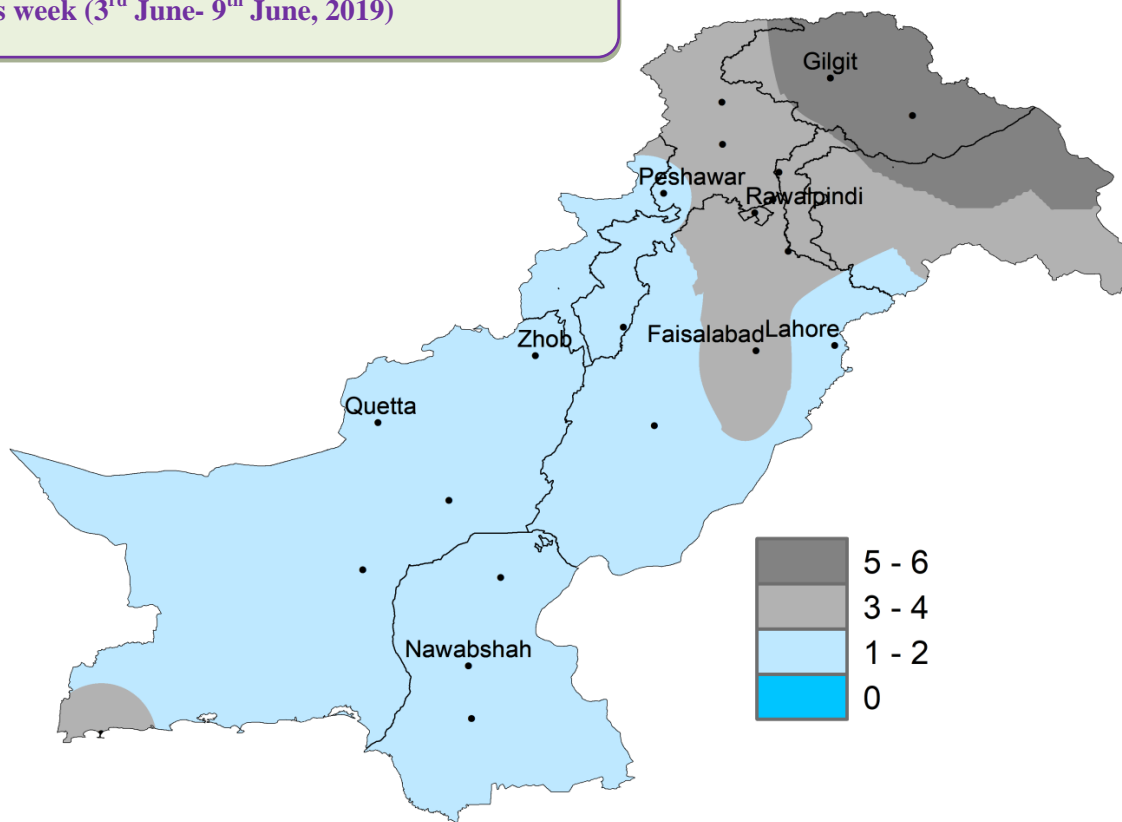
Mean Relative Humidity (%) during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)



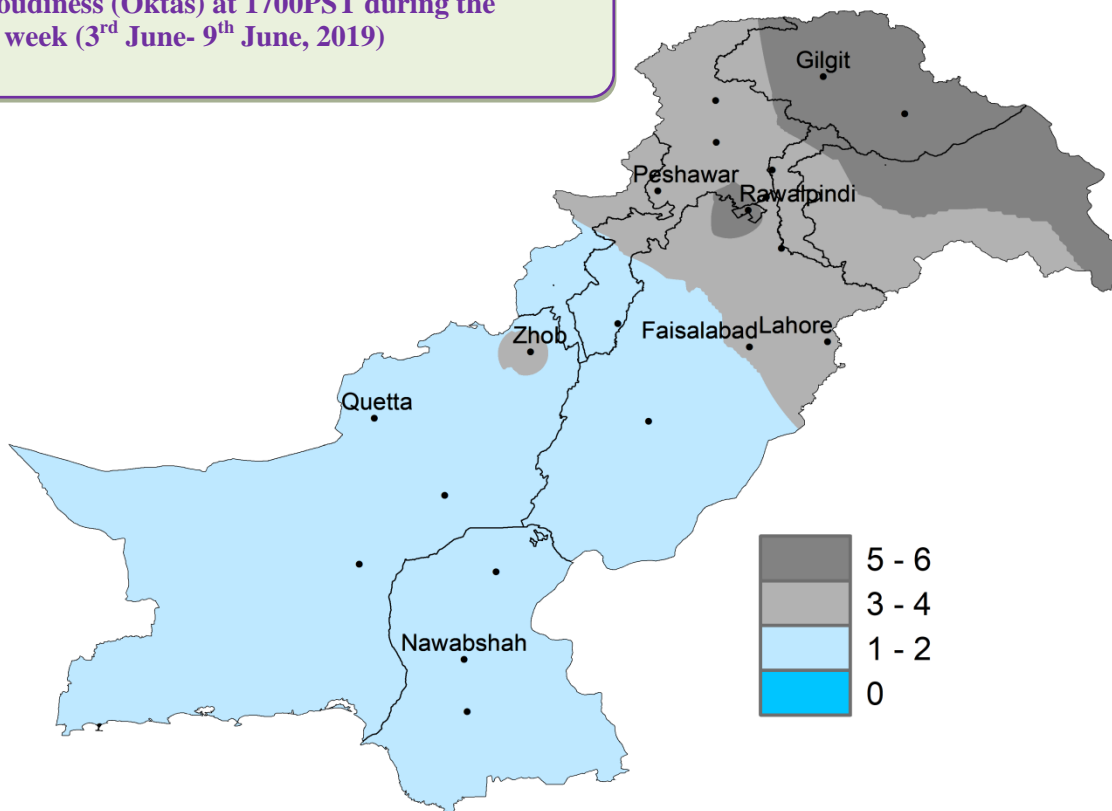
Total Growing Degree Days accumulated during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)



Mean Cloudiness (Oktas) at 0800PST during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)

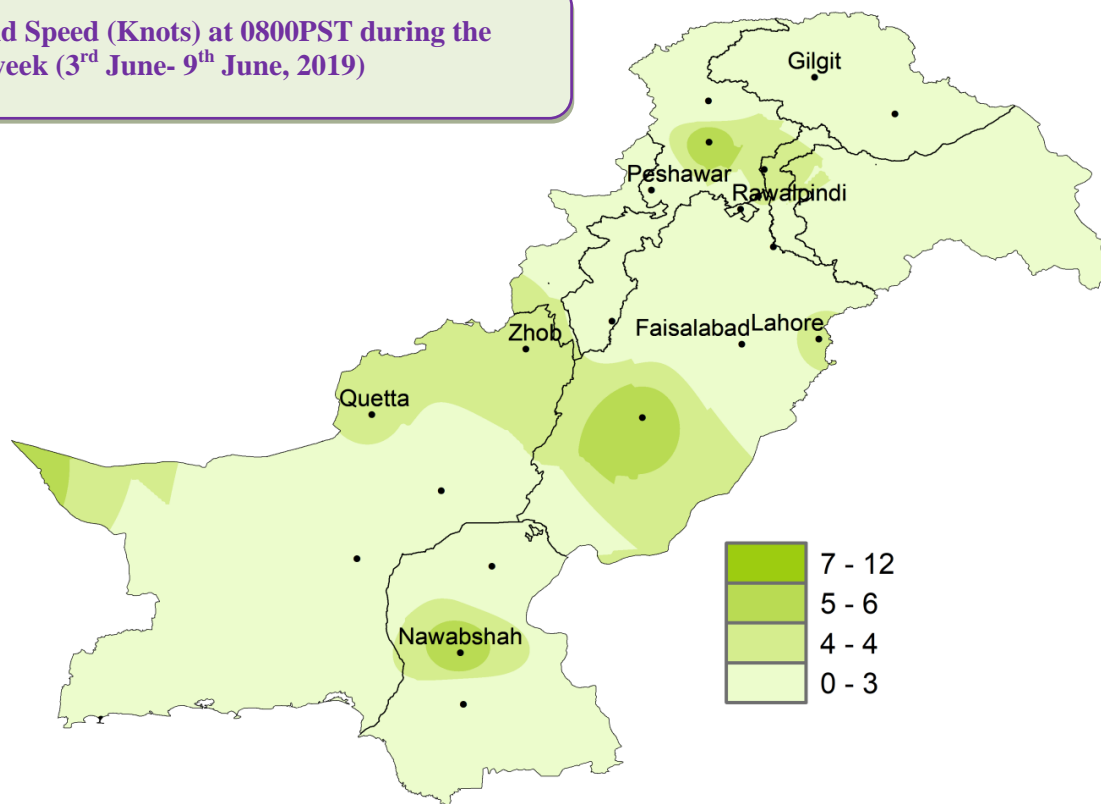


Mean Cloudiness (Oktas) at 1700PST during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)

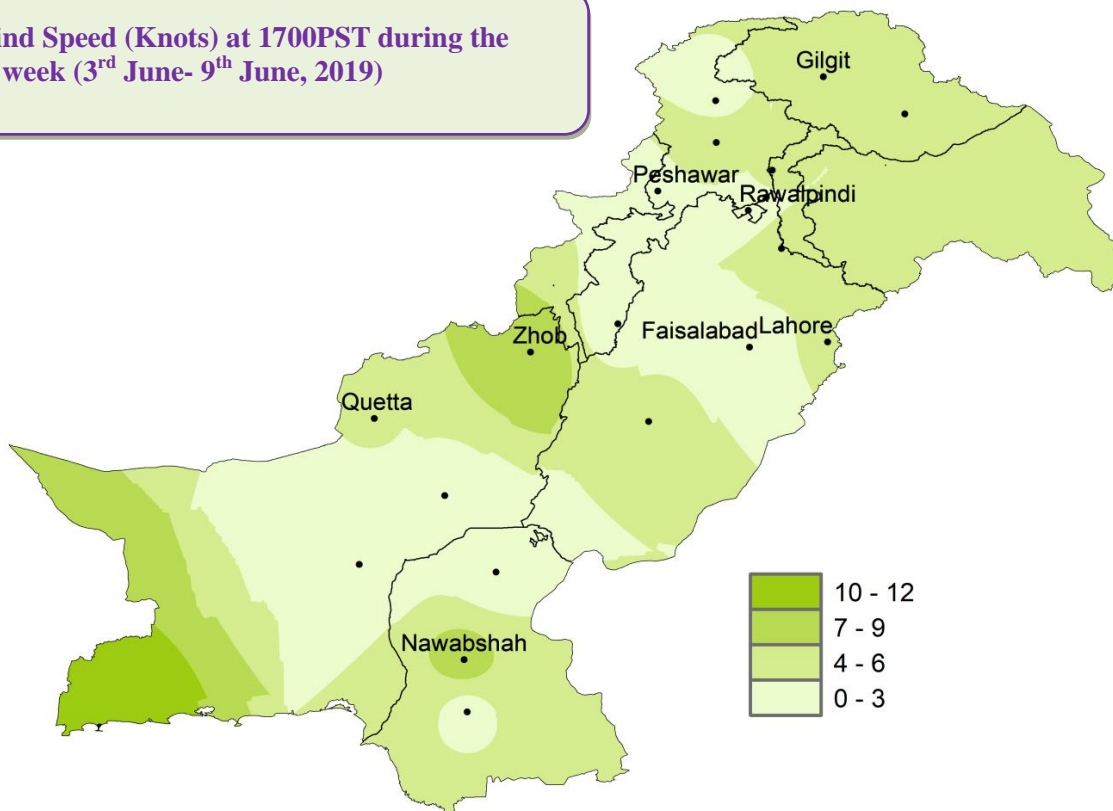




Mean Wind Speed (Knots) at 0800PST during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)



Mean Wind Speed (Knots) at 1700PST during the  
Previous week (3<sup>rd</sup> June- 9<sup>th</sup> June, 2019)





## **Weekly Weather Advisory for Farmers** **(10<sup>th</sup> June to 16<sup>th</sup> June, 2019)**

Continental air is prevailing over most parts of the country. A shallow westerly wave is likely to affect upper parts of the country from today evening/night to Wednesday Morning. A well-marked low-pressure area in the East Arabian Sea has strengthened into a depression. The system is likely to move initially North/Northwest-ward and strengthen further into a Tropical Cyclone during next 36 hours.

### **MONDAY**

**10-06-2019**

Mainly hot and dry weather is expected in most parts of the country to the east - eastern Balochistan, Sindh, plain areas of Punjab and Khyber Pakhtunkhwa. However, dust-thunderstorm/rain is expected at isolated places in Malakand, Hazara, Mardan, Peshawar, Kohat, Rawalpindi divisions, Islamabad, Gilgit-Baltistan and Kashmir during evening/night.

### **TUESDAY**

**11-06-2019**

Mainly hot and dry weather is expected in most parts of the country to the east - eastern Balochistan, Sindh and Central/Southern Punjab. However, dust-thunderstorm/rain is expected at scattered places in Malakand, Hazara, Mardan, Peshawar, Kohat, Sargodha, Rawalpindi, Lahore Gujranwala divisions, Islamabad, Gilgit-Baltistan and Kashmir.

### **WEDNESDAY**

**12-06-2019**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/rain is expected at isolated places in Malakand, Hazara, Rawalpindi, Gujranwala, Lahore divisions Islamabad, Kashmir and Gilgit-Baltistan.

### **THURSDAY**

**13-06-2019**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/rain with gusty winds is expected at isolated places in Lower Sindh.

### **FRIDAY**

**14-06-2019**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/rain with gusty winds is expected at scattered places in lower Sindh (Karachi, Hyderabad, Shaheed Benazirabad divisions) and at isolated places in Mirpurkhas and Sukkur divisions.

### **SATURDAY**

**15-06-2019**

Dust-thunderstorm/rain with gusty winds is expected at scattered places in Sindh, while at isolated places in Sargodha, Faisalabad, Lahore, Sahiwal, Multan, D.G.Khan, Bahawalpur divisions and Kashmir. Hot and dry weather is expected elsewhere in the country.

### **SUNDAY**

**16-06-2019**

Dust-thunderstorm/rain with gusty winds is expected at scattered places in Sindh, south Punjab (Multan, D.G.Khan, Bahawalpur divisions), while at isolated places in Sargodha, Faisalabad, Lahore, Sahiwal divisions and Kashmir. Hot and dry weather is expected elsewhere in the country.

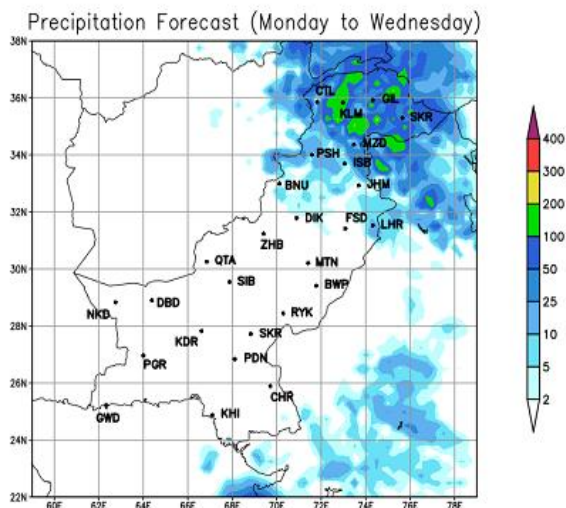
### **ADVISORY FOR FARMERS**

During the last week, light to moderate rainfall occurred in the upper half of the country, while dry weather observed in the lower half of the country. Light rainfall observed in the Eastern part of Sindh. Keeping in view the above expected weather conditions following advisories are suggested for farming community.

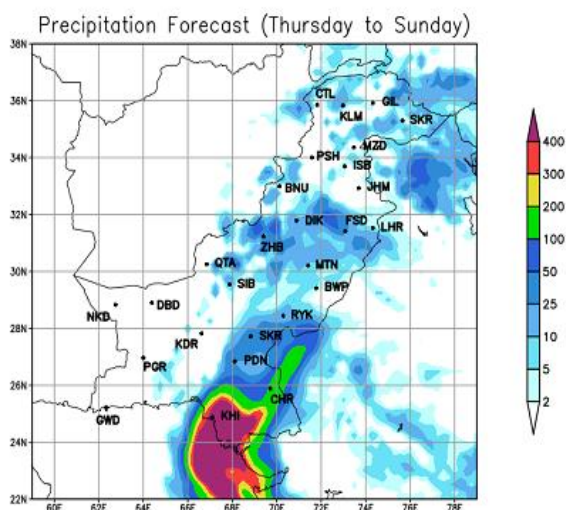
1. Rice growers are advised to sow the crop "paneeri" in accordance with the recommendations by the agriculture experts.
2. Farmers of southern Punjab and Sindh are advised to complete the sowing of cotton and other Kharif crops to utilize the maximum soil moisture.
3. In the upper half of the country 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 sowing of cotton crop.

## Precipitation Outlook from 10<sup>th</sup> June to 16<sup>th</sup> June, 2019

The outlook from 10<sup>th</sup> to 13<sup>th</sup> June, 2019 shows that moderate to high rainfall is expected over the Khyber Pakhtunkhwa, Upper areas of Punjab, GB & Kashmir while dry and hot weather may prevail over rest of the country.



The outlook from 14<sup>th</sup> to 16<sup>th</sup> June, 2019 shows that light to moderate rainfall is expected at scattered places in all over the country while Moderate to heavy rainfall is expected in Sindh.



**National Weather Data of Selected Cities Weekly Data from (3<sup>rd</sup> June to 9<sup>th</sup> June, 2019)**

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	highest							
D.I.Khan	43	45	207.5	37	0.00	0.0	0.0	1.4	0.6
Faisalabad	43.2	45.0	211.1	32	0.00	3.1	2	0.4	0.4
Gawader	37.2	38.0	188.3	73	0.00	2.1	0.4	0.0	11.7
Gilgit	27.9	31.5	111.0	55	4.91	5.7	6.0	1.1	3.4
Kalam	23.6	28.0	74.8	53	25.60	3.1	3.1	0.0	1.7
Khuzdar	38.0	40.0	191.0	18	0.00	0.0	0.4	0.0	0.0
Lahore	43.1	44.6	210.7	29	0.01	0.3	2.4	3.1	3.7
Malam Jabba	22.7	26.0	87.8	57	27.00	3.1	3.9	5.4	5.7
Mangla	40.5	43.2	193.7	38	5.00	2.7	3.1	1.1	5.7
Multan (PBO)	43.7	47.0	220.1	28	0.00	1.7	0.9	4.9	4.9
Murree	26.1	28.0	108.2	49	11.02	3.1	3.6	3.1	2.9
Muzaffarabad	32.5	37.5	138.7	49	16.01	2.3	4.3	3.3	3.9
Nawabshah	45.9	48.0	222.0	45	0.00	1.4	3.1	0.3	1.7
Peshawar	38.4	42.5	156.8	21	5.01	0.9	1.9	3.1	3.3
Quetta	31.4	34.0	133.9	45	0.00	3.6	5.4	0.3	0.5
Rawalpindi	39.9	41.2	172.9	25	0.00	0.6	0.0	0.9	0.9
Rohri	47.0	48.0	294.0	45	0.00	0.4	1.0	5.4	7.4
Skardu	24.2	28.6	87.	42	1.12	4.7	5.7	0.0	4.0
Tandojam	42.6	44.5	204.8	58	0.00	0	0	0.2	2
Usta.M	48.8	50.0	244.0	25	0.00	0.2	0	1.1	1.4
Zhob	36.3	39.0	192.3	33	0.00	0.3	2.1	4.0	8.7

\*\*\* 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 2012-2014)