

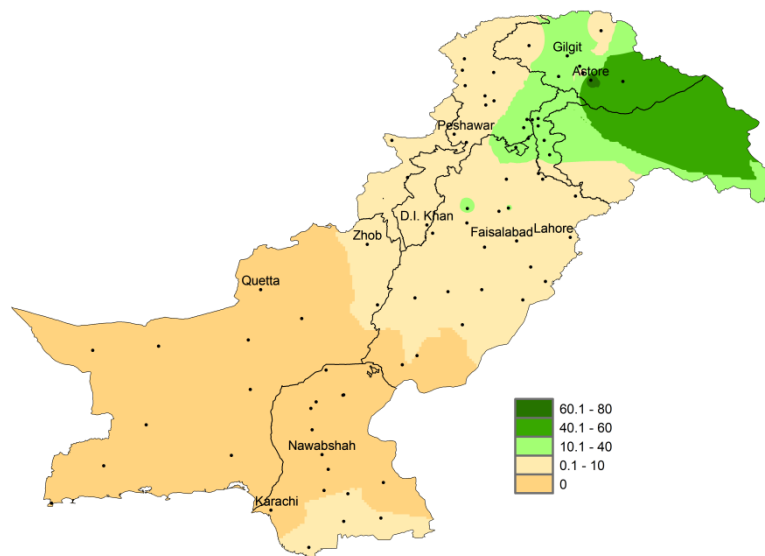
# Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE  
PAKISTAN METEOROLOGICAL  
DEPARTMENT SECTOR H-8/2,  
ISLAMABAD**

**Phone: +92-51-9250299**

**Email: dirnamc@yahoo.com**

**Rainfall Distribution (mm) during the Previous  
Week (10<sup>th</sup> June -16<sup>th</sup> June, 2019)**



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## Highlights of Past Weather (10<sup>th</sup> June – 16<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 Punjab, Khyber Pakhtunkhwa & Gilgit Baltistan.
2. Light rainfall observed in Eastern Sindh.
3. Dry weather observed in Baluchistan and rest of the Sindh.

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

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

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

**Past Weather of Provinces (10<sup>th</sup> June – 16<sup>th</sup> June, 2019)****Punjab**

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 41.7°C & 26.0°C respectively. For the recent week on average 201.2 growing degree days were accumulated. Average relative humidity recorded as 34% and wind speed in the morning/evening recorded as 4.7/5.2 Knots. During the previous week the highest precipitation was recorded as 32.11 mm at Murree while maximum temperature was recorded as 48.0°C at Bhakkar and Noor Pur Thal.

**Baluchistan**

Dry weather was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 39.7°C & 25.8°C respectively. For the recent week on average 196.3 growing degree days were accumulated. Average relative humidity recorded as 35% and wind speed in the morning/evening recorded as 1.6/5.1 Knots. During the previous week the maximum temperature was recorded as 49.0°C at Sibbi.

**Khyber Pakhtunkhwa**

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.9°C & 17.6°C respectively. For the recent week on average 143.7 growing degree days were accumulated. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 1.8/2.1 Knots. During the previous week the highest precipitation recorded as 19.00 mm at Kakul 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 28.3°C & 14.1°C respectively. For the recent week

on average 109.0 growing degree days were accumulated. Average relative humidity recorded as 40% and wind speed in the morning/evening recorded as 2.0/5.0 Knots. The highest precipitation recorded as 76.51 mm at Astore while maximum temperature was recorded as 42.8°C at Kotli.

**Sindh**

Light rainfall was observed in Eastern Sindh during the week. Weekly maximum and minimum temperatures recorded as 41.9°C & 28.3°C respectively. For the recent week, on average 211.8 growing degree days were accumulated. Average relative humidity recorded as 44% and wind speed in the morning/evening recorded as 6.1/5.3 Knots. The highest precipitation recorded as 0.01 mm at Badin while maximum temperature was recorded as 50.0°C at Jacobabad.

### **Past Weather for Major Agricultural Plains (10<sup>th</sup> June – 16<sup>th</sup> June, 2019)**

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

10.7 mm rainfall was reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.5 /1.1 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded 40.0°C & for the recent week 185.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.1/0.0 Knots.

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

0.01 mm (trace) rainfall was reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.7/0.6 Oktas while, average relative humidity observed as 32%. Mean day time temperature recorded as 42.4°C & for the recent week 205.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.8/1.8 Knots.

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

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.4/1.6 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 39.1°C & for the recent week 194.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/3.4 Knots.

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

Dry weather was reported from Usta Muhammad during the week; however, Clear sky recorded in the morning/evening while, average relative humidity observed as 35%. Mean day time temperature recorded as 45.9°C & for the recent week 233.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/2.0 Knots.

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

Dry weather was reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.4/0.9 Oktas while, average relative humidity observed as 20%. Mean day time temperature recorded as 32.2°C & for the recent week 138.4 growing degree days accumulated.

Wind speed recorded in the morning/evening as 2.5/3.9 Knots.

### **Past Weather for Sub-Regional Agricultural Plains (10<sup>th</sup> June – 16<sup>th</sup> June, 2019)**

#### **Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.7/0.7 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 42.4°C & for the recent week 218.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.9/10.3 Knots.

#### **Lahore**

5.70 mm (trace) rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 0.3/1.6 Oktas while, average relative humidity observed as 28%. Mean day time temperature recorded as 42.0°C & for the recent week 209.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.1/3.4 Knots.

#### **Zhob**

Dry weather reported was reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/3.1 Oktas while, average relative humidity observed as 22%. Mean day time temperature recorded as 37.1°C & for the recent week 199.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.0/6.6 Knots.

#### **Murree**

32.11 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 3.1/1.9 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 26.5° C & for the recent week 112.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.1/2.0 Knots.

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

0.02 mm rainfall reported from D.I. Khan during the week; however, clear sky recorded in the

morning/evening while, average relative humidity observed as 30%. Mean day time temperature recorded as 43.6°C & for the recent week 209.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/0.9 Knots.

#### **Peshawar**

5.02 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.4/2.7 Oktas while, average relative humidity observed as 35%. Mean day time temperature recorded as 40.1°C & for the recent week 152.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/2.3 Knots.

#### **Kalam**

2.00 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.1/6.1 Oktas while, average relative humidity observed as 47%. Mean day time temperature recorded as 24.1°C & for the recent week 75.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

#### **Gilgit**

25.12 mm rainfall was reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 5.7/5.3 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 27.3°C & for the recent week 107.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/3.1 Knots.

#### **Skardu**

48.52mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.7/5.6 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 22.1°C & for the recent week 74.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.9 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):** Budding stage.

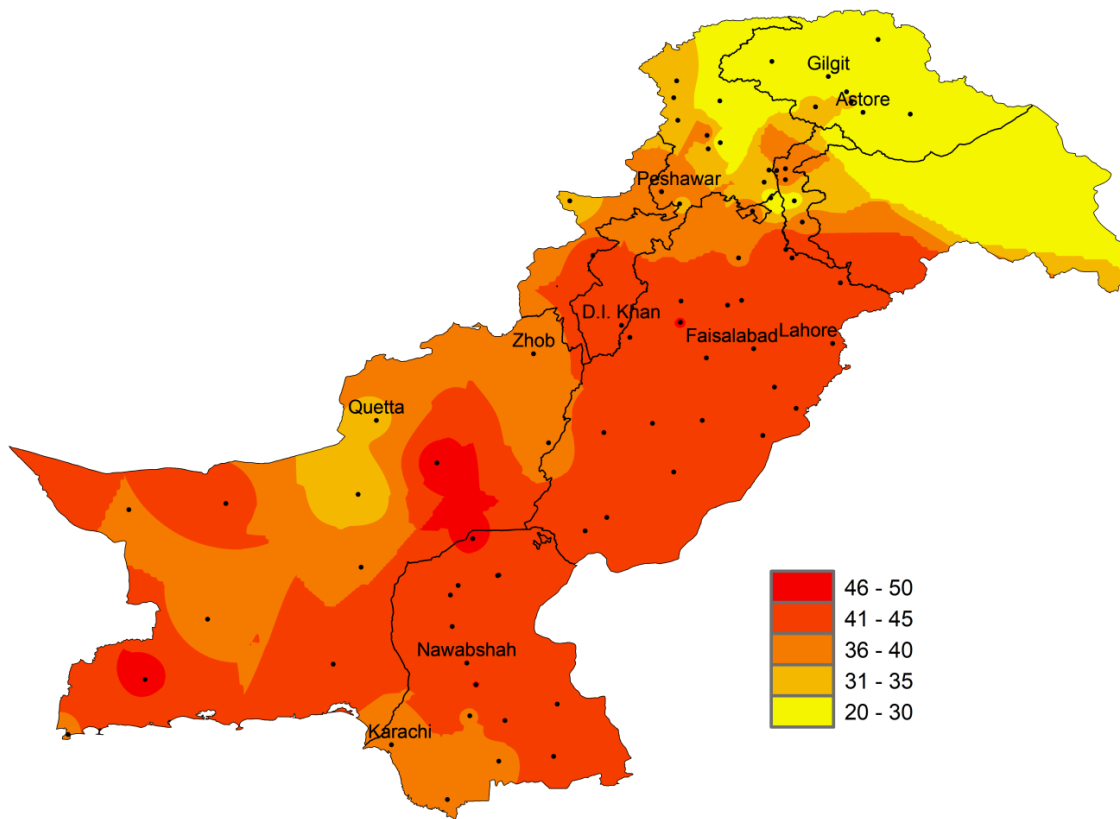
#### **Northern Baluchistan (Quetta)**

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

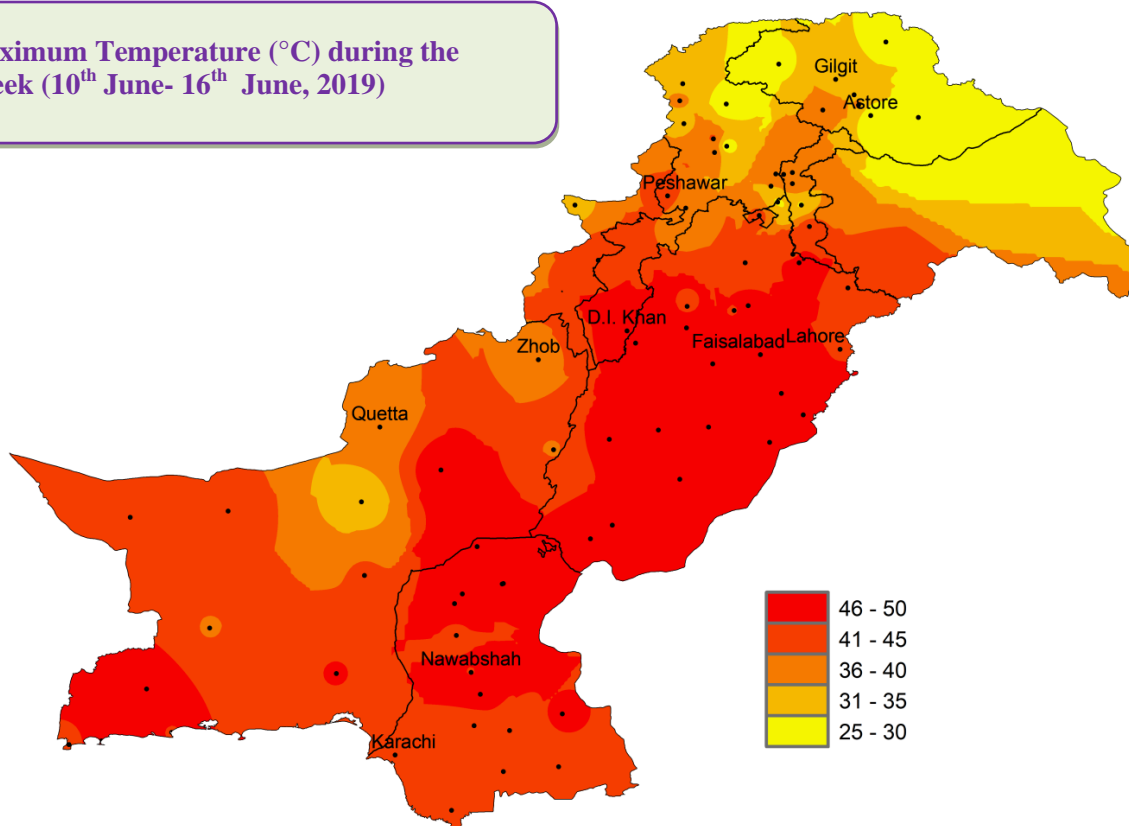
#### **Eastern Baluchistan (Usta Muhammad)**

Presently rice seedling is in processes.

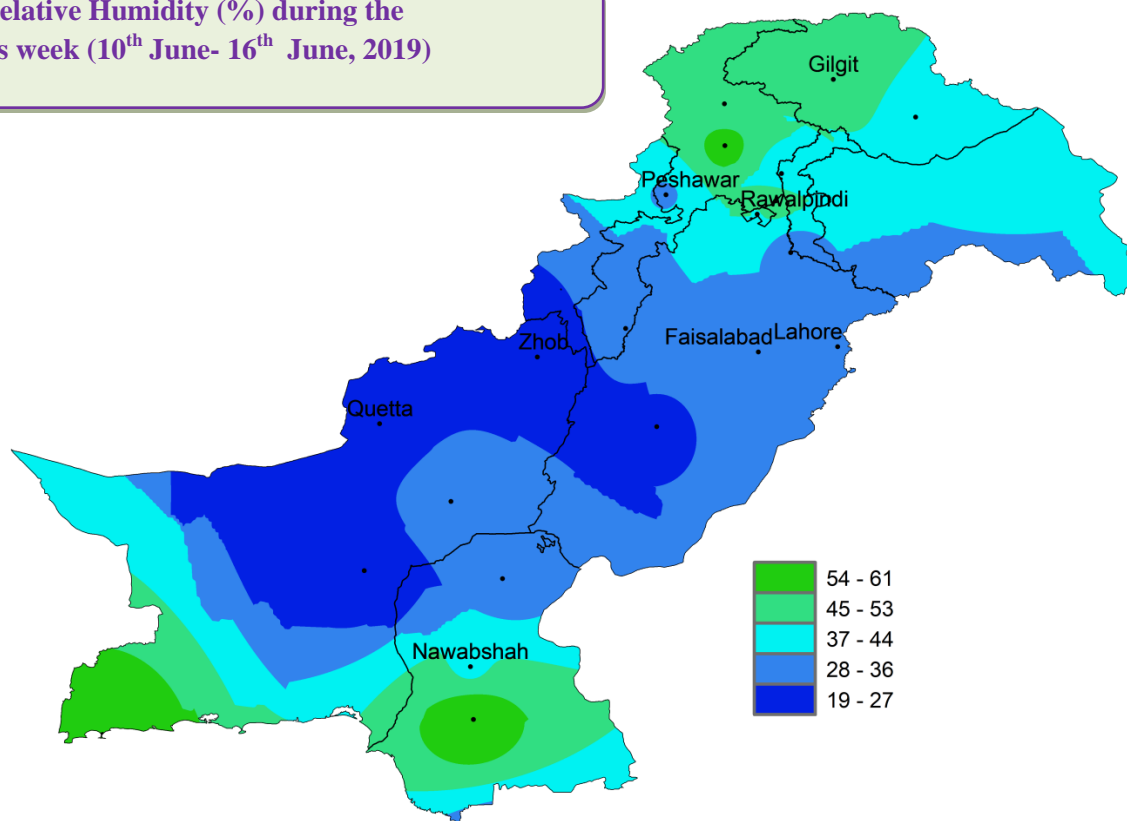
Mean Maximum temperature (°C) during the  
Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



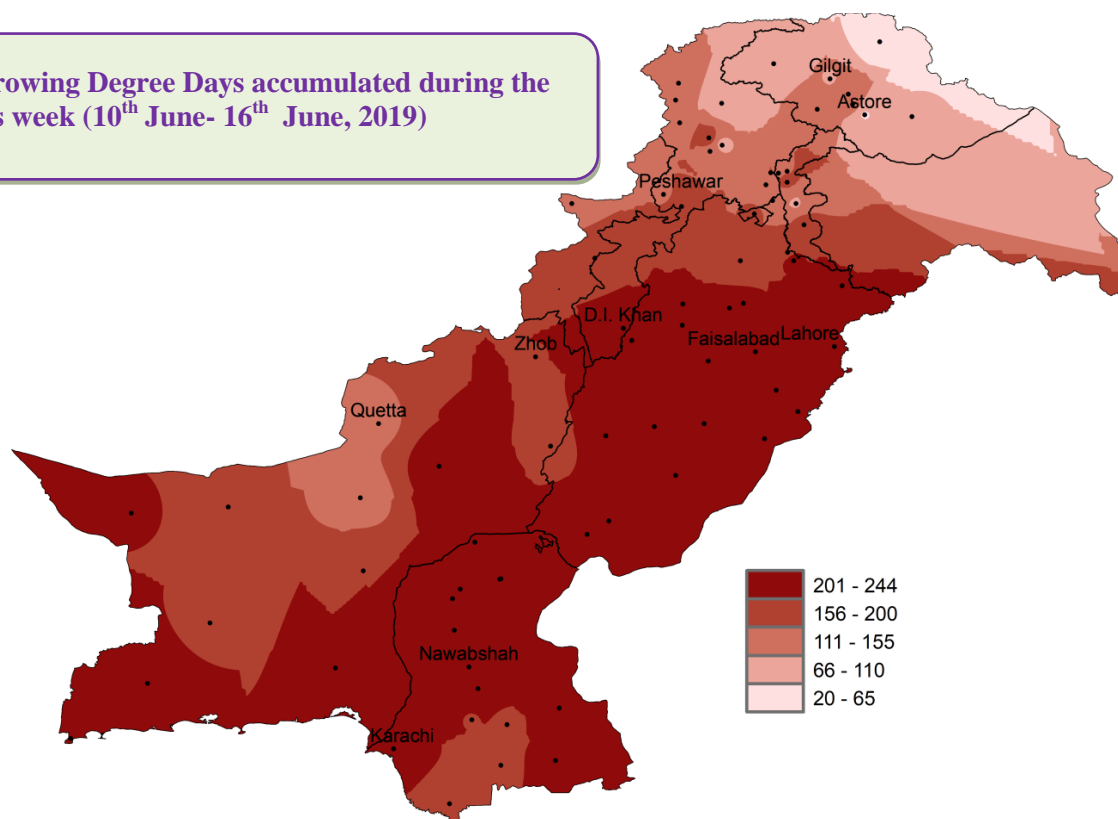
Highest Maximum Temperature (°C) during the  
Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



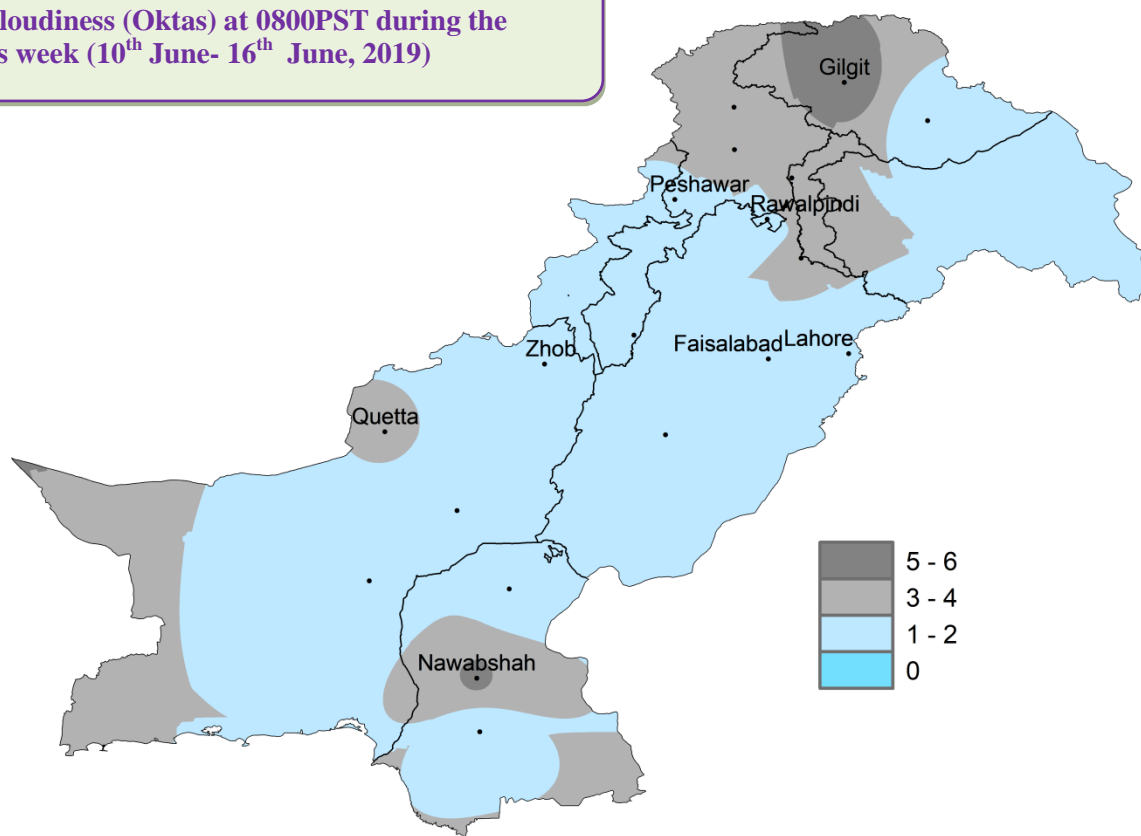
Mean Relative Humidity (%) during the  
Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



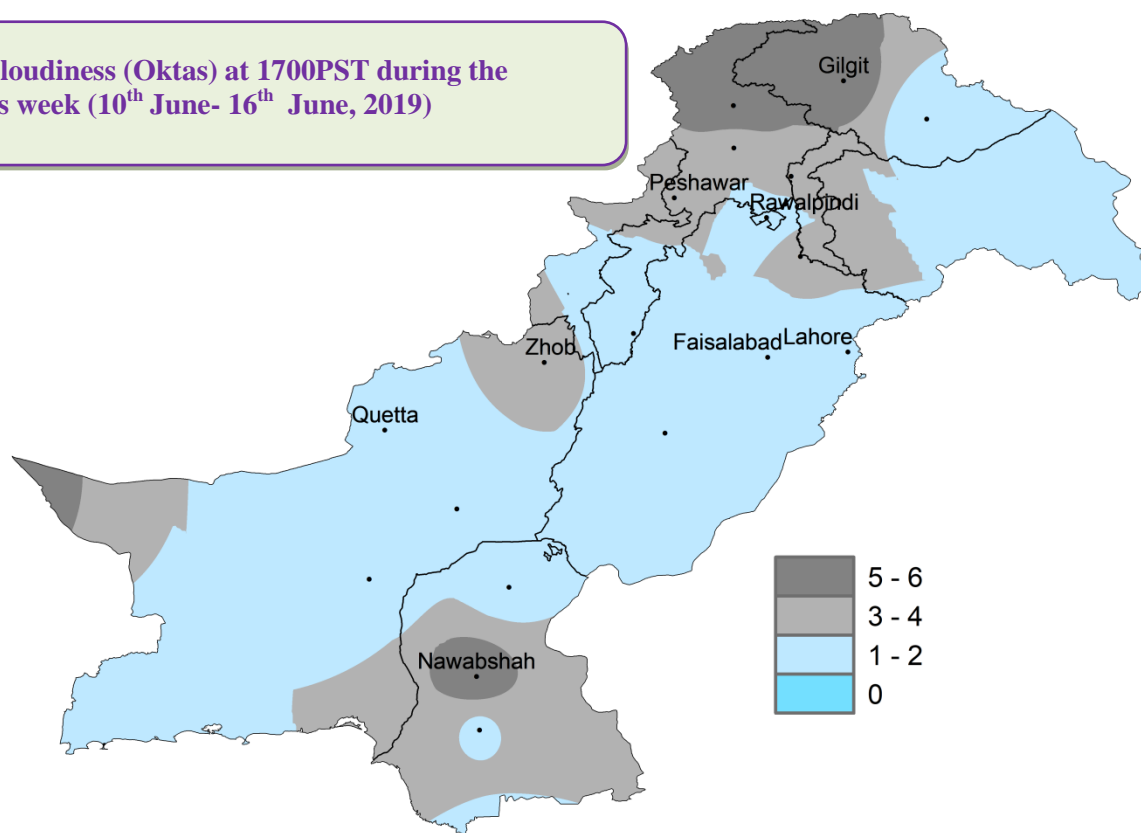
Total Growing Degree Days accumulated during the  
Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



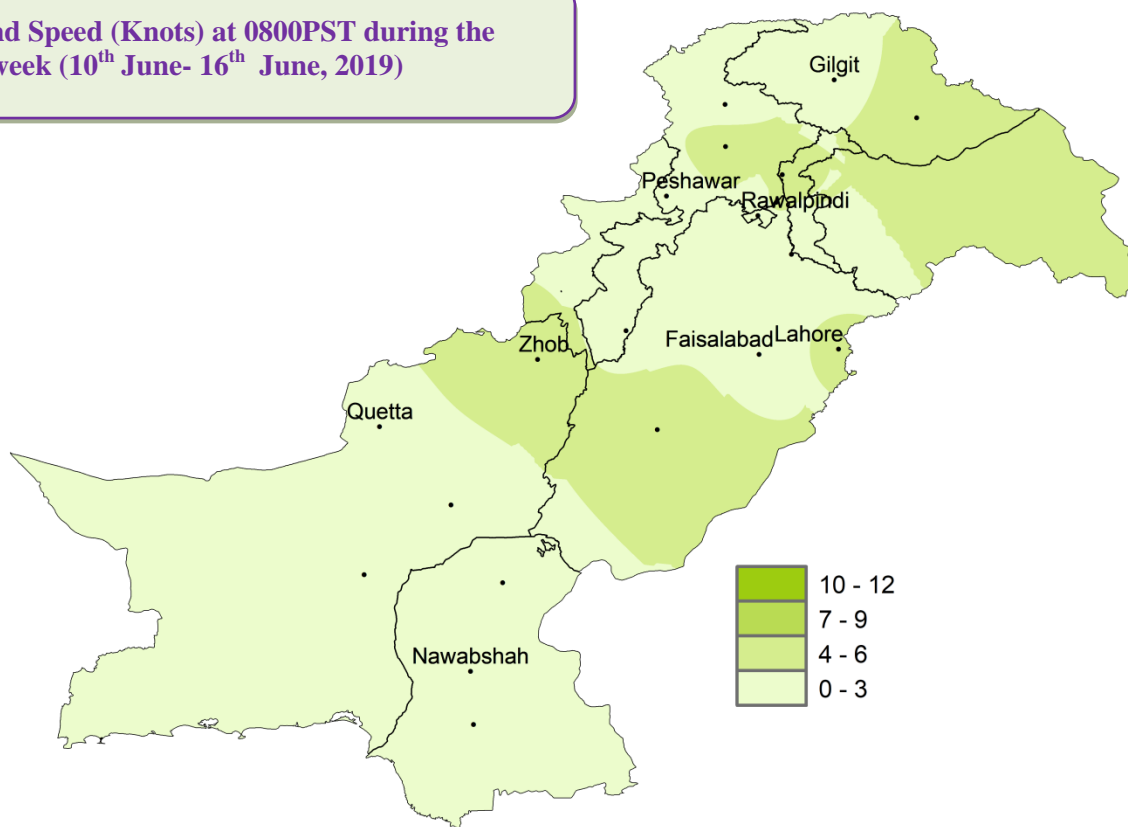
Mean Cloudiness (Oktas) at 0800PST during the Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



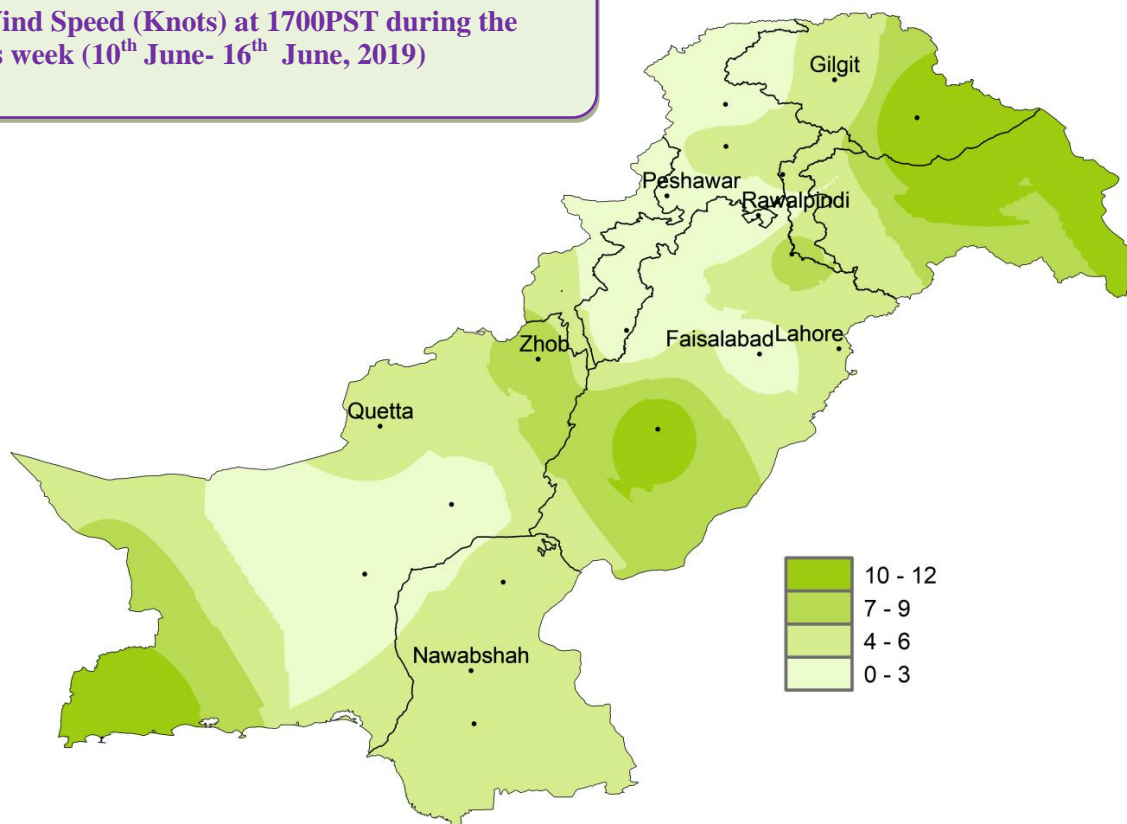
Mean Cloudiness (Oktas) at 1700PST during the Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (10<sup>th</sup> June- 16<sup>th</sup> June, 2019)



### **Weekly Weather Advisory for Farmers** **(17<sup>th</sup> June to 23<sup>rd</sup> June, 2019)**

Seasonal low lies over northeast Balochistan with its trough extending northeast wards. The Cyclonic Storm "VAYU" over central Arabian Sea is very likely to weaken into a deep depression during next 06 hours and into a Depression during subsequent 06 hours.

#### **MONDAY**

**17-06-2019**

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 Sargodha, Faisalabad, Sahiwal, Gujranwala, Lahore, Mirpurkhas divisions and Kashmir.

#### **TUESDAY**

**18-06-2019**

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 Sargodha, Faisalabad, Sahiwal, Bahawalpur, Multan, Gujranwala, Lahore, Rawalpindi, Kalat, Mirpurkhas divisions, Islamabad and Kashmir.

#### **WEDNESDAY**

**19-06-2019**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thundershower/rain with gusty winds is expected at isolated places in Malakand, Hazara, Kohat, Bannu, Rawalpindi, Sargodha, Sahiwal, Faisalabad, Bahawalpur, Multan, D.G.Khan divisions, Islamabad, Gilgit Baltistan and Kashmir.

#### **THURSDAY**

**20-06-2019**

Mainly hot and dry weather is expected in most parts of the country. However, dust-thundershower/rain with gusty winds is expected at isolated places in Malakand, Hazara, Kohat, Peshawar, Bannu, Rawalpindi, Gujranwala, Lahore, Sargodha, Sahiwal, Faisalabad, Bahawalpur, Multan, D.G.Khan divisions, Islamabad, Gilgit Baltistan and Kashmir.

#### **FRIDAY**

**21-06-2019**

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 Malakand, Hazara, D.G.Khan divisions, Kashmir and Gilgit-Baltistan.

#### **SATURDAY**

**22-06-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in plain areas of the country. However, dust-thunderstorm/rain is expected at isolated places in Malakand division and Gilgit-Baltistan.

#### **SUNDAY**

**23-06-2019**

Mainly hot and dry weather is expected in most parts of the country, while very hot in plain areas of the country. However, dust-thunderstorm/rain is expected at isolated places in Malakand division and Gilgit-Baltistan.

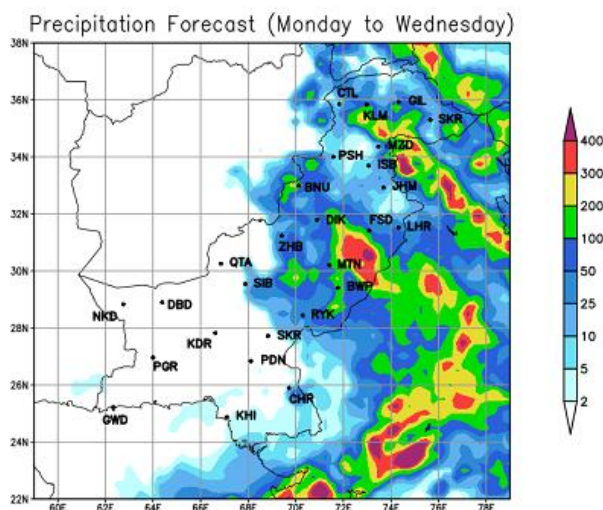
### **ADVISORY FOR FARMERS**

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.

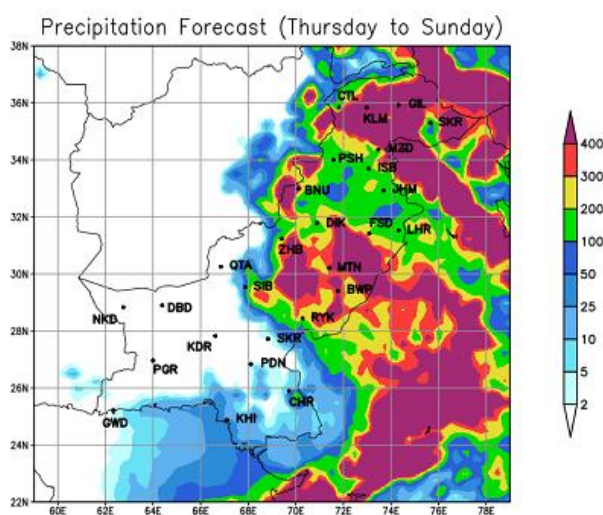
1. Rice growers are advised to sow the crop "paneeri" in accordance with the recommendations by the agriculture experts.
2. Farmers of southern Punjab and Sindh are advised to complete the sowing of cotton and other Kharif crops to utilize the maximum soil moisture.
3. In the upper half of the country 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 17<sup>th</sup> June to 23<sup>rd</sup> June, 2019

The outlook from 17<sup>th</sup> to 19<sup>th</sup> June, 2019 shows that moderate to heavy rainfall is expected in the upper half part of the country.



The outlook from 20<sup>th</sup> to 23<sup>rd</sup> June, 2019 shows that moderate to high rainfall is expected over the upper half part of the country while light to moderate rainfall is expected in Sindh.



**National Weather Data of Selected Cities Weekly Data from (10<sup>th</sup> June to 16<sup>th</sup> June, 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	43.6	45.5	209.0	30	0.02	0.0	0.0	1.4	0.9
Faisalabad	42.4	45.8	205.3	32	0.01	1.7	0.6	1.8	1.8
Gawader	41.4	46.0	213.3	58	0.00	2.1	0.0	0.0	10.9
Gilgit	27.3	34.0	107.5	48	25.12	5.7	5.3	1.1	3.1
Kalam	24.1	27.5	75.5	47	2.00	3.1	6.1	0.0	1.4
Khuzdar	39.8	40.5	199.3	19	0.00	0.0	0.3	0.0	1.1
Lahore	42.0	45.0	209.4	28	5.70	0.3	1.6	3.1	3.4
Malam Jabba	22.6	27.0	87.0	56	9.00	3.1	2.7	5.4	4.0
Mangla	41.8	44.5	196.5	29	4.31	2.7	2.7	1.1	7.4
Multan (PBO)	42.4	47.1	218.7	26	0.00	1.7	0.7	4.9	10.3
Murree	26.5	29.6	112.1	48	32.11	3.1	1.9	3.1	2.0
Muzaffarabad	35.1	39.5	152.1	39	16.20	2.3	3.4	3.3	4.6
Nawabshah	42.5	45.0	215	43	0.00	4.7	5.6	0.0	4.9
Peshawar	40.1	42.7	152.9	35	5.02	1.4	2.7	0.3	2.3
Quetta	32.2	34.0	138.4	20	0.00	2.4	0.9	2.5	3.9
Rawalpindi	40.0	42.0	185.5	44	10.70	0.5	1.1	0.1	0.0
Rohri	42.9	45.0	265.5	28	0.00	0.6	1.0	0.9	3.7
Skardu	22.1	29.6	74.4	43	48.52	4.7	5.6	0.0	4.9
Tandojam	39.1	41.0	194.8	61	0.00	0.4	1.6	2.3	3.4
Usta.M	45.9	49.0	233.0	35	0.00	0.0	0.0	1.7	2.0
Zhob	37.1	38.5	199.0	22	0.00	0.3	3.1	4.0	6.6

\*\*\* 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 (بذر یعنی 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)