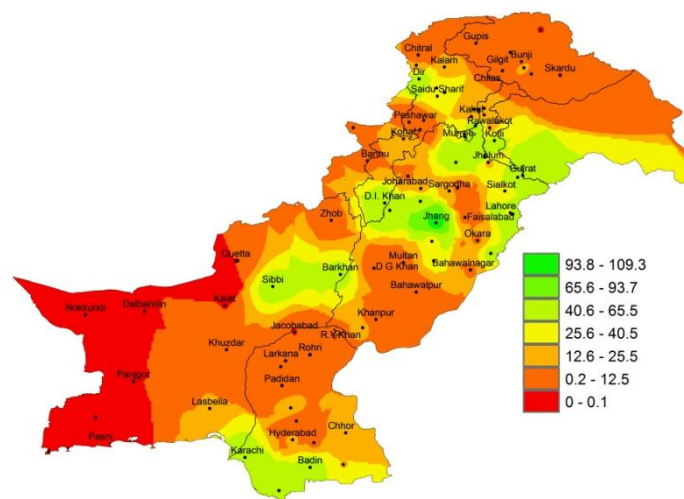


# Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL  
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**Rainfall Distribution (mm) during the  
Previous Week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)**

## Contents

Highlights of past weather (General)	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Max Temperature maps	5
R.H and GDD	6
Wind speed maps	7
Cloudiness maps	8
Farmers advisory	9
Weather Outlook	10
National data for selected stations	11-13
AgMIP findings	14

## Highlights of Past Weather (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)

Below normal day time temperatures reported from most parts of the country.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from most part of Punjab, KP, Sindh, GB and Kashmir during the week.
- Light to moderate rainfall was recorded from a few places of Balochistan.

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

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

**Editor: Khalida Noureen (Meteorologist)**

## **Past Weather of Provinces (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)**

### **Punjab**

Light to moderate rainfall reported from most part of Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.7°C & 26.3°C respectively. For the recent week on average 181.8 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 2.8/4.6 knots. During the previous week the highest amount of rainfall was recorded as 110.0 mm at Jhang & highest maximum temperature was recorded as 45.0°C at Bahawalnagar.

### **Balochistan**

Light to moderate rainfall was recorded from a few places of Balochistan province during the week. Weekly maximum and minimum temperatures recorded as 28.3°C & 24.8°C respectively. For the recent week on average 185.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 46% and wind speed in the morning/evening recorded as 2.7/7.2 knots. During the previous week the highest amount of rainfall was recorded as 55.0 mm at Sibbi & highest maximum temperature was recorded as 48.0°C at Turbat.

### **Khyber Pakhtunkhwa**

Light to moderate rainfall reported from most part of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.6°C & 21.2°C respectively. For the recent week on average 157.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 1.0/3.3 knots. During the previous week the highest amount of rainfall was recorded as 57.0 mm at Dir & highest

maximum temperature was recorded as 41.3 °C at D.I. Khan.

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

Light to moderate rainfall reported from most part of Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 30.9°C & 18.9°C respectively. For the recent week on average 136.4 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 1.0/3.0 knots. During the previous week the highest amount of rainfall was recorded as 44.0 mm at Kotli & highest maximum temperature was recorded as 41.0°C at Chilas.

### **Sindh**

Light to moderate rainfall reported from most part of Sindh during the week. Weekly maximum and minimum temperatures recorded as 39.7°C & 28.0°C respectively. For the recent week, on average 204.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 4.4/5.1 knots. During the previous week the highest amount of rainfall was recorded as 64.0 mm at Badin, highest maximum temperature was recorded as 47.0°C at Dadu.

### **Past Weather for Major Agricultural Plains (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)**

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

Rainfall reported as 65.0 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 4.0/3.2 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 32.5°C & for the recent week 161.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/0.8 knots.

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

Rainfall reported as 4.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 3.3/3.4 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 31.5°C & for the recent week 185.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/1.5 knots.

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

Rainfall reported as 5.0 mm from Tandojam during the week; however, cloudiness in the morning/evening recorded as 3.8/2.7 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 38.1°C & for the recent week 190.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/2.3 knots.

#### **Usta Muhammad (Eastern Balochistan)**

Rainfall reported as 64.0 mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 4.3/3.7 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 42.4°C & for the recent week 214.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/3.4 knots.

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

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.3/2.3 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 34.8°C & for the recent

week 159.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/4.1 knots.

### **Past Weather for Sub-Regional Agricultural Plains (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)**

#### **Multan**

Rainfall reported as 6.02 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 4.1/2.4 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 37.0°C & for the recent week 192.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/5.1 knots.

#### **Lahore**

Rainfall reported as 71.4mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 4.4/6.3 Oktas while, average relative humidity observed as 73%. Mean day time temperature recorded as 34.0°C & for the recent week 177.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 14.3/1.4 knots.

#### **Zhob**

Rainfall reported as 2.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.4/3.0 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 36.1°C & for the recent week 181.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.0/5.7 knots.

#### **Murree**

Rainfall reported as 63.71 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 4.6/6.1 Oktas while, average relative humidity observed as 81%. Mean day time temperature recorded as 23.0°C & for the recent week 99.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/1.7 knots.

**D.I. Khan**

Rainfall reported as 51.01 mm from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 5.0/2.7 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.4°C & for the recent week 183.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/1.7 knots.

**Peshawar**

Rainfall reported as 4.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 4.0/5.9 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 37.6°C & for the recent week 189.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/2.0 knots.

**Kalam**

Rainfall reported as 16.3 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.4/6.0 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 26.1°C & for the recent week 105.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.9 knots.

**Gilgit**

Rainfall reported as 5.73 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 5.1/6.1 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded as 32.9°C & for the recent week 148.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/7.1 knots.

**Skardu**

Rainfall reported as 0.01 mm from Skardu during the week; However, cloudiness in the morning/evening recorded as 4.1/5.9 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 31.4°C & for the recent week 126.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/6.9 knots.

**Crop Situation for Major Agricultural Plains  
(Based on data from Regional Agromet Centers)****Potohar Region (Rawalpindi)**

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

**Central Punjab (Faisalabad)**

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

**Cotton:** Good condition, *Budding* stage completed.

**Lower Sindh (Tandojam)**

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

**Cotton (HH-906):** Good condition, *flowering* stage.

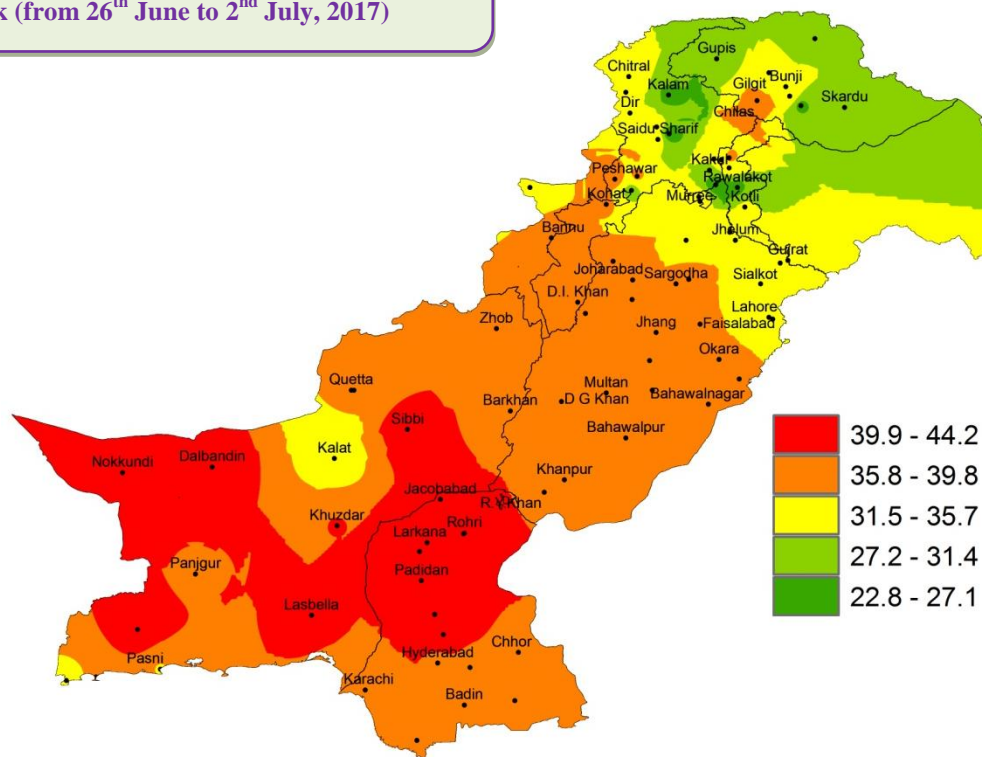
**Northern Baluchistan (Quetta)**

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

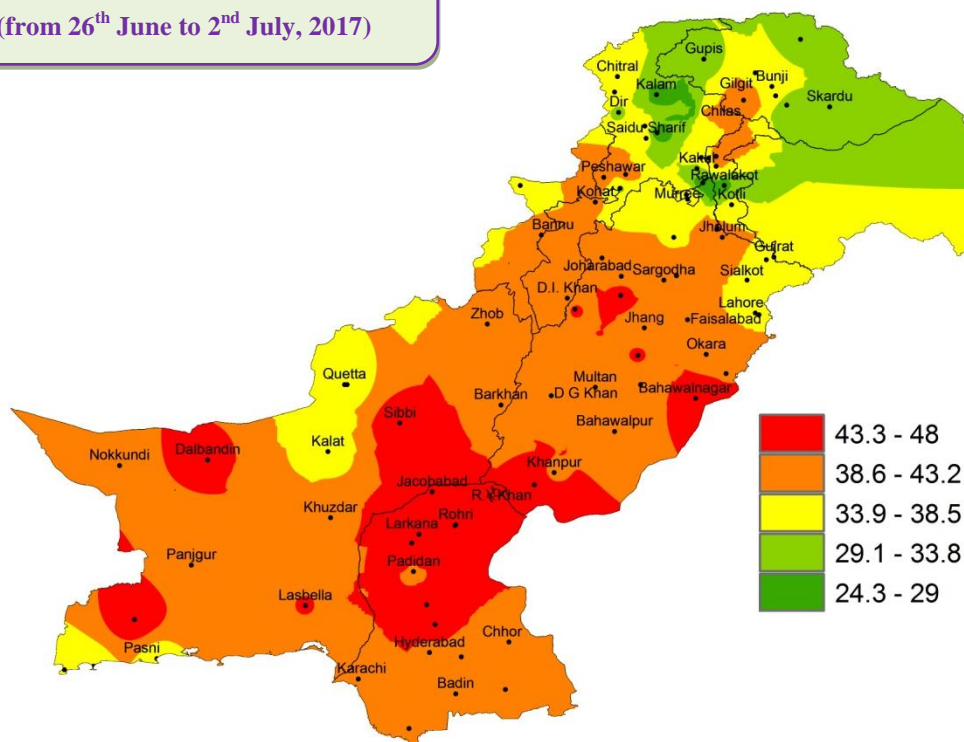
**Eastern Baluchistan (Usta Muhammad)**

Land has been prepared for Rice seedling.

Mean Maximum Temperature (°C) during the  
Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)

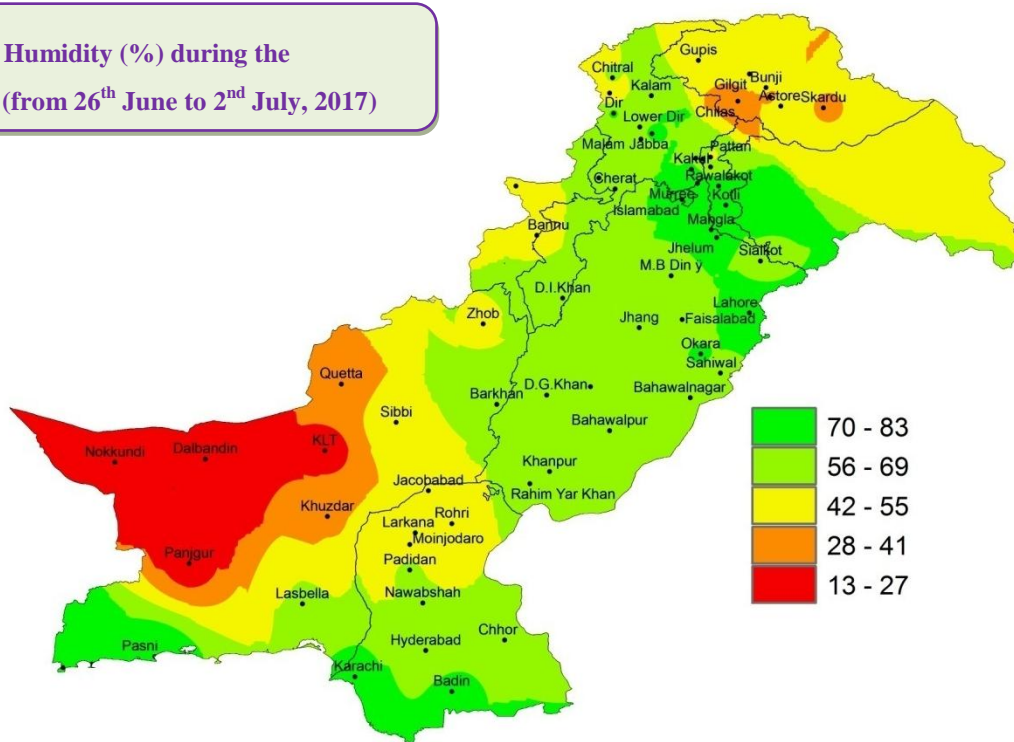


Highest maximum Temperature (°C) during the  
Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)

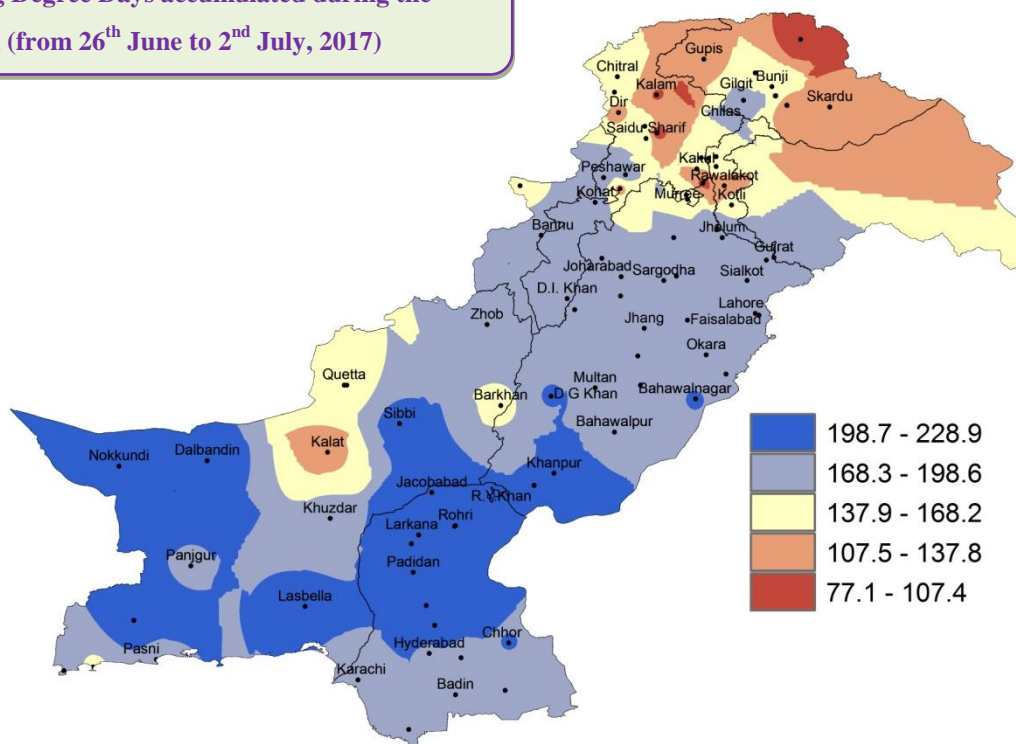




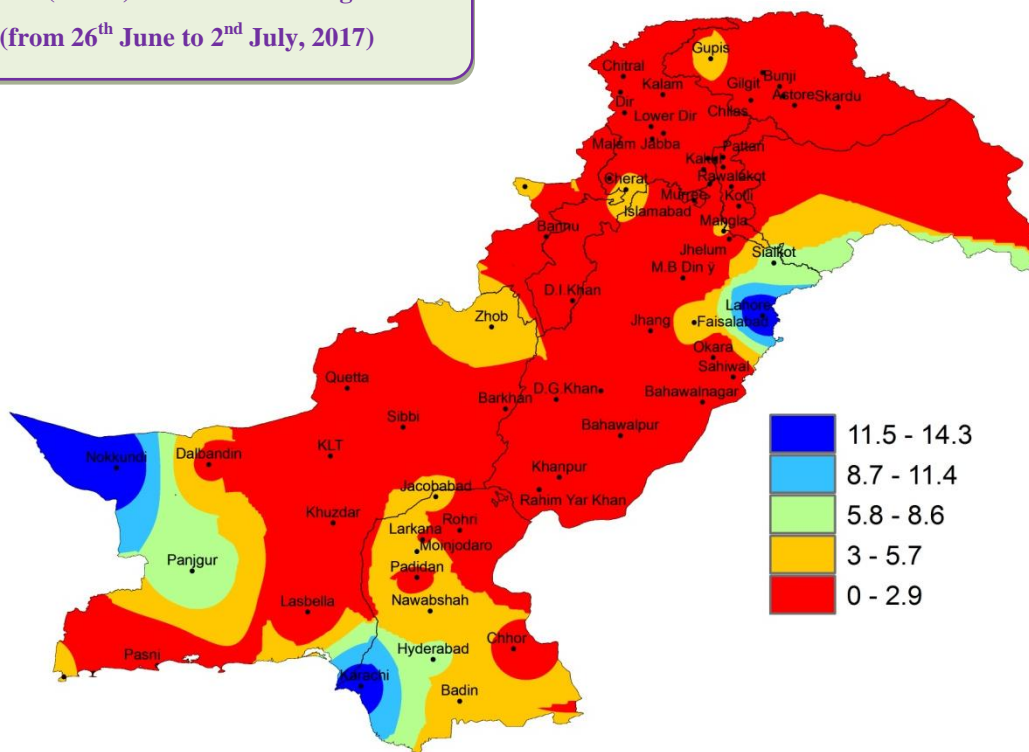
Mean Relative Humidity (%) during the  
Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)



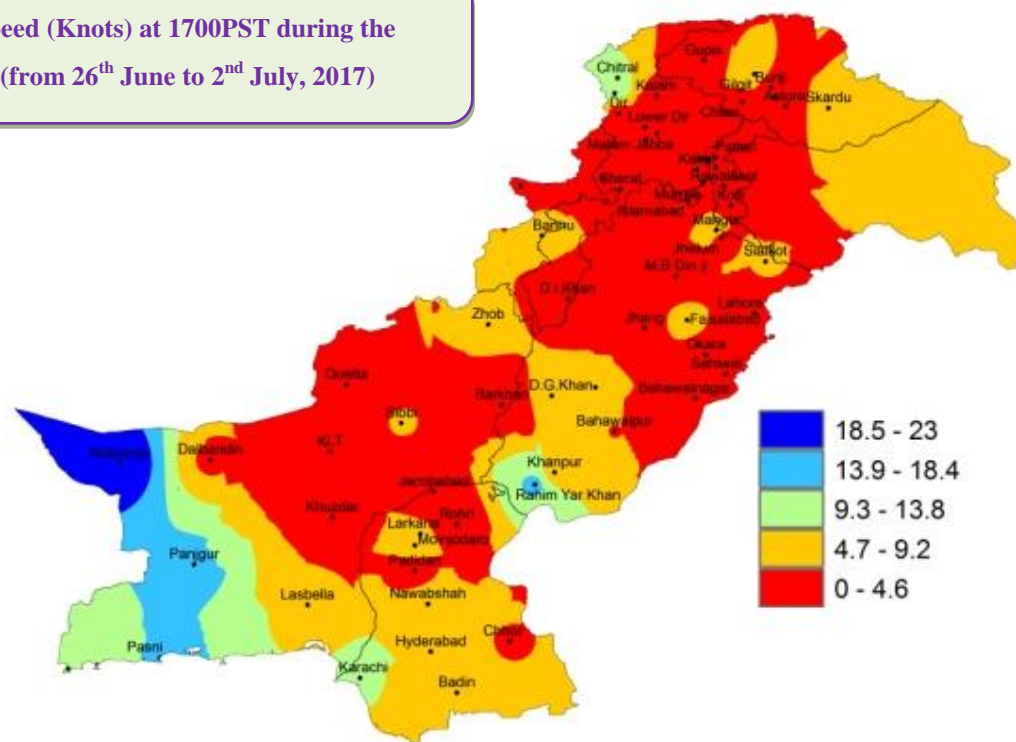
Total Growing Degree Days accumulated during the  
Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)



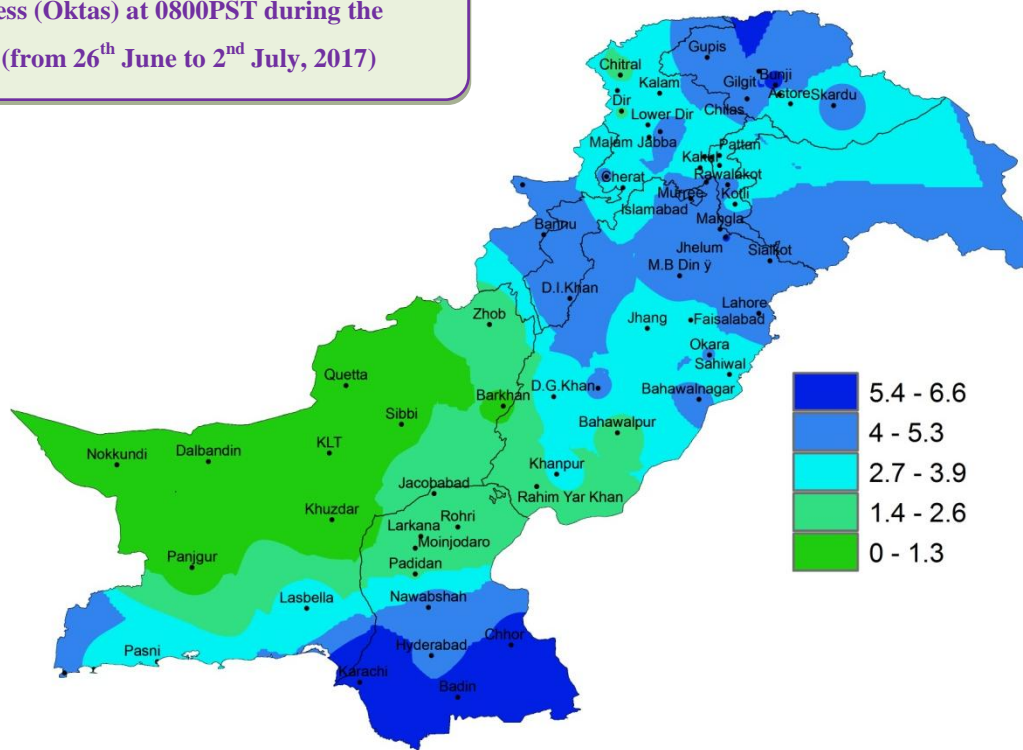
Mean Wind Speed (Knots) at 0800PST during the  
Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)



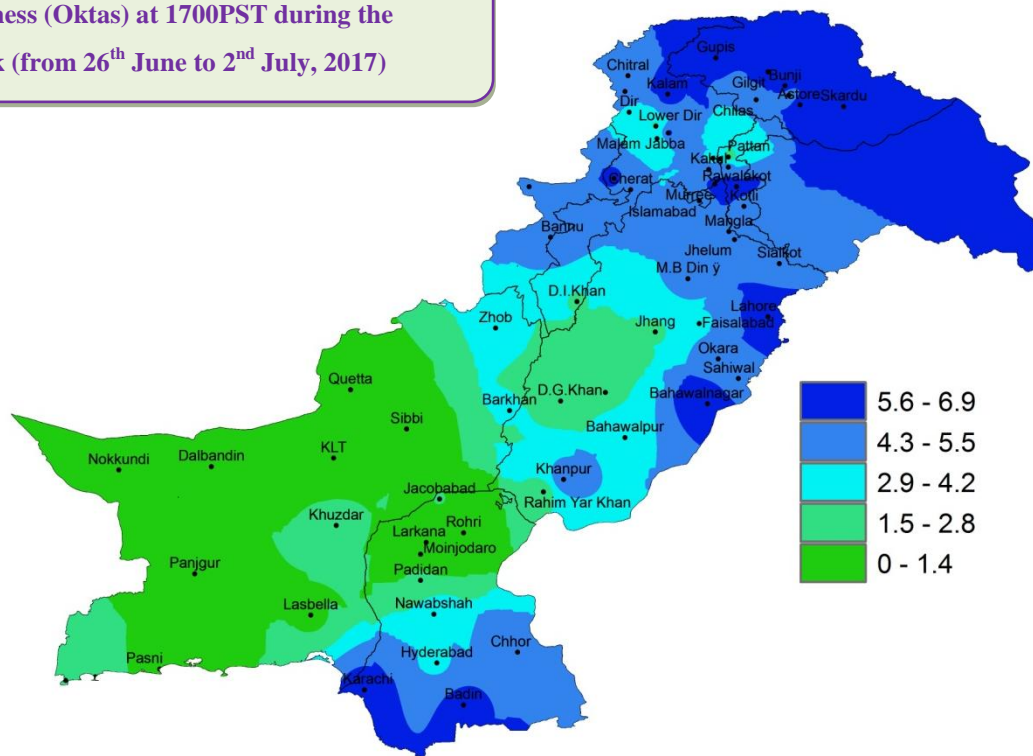
Mean Wind Speed (Knots) at 1700PST during the  
Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)



**Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)**



**Mean Cloudiness (Oktas) at 1700PST during the  
Previous week (from 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)**





**Weekly Weather Advisory for Farmers****(from 3<sup>rd</sup> July to 9<sup>th</sup> July, 2017)**

Seasonal low lies over northeast Balochistan. Weak monsoon currents are penetrating in north eastern parts of the country & Kashmir. A shallow westerly wave is still affecting upper parts of the country and likely to persist over Kashmir and its adjoining areas during next 48 hours. Under the influence of these weather conditions weather forecast will be as such:

**MONDAY****03-07-2017**

Hot and very humid weather is expected in plain areas of Punjab, upper Sindh & Peshawar valley. However, rain-thundershowers with gusty winds is expected at a few places in Rawalpindi, Gujranwala, Malakand, Hazara divisions, FATA, Gilgit-Baltistan and Kashmir.

**TUESDAY****04-07-2017**

Hot and very humid weather is expected in plain areas of Punjab, upper Sindh & Peshawar valley. However, rain-thundershowers with gusty winds is expected at a few places in Rawalpindi, Lahore, Gujranwala, Malakand, Hazara, Peshawar, Mardan divisions, Islamabad, FATA, Gilgit-Baltistan and Kashmir.

**WEDNESDAY****05-07-2017**

Hot and very humid weather is expected in plain areas of Punjab, upper Sindh & Peshawar valley. However, rain-thundershowers with gusty winds is expected at a few places in Malakand, Hazara, Rawalpindi, Gujranwala, Lahore divisions, Islamabad, FATA, Gilgit-Baltistan and Kashmir.

**THURSDAY****06-07-2017**

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at isolated places in upper Punjab (Rawalpindi, Lahore Gujranwala divisions), upper KP, FATA, Islamabad, Kashmir and Gilgit-Baltistan.

**FRIDAY****07-07-2017**

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at isolated places in Rawalpindi, Gujranwala, Lahore, Mirpurkhas divisions & Kashmir.

**SATURDAY****08-07-2017**

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at scattered places in Rawalpindi, Gujranwala, Lahore divisions & Kashmir.

**SUNDAY****09-07-2017**

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds is expected at isolated places in Rawalpindi, Lahore, Sargodha, Gujranwala, Malakand, Hazara, Peshawar, Mardan divisions, Islamabad, FATA, Gilgit-Baltistan and Kashmir.

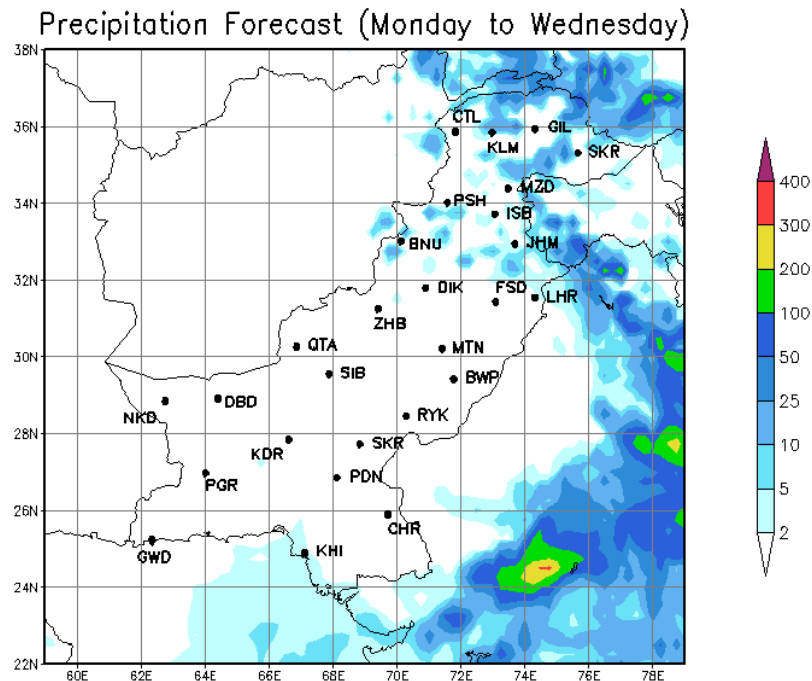
**ADVISES FOR FARMERS**

During the last week, light to moderate rainfall occurred in most of the agricultural plains of the country. This may continue with almost the same pattern over northern parts of the country in coming days as well; however, hot and humid weather is expected in rest of the country. Keeping in view the expected weather conditions following advises are suggested for farming community.

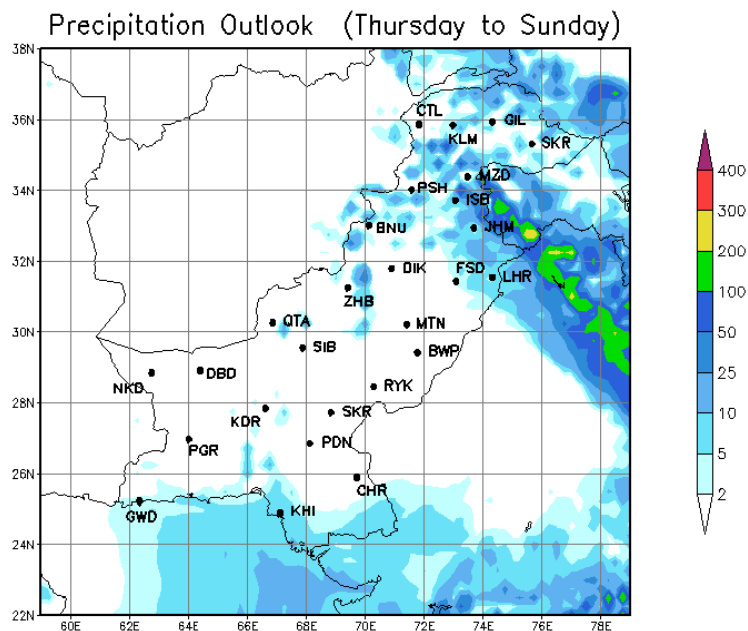
- Pest/viral attacks and more weeds growth are expected after heavy rains in cotton and other standing crops in upper parts of the country. Farmers are therefore advised to take in time precautionary measures in this regard.
- Farmers of irrigated areas may irrigate the standing crops as per requirement in accordance with the expected weather conditions.
- Farmers of Rice growing areas may complete sowing of their crops.

## Weather Outlook from 3<sup>rd</sup> July to 9<sup>th</sup> July, 2017

The forecast from 3<sup>rd</sup> July to 5<sup>th</sup> July, 2017 shows that dry weather is expected in the country. However, light to moderate rainfall is expected at particular places of GB, Kashmir, northern KP and northeastern Punjab.



The Outlook from 6<sup>th</sup> July to 9<sup>th</sup> July, 2017 shows that light to moderate rainfall is expected at scattered places of GB, Kashmir, northeastern Punjab and KP.



**National Weather Data of Selected Cities****(From 26<sup>th</sup> June to 2<sup>nd</sup> July, 2017)**

Stations	Maximum/Nighttime 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							
Astore	25.5	29.5	104.0	51	4.00	3.9	6.7	1.7	2.9
Badin	36.2	40.0	190.8	71	64.00	5.4	6.0	3.4	5.1
Bahawalnagar	38.9	45.0	200.0	63	10.00	4.1	6.1	0.0	2.0
Bahawalpur	38.3	42.5	196.7	65	0.10	2.1	4.0	2.3	4.6
Balakot	32.8	35.5	153.0	66	14.40	2.7	4.0	1.4	1.3
Bannu	37.8	39.6	185.1	52	8.00	4.7	5.1	0.0	6.0
Barkhan	35.8	40.0	161.0	62	50.00	1.1	2.9	0.0	0.9
Bunji	32.6	37.2	163.0	44	6.11	6.3	7.0	1.3	2.0
Cherat	29.4	33.0	129.3	64	9.00	3.4	4.3	3.7	4.6
Chhor	39.0	41.5	199.0	68	21.80	5.3	4.7	2.3	4.3
Chilas	37.1	41.0	180.0	32	4.20	4.4	4.4	2.9	4.0
Chitral	34.0	36.2	155.6	57	0.30	2.3	5.4	0.9	10.0
D.G.Khan	38.8	42.0	200.8	58	1.00	3.1	2.0	2.9	6.6
D.I.Khan	37.4	41.5	183.8	68	51.01	5.0	2.7	0.9	1.7
Dalbandin	42.9	44.0	224.8	13	0.00	0.2	0.6	2.3	3.7
Dir	31.4	33.0	130.6	71	57.00	2.6	4.0	0.0	1.9
Drosh	34.6	37.6	156.2	42	12.80	3.4	4.7	0.0	11.9
Faisalabad	31.5	40.5	185.2	64	4.00	3.3	3.4	1.6	1.5
Garidopatta	34.0	38.4	159.9	60	15.60	3.0	5.0	0.0	2.3
Gawader	35.9	36.5	162.3	76	0.00	3.4	2.7	1.4	11.7
Gilgit	32.9	37.5	148.3	50	5.73	5.1	6.1	0.0	7.1

Gupis	27.7	31.0	115.0	45	2.00	5.0	5.7	3.4	2.9
Hyderabad	38.6	42.0	196.0	64	14.00	5.1	4.0	6.3	9.1
Islamabad	33.3	37.0	162.8	70	30.02	4.4	4.4	0.0	1.7
Jacobabad	42.0	46.0	219.3	46	0.01	2.6	1.4	3.4	1.7
Jhang	36.7	42.0	186.3	66	110.00	3.1	2.6	1.1	3.4
Jhelum	35.7	40.5	182.6	70	15.90	5.3	5.1	1.7	2.6
Jiwani	34.7	35.5	187.7	71	0.00	5.2	2.0	4.0	10.0
Kakul	29.9	33.0	136.5	73	13.01	3.3	4.3	0.9	1.4
Kalam	26.1	28.0	105.8	69	16.30	3.4	6.0	0.0	0.9
Kalat	32.4	36.0	125.5	21	0.00	0.0	0.0	0.0	0.0
Karachi	35.9	39.3	189.5	73	58.10	6.6	6.1	12.9	9.7
Khanpur	39.1	43.0	200.6	62	5.10	3.1	5.1	1.7	6.6
Khuzdar	39.9	42.0	178.3	39	10.00	0.3	2.0	0.0	0.0
Kotli	32.2	35.3	160.3	75	44.00	3.7	5.0	1.4	2.6
Lahore	34.0	38.3	177.4	73	71.40	4.4	6.3	14.3	1.4
Larkana	42.6	46.5	222.7	55	10.00	1.7	0.7	2.3	4.6
Lasbella	41.3	43.3	205.9	57	13.01	3.1	1.1	0.9	8.0
Lower Dir	36.2	38.5	168.0	62	33.00	2.6	2.6	0.3	1.7
M.B Din	36.2	40.5	185.5	68	0.22	4.6	4.6	0.6	1.4
Malam Jabba	22.6	24.0	87.5	75	34.00	5.0	5.9	0.0	0.0
Mangla	34.8	38.6	174.8	71	60.50	4.9	4.9	3.4	7.7
Mir Khani	36.3	37.0	172.4	37	19.00	2.6	4.0	1.9	3.3
Moinjodaro	41.2	44.5	217.4	53	0.00	1.7	0.3	6.0	6.9
Multan (PBO)	37.0	42.2	192.1	62	6.02	4.1	2.4	2.6	5.1
Murree	23.0	24.3	99.7	81	63.71	4.6	6.1	0.6	1.7
Muzaffarabad	33.5	37.2	156.4	60	17.01	3.0	4.4	0.6	1.4



Nawabshah	41.1	43.5	204.5	55	24.00	5.1	3.9	4.9	8.0
Nokkundi	41.8	43.0	214.3	14	0.00	0.0	0.0	13.7	23.0
Okara	35.9	42.0	185.0	70	10.41	4.0	5.1	1.1	2.6
Padidan	40.4	43.0	206.5	55	0.00	2.6	1.9	1.4	2.0
Panjgur	39.1	40.0	195.5	20	0.00	0.9	0.6	8.0	14.6
Parachinar	32.4	35.5	155.5	45	6.00	4.4	4.3	3.3	3.0
Pasni	35.5	36.0	189.3	82	0.00	3.8	0.0	0.3	14.4
Pattan	36.8	40.5	168.0	52	14.00	3.7	1.7	0.0	0.0
Peshawar	37.6	41.3	189.8	60	4.00	4.0	5.9	2.3	2.0
Quetta	34.8	35.8	159.0	26	0.00	1.3	2.3	2.6	4.1
Rahim Yar Khan	39.5	44.7	202.5	62	15.00	1.4	2.0	0.9	15.1
Rawalakot	25.8	27.5	109.5	83	21.20	4.2	6.1	0.0	1.1
Rawalpindi	32.5	37.8	161.3	65	65.00	4.0	3.2	0.4	0.8
Rohri	41.5	45.5	215.3	48	1.60	1.7	0.0	0.9	2.0
Sahiwal	36.5	43.2	182.3	67	49.01	3.0	5.1	1.4	2.9
Saidu Sharif	34.2	36.0	156.3	59	32.61	3.9	2.9	0.0	0.0
Sialkot	33.7	37.3	176.3	68	58.01	5.2	5.1	6.8	5.3
Sibbi	42.4	47.5	213.8	54	55.00	1.1	0.0	0.6	4.9
Skardu	31.4	33.6	126.8	40	0.01	4.1	5.9	0.0	6.9
Tandojam	38.1	41.0	190.5	69	5.00	3.8	2.7	0.9	2.3
Usta.M	42.4	47.0	214.8	48	64.00	4.3	3.7	1.7	3.4
Zhob	36.1	38.5	181.5	54	2.00	1.4	3.0	5.0	5.7

\*\*\* 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 سبب 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 2014-2012)