

# Weekly Weather and Crop Bulletin for Pakistan

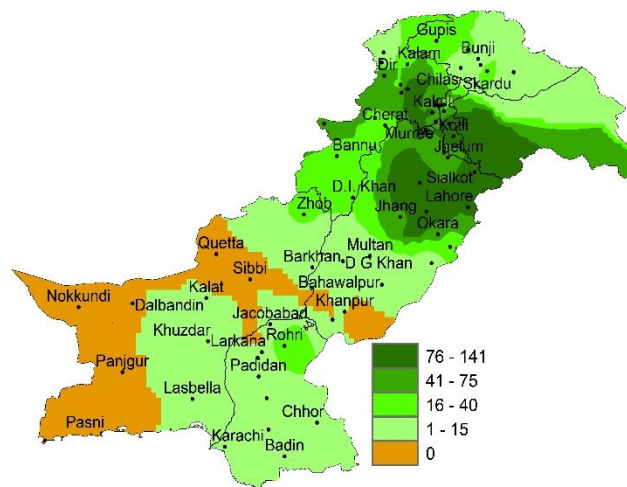
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### Rainfall Distribution (mm) during the Previous Week (19<sup>th</sup> - 25<sup>th</sup> July, 2021)

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### Highlights of Past Weather (19<sup>th</sup> – 25<sup>th</sup> July, 2021)

Above normal day time temperatures were observed in Baluchistan, Sindh, while below normal in Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall (with few heavy falls) reported from Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan.
2. Light to moderate rainfall reported from, Baluchistan and Sindh.

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

**Editor:** Ruqiya Mehmood (Assistant Meteorologist)

**Past Weather of Provinces (19<sup>th</sup> – 25<sup>th</sup> July, 2021)****Punjab**

Light to moderate rainfall (with few heavy falls) reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.4°C & 26.5°C respectively. For the recent week on average 181.8 growing degree days were accumulated. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 4.5/4.9 Knots. During the previous week the highest precipitation was observed as 157.4 mm at Gujranwala while the highest maximum temperature was recorded as 43.5°C at Lahore.

**Baluchistan**

Light rainfall reported from a few stations in northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.7°C & 25.6°C respectively. For the recent week on average 186.5 growing degree days were accumulated. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 2.1/9.5 Knots. During the previous week the highest precipitation was observed as 16.0 mm at Zhob while the highest maximum temperature was recorded as 47.0°C at Sibbi.

**Khyber Pakhtunkhwa**

Light to moderate rainfall (with few heavy falls) reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.2°C & 21.1°C respectively. For the recent week on average 155.0 growing degree days were accumulated. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 0.8/2.4 Knots. During the previous week the highest precipitation was observed as 134.0 mm at Malamjabba while the highest maximum temperature was recorded as 42.0°C at D.I.Khan.

**Sindh**

Light to moderate rainfall reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 38.5°C & 28.2°C respectively. For the recent week, on average 198.5 growing degree days were accumulated. Average relative humidity recorded as 59% and wind speed in the morning/evening recorded as 6.6/5.1 Knots. During the previous week the highest precipitation was observed as 32.0 mm at Rohri while the maximum temperature was recorded as 47.0°C at Dadu.

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

Light to moderate rainfall (with few heavy falls) reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 30.5°C & 18.5°C respectively. For the recent week on average 136.5 growing degree days were accumulated. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 1.0/2.6 Knots. During the previous week the highest precipitation was observed as 128.5 mm at Rawalakot while the highest maximum temperature was recorded as 43.5°C at Chillas.

**Past Weather for Major Agricultural Plains****(19<sup>th</sup> – 25<sup>th</sup> July, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 41.8 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.0/4.6 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 34.9°C & for the recent week 171.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.8 Knots.

**Faisalabad (Central Punjab)**

Rainfall reported as 158.2 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.0/0.7 Oktas while, average relative humidity observed as 72%. Mean day time temperature recorded as 30.5°C & for the recent week 178.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/1.2 Knots.

**Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 2.1/0.0 Oktas while, average relative humidity observed as 73%. Mean day time temperature recorded as 37.5°C & for the recent week 193.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.2/3.1 Knots.

**Usta Muhammad (Eastern Baluchistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.5/0.0 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 41.5°C & for the recent week 213.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.5 Knots.

**Quetta (Northern Baluchistan)**

Rainfall reported as 5.1 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.2/2.3 Oktas while, average relative humidity observed as 35%. Mean day time temperature recorded as 34.3°C & for the recent week 153.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.1/2.7 Knots.

**Past Weather for Sub-Regional Agricultural Plains (19<sup>th</sup> – 25<sup>th</sup> July, 2021)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.0/0.7 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 37.1°C & for the recent week 195.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 10.6/8.9 Knots.

**Lahore**

Rainfall reported as 80.2 mm from Lahore during the week; cloudiness in the morning/evening recorded as 2.6/3.3 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 33.4°C & for the recent week 175.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/3.7 Knots.

**Zhob**

Rainfall reported as 16.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.9/4.1 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 35.1°C & for the recent week 170.0 growing degree days accumulated. cloudiness in the morning/evening recorded as 2.1/9.9 Oktas.

**Murree**

Rainfall reported as 47.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.7/5.6 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 23.4°C & for the recent week 102.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/2.0 Knots.

**D.I. Khan**

Rainfall reported as 17.0 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.0/0.4 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded as 37.6°C & for the recent week 193.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.4 Knots.

**Peshawar**

Rainfall reported as 39.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.9/2.4 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 36.6°C & for the recent week 184.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.6 Knots.

**Kalam**

Rainfall reported as 36.9 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.6/3.0 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 25.3°C & for the recent week 93.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

**Gilgit**

Rainfall reported as 16.6 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 2.7/3.4 Oktas while, average relative humidity observed as 47%. Mean day time temperature recorded as 31.0°C & for the recent week 136.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.9 Knots.

**Skardu**

Rainfall reported as 0.6 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 1.3/4.1 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 28.7°C & for the recent week 120.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

**Crop Condition 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)**

Presently Cotton crop is grown in the fields of RAMC Faisalabad.

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

**Lower Sindh (Tandojam)**

Presently Cotton crop is grown in the fields of RAMC Tandojam.

**Cotton: Crop Variety (Sindh-1)**, Boll Formation Stage.

**Northern Baluchistan (Quetta)**

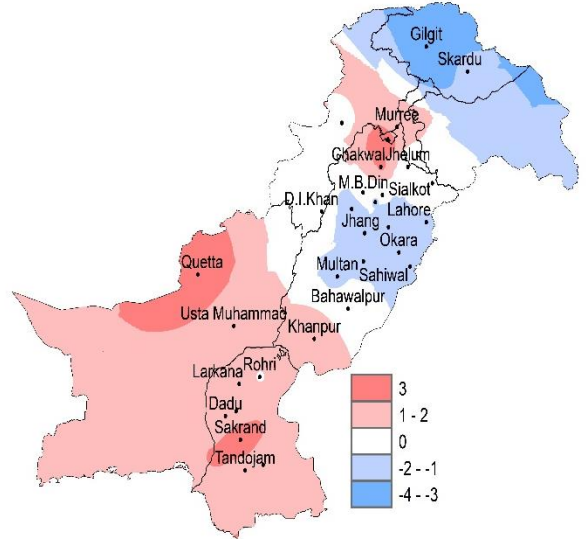
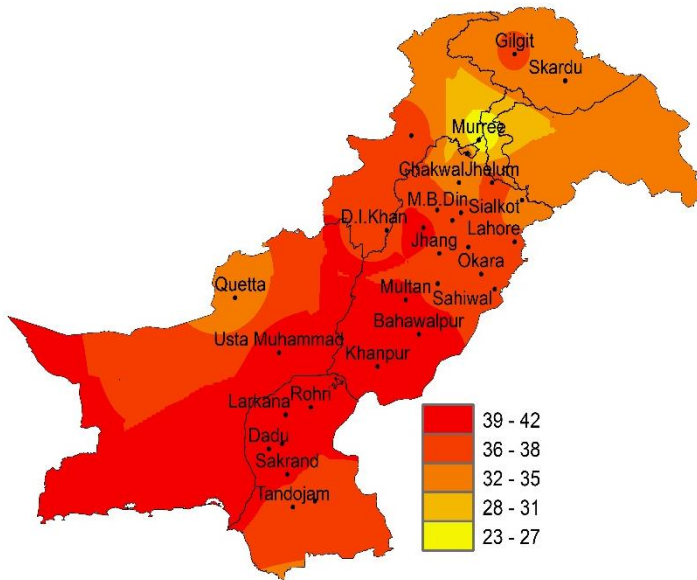
Wheat crop harvested.

**Eastern Baluchistan (Usta Muhammad)**

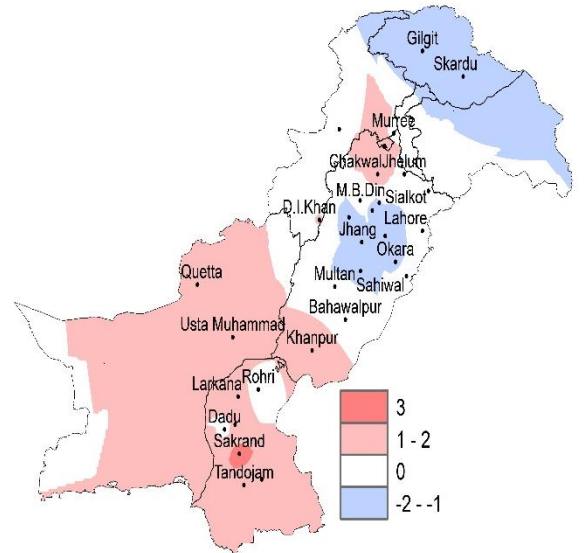
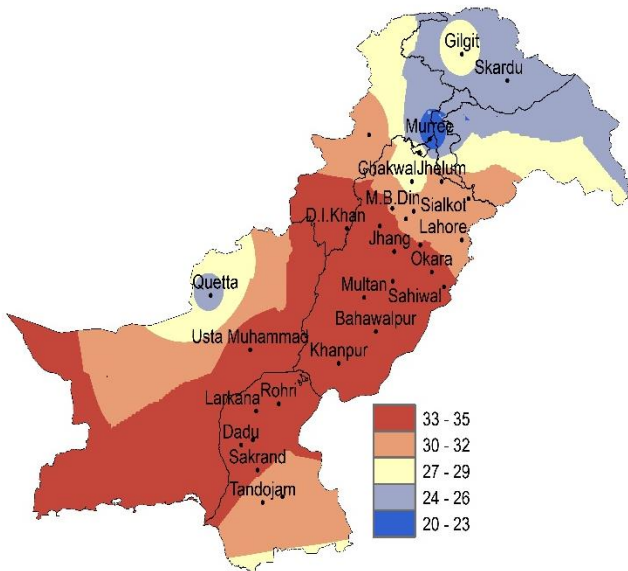
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice: Good**, Emergence Stage.

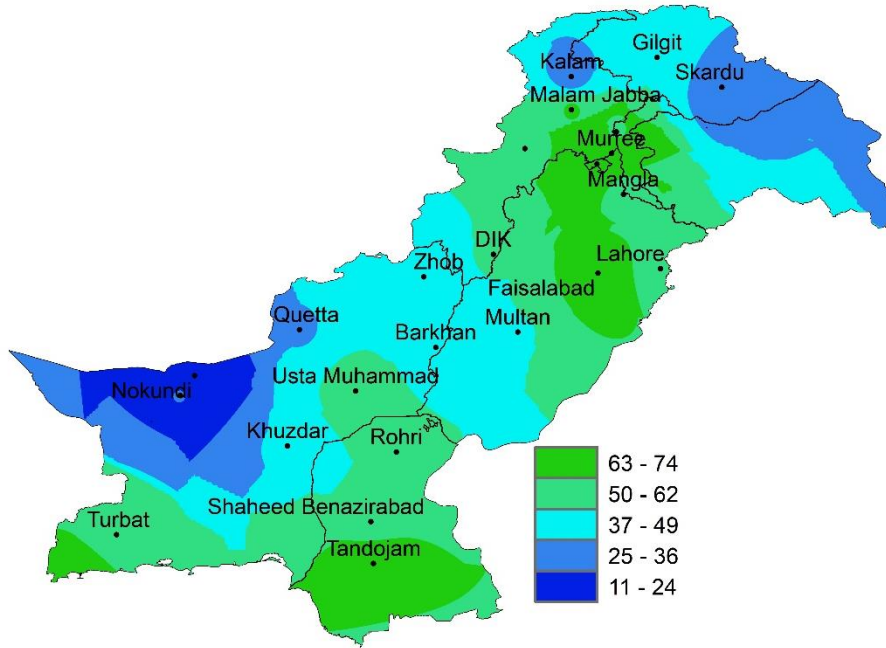
**Normal & Departure of Maximum temperature (°C) for the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**



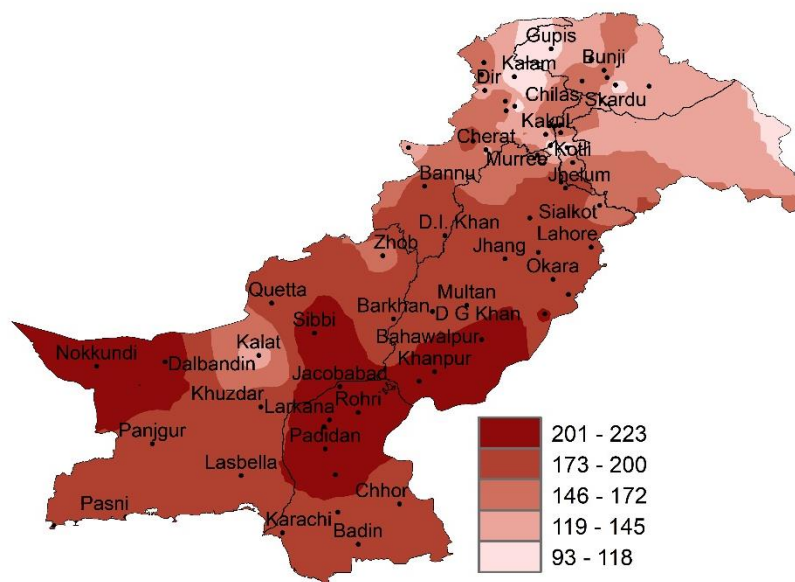
**Normal & Departure of Mean temperature (°C) for the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**



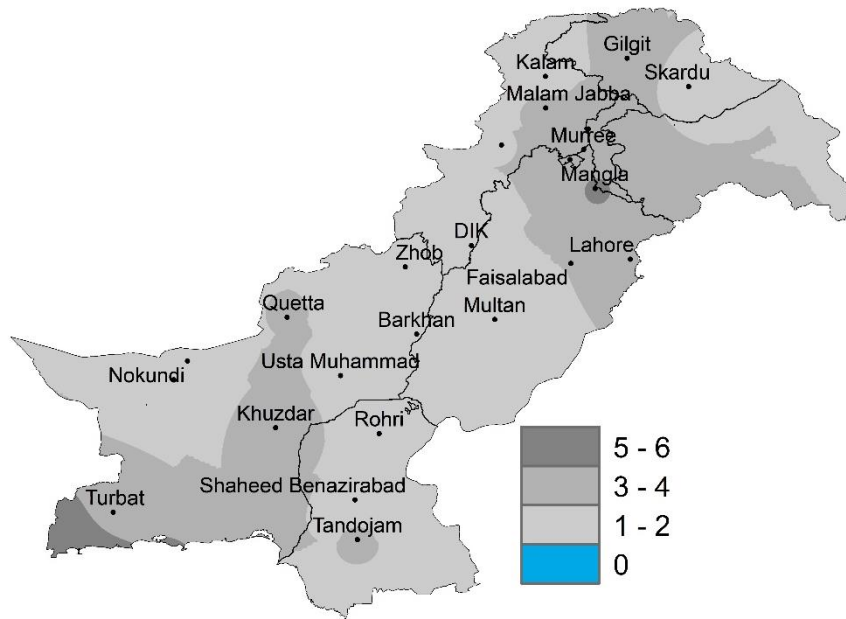
**Mean Relative Humidity (%) during the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**



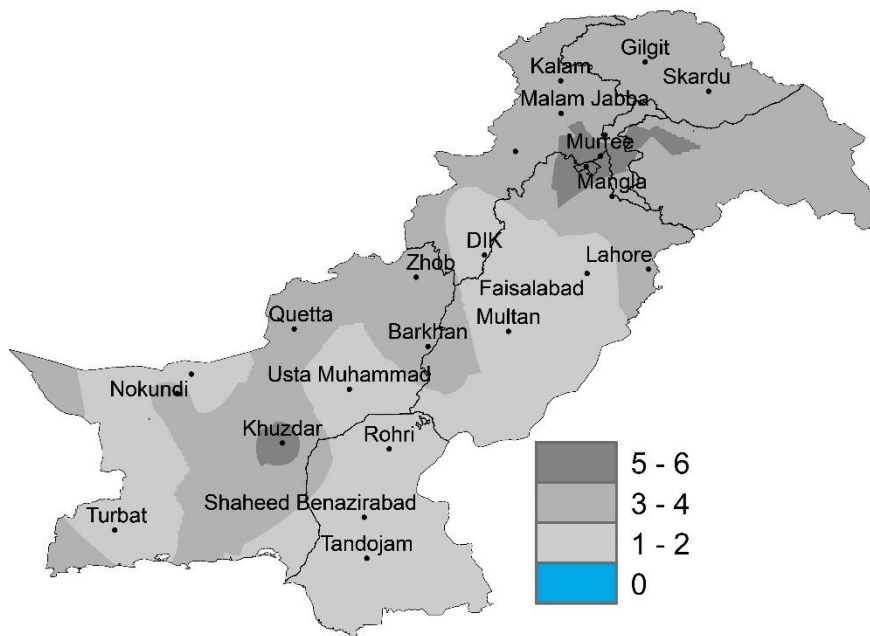
**Total Growing Degree Days accumulated during the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**



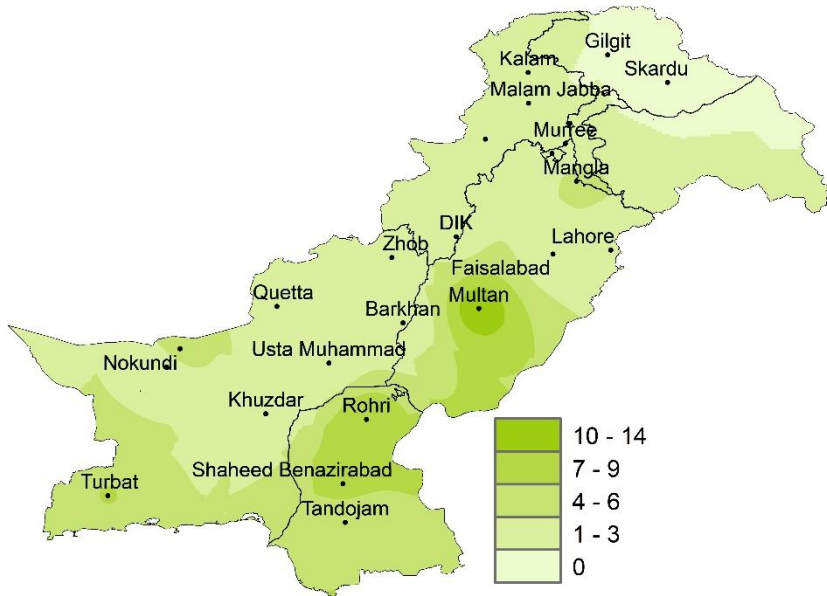
**Mean Cloudiness (Oktas) at 0800PST during the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**



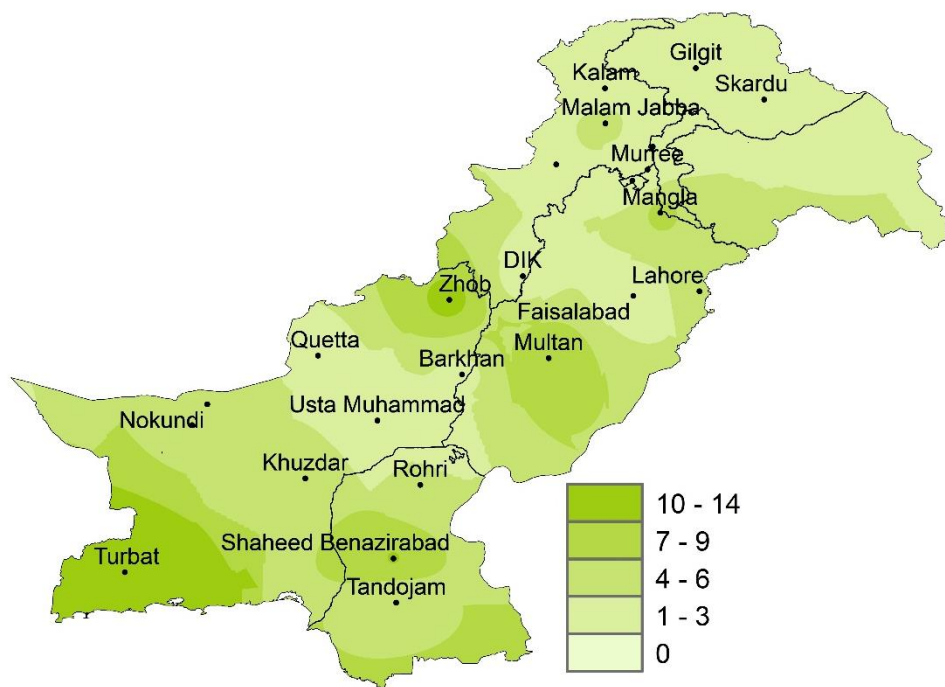
**Mean Cloudiness (Oktas) at 1700PST during the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**



**Mean Wind Speed (Knots) at 0800PST during the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**



**Mean Wind Speed (Knots) at 1700PST during the previous week (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**





**Weekly Weather Advisory for Farmers****(26<sup>th</sup> July – 1<sup>st</sup> August, 2021)**

Monsoon currents are penetrating in upper parts of the country and likely to strengthen during next 24 hours.

**MONDAY****26-07-2021**

Rain wind/thundershower (with Isolated heavy fall) is expected in Kashmir, Islamabad, northeast Punjab and upper Khyber Pakhtunkhwa. Hot and humid weather is likely to prevail over other parts of the country.

**TUESDAY****27-07-2021**

Rain wind/thundershower (with Isolated heavy fall) is expected in Kashmir, Islamabad, northeast Punjab and upper Khyber Pakhtunkhwa. Hot and humid weather is likely to prevail over other parts of the country.

**WEDNESDAY****28-07-2021**

Rain wind-thundershower is expected in Kashmir, Islamabad, upper/central Punjab, Khyber Pakhtunkhwa. Isolated heavy falls are also expected in Kashmir, northeast Punjab, Potohar region and upper Khyber Pakhtunkhwa during the period. Isolated rain-thunderstorm are also expected in south Punjab. However, hot and humid weather is likely elsewhere in the country.

**THURSDAY****29-07-2021**

Rain wind-thundershower is expected in Kashmir, Gilgit Baltistan, Islamabad, upper/central Punjab, Khyber Pakhtunkhwa and northeast Balochistan. Isolated heavy falls are also expected in Kashmir, northeast Punjab, Potohar region and upper Khyber Pakhtunkhwa during the period. However, hot and humid weather is likely elsewhere in the country.

**FRIDAY****30-07-2021.**

Rain wind-thundershower is expected in Kashmir, Gilgit Baltistan, Islamabad, Punjab, Khyber Pakhtunkhwa and northeast Balochistan. Isolated rain/thundershower is also expected in lower parts of Sindh. However, hot and humid weather is likely elsewhere in the country.

**SATURDAY****31-07-2021**

Rain wind-thundershower is expected in Kashmir, Islamabad, Punjab, Khyber Pakhtunkhwa and northeast Balochistan. However, hot and humid weather is likely elsewhere in the country.

**SUNDAY****01-08-2021**

Rain wind-thundershower is expected at isolated places in Kashmir, Khyber Pakhtunkhwa, central/southern Punjab and northeast Balochistan. However, hot and humid weather is likely elsewhere in the country.

**ADVISORY FOR FARMERS**

During the last week, light to moderate rainfall (with few heavy falls) reported from Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan. Light to moderate rainfall reported from Baluchistan and Sindh. Keeping in view the expected weather conditions farmers are advised the following advisories.

- ❖ Excess water may be drained from the fields in case of heavy rainfall.
- ❖ Pesticides may be applied to avoid any pest attack.

**National Weather Data of Selected Cities from (19<sup>th</sup> – 25<sup>th</sup> July, 2021)**

Stations	Maximum /Day Time Temperature (°C)		Growin g Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800 PST	Cloudines s (Oktas) 1700 PST	Wind Speed (Knots) 0800 PST	Wind Speed (Knots) 1700 PST
	Mean	Maximum							
Barkhan	35.6	38.5	172.3	42	0.0	0.3	3.3	0.0	2.3
Dalbandin	42.5	44.5	207.3	24	0.0	0.6	2.4	0.6	5.4
D.I. Khan	37.6	42.0	193.3	50	17.0	1.0	0.4	1.4	1.4
Faisalabad	30.5	39.0	178.6	72	158.2	2.0	0.7	0.9	1.2
Gawadar	34.4	37.0	185.8	71	0.0	5.4	2.9	4.3	13.7
Gilgit	31.0	39.6	136.8	47	16.6	2.7	3.4	0.0	2.9
Kalam	25.3	30.0	93.8	26	36.9	0.6	3.0	0.0	0.9
Khuzdar	37.8	40.0	182.5	39	14.4	3.1	4.6	0.0	4.9
Lahore	33.4	37.0	175.0	56	80.2	2.6	3.3	1.4	3.7
Malam Jabba	22.4	24.5	95.3	64	134.0	2.6	4.1	1.1	4.0
Mangla	33.6	37.5	174.0	55	34.6	4.3	2.7	4.0	6.9
Multan (PBO)	37.1	41.0	195.5	48	0.0	1.0	0.7	10.6	8.9
Murree	23.4	25.5	102.8	69	47.0	3.7	5.6	1.4	2.0
Muzaffarabad	36.3	39.4	172.5	60	65.0	4.0	3.6	0.0	0.0
Nokkundi	41.9	43.5	209.8	54	0.0	1.6	0.7	7.7	9.1
Nawabshah	43.2	45.5	222.5	11	0.0	0.7	0.7	5.0	4.0
Peshawar	36.6	41.0	184.0	57	39.0	1.9	2.4	0.6	2.6
Quetta	34.3	43.5	153.3	35	5.1	2.1	2.7	2.2	2.3
Rawalpindi	34.9	38.4	171.6	74	41.8	3.0	4.6	0.6	0.8
Rohri	41.1	43.5	209.0	51	32.0	1.0	0.0	8.9	3.1
Skardu	28.7	37.6	120.6	26	0.6	1.3	4.1	0.0	0.9
Tandojam	37.5	39.0	193.3	73	0.0	2.1	0.0	3.2	3.1
Turbat	41.9	45.5	212.0	54	0.0	3.7	1.1	6.4	14.1
Usta. M	41.5	43.5	213.8	57	0.0	1.5	0.0	0.0	0.5
Zhob	35.1	38.5	170.0	39	16.0	0.9	4.1	2.1	9.9

\*\*\* 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 2014-2012)