

# Weekly Weather and Crop Bulletin for Pakistan

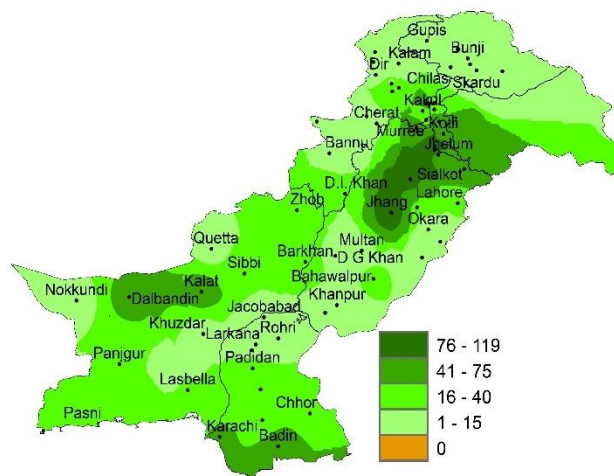
NATIONAL AGROMET CENTRE PAKISTAN

METEOROLOGICAL DEPARTMENT SECTOR H-8/2,

## ISLAMABAD

Phone: +92-51-9250299

Email: [dirnamc@yahoo.com](mailto:dirnamc@yahoo.com)



### Rainfall Distribution (mm) during the Previous Week (12<sup>th</sup> - 18<sup>th</sup> July, 2021)

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### Highlights of Past Weather (12<sup>th</sup> – 18<sup>th</sup> July, 2021)

Above normal day time temperatures were observed in Punjab, Khyber Pakhtunkhwa, Baluchistan, below normal in Sindh, while mix trend was observed in 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.
2. Light to moderate rainfall reported from Khyber Pakhtunkhwa, Baluchistan, Sindh, Kashmir and Gilgit-Baltistan.

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

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

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

**Past Weather of Provinces (12<sup>th</sup> – 18<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 36.6°C & 26.8°C respectively. For the recent week on average 108.9 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 3.4/3.7 Knots. During the previous week the highest precipitation was observed as 119.8 mm at Mangla while the highest maximum temperature was recorded as 45.0°C at Okara.

**Baluchistan**

Light to moderate rainfall reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.2°C & 25.1°C respectively. For the recent week on average 186.4 growing degree days were accumulated. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 1.7/6.8 Knots. During the previous week the highest precipitation was observed as 59.6 mm at Turbat while the highest maximum temperature was recorded as 47.0°C at Nokkundi.

**Khyber Pakhtunkhwa**

Light to moderate rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 34.0°C & 22.0°C respectively. For the recent week on average 161.0 growing degree days were accumulated. Average relative humidity recorded as 70% and wind speed in the morning/evening recorded as 1.2/2.6 Knots. During the previous week the highest precipitation was observed as 56.0 mm at Balakot while the highest maximum temperature was recorded as 43.5°C at Risalpur & D.I.Khan.

**Sindh**

Light to moderate rainfall reported from Sindh during the week. Weekly maximum and minimum

temperatures recorded as 38.9°C & 27.9°C respectively. For the recent week, on average 198.8 growing degree days were accumulated. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 4.2/5.5 Knots. During the previous week the highest precipitation was observed as 61.0 mm at Thatta while the maximum temperature was recorded as 45.5°C at Jacobabad.

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

Light to moderate rainfall reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 33.4°C & 20.1°C respectively. For the recent week on average 153.3 growing degree days were accumulated. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 1.9/2.6 Knots. During the previous week the highest precipitation was observed as 62.0 mm at Kotli while the highest maximum temperature was recorded as 45.6°C at Chillas.

**Past Weather for Major Agricultural Plains****(12<sup>th</sup> – 18<sup>th</sup> July, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 62.3 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.7/3.7 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 36.2°C & for the recent week 175.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.0 Knots.

**Faisalabad (Central Punjab)**

Rainfall reported as 40.4 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.9/0.7 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 36.5°C & for the recent week 180.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/1.9 Knots.

**Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 3.6/0.0 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 37.1°C & for the recent week 188.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/2.2 Knots.

**Usta Muhammad (Eastern Baluchistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 4.0/2.1 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 42.1°C & for the recent week 215.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

**Quetta (Northern Baluchistan)**

Rainfall reported as 14.8 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.7/4.4 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 33.9°C & for the recent week 145.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.8/3.3 Knots.

**Past Weather for Sub-Regional Agricultural Plains (12<sup>th</sup> – 18<sup>th</sup> July, 2021)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 3.9/3.4 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 38.7°C & for the recent week 202.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 5.7/8.9 Knots.

**Lahore**

Rainfall reported as 20.6 mm from Lahore during the week; cloudiness in the morning/evening recorded as 3.3/3.8 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 35.9°C & for the recent week 189.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.5/0.5 Knots.

**Zhob**

Rainfall reported as 36.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 2.0/4.3 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 35.5°C & for the recent week 213.5 growing degree days accumulated. cloudiness in the morning/evening recorded as 2.4/2.9 Oktas.

**Murree**

Rainfall reported as 36.6 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 5.3/6.4 Oktas while, average relative humidity observed as 77%. Mean day time temperature recorded as 24.3°C & for the recent week 108.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.0/1.7 Knots.

**D.I. Khan**

Rainfall reported as 15 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 3.9/3.4 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 38.8°C & for the recent week 196.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/1.9 Knots.

**Peshawar**

Rainfall reported as 1.8 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.3/4.4 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 37.8°C & for the recent week 192.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/3.7 Knots.

**Kalam**

Rainfall reported as 9.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.3/3.7 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 26.1°C & for the recent week 101.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

**Gilgit**

Rainfall reported as 2.0 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 2.3/4.9 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 36.0°C & for the recent week 158.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/2.9 Knots.

**Skardu**

Rainfall reported as 8.9 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 3.1/6.9 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 30.2°C & for the recent week 127.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/0.9 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**, Budding Stage.

**Lower Sindh (Tandojam)**

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

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

**Northern Baluchistan (Quetta)**

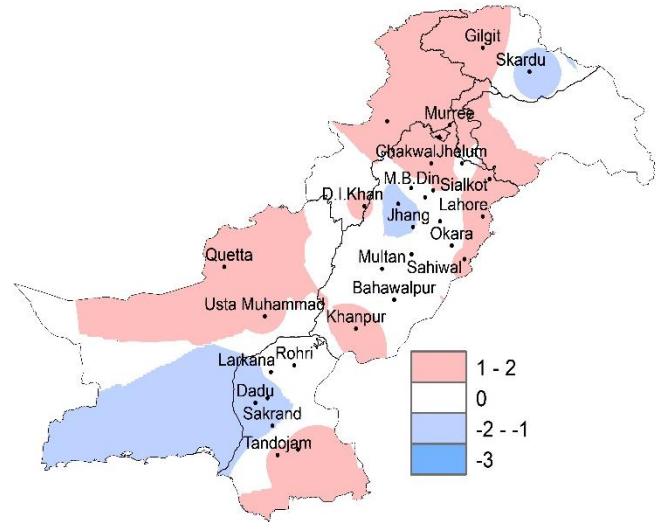
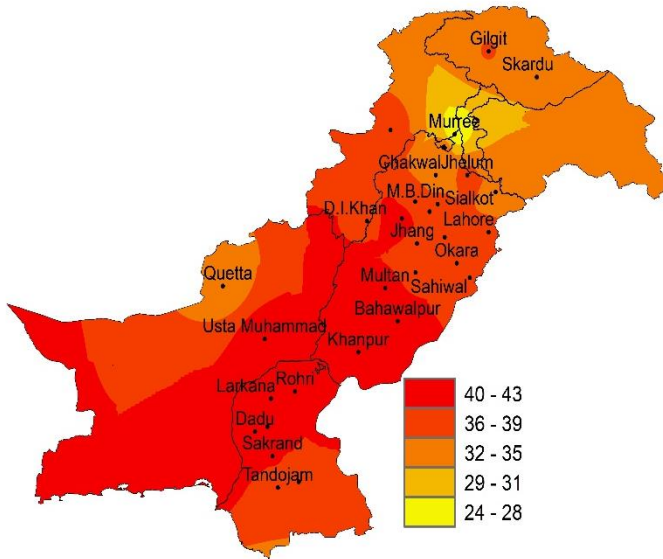
Wheat crop harvested.

**Eastern Baluchistan (Usta Muhammad)**

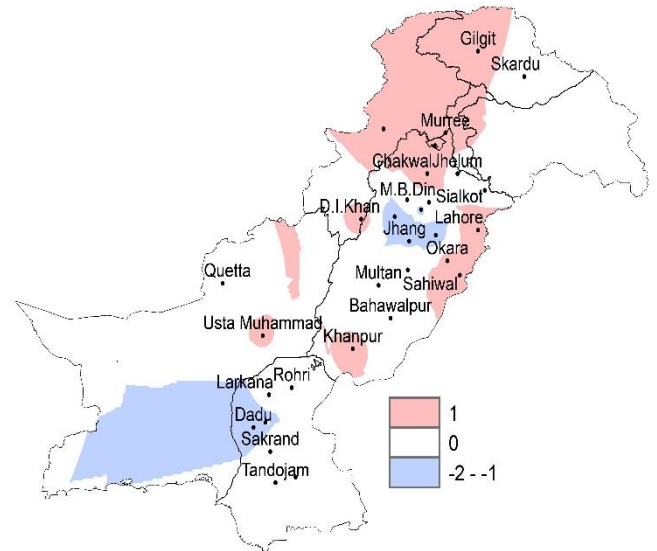
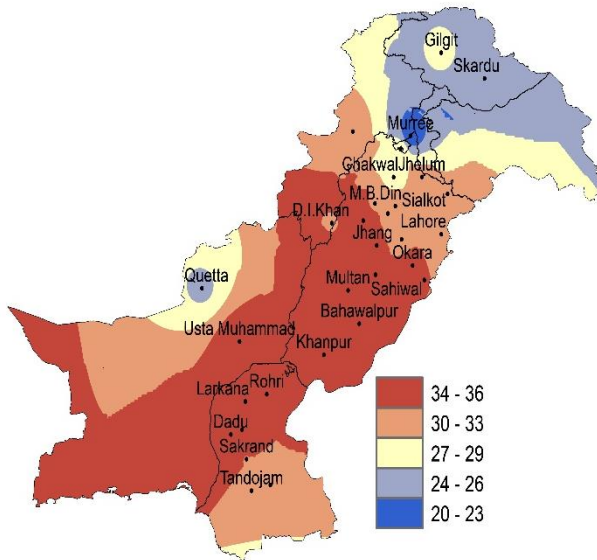
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

**Rice: Good**, Emergence Stage.

**Normal & Departure of Maximum temperature (°C) for the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**

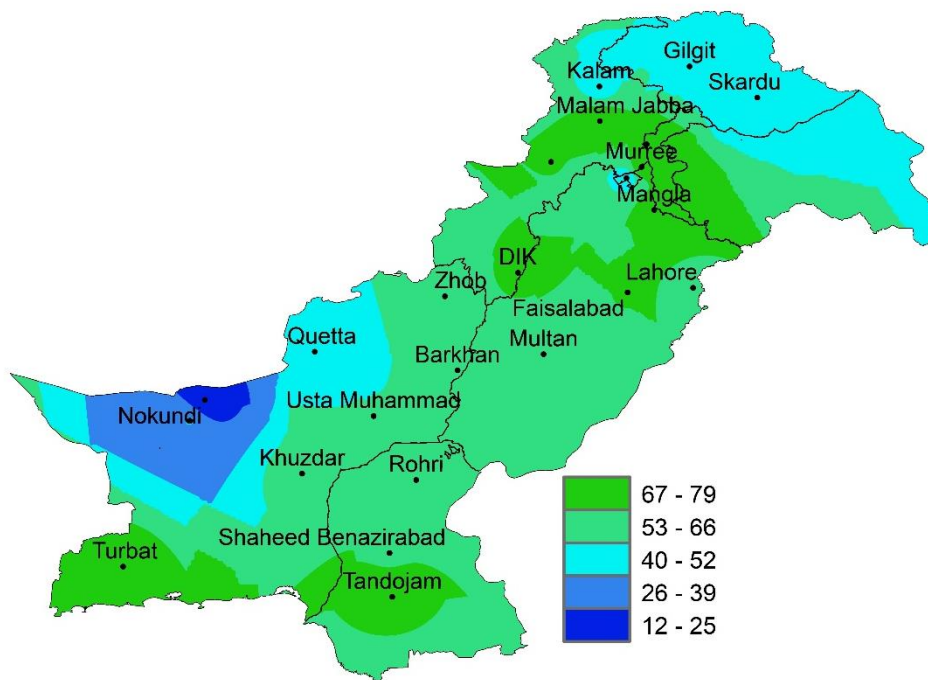


**Normal & Departure of Mean temperature (°C) for the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**

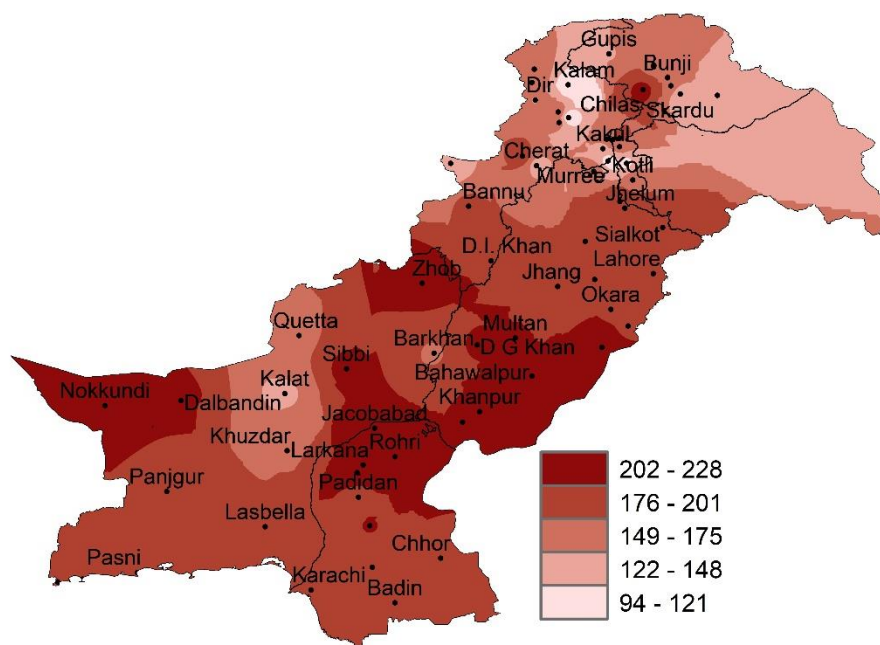




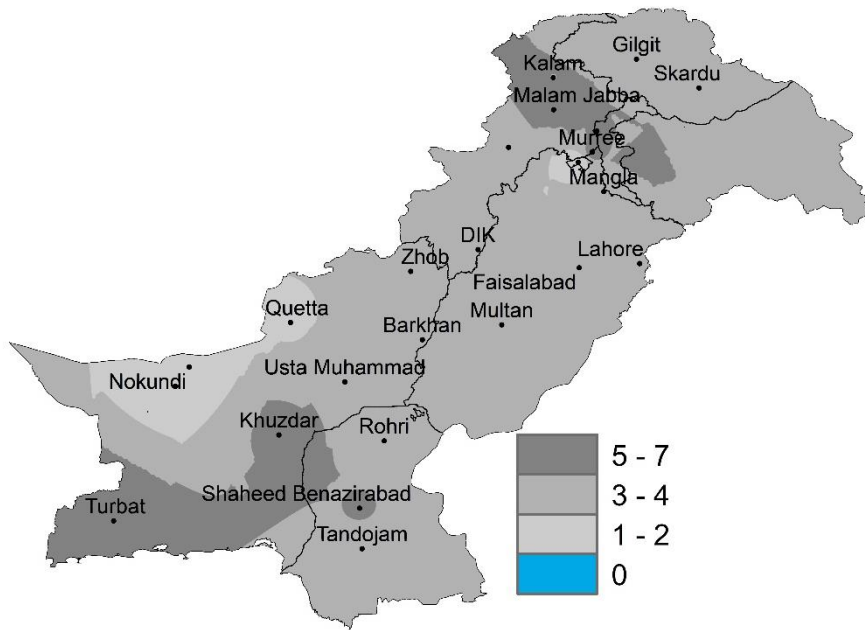
**Mean Relative Humidity (%) during the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**



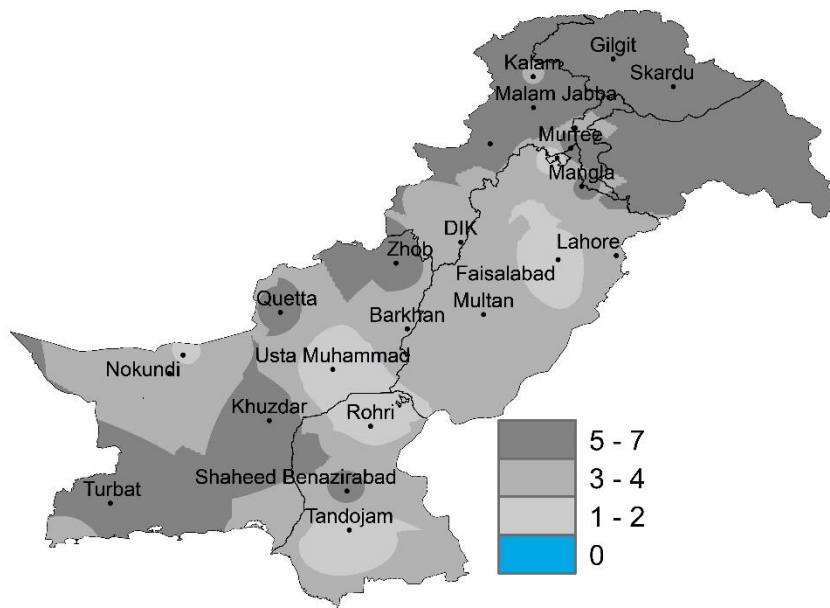
**Total Growing Degree Days accumulated during the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**



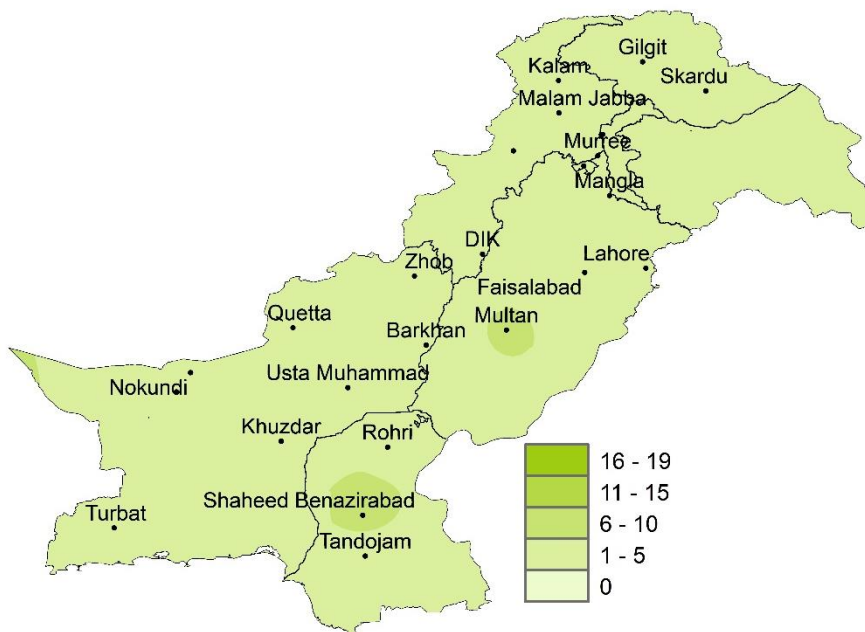
**Mean Cloudiness (Oktas) at 0800PST during the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**



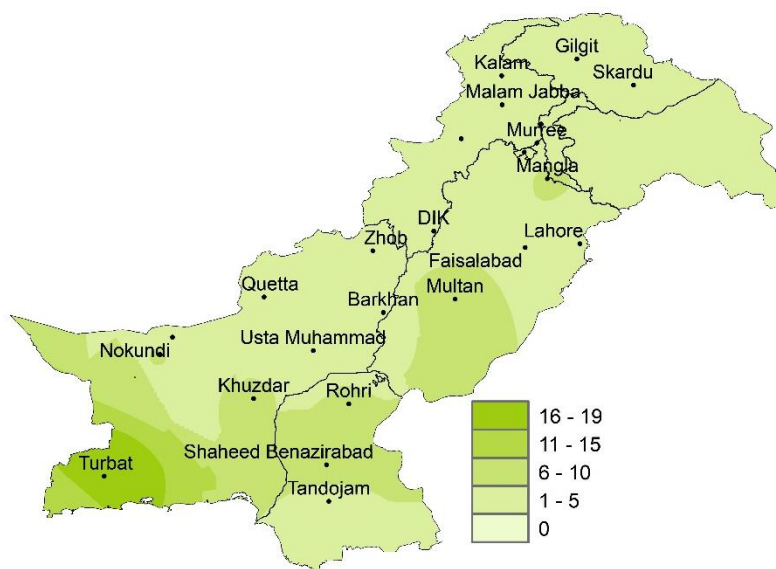
**Mean Cloudiness (Oktas) at 1700PST during the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**



**Mean Wind Speed (Knots) at 0800PST during the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**



**Mean Wind Speed (Knots) at 1700PST during the previous week (12<sup>th</sup> – 18<sup>th</sup> July, 2021)**





**Weekly Weather Advisory for Farmers****(19<sup>th</sup> – 25<sup>th</sup> July, 2021)**

Strong monsoon currents are reaching upper parts of the country and likely to persist till Wednesday. A westerly wave is also present over northwestern parts of the country.

**MONDAY****19-07-2021**

Rain-thundershower associated with gusty winds is expected in Islamabad, upper/central Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit Baltistan. Heavy/torrential rain is also expected at scattered places in upper Punjab, Khyber Pakhtunkhwa and Kashmir during the period.

**TUESDAY****20-07-2021**

Rain-thundershower associated with gusty winds is expected in Islamabad, upper/central Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit Baltistan. Heavy/torrential rain is also expected at scattered places in upper Punjab, Khyber Pakhtunkhwa and Kashmir during the period.

**WEDNESDAY****21-07-2021**

Rain-thundershower associated with gusty winds is expected in Islamabad, Potohar region, upper/central Punjab, Khyber Pakhtunkhwa, Kashmir and Gilgit Baltistan. Isolated heavy falls are also expected in upper Punjab, Khyber Pakhtunkhwa and Kashmir during the period.

**THURSDAY****22-07-2021**

Partly cloudy weather is expected in upper/central parts of the country with rain-thundershower/gusty winds is expected in Kashmir, upper Khyber Pakhtunkhwa, Punjab, Gilgit Baltistan and upper Sindh. Hot and humid weather is expected in other parts of the country.

**FRIDAY****23-07-2021.**

Rain-thundershower/gusty winds is expected in Kashmir, upper Khyber Pakhtunkhwa, Punjab, Gilgit Baltistan and Sindh. Hot and humid weather is expected in other parts of the country.

**SATURDAY****24-07-2021**

Mainly hot and humid weather is likely to prevail over most parts of the country. However, isolated rain-thunderstorm is expected in southeastern Sindh, Kashmir and adjoining hilly areas.

**SUNDAY****25-07-2021**

Mainly hot and humid weather is likely to prevail over most parts of the country. However, isolated rain-thunderstorm is expected in southeastern Sindh, Kashmir and adjoining hilly areas.

**ADVISORY FOR FARMERS**

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

- ❖ Farmers are advised to irrigate the crops according to its need.
- ❖ Pesticides may be applied to avoid any pest attack.

**National Weather Data of Selected Cities from (12<sup>th</sup> – 18<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	35.2	38.0	171.8	56	40.0	3.1	3.6	0.0	2.6
Dalbandin	42.0	45.5	204.3	39	53.2	1.7	3.5	1.1	5.3
D.I. Khan	38.8	43.5	196.6	68	15.0	3.9	3.4	1.4	1.4
Faisalabad	36.5	41.5	180.2	66	40.4	2.9	0.7	1.6	1.9
Gawadar	35.0	36.5	185.8	72	39.0	5.7	3.3	1.4	12.0
Gilgit	36.0	41.5	158.7	48	2.0	2.3	4.9	0.9	2.9
Kalam	26.1	29.0	101.5	43	9.0	4.3	3.7	0.0	0.9
Khuzdar	35.4	39.0	169.3	61	3.4	4.9	5.6	1.1	5.4
Lahore	35.9	39.2	189.4	64	20.6	3.3	3.8	1.5	0.5
Malam Jabba	22.4	25.0	92.8	79	14.0	5.1	6.9	2.3	4.0
Mangla	35.1	38.7	178.1	74	119.8	4.0	4.1	4.0	6.3
Multan (PBO)	38.7	41.3	202.0	58	0.0	3.9	3.4	5.7	8.9
Murree	24.3	26.3	108.6	77	36.6	5.3	6.4	3.0	1.7
Muzaffarabad	35.8	39.5	167.4	68	41.0	4.6	3.6	0.0	0.3
Nokkundi	39.9	41.5	202.0	12	30.3	0.7	1.6	2.6	2.3
Nawabshah	43.9	47.0	228.3	65	0.0	4.4	4.9	6.6	8.9
Peshawar	37.8	42.5	192.8	66	1.8	3.3	4.4	1.1	3.7
Quetta	33.9	36.0	145.1	46	14.8	1.7	4.4	1.8	3.3
Rawalpindi	36.2	40.0	175.7	43	65.3	0.0	0.1	0.9	1.4
Rohri	40.9	43.0	213.3	55	0.0	3.7	1.7	4.6	5.4
Skardu	30.2	37.6	127.7	43	8.9	3.1	6.9	2.6	0.9
Tandojam	37.1	39.0	188.0	70	0.0	3.6	0.0	1.6	2.2
Turbat	39.2	41.5	199.3	68	59.6	5.6	6.0	2.7	18.7
Usta. M	42.1	45.0	215.3	53	0.0	4.0	0.0	0.0	1.4
Zhob	35.5	41.0	213.5	55	36.0	2.0	4.3	2.4	2.9

\*\*\* 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 2012-2014)