

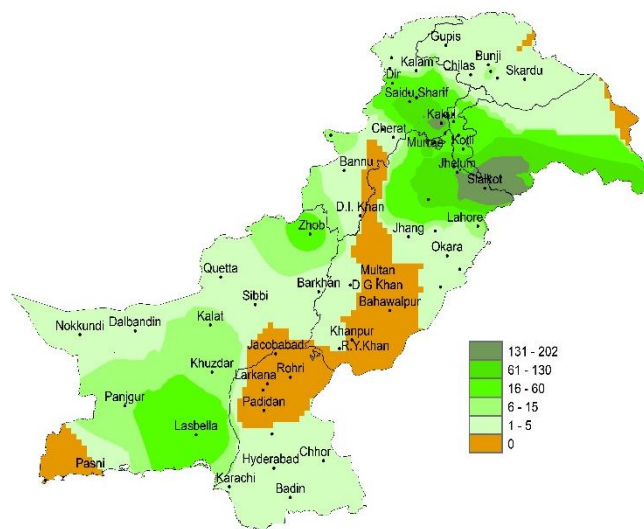
Weekly Weather and Crop Bulletin for Pakistan

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 (5th - 11th July, 2021)

Contents

Highlights of past weather	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Agro meteorological parameters	
• Temperature	5
• R.H and GDD	6
• Wind speed	7
• Cloudiness	8
Advisory for Farmers	9
Weather Outlook	10
National data for selected stations	11
AgMIP project findings	12

Highlights of Past Weather (5th – 11th July, 2021)

Above normal day time temperatures were observed all over the country during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall reported from upper Punjab, upper Khyber Pakhtunkhwa, Baluchistan, Kashmir and Gilgit-Baltistan.
2. Light rainfall reported from a few stations in Sindh.

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

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (5th – 11th July, 2021)**Punjab**

Light to moderate rainfall (with few heavy falls) reported from upper Punjab during the week. Weekly maximum and minimum temperatures recorded as 40.0°C & 28.1°C respectively. For the recent week on average 203.1 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 193.0 mm at Sialkot while the highest maximum temperature was recorded as 45.0°C at Bhakkar.

Baluchistan

Light to moderate rainfall reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 38.2°C & 25.5°C respectively. For the recent week on average 187.7 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 33.0 mm at Lasbella while the highest maximum temperature was recorded as 48.5°C at Nokkundi.

Khyber Pakhtunkhwa

Light to moderate rainfall (with few heavy falls) reported from upper Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 37.0°C & 22.1°C respectively. For the recent week on average 171.8 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 226.0 mm at Kakul while the highest maximum temperature was recorded as 45.5°C at Bannu.

Sindh

Light rainfall reported from a few stations in Sindh during the week. Weekly maximum and minimum

temperatures recorded as 39.8°C & 28.2°C respectively. For the recent week, on average 202.8 growing degree days were accumulated. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 7.0/4.3 Knots. During the previous week the highest precipitation was observed as 10.0 mm at Mithi while the maximum temperature was recorded as 47.5°C at Dadu.

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 34.8°C & 18.2°C respectively. For the recent week on average 150.6 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 46.6 mm at Kotli while the highest maximum temperature was recorded as 44.0°C at Garhi Dupatta.

Past Weather for Major Agricultural Plains**(5th – 11th July, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 43.2 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.3/1.1 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 39.2°C & for the recent week 191.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/1.1 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 14.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.1/0.7 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 41.3°C & for the recent week 211.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.7 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 2.3/0.0 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 37.2°C & for the recent week 186.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.3/0.6 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 50%. Mean day time temperature recorded as 43.0°C & for the recent week 221.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/2.0 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 4.0 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.0/3.9 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 35.7°C & for the recent week 151.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/2.9 Knots.

Past Weather for Sub-Regional Agricultural Plains (5th – 11th 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 39.9°C & for the recent week 205.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 10.6/8.9 Knots.

Lahore

Rainfall reported as 24.2 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 39.1°C & for the recent week 202.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/3.7 Knots.

Zhob

Rainfall reported as 19.0 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 37.6°C & for the recent week 178.5 growing degree days accumulated. cloudiness in the morning/evening recorded as 2.1/9.9 Oktas.

Murree

Rainfall reported as 35.0 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 26.1°C & for the recent week 118.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/2.0 Knots.

D.I. Khan

Dry weather reported 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 43.4°C & for the recent week 217.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.4 Knots.

Peshawar

Dry weather reported 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 41.5°C & for the recent week 204.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.6 Knots.

Kalam

Rainfall reported as 1.5 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 30.0°C & for the recent week 100.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

Gilgit

Rainfall reported as 0.4 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 36.3°C & for the recent week 150.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.9 Knots.

Skardu

Dry weather reported 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 33.4°C & for the recent week 186.7 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, 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)

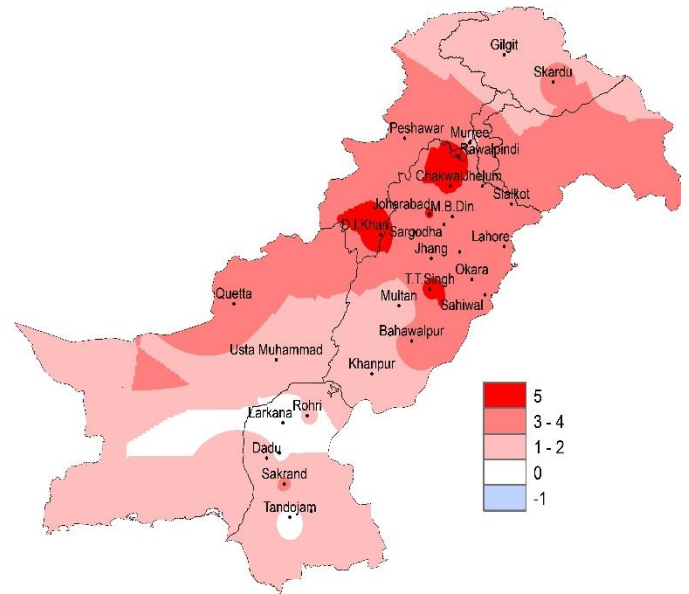
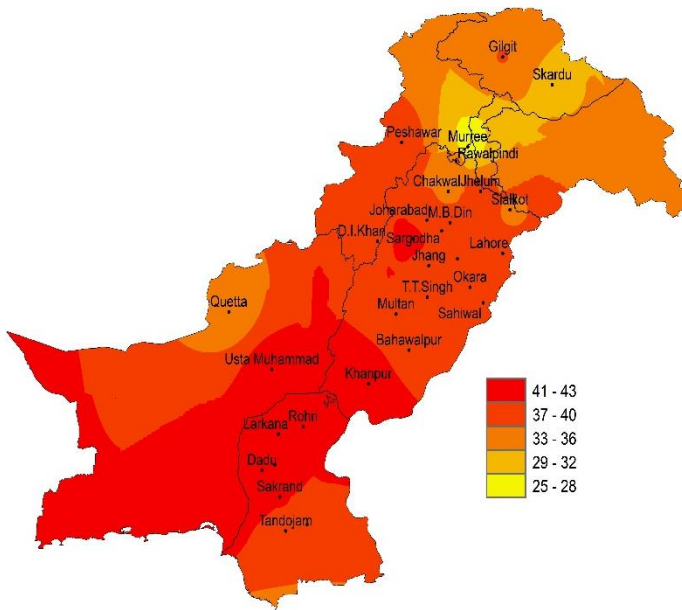
Wheat crop harvested.

Eastern Baluchistan (Usta Muhammad)

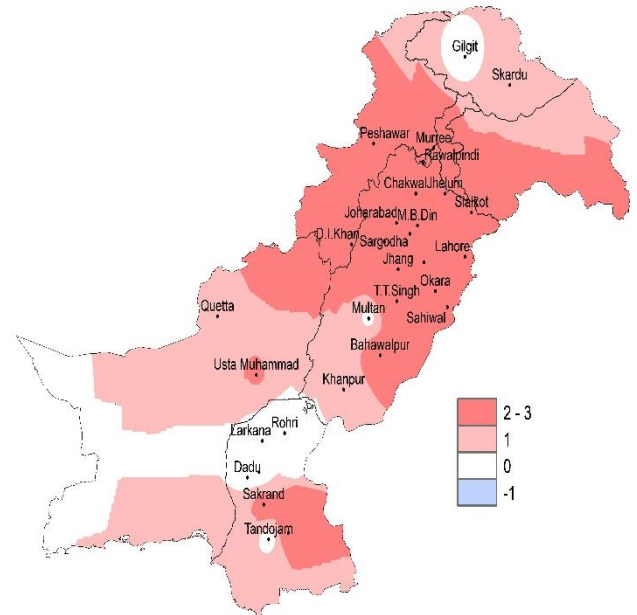
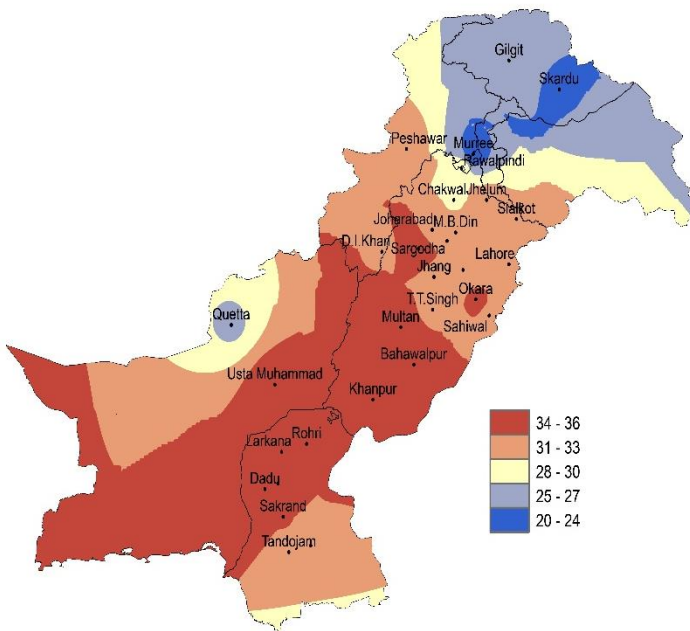
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Germination Stage.

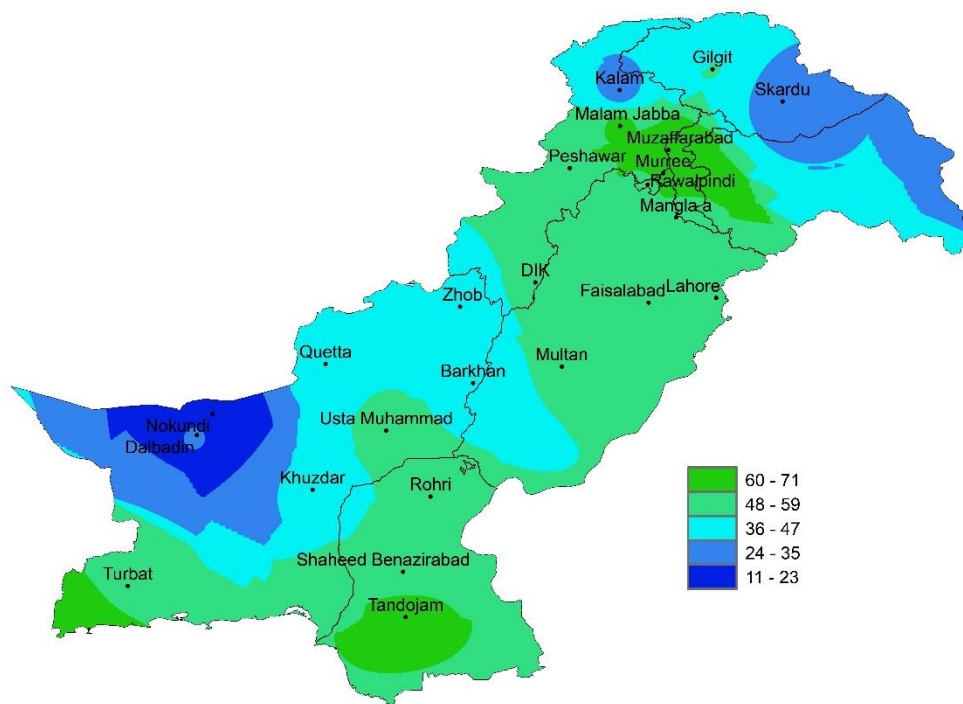
Normal & Departure of Maximum temperature (°C) for the previous week (5th – 11th July, 2021)



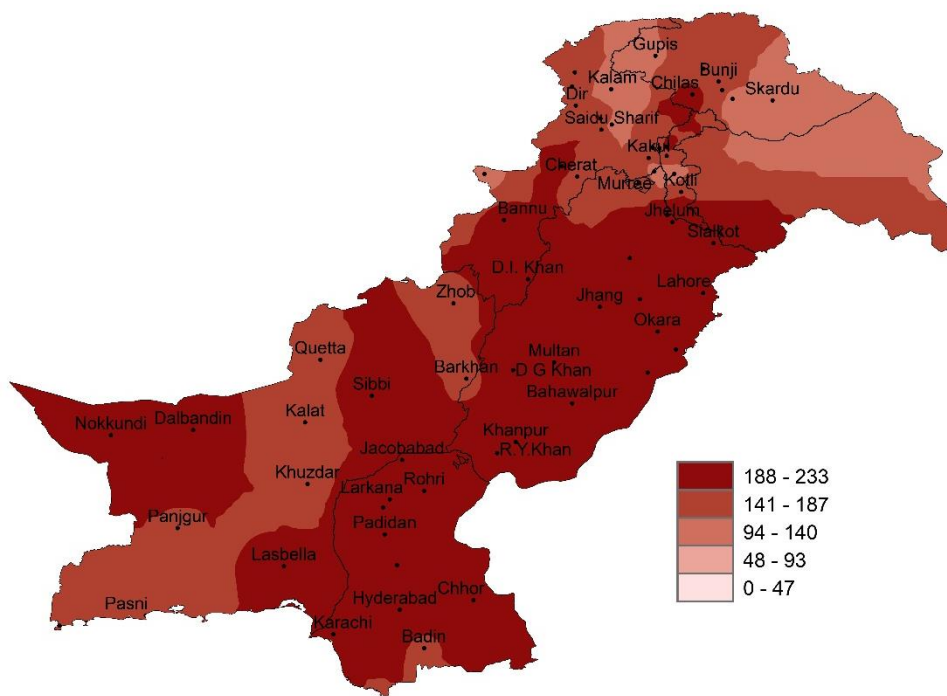
Normal & Departure of Mean temperature (°C) for the previous week (5th – 11th July, 2021)



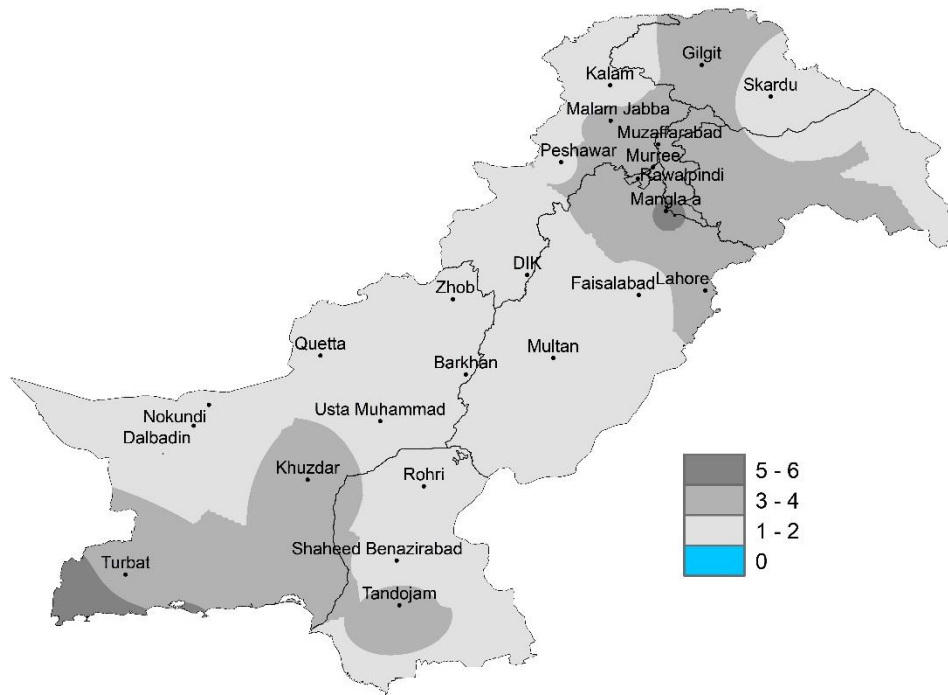
Mean Relative Humidity (%) during the previous week (5th – 11th July, 2021)



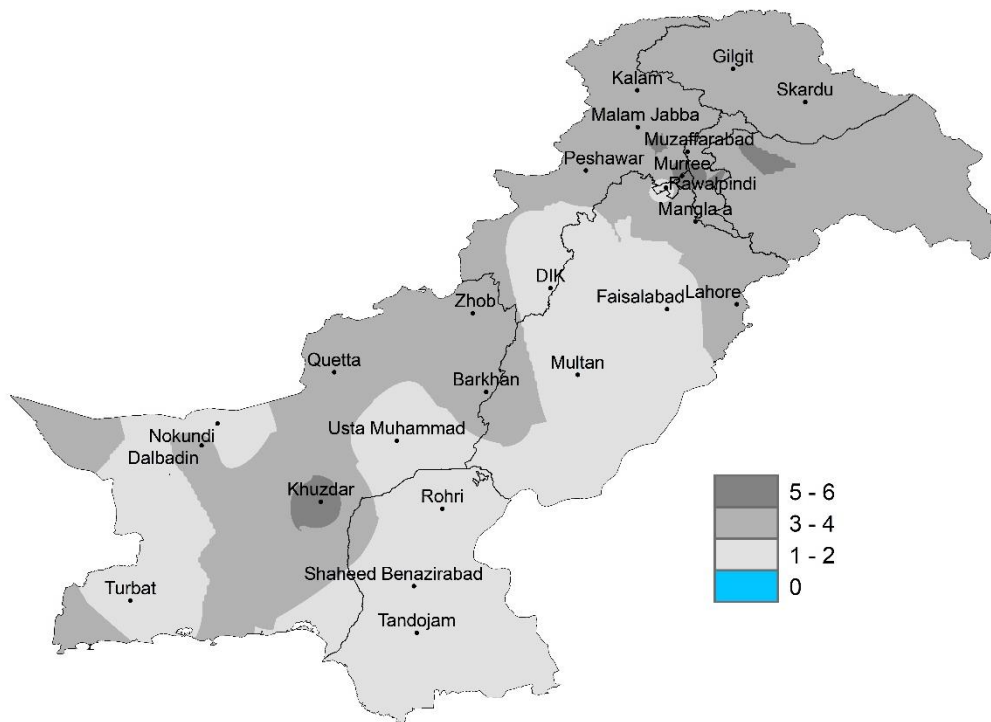
Total Growing Degree Days accumulated during the previous week (5th – 11th July, 2021)



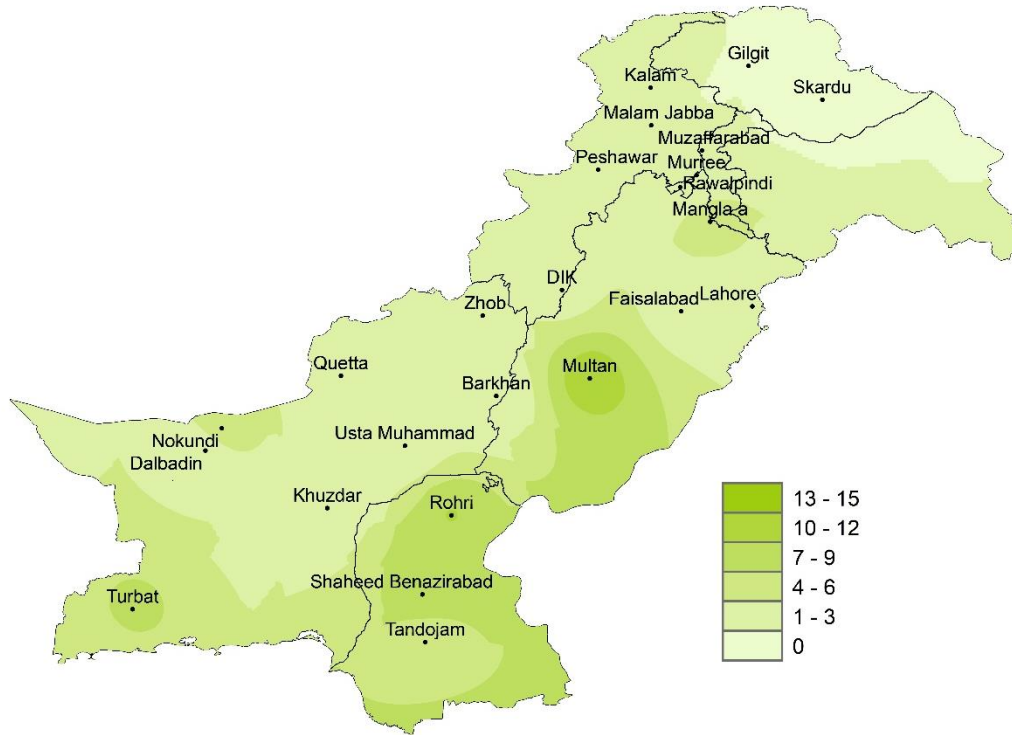
Mean Cloudiness (Oktas) at 0800PST during the previous week (5th – 11th July, 2021)



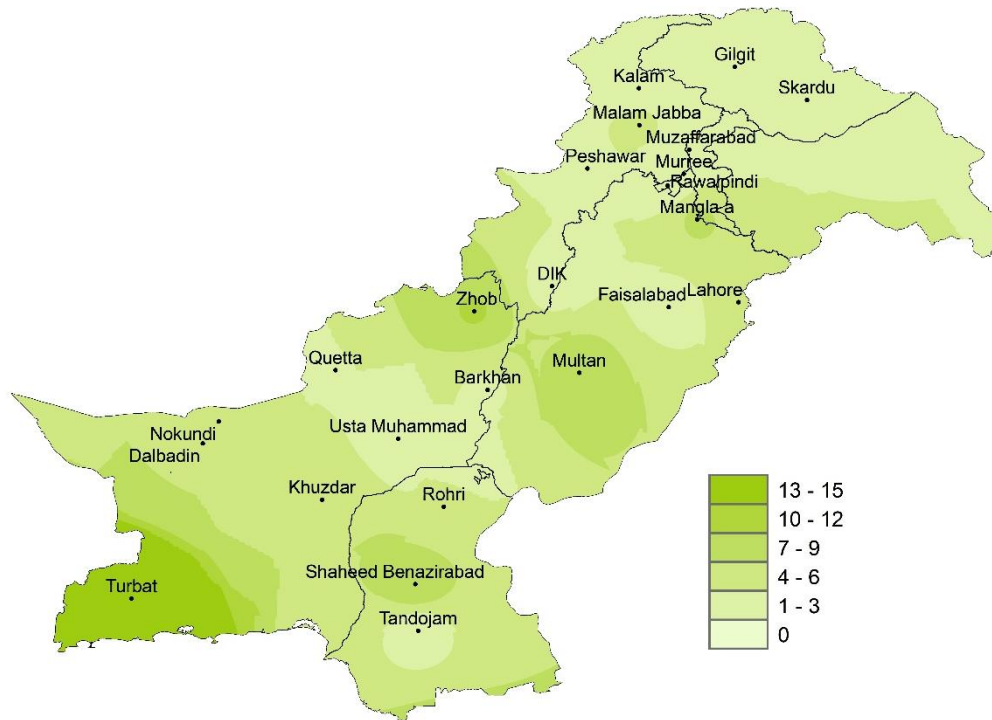
Mean Cloudiness (Oktas) at 1700PST during the previous week (5th – 11th July, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (5th – 11th July, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (5th – 11th July, 2021)



Weekly Weather Advisory for Farmers**(12th – 18th July, 2021)**

Strong monsoon currents from Bay of Bengal are penetrating in upper and lower parts of the country. A shallow westerly wave is also present over upper parts of the country.

MONDAY**12-07-2021**

Partly cloudy weather is expected in upper and central parts with chances of rain-wind/thundershower in Kashmir, Punjab, Khyber Pakhtunkhwa, Islamabad, Gilgit-Baltistan and South eastern Sindh. Heavy falls are also expected in Kashmir, northeastern Punjab and upper Khyber-Pakhtunkhwa at isolated places during the period.

TUESDAY**13-07-2021**

Partly cloudy weather is expected in upper and central parts with chances of rain-wind/thundershower and gusty winds are expected in Kashmir, Punjab, Khyber Pakhtunkhwa, Islamabad, Gilgit-Baltistan, Balochistan and Sindh. Heavy falls are also expected in upper Punjab, Kashmir and upper Khyber-Pakhtunkhwa at isolated places during the period.

WEDNESDAY**14-07-2021**

Rain-wind-thundershower (few heavy falls) with gusty winds is expected in Kashmir, Punjab, Khyber Pakhtunkhwa, Gilgit Baltistan, eastern Balochistan and Sindh.

THURSDAY**15-07-2021**

Rain-wind-thundershower with gusty winds is expected in Kashmir, Punjab, Khyber Pakhtunkhwa, Gilgit Baltistan, eastern Balochistan and Sindh.

FRIDAY**16-07-2021.**

Partly cloudy weather conditions with rain-wind-thundershower is expected in Balochistan, Sindh, upper Punjab, Kashmir and upper Khyber Pakhtunkhwa.

SATURDAY**17-07-2021**

Hot and humid weather is expected in most parts of the country. However, rain-thundershower with gusty winds is expected in northeast Punjab, Kashmir and southern Balochistan.

SUNDAY**18-07-2021**

Hot and humid weather is expected in most parts of the country. However, rain-thundershower with gusty winds is expected in upper Khyber Pakhtunkhwa, upper Punjab, Islamabad and Kashmir.

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall reported from upper Punjab, upper Khyber Pakhtunkhwa, Baluchistan, Kashmir and Gilgit-Baltistan. Light rainfall reported from a few stations in Sindh. 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 pest attacks after the rains.

National Weather Data of Selected Cities from (5th – 11th July, 2021)

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	Maximum							
Barkhan	37.1	39.5	180.0	42	0.0	0.3	3.3	0.0	2.3
Dalbandin	44.9	48.0	223.3	24	2.0	0.6	2.4	0.6	5.4
D.I. Khan	43.4	45.0	217.5	50	0.0	1.0	0.4	1.4	1.4
Faisalabad	39.2	42.5	211.4	52	14.0	1.1	0.7	1.4	1.7
Gawadar	33.4	34.5	178.0	71	0.0	5.4	2.9	4.3	13.7
Gilgit	36.3	40.5	150.2	47	0.4	2.7	3.4	0.0	2.9
Kalam	28.1	30.0	100.3	26	1.5	0.6	3.0	0.0	0.9
Khuzdar	37.9	41.5	177.3	39	12.4	3.1	4.6	0.0	4.9
Lahore	39.1	41.6	202.8	56	24.2	2.6	3.3	1.4	3.7
Malam Jabba	24.8	26.5	102.8	64	77.0	2.6	4.1	1.1	4.0
Mangla	39.2	42.2	197.0	55	83.8	4.3	2.7	4.0	6.9
Multan (PBO)	39.9	42.0	205.2	48	0.0	1.0	0.7	10.6	8.9
Murree	26.1	28.2	118.9	69	35.0	3.7	5.6	1.4	2.0
Muzaffarabad	38.4	40.5	178.4	60	28.0	4.0	3.6	0.0	0.0
Nokkundi	42.5	43.5	209.4	54	0.0	1.6	0.7	7.7	9.1
Nawabshah	46.1	48.5	233.5	11	0.0	0.7	0.7	5.0	4.0
Peshawar	41.5	43.0	204.4	57	0.0	1.9	2.4	0.6	2.6
Quetta	35.7	37.5	151.8	41	4.0	1.0	3.9	2.0	2.9
Rawalpindi	39.2	42.0	191.1	54	43.2	3.3	1.1	2.3	1.1
Rohri	42.2	43.0	211.5	51	0.0	1.0	0.0	8.9	3.1
Skardu	33.4	36.8	129.9	26	0.0	1.3	4.1	0.0	0.9
Tandojam	37.2	38.5	186.7	63	0.0	2.3	0.0	4.3	0.6
Turbat	40.0	42.0	203.8	54	0.0	3.7	1.1	6.4	14.1
Usta. M	43.0	44.0	221.0	50	0.0	1.5	0.0	0.5	2.0
Zhob	37.6	39.0	178.5	39	19.0	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 2012-2014)