

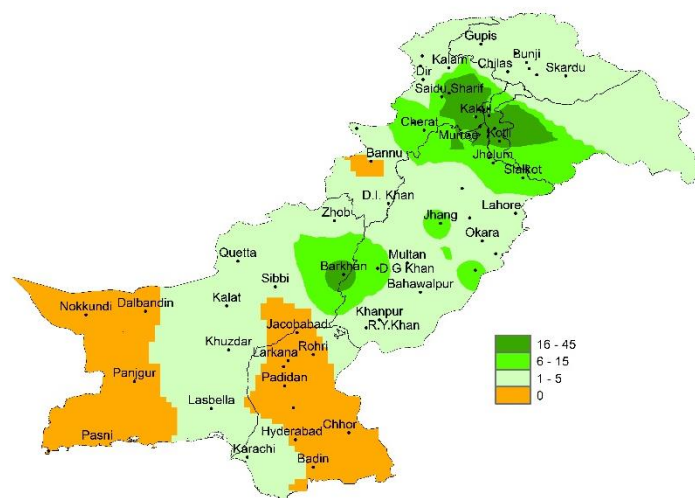
Weekly Weather and Crop Bulletin for Pakistan

NATIONAL AGROMET CENTRE PAKISTAN
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Rainfall Distribution (mm) during the Previous Week (28th June - 4th July, 2021)

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Highlights of Past Weather (28th June– 4th 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 Punjab, upper Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan.
2. Light rainfall reported from a few stations in northeast Baluchistan.

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (28th June – 4th July, 2021)**Punjab**

Light to moderate rainfall reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 41.2°C & 27.3°C respectively. For the recent week on average 204.9 growing degree days were accumulated. Average relative humidity recorded as 45% and wind speed in the morning/evening recorded as 5.1/5.5 Knots. During the previous week the highest precipitation was observed as 39.0 mm at Murree while the highest maximum temperature was recorded as 46.5°C at Bhakkar.

Baluchistan

Light rainfall reported from a few stations in northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 38.5°C & 25.1°C respectively. For the recent week on average 187.3 growing degree days were accumulated. Average relative humidity recorded as 39% and wind speed in the morning/evening recorded as 2.0/8.0 Knots. During the previous week the highest precipitation was observed as 18.0 mm at Barkhan while the highest maximum temperature was recorded as 48.5°C at Sibbi.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from upper Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 37.7°C & 21.5°C respectively. For the recent week on average 172.1 growing degree days were accumulated. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 1.6/3.3 Knots. During the previous week the highest precipitation was observed as 49.0 mm at Malamjabba while the highest maximum temperature was recorded as 48.0°C at Risalpur.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures

recorded as 40.7°C & 28.4°C respectively. For the recent week, on average 206.9 growing degree days were accumulated. Average relative humidity recorded as 55% and wind speed in the morning/evening recorded as 6.7/8.8 Knots. During the previous week the highest maximum temperature was recorded as 49.5°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 33.4°C & 17.5°C respectively. For the recent week on average 143.1 growing degree days were accumulated. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 1.1/4.1 Knots. During the previous week the highest precipitation was observed as 28.5 mm at Garhi Dupatta while the highest maximum temperature was recorded as 42.8°C at Kotli.

Past Weather for Major Agricultural Plains**(28th June – 4th July, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 11.3 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.3/0.7 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 41.7°C & for the recent week 197.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.2 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.0/0.7 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 41.1°C & for the recent week 203.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.0/1.6 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.0/0.0 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 38.3°C & for the recent week 190.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 6.6/10.8 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.0/0.0 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 43.8°C & for the recent week 222.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/1.1 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.3/1.4 Oktas while, average relative humidity observed as 28%. Mean day time temperature recorded as 34.4°C & for the recent week 151.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.8/3.3 Knots.

Past Weather for Sub-Regional Agricultural Plains (28th June – 4th July, 2021)**Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.7/1.4 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 39.8°C & for the recent week 206.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 11.1/10.6 Knots.

Lahore

Dry weather reported from Lahore during the week; cloudiness in the morning/evening recorded as 1.6/1.4 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 41.2°C & for the recent week 213.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/3.7 Knots.

Zhob

Rainfall reported as 2.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/3.1 Oktas while, average relative humidity observed as 27%. Mean day time temperature recorded as 37.8°C & for the recent week 184.8 growing degree days accumulated. cloudiness in the morning/evening recorded as 4.4/7.3 Oktas.

Murree

Rainfall reported as 39.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 0.9/2.0 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 28.8°C & for the recent week 128.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/2.3 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.9/0.4 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded as 42.6°C & for the recent week 211.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.4 Knots.

Peshawar

Rainfall reported as 8.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.7/4.3 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 43.2°C & for the recent week 207.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/3.4 Knots.

Kalam

Rainfall reported as 1.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.0/5.1 Oktas while, average relative humidity observed as 36%. Mean day time temperature recorded as 27.8°C & for the recent week 97.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.4 Knots.

Gilgit

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 5.0/5.1 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 33.2°C & for the recent week 146.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/5.1 Knots.

Skardu

Rainfall reported as 1.9 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.3/3.4 Oktas while, average relative humidity observed as 36%. Mean day time temperature recorded as 29.5°C & for the recent week 118.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/3.4 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, Third Leaf Stage Completed.

Lower Sindh (Tandojam)

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

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

Northern Baluchistan (Quetta)

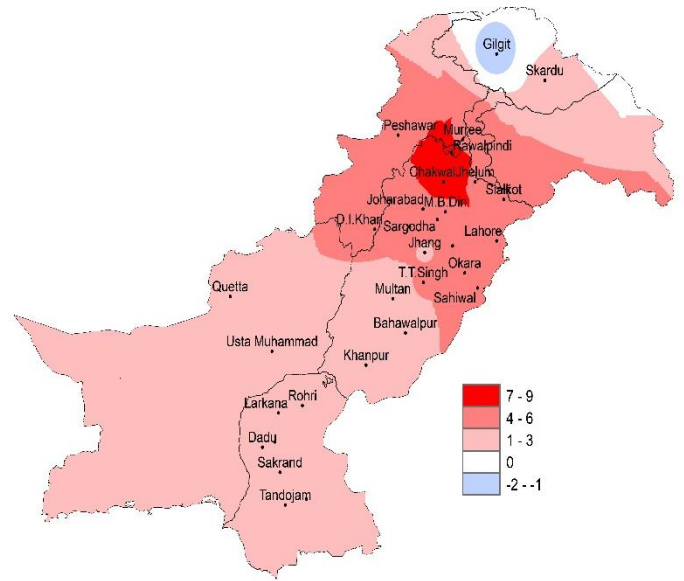
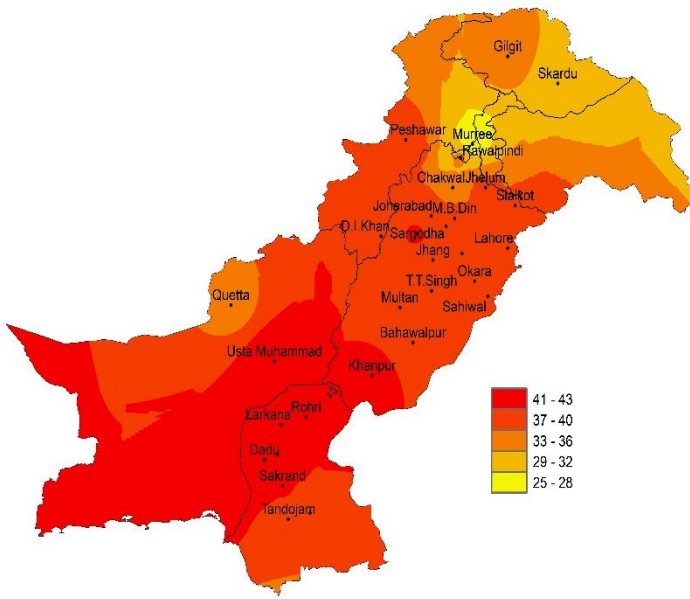
Wheat crop harvested.

Eastern Baluchistan (Usta Muhammad)

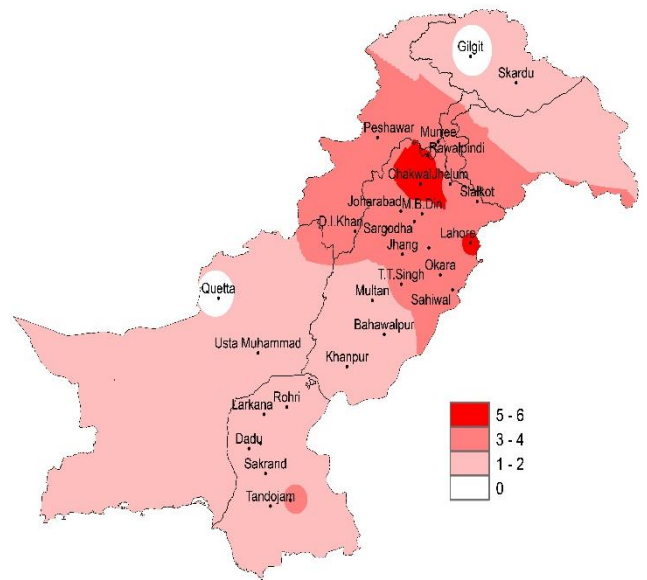
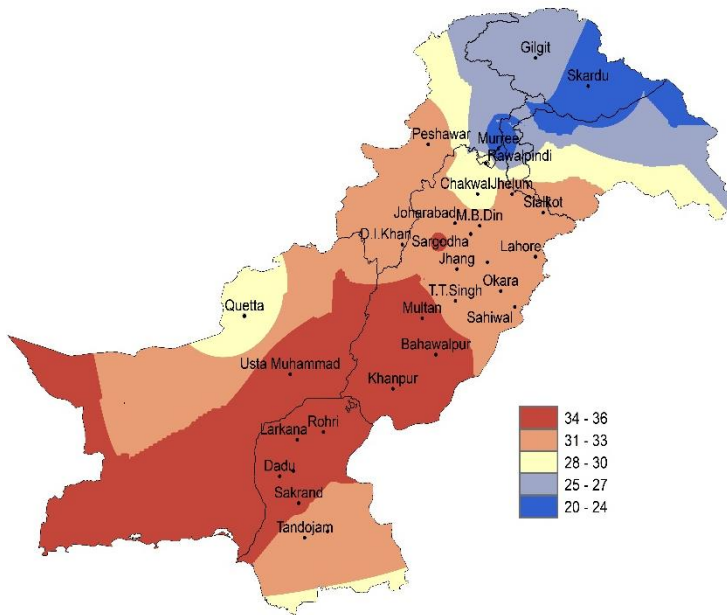
Presently Rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Germination Stage.

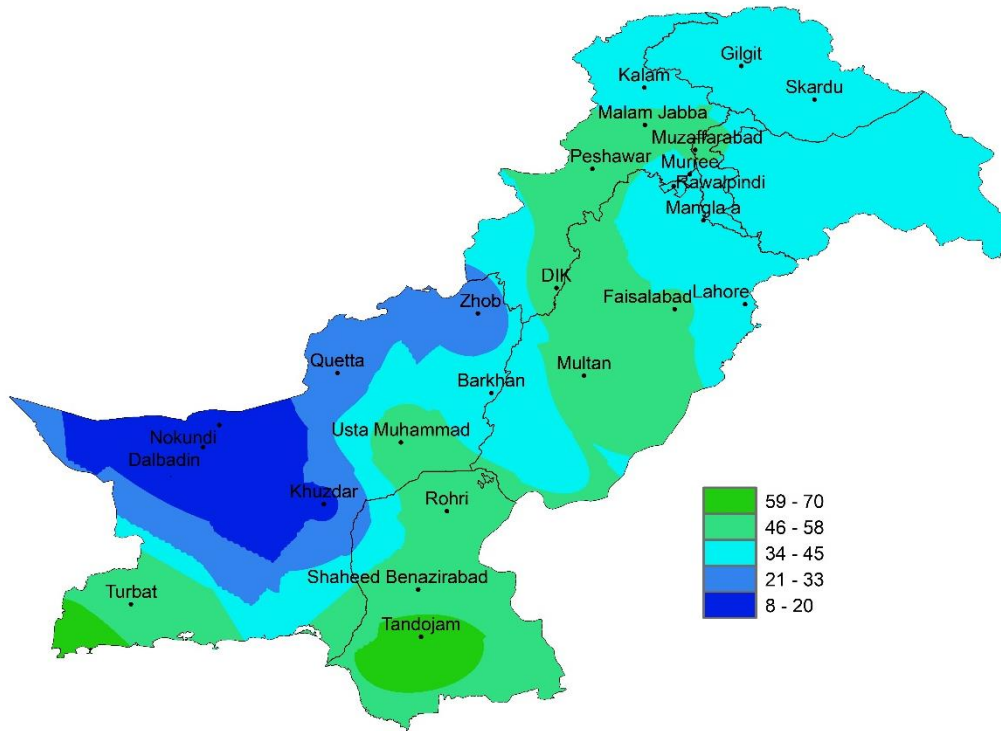
Normal & Departure of Maximum temperature (°C) for the previous week (28th June – 4th July, 2021)



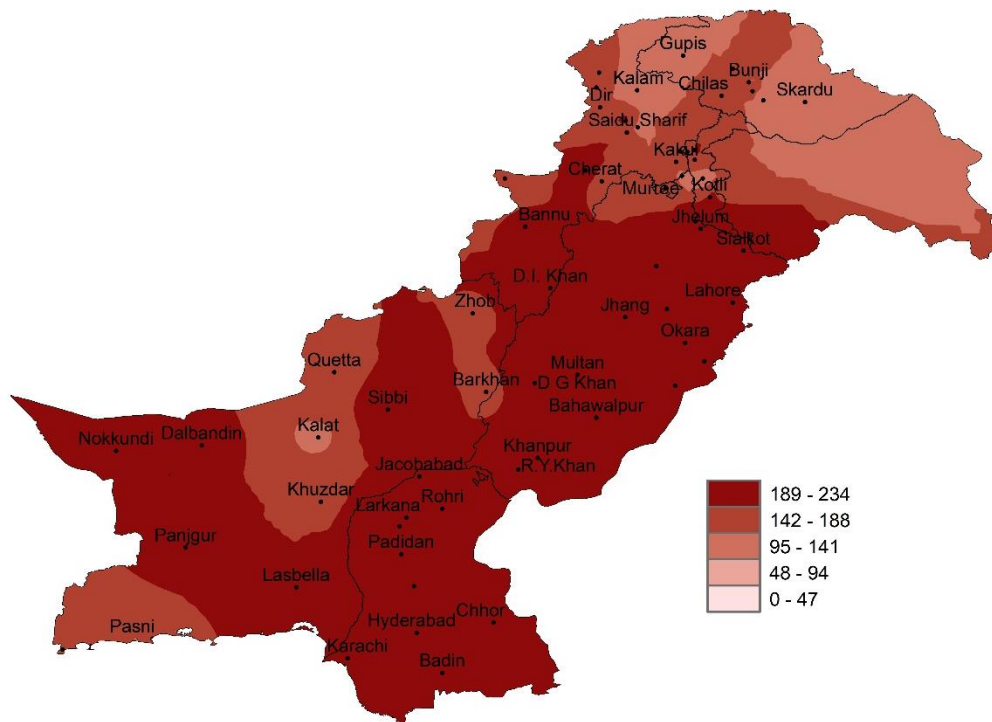
Normal & Departure of Mean temperature (°C) for the previous week (28th June – 4th July, 2021)



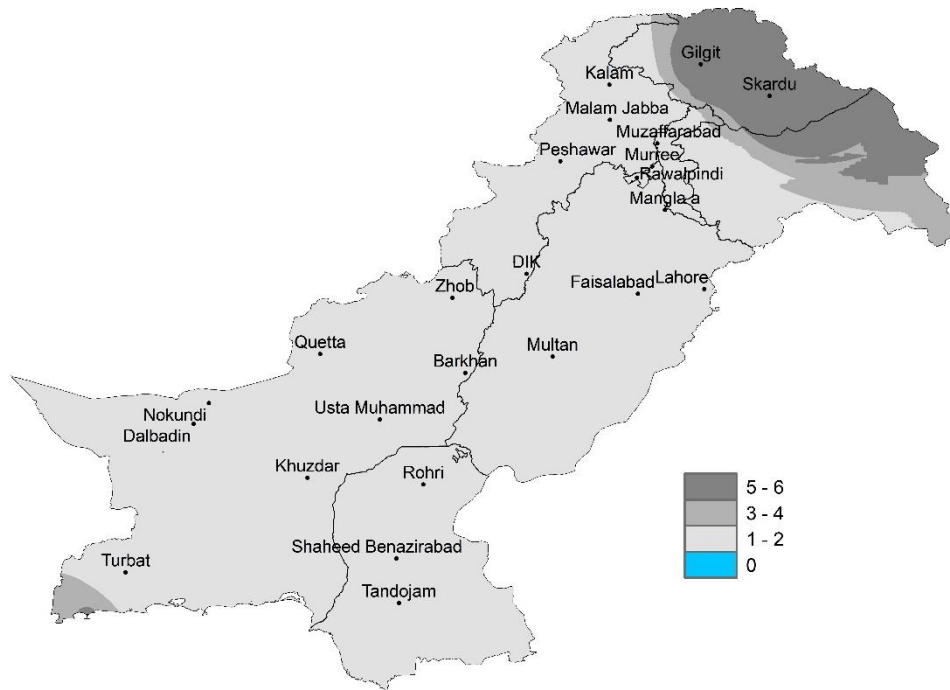
Mean Relative Humidity (%) during the previous week (28th June – 4th July, 2021)



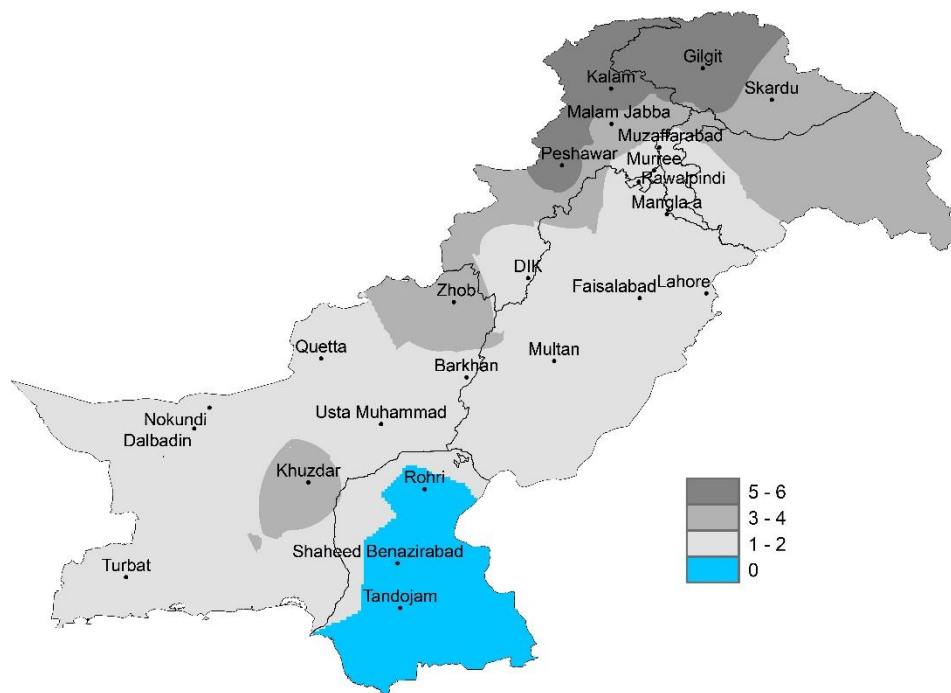
Total Growing Degree Days accumulated during the previous week (28th June – 4th July, 2021)



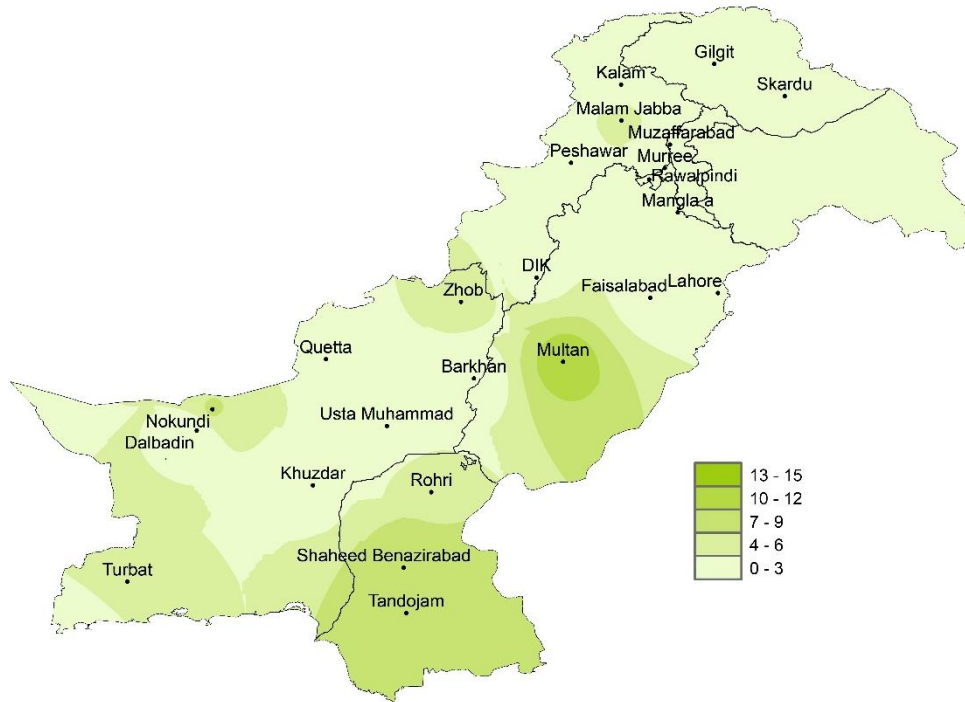
Mean Cloudiness (Oktas) at 0800PST during the previous week (28th June – 4th July, 2021)



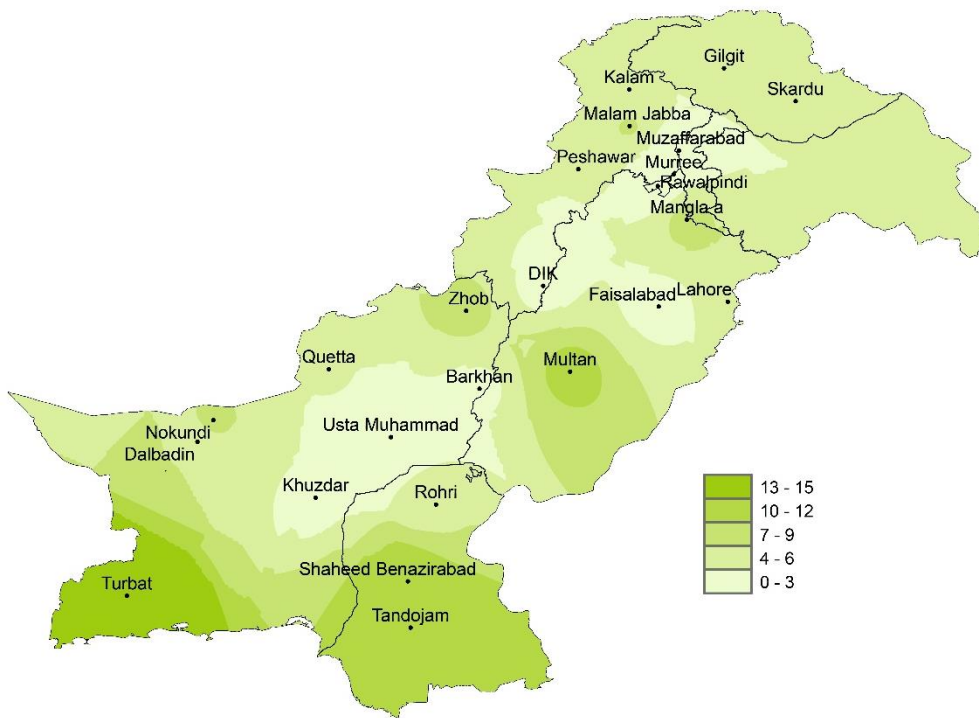
Mean Cloudiness (Oktas) at 1700PST during the previous week (28th June – 4th July, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (28th June – 4th July, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (28th June – 4th July, 2021)



Weekly Weather Advisory for Farmers**(5th – 11th July, 2021)**

Monsoon currents are penetrating upper and central parts of the country. A shallow westerly wave is present over upper parts of the country.

MONDAY**05-07-2021**

Hot and dry weather is likely to prevail over most parts of the country during day. However, more rain-wind/thunderstorm is expected in upper/central Punjab, Khyber Pakhtunkhwa, Kashmir, Gilgit Baltistan and northeast Balochistan.

TUESDAY**06-07-2021**

Hot and dry weather is likely to prevail over plain areas of the country during day. However, more rain-wind/thunderstorm is expected at isolated places in upper Khyber Pakhtunkhwa, Kashmir and Gilgit Baltistan.

WEDNESDAY**07-07-2021**

Mainly hot and dry weather is expected in most parts of the country. However, rain-wind-thunderstorm is expected in Gilgit Baltistan, Kashmir and upper Khyber Pakhtunkhwa.

THURSDAY**08-07-2021**

Mainly hot and humid weather is expected in most parts of the country, while very hot in plain areas. However, rain-wind-thunderstorm is expected in Kashmir and adjoining areas.

FRIDAY**09-07-2021.**

Mainly hot and humid weather is expected in most parts of the country. However, rain-wind-thundershower is expected in Kashmir and northeast Punjab.

SATURDAY**10-07-2021**

Hot and humid weather is expected in most parts of the country. However, rain-wind-thundershower is expected in Kashmir, upper Khyber Pakhtunkhwa and northeast Punjab.

SUNDAY**11-07-2021**

Mainly hot and humid weather is expected in most parts of the country. However, rain-wind-thundershower is expected in Gilgit Baltistan, Kashmir, upper Khyber Pakhtunkhwa and northeast Punjab.

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall reported from Punjab, upper Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan. Light rainfall reported from a few stations in northeast Baluchistan. Keeping in view the expected weather conditions farmers are advised the following advisories.

- ❖ The expected hot and dry weather conditions in the major agricultural plains of Punjab and Sindh may increase the water requirements for the standing crops.

National Weather Data of Selected Cities from (28th June – 4th 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	37.5	40.5	179.5	35	18.0	0.7	1.7	0.0	2.0
Dalbandin	43.4	44.0	209.5	17	0.0	0.1	1.3	0.6	5.4
D.I. Khan	42.6	47.0	211.0	50	0.0	0.9	0.4	1.4	1.4
Faisalabad	41.1	43.0	203.0	46	0.0	1.0	0.7	1.0	1.6
Gawadar	35.4	37.5	183.5	70	0.0	3.9	1.7	0.6	14.9
Gilgit	33.2	38.0	146.3	42	0.0	5.0	5.1	2.6	5.1
Kalam	27.8	29.5	97.3	36	1.0	0.0	5.1	0.0	3.4
Khuzdar	38.4	39.5	181.7	19	4.6	0.9	2.7	0.9	2.0
Lahore	41.2	43.0	213.6	42	0.0	1.6	1.4	2.0	3.7
Malam Jabba	25.9	28.0	109.3	51	49.0	0.9	3.4	4.6	6.3
Mangla	42.1	45.2	208.6	38	5.8	0.4	1.4	1.7	7.7
Multan (PBO)	39.8	43.2	206.5	49	0.0	0.7	1.4	11.1	10.6
Murree	28.8	31.4	128.3	44	39.0	0.9	2.0	2.3	2.3
Muzaffarabad	40.4	42.5	181.9	47	23.0	0.0	1.9	0.0	0.0
Nokkundi	44.1	46.0	217.8	48	0.0	1.3	0.0	8.3	11.4
Nawabshah	43.5	44.5	219.0	8	0.0	0.3	0.0	6.6	6.3
Peshawar	43.2	46.0	207.3	49	8.0	0.7	4.3	0.6	3.4
Quetta	34.4	35.5	151.4	28	0.0	1.3	1.4	1.8	3.3
Rawalpindi	41.7	44.0	197.8	41	11.3	0.3	0.7	0.5	0.2
Rohri	43.0	45.5	217.8	51	0.0	0.4	0.0	5.1	4.3
Skardu	29.5	34.8	118.1	36	1.9	4.3	3.4	0.3	3.4
Tandojam	38.3	40.0	190.3	65	0.0	1.0	0.0	6.6	10.8
Turbat	43.8	47.5	210.8	45	0.0	0.4	1.0	6.0	15.0
Usta. M	43.8	45.5	222.8	52	0.0	1.0	0.0	0.5	1.1
Zhob	37.8	41.0	184.8	27	2.0	0.0	3.1	4.4	7.3

*** 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)