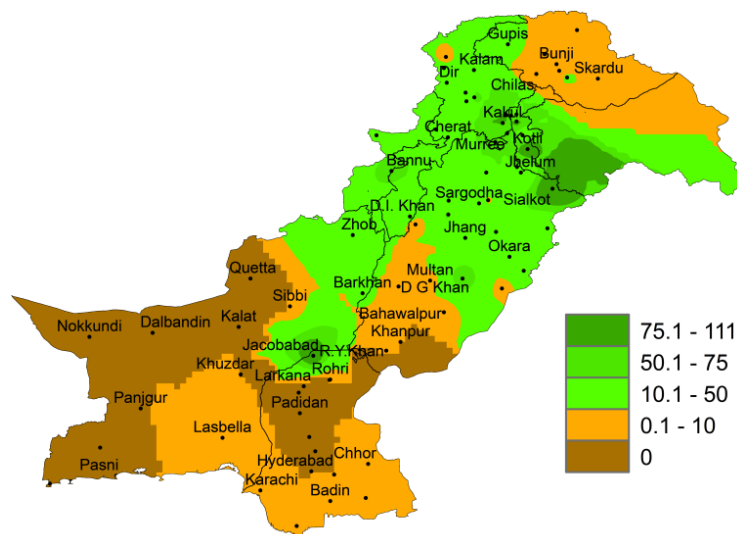


Weekly Weather and Crop Bulletin for Pakistan

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Rainfall Distribution (mm) during the Previous Week (12th August – 18th August, 2019)

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Highlights of Past Weather (12th August – 18th August, 2019)

Below normal day time temperatures were observed in Gilgit Baltistan, while mix trend was observed in rest of the country during the last week.

Province wise distribution of rainfall reported as follows during the last week:

1. Light to moderate rainfall observed in Punjab, Khyber Pakhtunkhwa and Gilgit Baltistan.
2. Light rainfall observed in Balochistan and Sindh.

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

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

Editor: Khalida Noureen (Meteorologist)

Past Weather of Provinces (12th August – 18th August, 2019)

Punjab

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.7°C & 26.5°C respectively. For the recent week on average 183.1 growing degree days were accumulated. Average relative humidity recorded as 73% and wind speed in the morning/evening recorded as 6.2/4.5 Knots. During the previous week the highest precipitation was recorded as 110.60 mm at Sialkot (AP) while maximum temperature was recorded as 41°C at Bhakkar.

Baluchistan

Light rainfall observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 35.8°C & 23.3°C respectively. For the recent week on average 169.5 growing degree days were accumulated. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 0.9/5.5 Knots. During the previous week the highest precipitation was recorded as 39.00 mm at Zhob while maximum temperature was recorded as 43°C at Sibbi.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 32.3°C & 21.1°C respectively. For the recent week on average 155.2 growing degree days were accumulated. Average relative humidity recorded as 75% and wind speed in the morning/evening recorded as 4.1/2.4 Knots. During the previous week the highest precipitation recorded as 83.81 mm at Balakot while maximum temperature was recorded as 41°C at Pattan.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as

31.1°C & 18.8°C respectively. For the recent week on average 139.5 growing degree days were accumulated. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 1.3/3.4 Knots. During the previous week the highest precipitation recorded as 100.00 mm at Kotli while maximum temperature was recorded as 39.5°C at Chilas.

Sindh

Light rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 35.8°C & 26.3°C respectively. For the recent week, on average 182.9 growing degree days were accumulated. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 4.0/4.9 Knots. During the previous week the highest precipitation recorded as 7.32 mm at Badin while maximum temperature was recorded as 41.5°C at Dadu.

Past Weather for Major Agricultural Plains (12th August – 18th August, 2019)

Rawalpindi (Potohar region)

87.00 mm rainfall was reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 5.3/4.0 Oktas while, average relative humidity observed as 80%. Mean day time temperature recorded 34.0°C & for the recent week 172.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.3 Knots.

Faisalabad (Central Punjab)

27.60 mm rainfall was reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.3/3.7 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.0°C & for the recent week 195.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.0/1.2 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 3.6/3.2 Oktas while, average relative humidity observed as 79%. Mean day time temperature recorded as 34.1°C & for the recent week 177.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/3.2 Knots.

Usta Muhammad (Eastern Baluchistan)

1.00 mm rainfall was reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.8/0.7 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 38.7°C & for the recent week 172.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.1 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.9/3.3 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 33.9°C & for the recent week 165.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.3/3.3 Knots.

Past Weather for Sub-Regional Agricultural Plains (12th August – 18th August, 2019)

Multan

4.30 mm rainfall was reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.4/3.9 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 37.6°C & for the recent week 198.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 6.9/9.1 Knots.

Lahore

22.80 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 3.1/5.9 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 34.9°C & for the recent week 184.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 9.9/2.6 Knots.

Zhob

39.00 mm rainfall was reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.7/1.9 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 34.4°C & for the recent week 168.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/4.7 Knots.

Murree

61.00 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 3.7/7.0 Oktas while, average relative humidity observed as 84%. Mean day time temperature recorded as 23.2°C & for the recent week 106.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/1.7 Knots.

D.I. Khan

20.01 mm rainfall was reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 3.4/3.6 Oktas while, average relative humidity observed as 72%. Mean day time temperature recorded as 37.8°C & for the recent week 188.8 growing degree days

accumulated. Wind speed recorded in the morning/evening as 0.9/2.0 Knots.

Peshawar

3.00 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.1/3.9 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 35.9°C & for the recent week 167.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

Kalam

7.00 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.0/4.1 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 22.0°C & for the recent 68.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

Gilgit

0.01 mm rainfall was reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 1.4/4.6 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 27.9°C & for the recent week 105.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.1 Knots.

Skardu

0.01 mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 1.4/3.3 Oktas while, average relative humidity observed as 27%. Mean day time temperature recorded as 22.5°C & for the recent week 74.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/6.7 Knots.

Crop Situation for Major Agricultural Plains (Based on data from Regional Agro met Centers)

Potohar Region (Rawalpindi)

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

Central Punjab (Faisalabad)

Presently cotton crop is sown in the fields of RAMC Faisalabad.

Cotton: V.Good, Flowering Stage Completed.

Lower Sindh (Tandojam)

Presently cotton crop is sown in the fields of RAMC Tandojam.

Cotton: Good, Boll Opening stage.

Northern Baluchistan (Quetta)

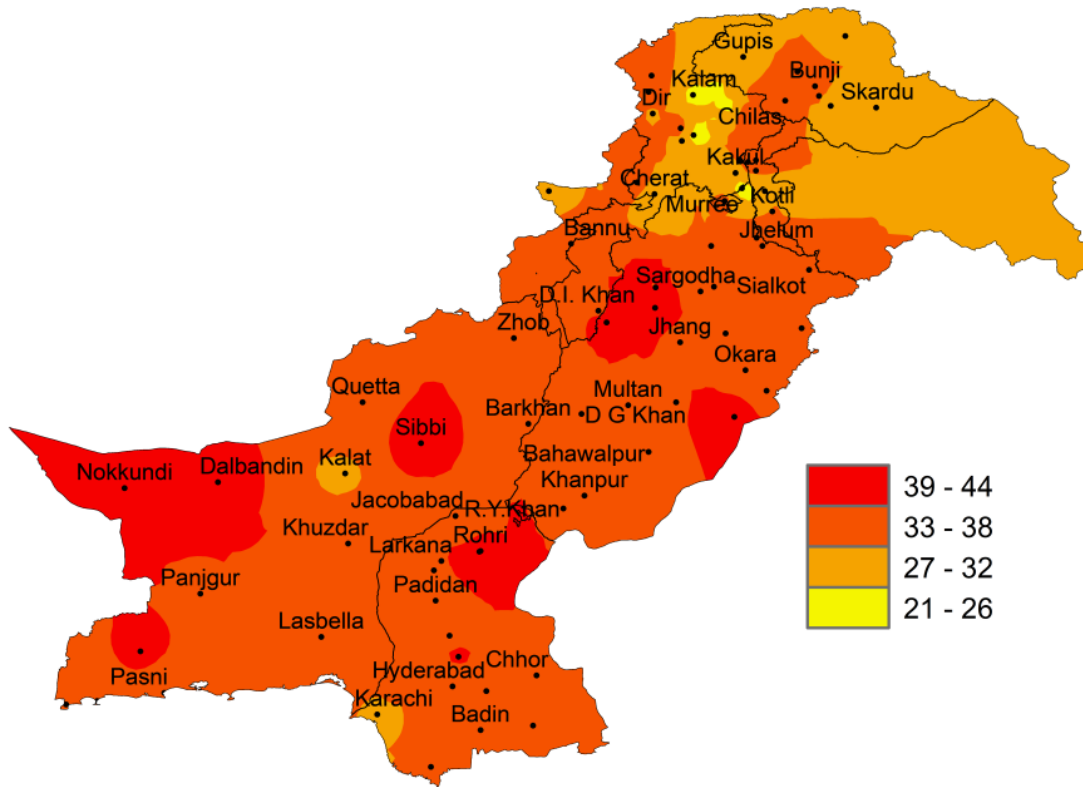
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

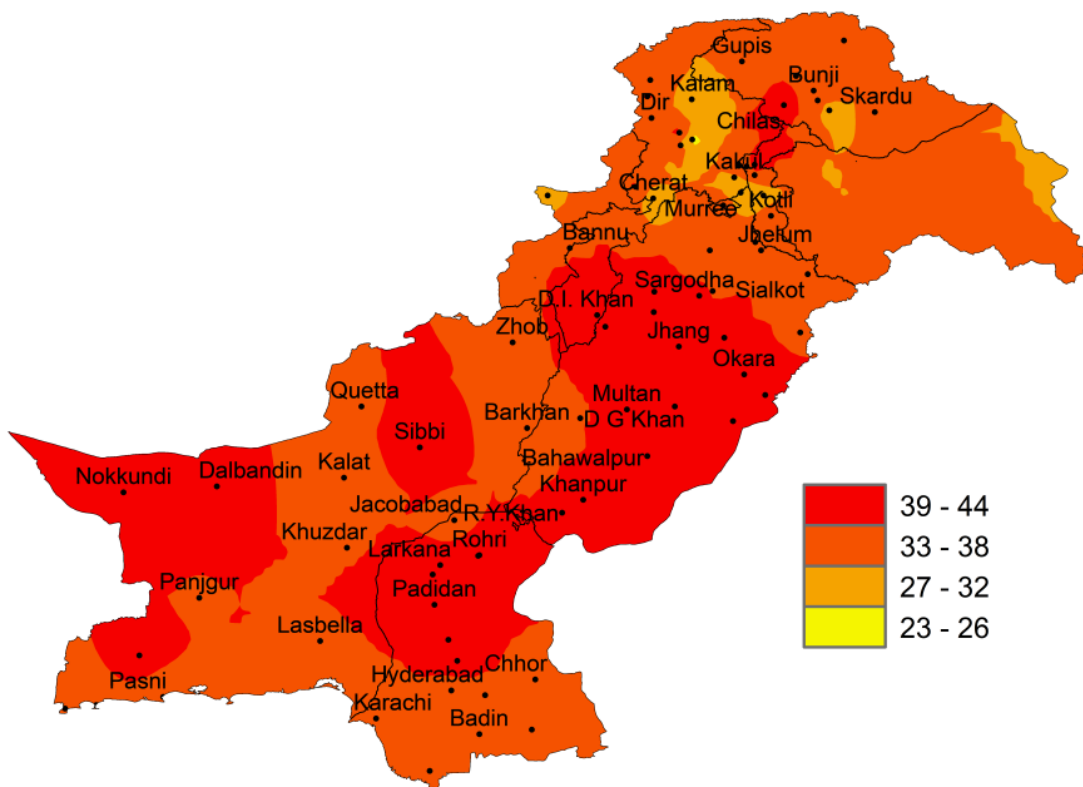
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Third Leaf stage.

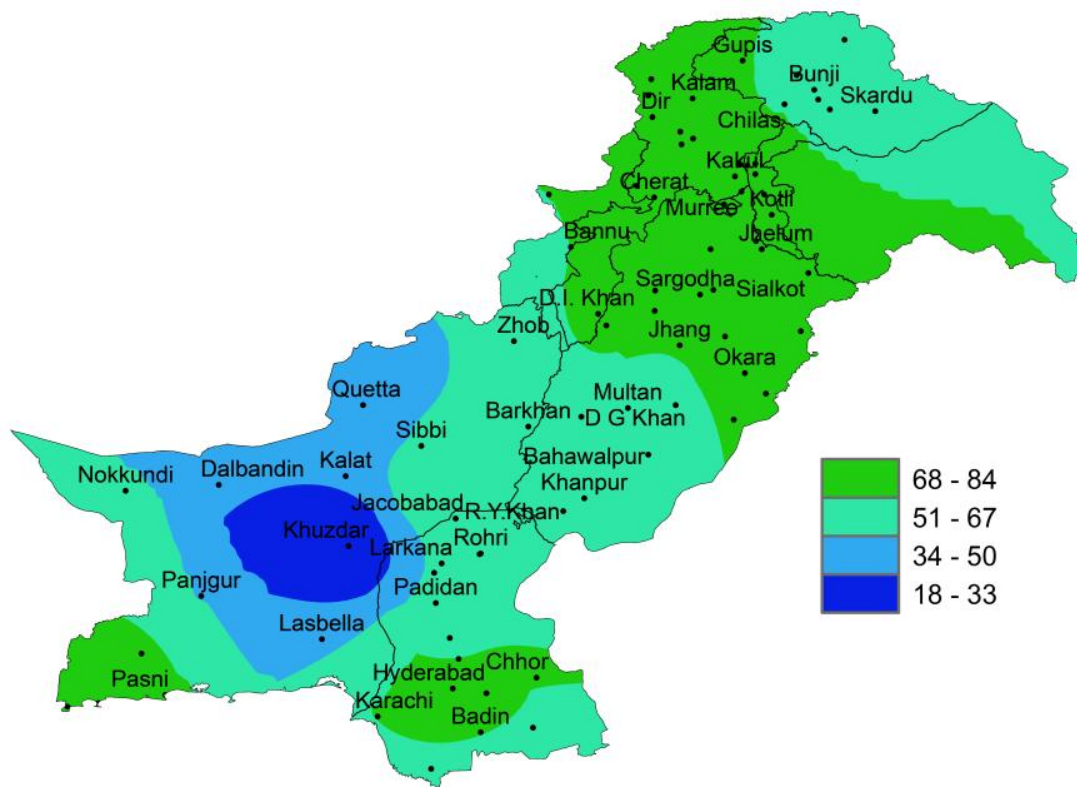
Mean Maximum temperature (°C) during the Previous week (12th August-18th August, 2019)



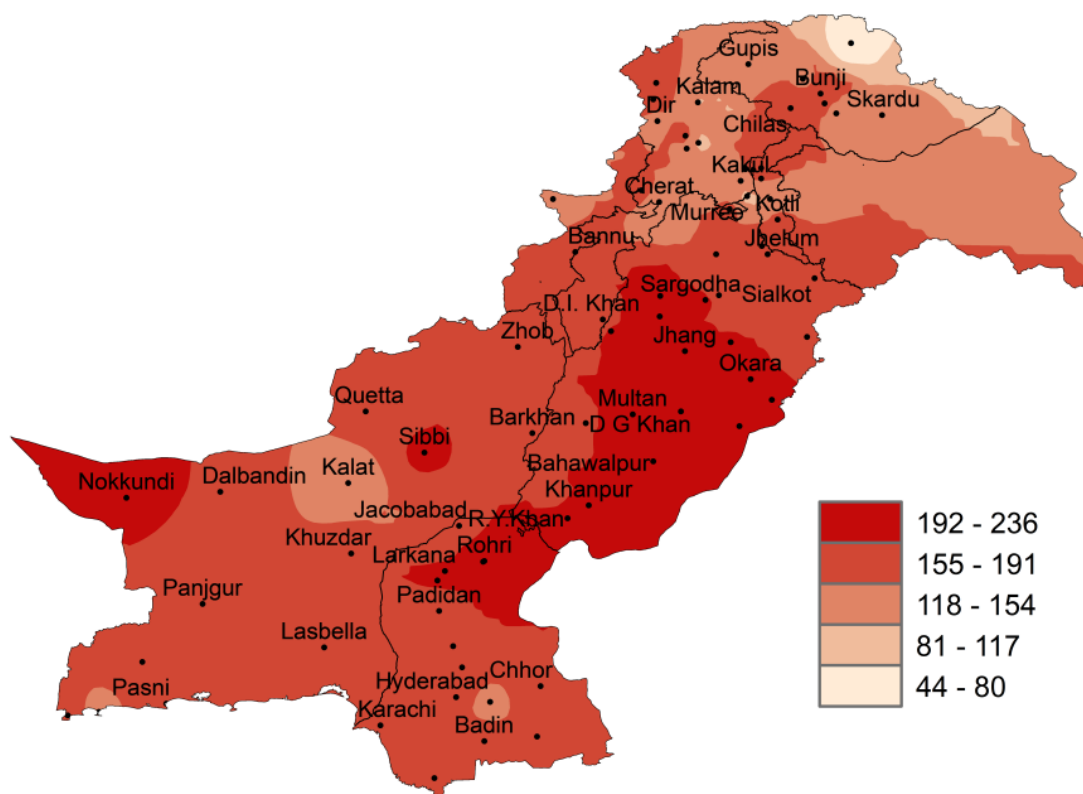
Highest Maximum Temperature (°C) during the Previous week (12th August-18th August, 2019)



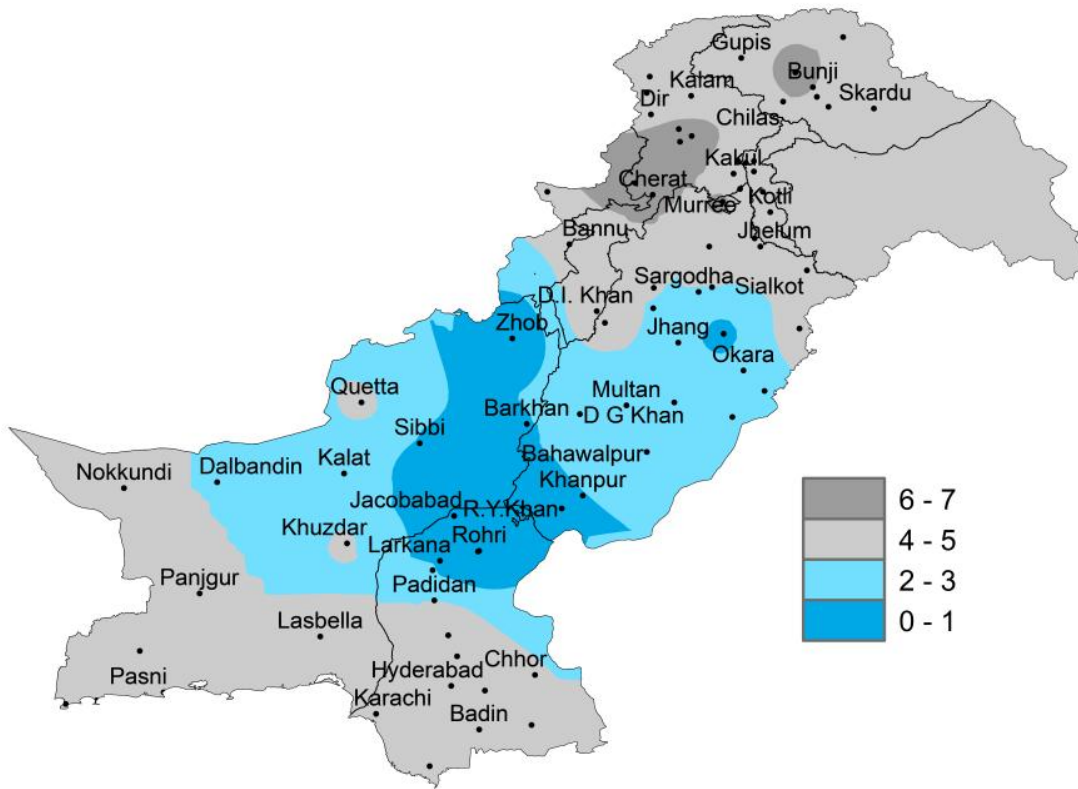
**Mean Relative Humidity (%) during the
Previous week (12th August-18th August, 2019)**



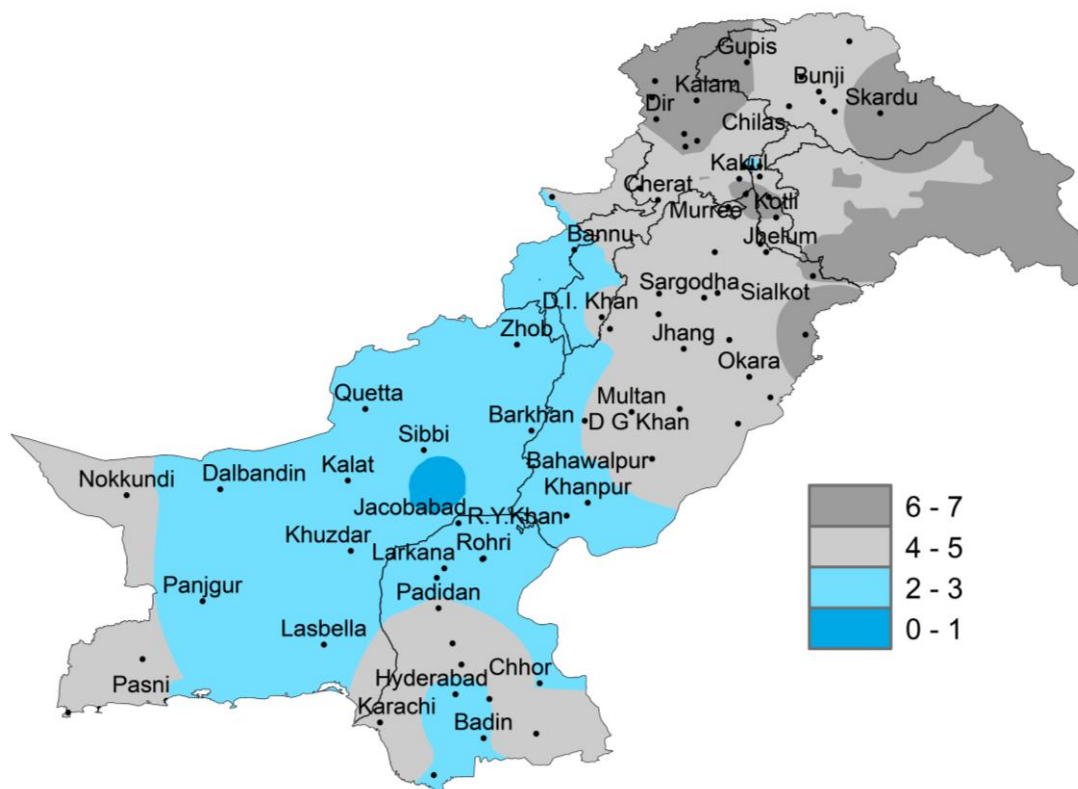
**Total Growing Degree Days accumulated during the
Previous week (12th August-18th August, 2019)**



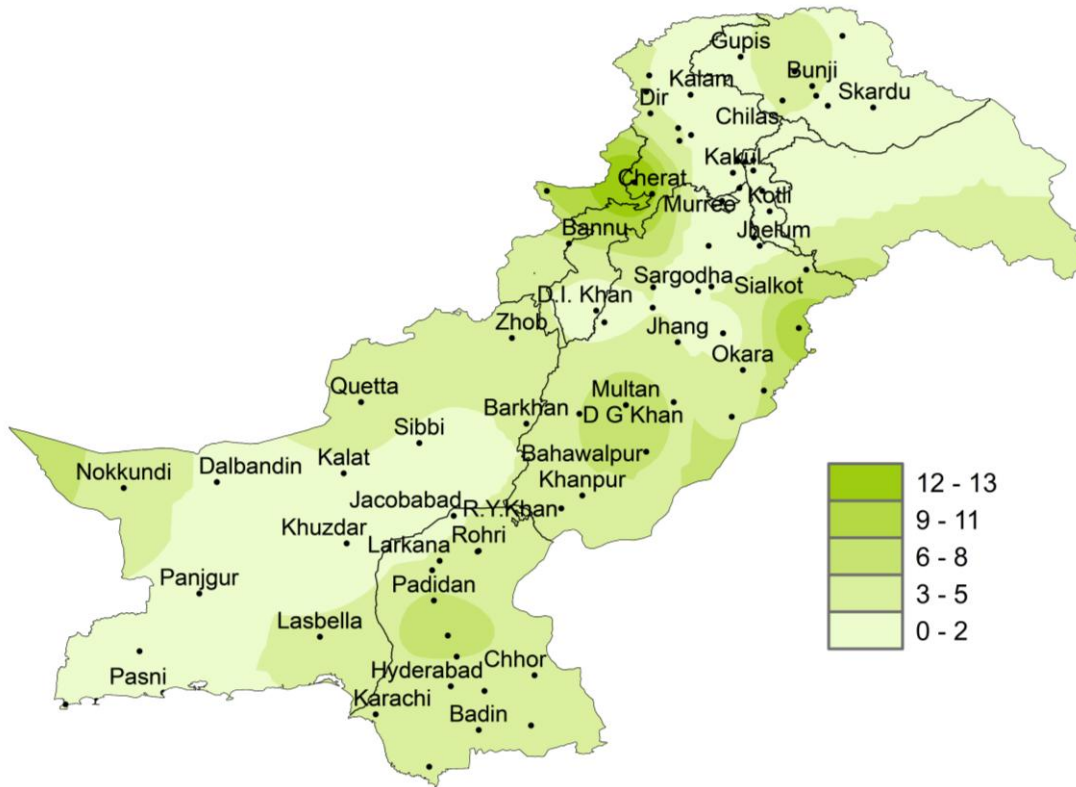
Mean Cloudiness (Oktas) at 0800PST during the Previous week (12th August-18th August, 2019)



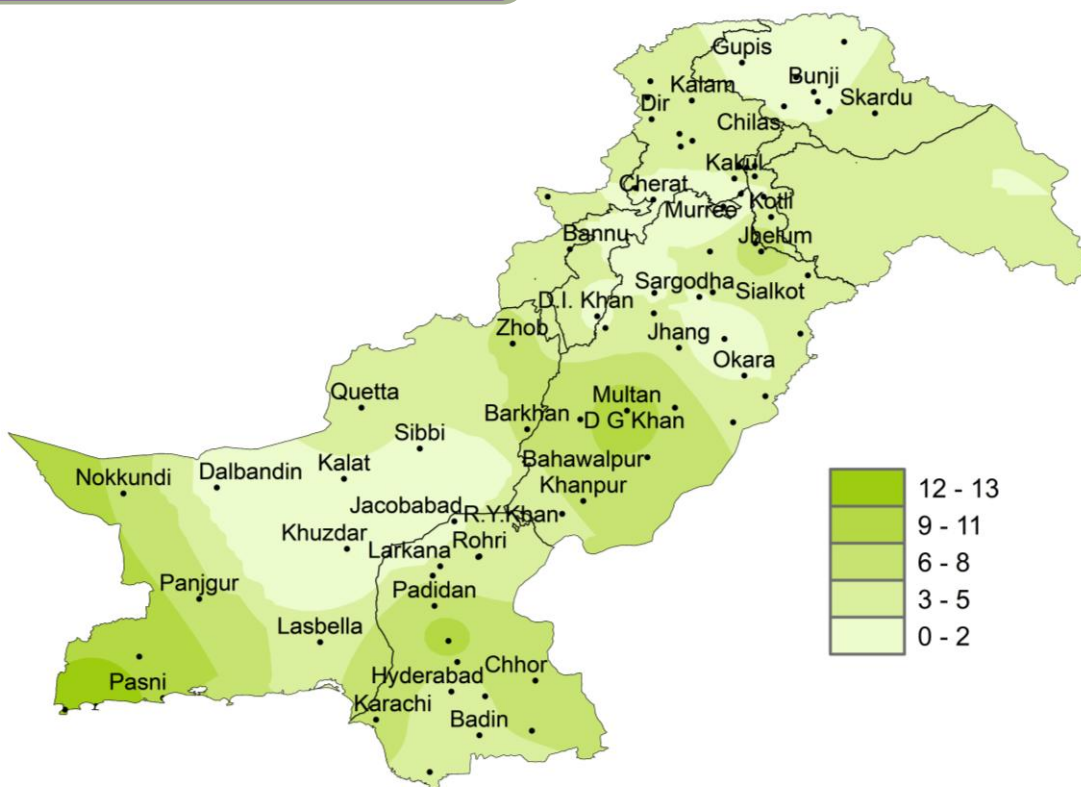
Mean Cloudiness (Oktas) at 1700PST during the Previous week (12th August-18th August, 2019)



Mean Wind Speed (Knots) at 0800PST during the Previous week (12th August-18th August, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (12th August-18th August, 2019)



Weekly Weather Advisory for Farmers
(19th August to 25th August, 2019)

Seasonal low lies over north Balochistan. A westerly wave is present over upper and central parts of the country.

MONDAY

19-08-2019

Mainly hot and humid weather is expected in most parts of the country. However, rain/wind-thunderstorm is expected at isolated places in Malakand, Hazara, Peshawar, Mardan, Kohat, Bannu, D.I Khan, Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, D,G Khan divisions, Islamabad, Gilgit Baltistan and Kashmir.

TUESDAY

20-08-2019

Mainly hot and humid weather is expected in most parts of the country. However, rain/wind-thunderstorm is expected at isolated places in Hazara, Peshawar, Kohat, Rawalpindi, Gujranwala, Sargodha divisions, Islamabad, Gilgit Baltistan and Kashmir.

WEDNESDAY

21-08-2019

Mainly hot and humid weather is expected in most parts of the country. However, rain/wind-thunderstorm is expected at isolated places in Hazara division, Kashmir and its adjoining hilly areas.

THURSDAY

22-08-2019

Mainly hot and humid weather is expected in most parts of the country.

FRIDAY

23-08-2019

Mainly hot and humid weather is expected in most parts of the country. However, rain/wind-thunderstorm is expected at isolated places in Kashmir and its adjoining hilly areas.

SATURDAY

24-08-2019

Mainly hot and humid weather is expected in most parts of the country. However, rain/wind-thunderstorm is expected at isolated places in

Hazara division, Kashmir and its adjoining hilly areas.

SUNDAY

25-08-2019

Mainly hot and humid weather is expected in most parts of the country. However, rain/wind-thunderstorm is expected at isolated places in Malakand, Hazara, Peshawar, Kohat, Rawalpindi divisions, Islamabad, Gilgit Baltistan and Kashmir.

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall occurred at scattered places in Punjab, GB and KPK, while light rainfall observed in Sindh and Balochistan. Keeping in view the above expected weather conditions following advisories are suggested for farming community.

1. Due to the higher temperature worm attack is expected on Cotton crop, so farmers are advised to take adoptive measures especially the use of PB ropes in consultancy with plant protection department.
2. After the recent rainfall spell, measures may be taken to flush out the extra water from the fields of Cotton crops and vegetables.
3. Farmers of Potohar areas may take measures to remove weeds from peanut weeds due to recent rains in the areas.

National Weather Data of Selected Cities from (12th August – 18th August, 2019)

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	Highest							
D.I. Khan	37.8	39.5	188.8	72	20.01	3.4	3.6	0.9	2.0
Faisalabad	37.0	38.6	195.7	68	27.60	1.3	3.7	1.0	1.2
Gawadar	33.1	35.0	144.5	75	0.00	4.3	3.6	0.0	11.4
Gilgit	33.0	37.5	146.5	61	4.60	5.1	4.6	2.9	1.7
Kalam	25.1	27.5	115.8	75	48.00	3.6	6.3	0.0	2.3
Khuzdar	34.6	38.0	172.5	19	0.00	2.9	2.3	0.0	0.3
Lahore	34.9	37.5	184.5	74	22.80	3.1	5.9	9.9	2.6
Malam Jabba	21.3	23.0	95.8	82	58.00	5.9	5.3	2.0	2.9
Mangla	33.9	37.3	173.8	77	58.11	4.0	4.6	1.3	5.7
Multan (PBO)	37.6	39.3	198.0	62	4.30	2.4	3.9	6.9	9.1
Murree	23.2	25.0	106.4	84	61.00	3.7	7.0	2.0	1.7
Muzaffarabad	34.7	36.5	166.1	74	41.00	4.3	3.1	1.0	3.6
Nawabshah	36.8	39.5	186.5	61	0.00	3.4	4.6	8.0	9.1
Peshawar	35.3	38.4	176.1	70	35.30	5.1	3.9	13.4	2.3
Quetta	33.9	35.5	165.3	38	0.00	2.9	3.3	3.3	3.3
Rawalpindi	34.0	36.0	172.5	80	87.00	5.3	4.0	0.6	0.3
Rohri	38.6	39.5	235.5	60	0.00	0.3	1.9	2.0	2.3
Skardu	27.4	32.6	135.7	62	7.70	4.3	5.7	0.0	2.4
Tandojam	34.1	35.0	177.3	79	0.00	3.6	3.2	2.0	3.2
Usta. M	38.7	39.0	172.5	63	1.00	0.8	0.7	0.8	1.1
Zhob	34.4	36.0	168.0	52	39.00	0.7	1.9	2.6	4.7

*** 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 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)