

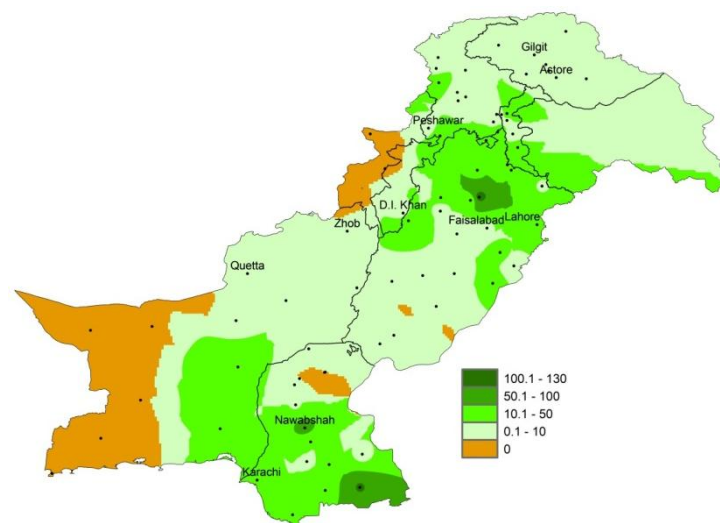
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the
Previous Week (2nd September – 8th
September, 2019)**



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Highlights of Past Weather (2nd September - 8th September, 2019)

Above normal day time temperatures were observed all over 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 Khyber Pakhtunkhwa, Punjab, Baluchistan, Sindh, Gilgit-Baltistan and Azad Kashmir.
2. Except few places of Central Punjab and South Eastern Sindh where moderate to high rainfall was recorded.

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

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

Editor: Khalida Noureen (Meteorologist)

Past Weather of Provinces (2nd September - 8th September, 2019)

Punjab

Moderate to high rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.8°C & 26.5°C respectively. For the recent week on average 186.7 growing degree days were accumulated. Average relative humidity recorded as 70% and wind speed in the morning/evening recorded as 2.4/2.5 Knots. During the previous week the highest precipitation recorded as 117.70 mm at Mandibahudin while the maximum temperature was recorded as 43°C at Bhakkar.

Baluchistan

Light to moderate rainfall was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.2°C & 23.6°C respectively. For the recent week on average 177.7 growing degree days were accumulated. Average relative humidity recorded as 45% and wind speed in the morning/evening recorded as 0.5/4.8 Knots. During the previous week the highest precipitation recorded as 33.00 mm at Khuzdar while the maximum temperature was recorded as 46.5°C at Turbat.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 32.9°C & 19.8°C respectively. For the recent week on average 147.3 growing degree days were accumulated. Average relative humidity recorded as 68% and wind speed in the morning/evening recorded as 1.7/3.2 Knots. During the previous week the highest precipitation recorded as 30.00 mm at Pattan while maximum temperature was recorded as 44.0°C at D.I. Khan.

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

32.7°C & 19.3°C respectively. For the recent week on average 139.1 growing degree days were accumulated. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 1.0/1.4 Knots. During the previous week the highest precipitation recorded as 15.00 mm at Kotli while maximum temperature was recorded as 41.5°C at Chilas.

Sindh

Moderate to high rainfall was observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 38.3°C & 27.4°C respectively. For the recent week, on average 199.5 growing degree days were accumulated. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 2.3/3.4 Knots. During the previous week the highest precipitation recorded as 103.00 mm at Mithi while maximum temperature was recorded as 44.5°C at Sukkur.

Past Weather for Major Agricultural Plains **(2nd September - 8th September, 2019)**

Rawalpindi (Potohar region)

22.00 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.6/0.7 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded 34.6°C & for the recent week 173.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.9 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.9/2.7 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 38.1°C & for the recent week 199.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.8/1.2 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 2.1/1.7 Oktas while, average relative humidity observed as 79%. Mean day time temperature recorded as 37.1°C & for the recent week 191.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/0.8 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.7/1.0 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 39.0°C & for the recent week 173.6 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 1.7/1.9 Oktas while, average relative humidity observed as 24%. Mean day time temperature recorded as 33.3°C & for the recent week 158.5 growing degree days accumulated.

Wind speed recorded in the morning/evening as 1.6/3.6 Knots.

Past Weather for Sub-Regional Agricultural Plains (2nd September - 8th September, 2019)

Multan

0.30 mm rainfall reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.0/2.9 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 38.7°C & for the recent week 206.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 5.7/6.3 Knots.

Lahore

31.01 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 1.6/3.0 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 36.2°C & for the recent week 185.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.6 Knots.

Zhob

Dry weather reported from reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.4/1.0 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 37.1°C & for the recent week 167.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.6/3.1 Knots.

Murree

25.00 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 3.7/4.9 Oktas while, average relative humidity observed as 81%. Mean day time temperature recorded as 23.8°C & for the recent week 103.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.6 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.7/1.4 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 40.3°C & for the recent week 199.5 growing degree days accumulated.

Wind speed recorded in the morning/evening as 1.4/1.1 Knots.

Peshawar

0.00 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.3/4.0 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 36.3°C & for the recent week 150.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/2.3 Knots.

Kalam

3.00 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.6/3.1 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 26.4°C & for the recent 95.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.1 Knots.

Gilgit

0.01 mm (Trace) rainfall reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 4.3/3.9 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 35.0°C & for the recent week 148.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.7 Knots.

Skardu

0.01 mm (Trace) rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.1/4.2 Oktas while, average relative humidity observed as 47%. Mean day time temperature recorded as 30.5°C & for the recent week 121.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.0 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, Boll Opening Stage Completed.

Lower Sindh (Tandojam)

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

Cotton: Good, Boll Opening Stage.

Northern Baluchistan (Quetta)

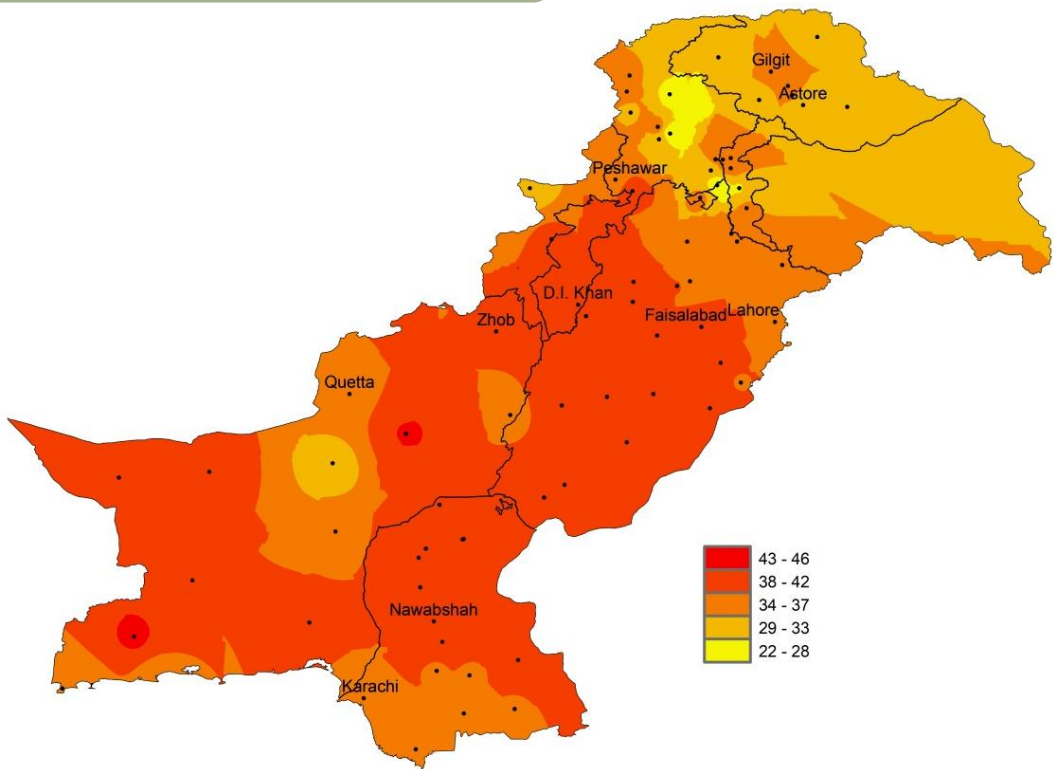
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

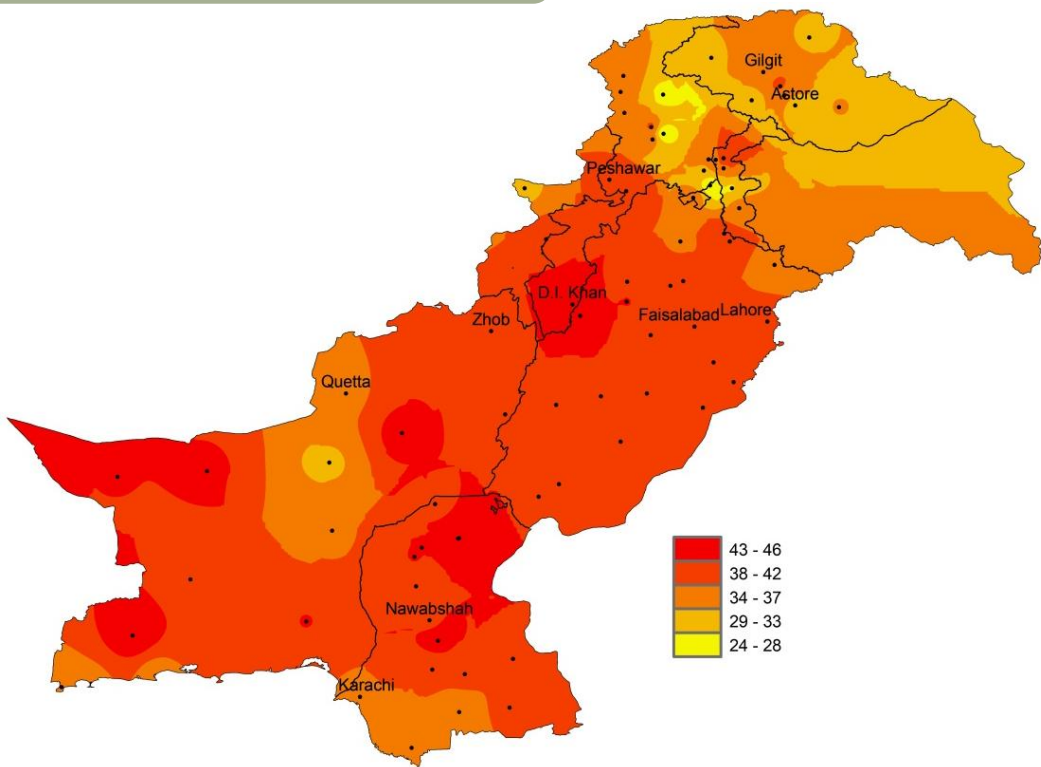
Presently rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Shooting Stage.

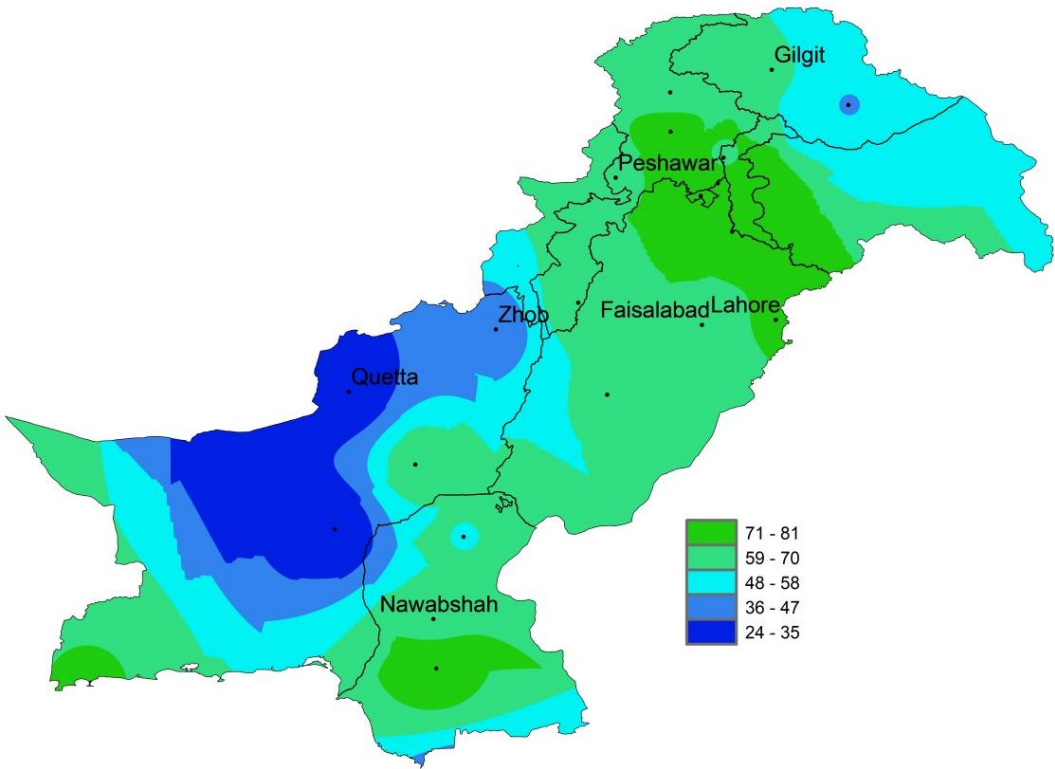
Mean Maximum temperature (°C) during the Previous week (2nd – 8th September, 2019)



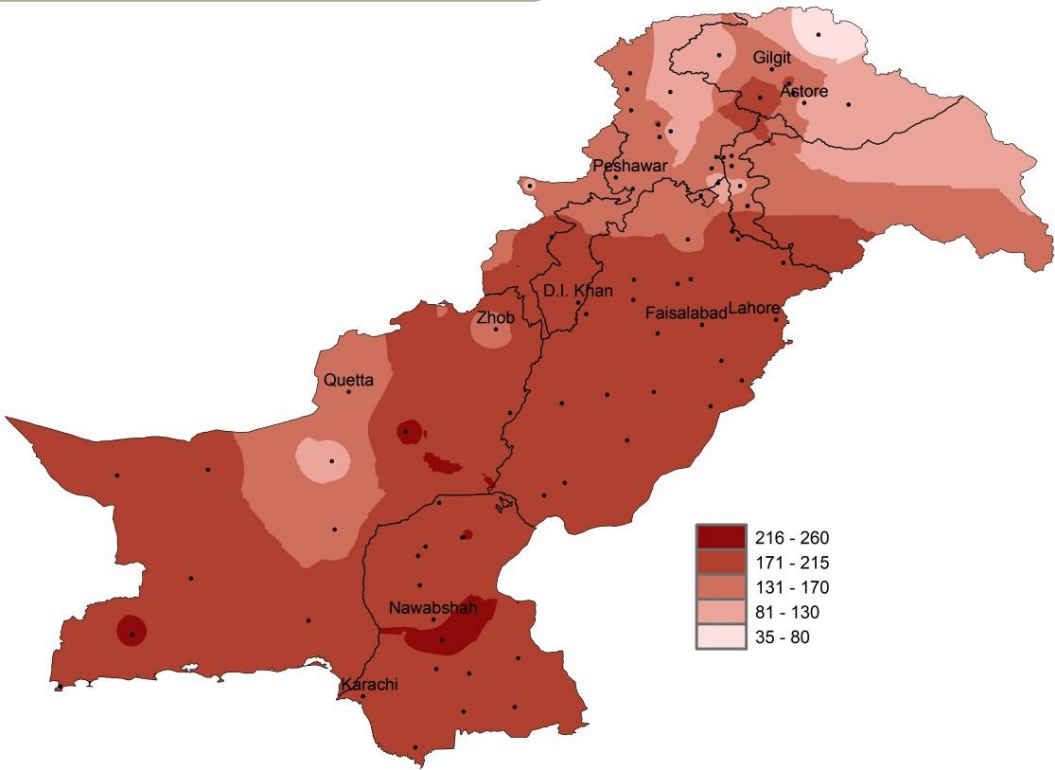
Highest Maximum Temperature (°C) during the Previous week (2nd – 8th September, 2019)



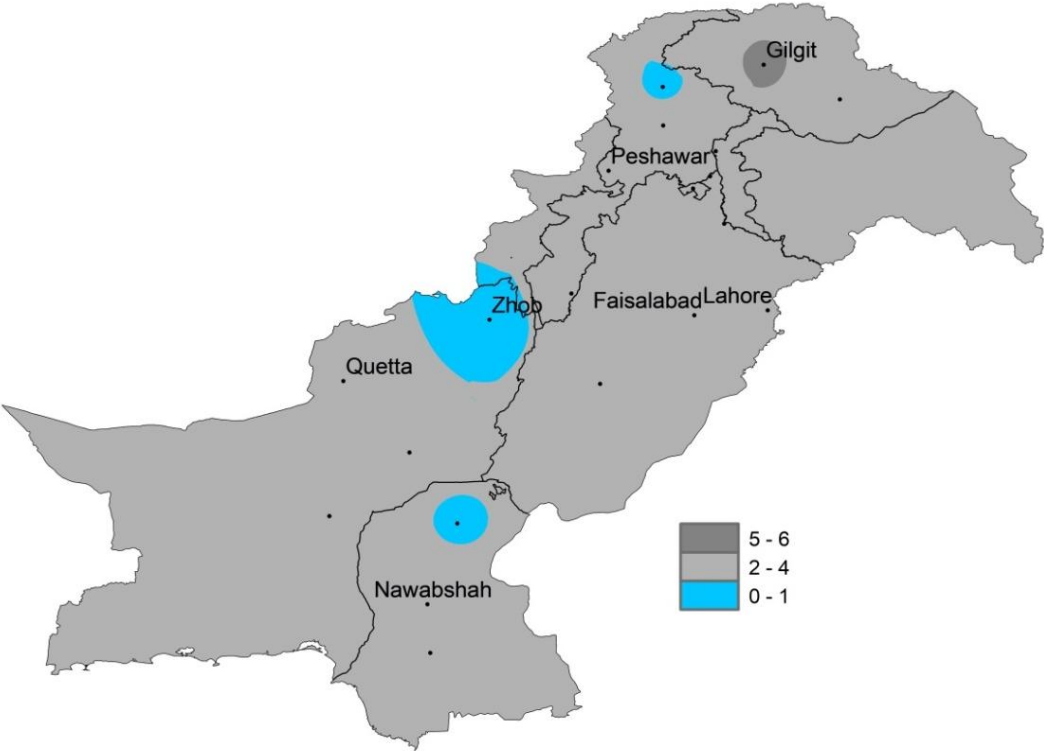
Mean Relative Humidity (%) during the Previous week (2nd – 8th September, 2019)



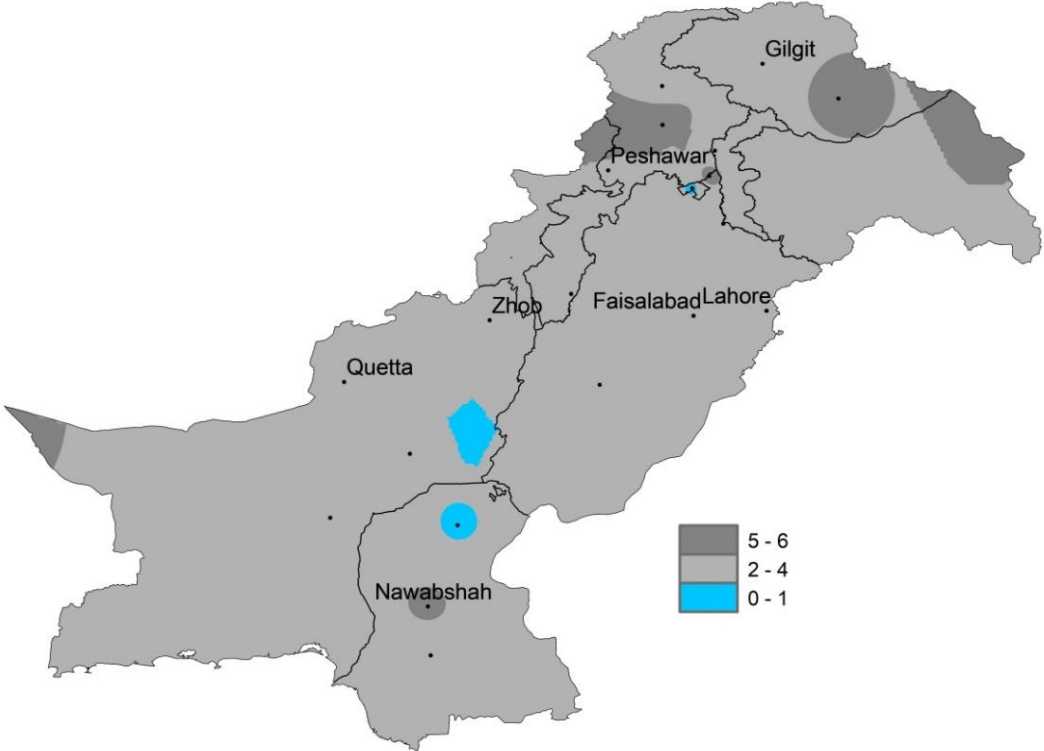
Total Growing Degree Days accumulated during the Previous week (2nd – 8th September, 2019)



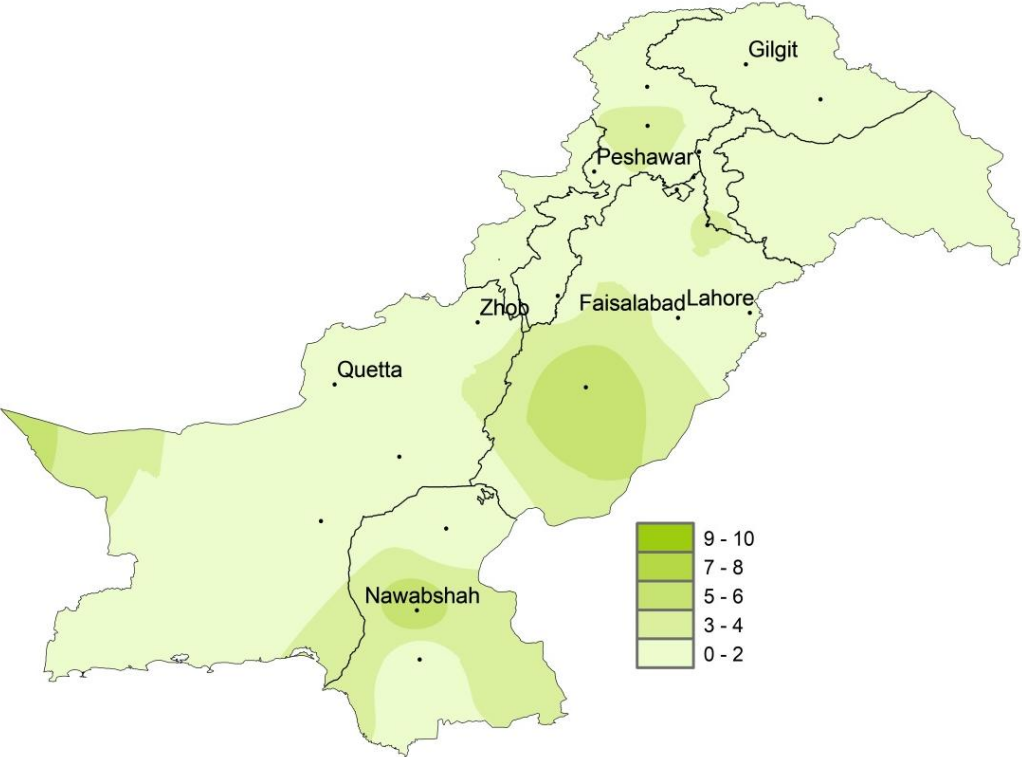
Mean Cloudiness (Oktas) at 0800PST during the Previous week (2nd – 8th September, 2019)



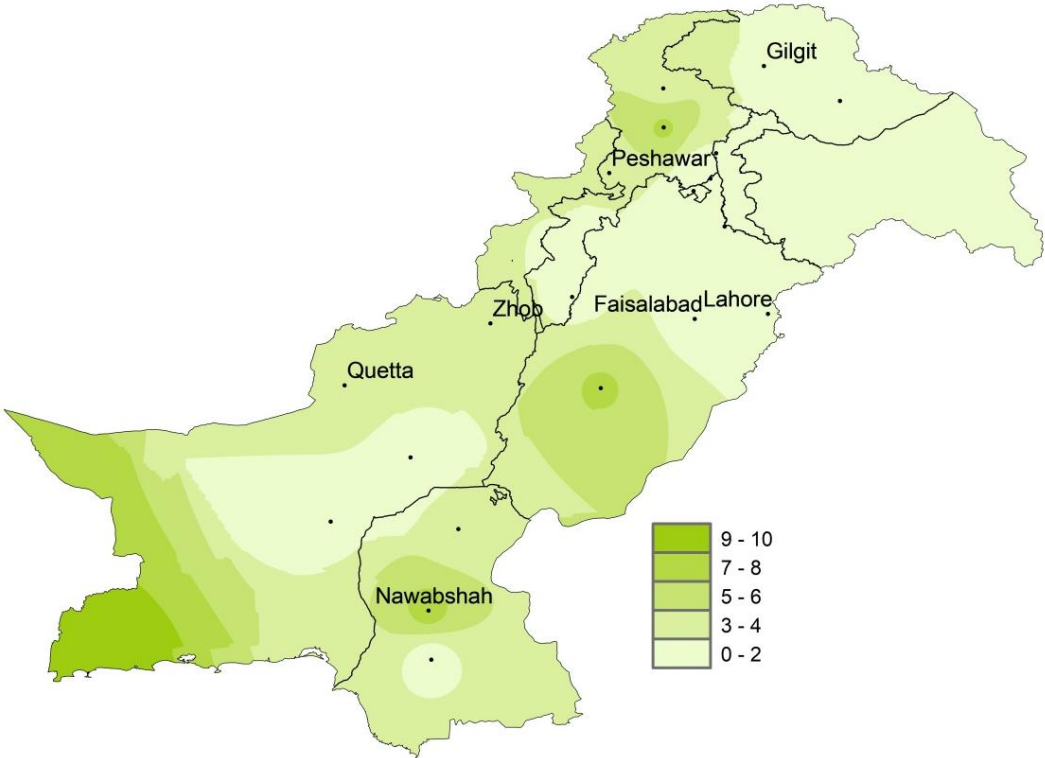
Mean Cloudiness (Oktas) at 1700PST during the Previous week (2nd – 8th September, 2019)



Mean Wind Speed (Knots). at 0800PST during the Previous week (2nd – 8th September, 2019)



Mean Wind Speed (Knots) at 1700PST during the Previous week (2nd – 8th September, 2019)



Weekly Weather Advisory for Farmers
(11th September to 15th September, 2019)

Weak seasonal low lies over northern parts of Balochistan.

WEDNESDAY**11-09-2019**

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

THURSDAY**12-09-2019**

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

FRIDAY**13-09-2019**

Mainly hot and dry 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, Kashmir and Gilgit Baltistan.

SATURDAY**14-09-2019**

Mainly hot and dry 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, Kashmir and Gilgit Baltistan.

SUNDAY**15-09-2019**

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

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall occurred all over the country. Keeping in view the above expected weather conditions following advisories are suggested for farming community.

1. Use pesticides to avoid the attack from pests on the crops as advised by the agriculture department.
2. Use proper precautions during picking of cotton because the cost of good and clean quality cotton is high than that of the filthy one.

National Weather Data of Selected Cities from (2nd September to 8th September, 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	40.3	44.0	199.5	66	0.00	1.7	1.4	1.4	1.1
Faisalabad	38.1	39.2	199.2	67	0.00	1.9	2.7	1.8	1.2
Gawadar	35.7	36.0	175.0	71	0.00	3.7	2.1	0.0	10.0
Gilgit	35.0	36.5	148.8	59	0.01	4.3	3.9	0.3	1.7
Kalam	26.4	27.0	96.5	65	3.00	0.6	3.1	0.0	3.1
Khuzdar	34.1	36.0	160.0	25	33.00	3.3	3.9	0.0	1.1
Lahore	36.2	38.3	185.4	70	31.01	1.6	3.0	0.3	0.6
Malam Jabba	22.1	23.5	91.5	74	0.00	2.7	5.3	4.0	6.3
Mangla	35.4	37.8	178.3	72	32.71	4.0	2.9	2.3	2.0
Multan (PBO)	38.7	40.3	206.8	60	0.30	2.0	2.9	5.7	6.3
Murree	23.8	24.5	103.6	81	25.00	3.7	4.9	1.1	0.6
Muzaffarabad	34.3	35.5	162.2	67	0.00	2.7	2.4	1.2	2.0
Nawabshah	39.1	41.0	198.5	67	70.00	3.3	4.0	1.4	2.3
Peshawar	36.3	38.2	150.4	24	0.00	1.7	1.9	1.6	3.6
Quetta	33.3	34.4	158.5	75	0.00	3.6	0.7	0.9	0.9
Rawalpindi	34.6	35.8	173.6	58	22.00	0.7	0.9	0.6	2.6
Rohri	40.1	42.0	245.5	65	0.00	3.6	4.4	5.4	6.9
Skardu	30.5	32.9	121.5	47	0.01	2.1	4.2	0.3	0.0
Tandojam	37.1	39.0	191.3	79	0.00	2.1	1.7	0.8	0.8
Usta. M	39.0	39.5	173.6	66	0.00	1.7	1.0	0.8	1.1
Zhob	37.1	39.0	167.8	40	0.00	0.4	1.0	1.6	3.1

*** 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 سدّ باب (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)