

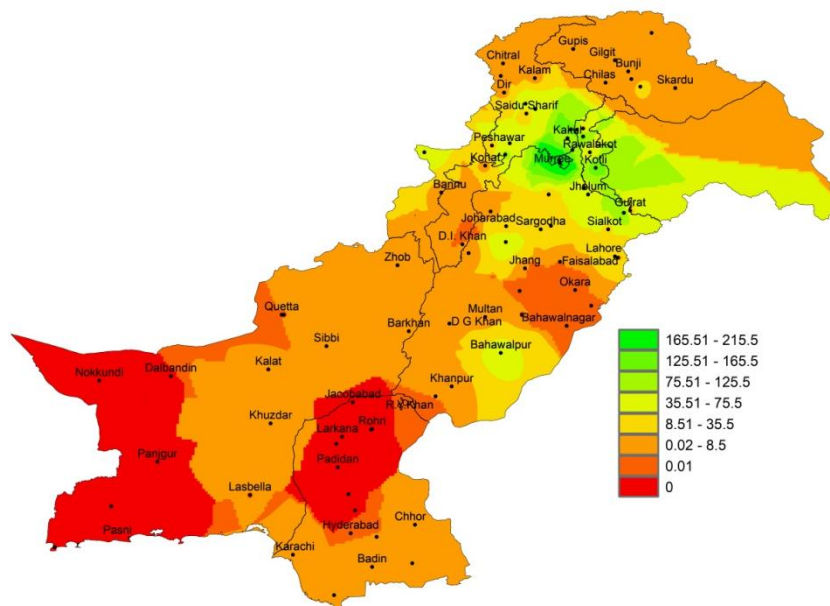
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the Previous
Week (6th August to 12th August, 2018)**



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Highlights of Past Weather (6th August to 12th August, 2018)

Above normal day temperature was observed in all over the country during the previous week.

Province wise distribution of rainfall reported as follows:

- Moderate to heavy rainfall observed at most places in Khyber Pakhtunkhwa, Punjab and, Gilgit-Baltistan and Azad Jammu & Kashmir during the previous week.
- Light to moderate rainfall observed at isolated places in Balochistan and Sindh during the previous week.

Patron-in-Chief: Dr. Ghulam Rasul (Director General)

Editor-in-Chief: Asma Jawad Hashmi (Director)

Editor: Khalida Noureen (Meteorologist)

Past Weather of Provinces (6th August to 12th August, 2018)**Punjab**

Moderate to heavy rainfall observed at most places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.5°C & 26.9°C respectively. For the recent week on average 183.2 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 70% and wind speed in the morning/evening recorded as 3.1/3.7 Knots. During the previous week the highest amount of rainfall was recorded as 215.50 mm at Islamabad & highest maximum temperature was recorded as 43.0°C at Bhakkar.

Sindh

Light to moderate rainfall observed at isolated places in Sindh during the week. Weekly maximum and minimum temperatures recorded as 37.2°C & 26.0°C respectively. For the recent week, on average 186.5 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 5.0/5.9 Knots. During the previous week the highest amount of rainfall was recorded as 7.50 mm at Chhor & highest maximum temperature was recorded as 44.0°C at Dadu.

Khyber Pakhtunkhwa

Moderate to heavy rainfall observed at most places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.8°C & 22.6°C respectively. For the recent week on average 162.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 0.7/3.8 Knots. During the previous week, the highest amount of rainfall was recorded as 160.00 mm at Balakot &

highest maximum temperature was recorded as 41.5°C at D.I. Khan.

Baluchistan

Light to moderate rainfall observed at isolated places in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.3°C & 24.7°C respectively. For the recent week on average 180.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 3.2/6.6 Knots. During the previous week the highest amount of rainfall was recorded as 7.00 mm at Barkhan & highest maximum temperature was recorded as 45.5°C at Dalbadin.

Gilgit-Baltistan and Azad Jammu & Kashmir

Moderate to heavy rainfall observed at most places in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 33.4°C & 20.3°C respectively. For the recent week on average 144.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 0.8/3.5 Knots. During the previous week the highest amount of rainfall was recorded as 150.91 mm at Kotli & highest maximum temperature was recorded as 45.5°C at Chilas.

Past Weather for Major Agricultural Plains (6th August to 12th August, 2018)

Rawalpindi (Potohar region)

Rainfall reported as 254.7 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 6.4/6.2 Oktas while, average relative humidity observed as 85%. Mean day time temperature recorded as 32.5°C & for the recent week 164.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/0.8 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 1.2 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.7/2.0 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.0°C & for the recent week 191.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.4/1.7 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness recorded in the morning/evening as 4.3/1.4 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 35.7°C & for the recent week 174.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.0/3.4 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.6/0.4 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 39.3°C & for the recent week 199.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/4.0 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.6/4.1 Oktas while, average relative humidity observed as 27%. Mean day time

temperature recorded as 35.6°C & for the recent week 160.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.8/4.7 Knots.

Past Weather for Sub-Regional Agricultural Plains (6th August to 12th August, 2018)

Multan

Rainfall reported as 1.20 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 2.8/3.7 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 36.9°C & for the recent week 196.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 9.3/8.3 Knots.

Lahore

Rainfall reported as 6.11 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 4.0/5.5 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 34.5°C & for the recent week 182.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening 1.0/3.3 Knots.

Zhob

Rainfall reported as 4.00 mm from during the week; however, cloudiness in the morning/evening recorded as 0.0/2.5 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded as 37.4°C & for the recent week 183.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/7.7 Knots.

Murree

Rainfall reported as 121.3 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 7.0/8.0 Oktas while, average relative humidity observed as 92%. Mean day time temperature recorded as 21.3°C & for the recent week 99.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/1.3 Knots.

D.I. Khan

Rainfall reported as 0.01 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.7/2.0 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 40.1°C & for the recent week 204.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/2.0 Knots.

Peshawar

Rainfall reported as 22.51 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 6.2/5.2 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 35.6°C & for the recent week 181.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/2.0 Knots.

Kalam

Rainfall reported as 1.00 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 5.0/4.7 Oktas while, average relative humidity observed as 72%. Mean day time temperature recorded as 27.7°C & for the recent week 118.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.3 Knots.

Gilgit

Rainfall reported as 7.81 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 3.7/4.2 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 36.6°C & for the recent week 160.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.7 Knots.

Skardu

Rainfall reported as 2.20 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.5/4.7 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 33.3°C & for the recent week 138.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/5.7 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; Very Good, Flowering stage completed.

Lower Sindh (Tandojam)

There is presently one crop in the fields of RAMC Tandojam.

Cotton (CIM 602); Good, Boll opening stage.

Northern Baluchistan (Quetta)

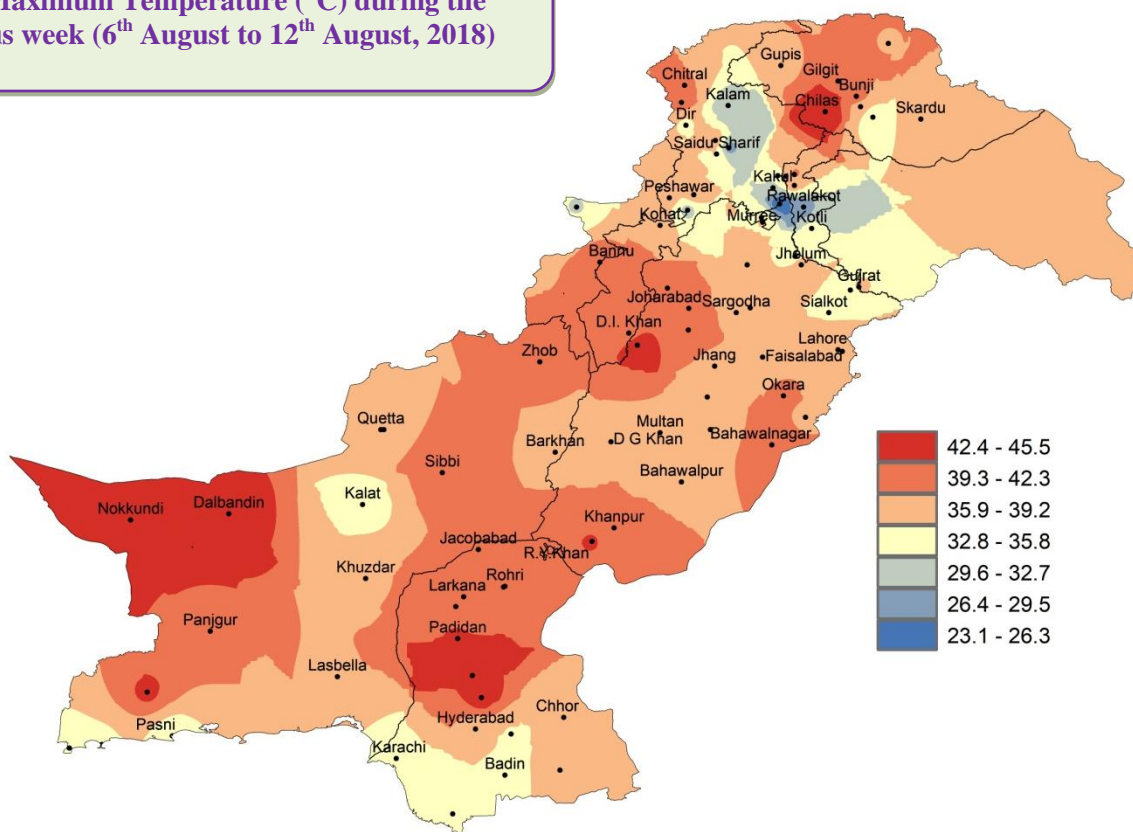
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

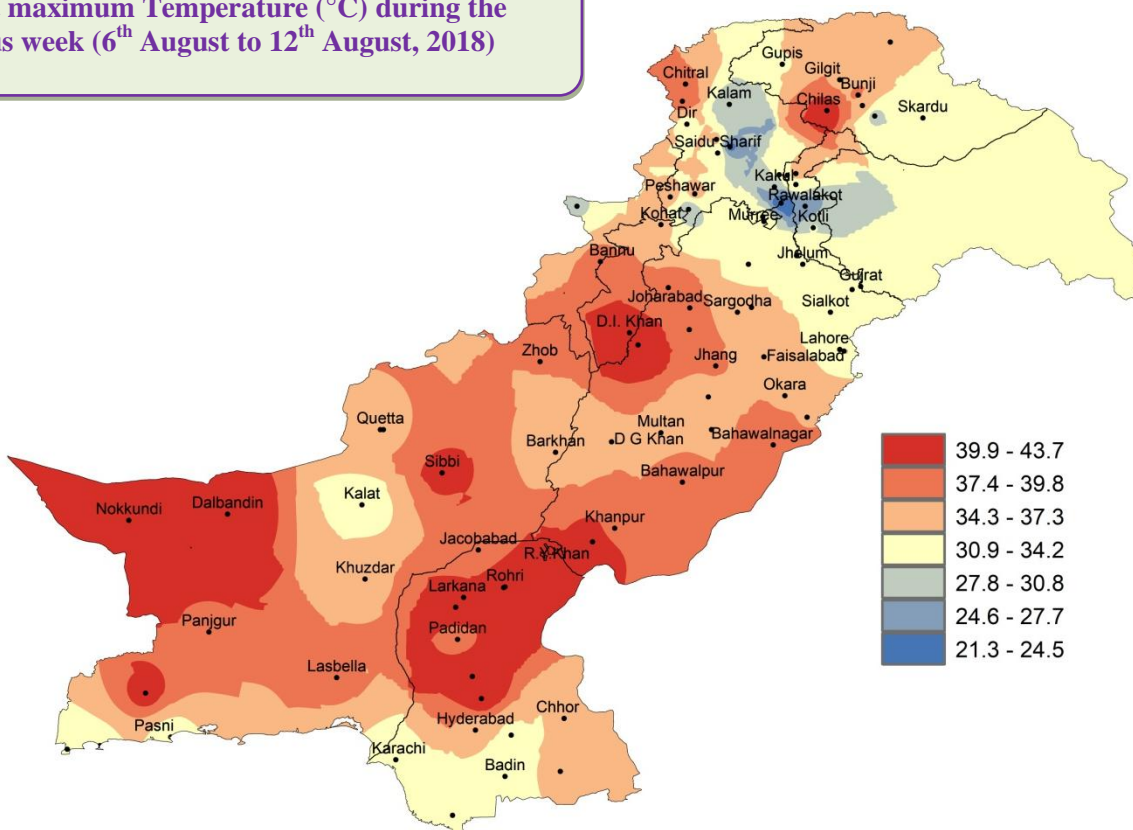
There is presently one crop in the fields of RAMC Usta Muhammad.

Rice; Good, third leaf stage.

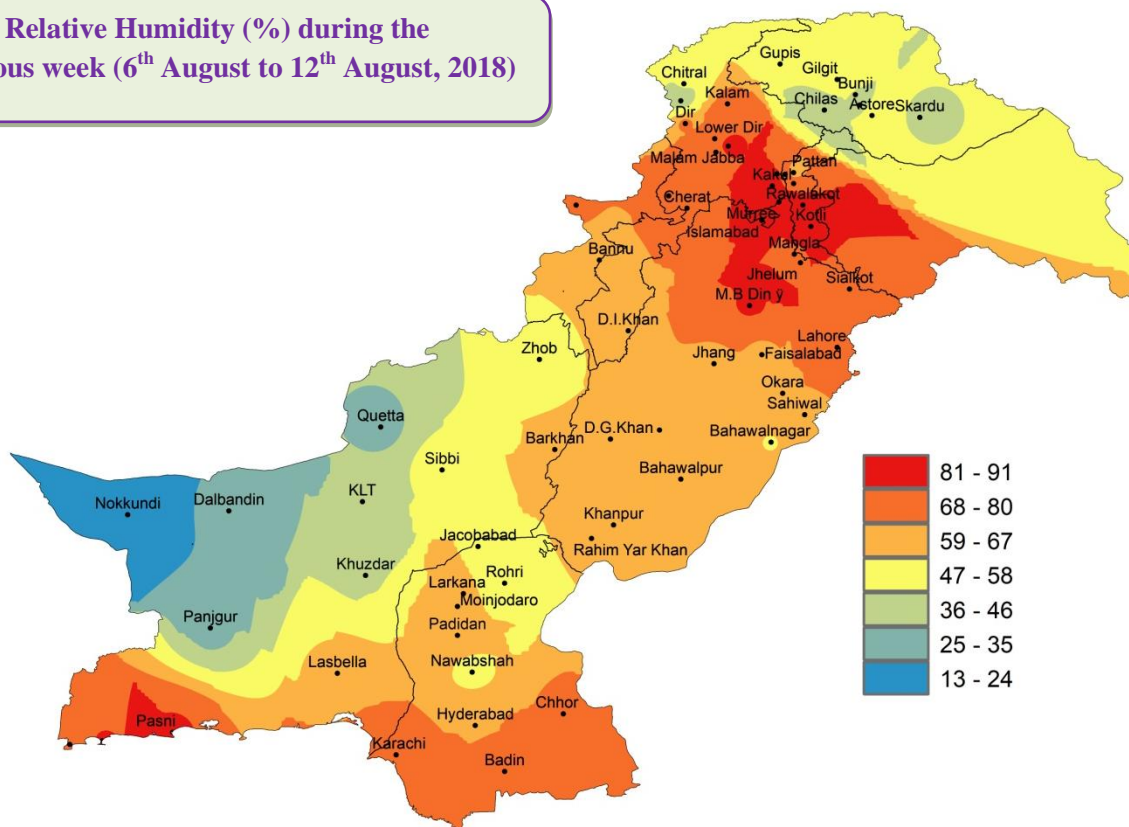
**Mean Maximum Temperature (°C) during the
Previous week (6th August to 12th August, 2018)**



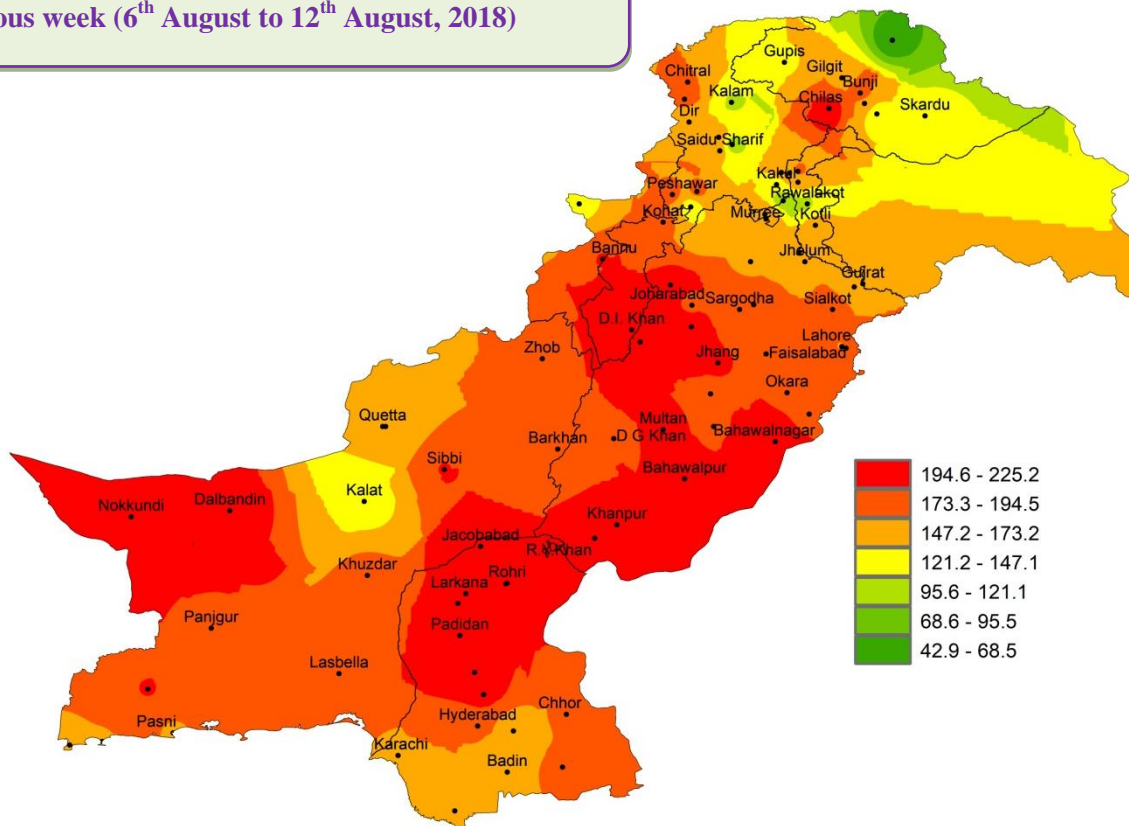
**Highest maximum Temperature (°C) during the
Previous week (6th August to 12th August, 2018)**



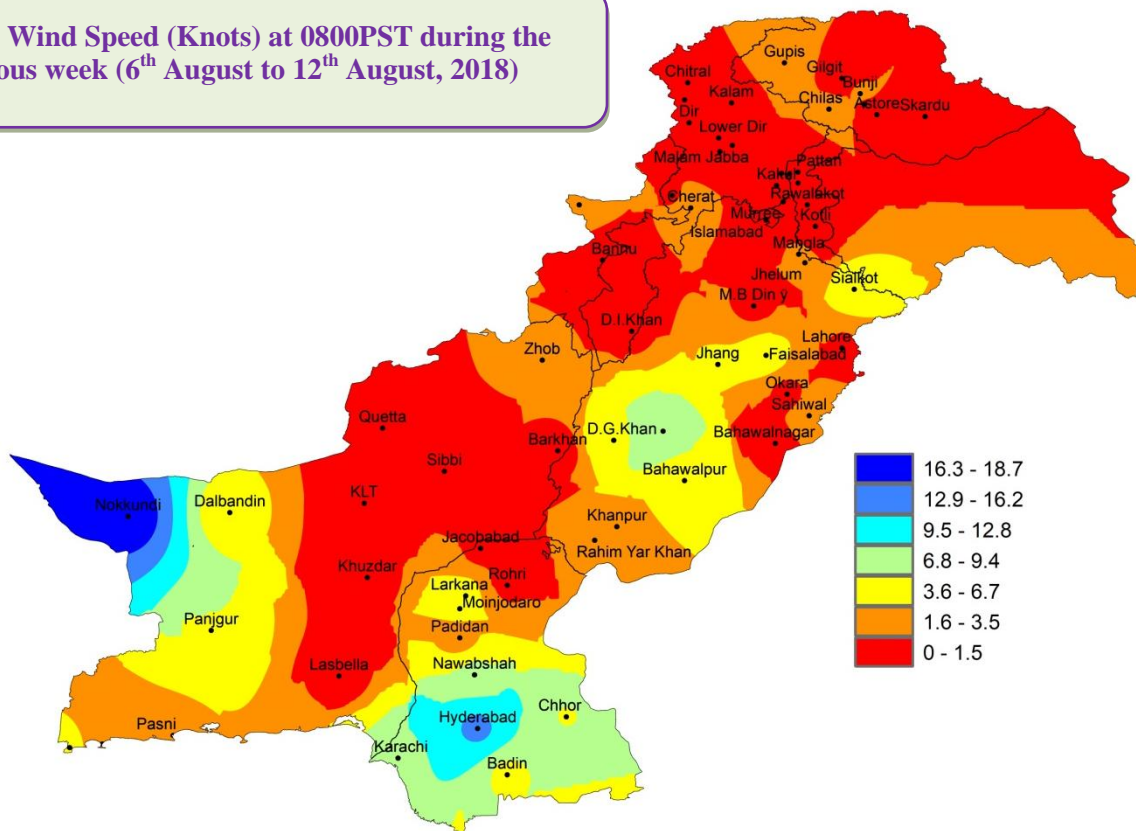
**Mean Relative Humidity (%) during the
Previous week (6th August to 12th August, 2018)**



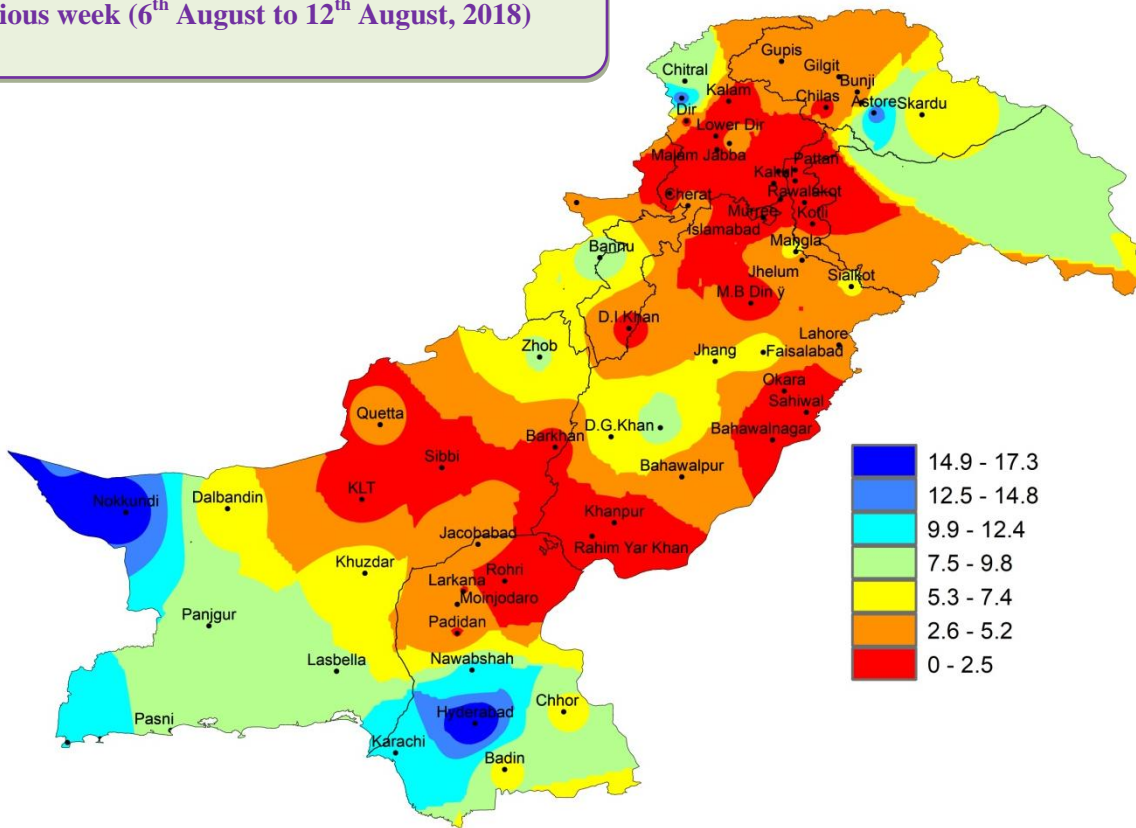
**Total Growing Degree Days accumulated during the
Previous week (6th August to 12th August, 2018)**



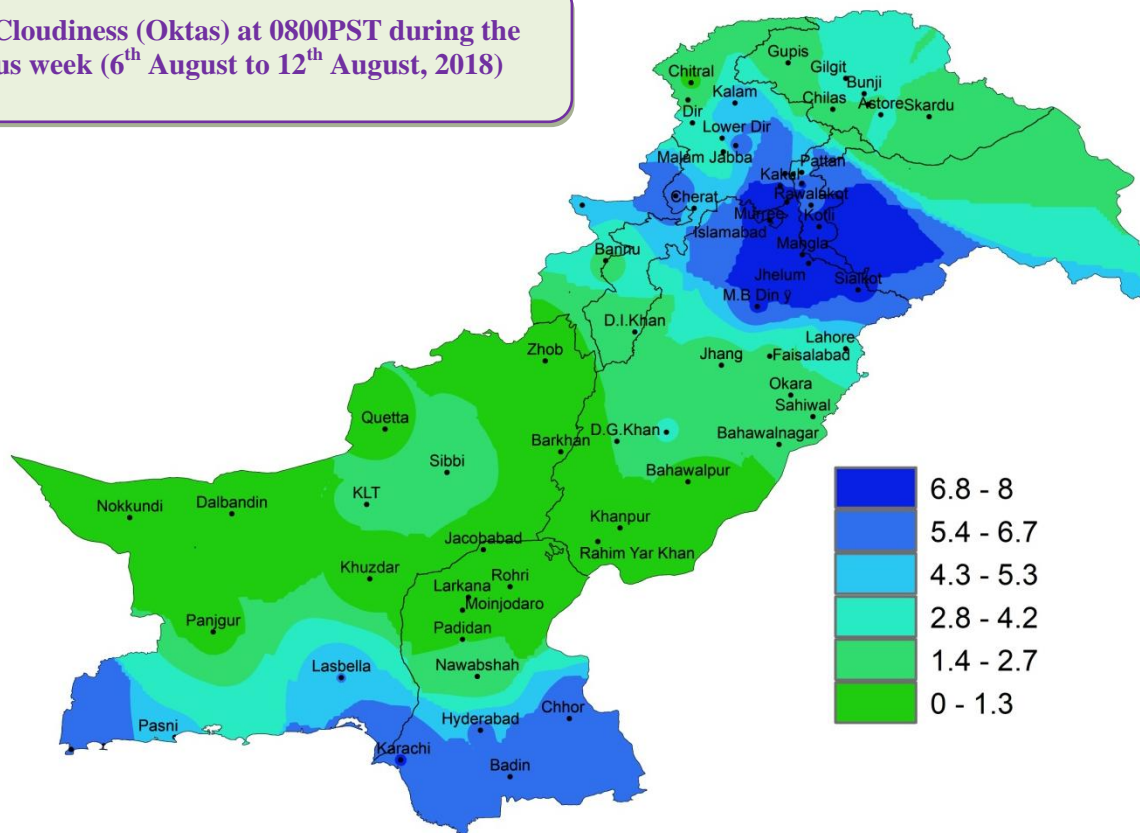
Mean Wind Speed (Knots) at 0800PST during the Previous week (6th August to 12th August, 2018)



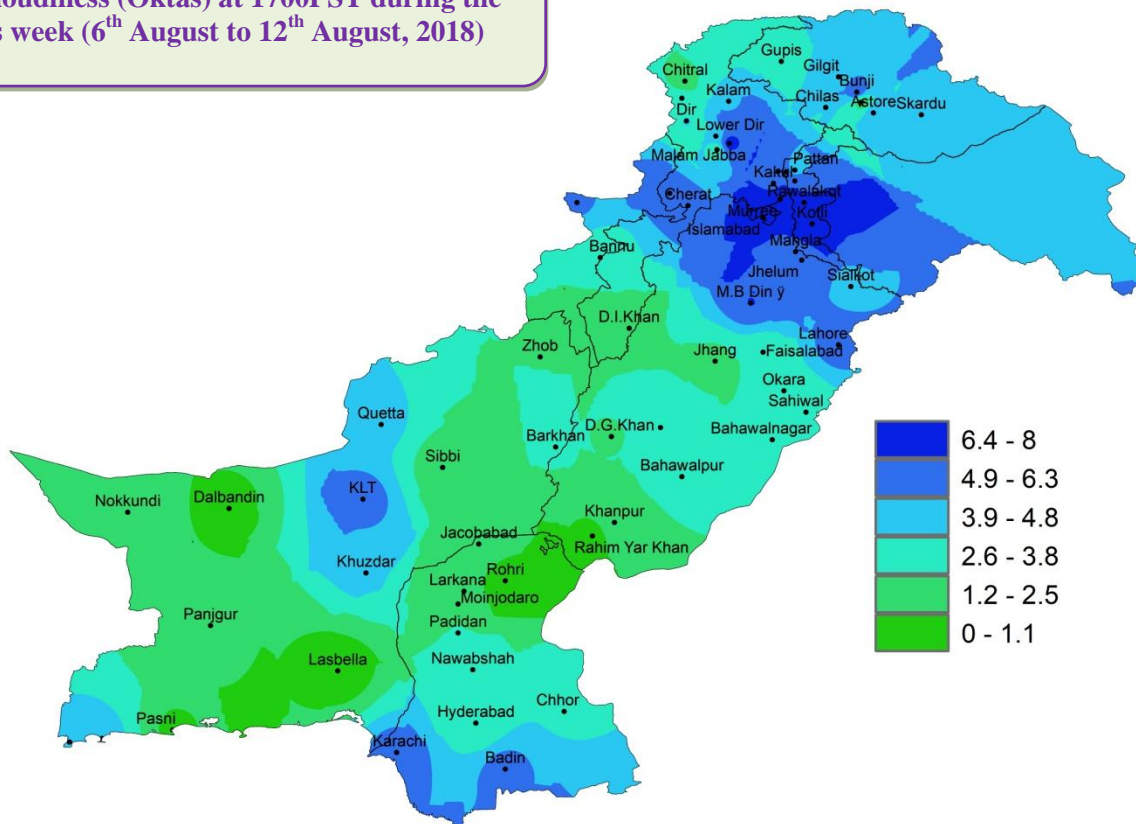
Mean Wind Speed (Knots) at 1700PST during the Previous week (6th August to 12th August, 2018)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (6th August to 12th August, 2018)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (6th August to 12th August, 2018)



Weekly Weather Advisory for Farmers
(13th August to 19th August, 2018)

Seasonal low lies over northeast Balochistan. Monsoon currents are penetrating upper parts of the country and likely to continue in coming days.

MONDAY

13-08-2018

Rain-thundershower with gusty winds is expected at scattered places in Rawalpindi, Gujranwala, Kohat divisions, Islamabad, and Kashmir, while at isolated places in Malakand, Hazara, Peshawar, Mardan, Bannu, D.I.Khan, Zhob and Lahore divisions. Hot and humid weather is expected elsewhere in the country.

TUESDAY

14-08-2018

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershower with gusty winds is expected at isolated places in Lahore, Rawalpindi, Gujranwala, Sargodha, Malakand, Hazara, Peshawar, Kohat divisions, Islamabad and Kashmir.

WEDNESDAY

15-08-2018

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershower with gusty winds is expected at scattered places in Hazara, Rawalpindi, Gujranwala, Sargodha divisions, Islamabad, and Kashmir, while at isolated places in Lahore, Malakand, Hazara, Peshawar, Mardan, Kohat and D.I.Khan divisions.

THURSDAY

16-08-2018

Rain-thundershower with gusty winds is expected at scattered places in upper KP, upper Punjab, while at isolated places in Zhob, D.I.Khan, D.G.khan, Bannu, Sahiwal and Bahawalpur divisions. Hot and humid weather is expected elsewhere in the country.

FRIDAY

17-08-2018

Rain-thundershower with gusty winds is expected at scattered places in upper KP, upper Punjab, while at

isolated places in Zhob, D.I.Khan, Bannu, Bahawalpur, Multan, D.G.Khan, Sahiwal, Mirpurkhas divisions. Hot and humid weather is expected elsewhere in the country.

SATURDAY

18-08-2018

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershower with gusty winds is expected at isolated places in Malakand, Hazara, Kohat, Rawalpindi, Gujranwala, Lahore, Sahiwal, Bahawalpur, Mirpurkhas divisions, Islamabad, Kashmir and Gilgit-Baltistan.

SUNDAY

19-08-2018

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershower with gusty winds is expected at isolated places in Malakand, Multan, D.G.Khan, Mirpurkhas divisions, Kashmir and adjoining hilly areas.

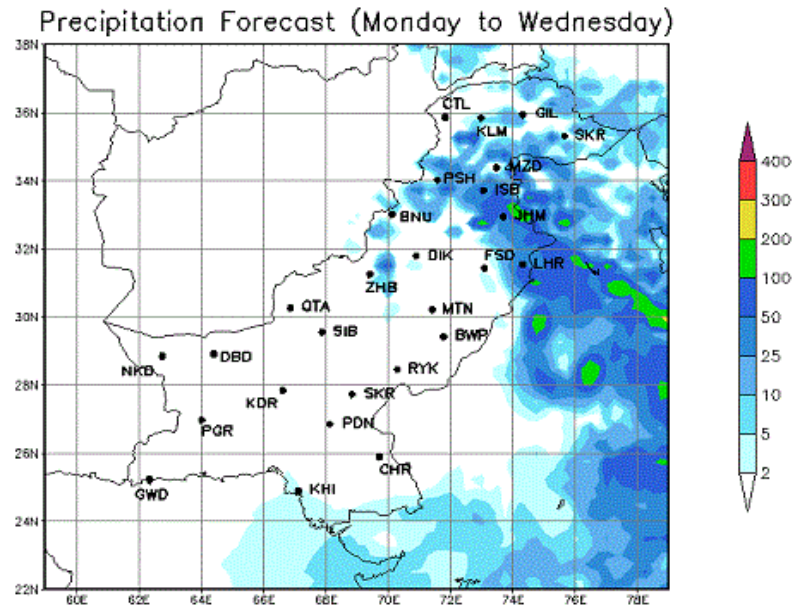
ADVISES FOR FARMERS

During the last week, light to moderate rainfall occurred in most parts of the country. During the next week, light to moderate rainfall is expected in the upper half of the country. Keeping in view the expected weather conditions following advises are suggested for farming community.

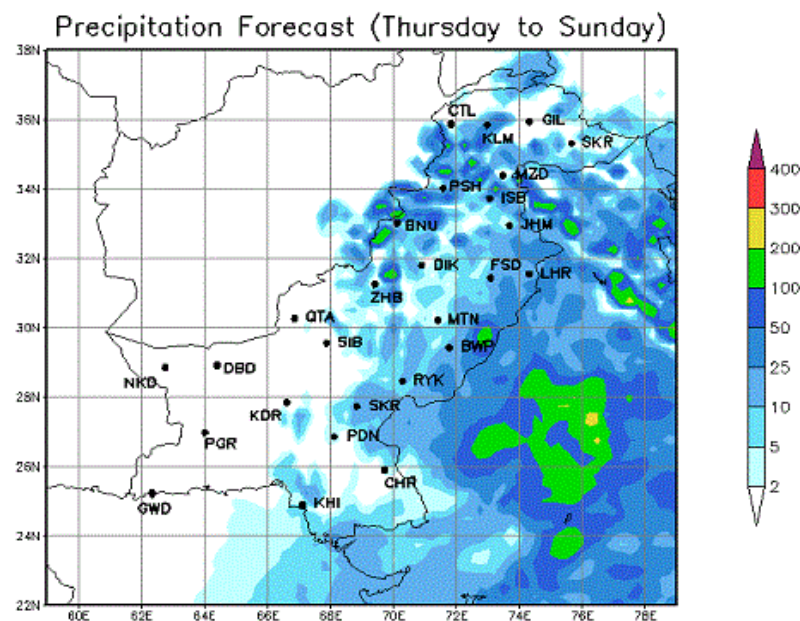
- Farmers of upper regions are advised to complete the cultivation of millet and sorghum in the upper regions because of the moister availability in field.
- Extra water from the fields of Cotton and vegetables should be removed.
- Use pesticides to avoid the attack from pests on the cotton crop as advised by the agriculture department.

Weather Outlook from (13th August to 19th August, 2018)

The outlook from 13th August to 15th August, 2018 shows that light to moderate rainfall is expected in Kashmir, FATA, upper Punjab, & KP and in scattered places of GB and Balochistan. However, heavy rainfall is expected in Potohar region.



The outlook from 16th August to 19th August, 2018 shows that light to moderate rainfall is expected in GB, KP, Punjab, Sindh and northeastern Baluchistan. However, heavy rainfall is expected in Kashmir and some parts of KP and lower Punjab.



National Weather Data of Selected Cities (Weekly Data from 6th August to 12th August, 2018)

Stations	Maximum/Night 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							
Astore	29.2	32.5	124.1	53	11.80	3.0	4.8	1.0	14.7
Badin	33.1	35.0	171.9	72	5.30	5.8	5.3	6.0	6.7
Bahawalnagar	39.4	41.0	202.7	57	0.01	1.3	3.0	0.7	2.3
Bahawalpur	37.9	38.5	195.6	66	51.60	0.7	3.5	4.7	3.0
Balakot	31.1	34.0	153.8	82	160.00	6.3	5.8	0.0	0.7
Bannu	38.5	41.3	195.3	63	2.00	2.5	2.7	0.0	8.7
Barkhan	36.1	38.0	176.8	59	7.00	0.0	2.7	0.0	1.7
Bunji	37.6	42.2	188.3	46	4.01	3.8	6.5	2.0	2.7
Cherat	27.8	31.5	126.0	71	80.00	5.0	5.2	2.3	3.0
Chhor	34.5	36.4	176.6	69	7.50	6.2	3.7	6.7	7.0
Chilas	41.2	45.5	203.8	36	4.00	2.2	3.8	2.3	2.3
Chitral	37.9	39.6	175.2	47	0.01	1.0	2.2	1.3	8.0
D.G.Khan	36.9	38.0	192.9	65	1.40	1.3	2.3	6.3	6.7
D.I.Khan	40.1	41.5	204.8	64	0.01	2.7	2.0	0.7	2.0
Dalbandin	43.4	45.5	212.0	26	0.00	1.0	0.7	4.7	5.7
Dir	32.9	35.0	148.5	69	5.00	4.0	3.8	0.0	2.0
Drosh	39.1	40.6	181.2	40	0.00	2.0	2.7	0.0	14.2
Faisalabad	37.0	40.0	191.7	68	1.20	1.7	2.0	2.4	1.7
Garidopatta	32.0	36.1	155.9	77	139.90	7.0	6.2	0.0	2.3
Gawadar	33.1	35.0	172.3	81	0.00	5.7	4.5	2.0	11.3
Gilgit	36.6	41.0	160.3	57	7.81	3.7	4.2	0.0	3.7
Gupis	33.9	37.5	141.8	47	1.00	1.7	3.5	3.0	4.0

Hyderabad	35.1	37.0	176.2	67	0.00	5.5	2.5	13.7	17.3
Islamabad	32.1	35.0	163.9	81	215.50	7.0	6.7	0.0	1.0
Jacobabad	38.3	40.0	196.5	57	0.00	0.5	1.8	1.0	4.0
Jhang	37.5	38.5	195.4	65	0.00	1.5	2.0	3.7	5.3
Jhelum	33.2	36.5	172.5	80	61.30	7.2	5.8	1.7	3.0
Jiwani	32.4	34.5	170.0	75	0.00	6.3	3.8	4.3	10.0
Kakul	28.5	31.5	136.6	87	98.00	6.8	5.8	0.0	1.7
Kalam	27.7	30.0	118.0	72	1.00	5.0	4.7	0.0	1.3
Kalat	32.2	34.0	129.0	37	0.02	1.5	5.4	0.0	1.6
Karachi	32.4	34.0	170.8	75	0.04	6.7	5.5	8.7	10.0
Khanpur	39.5	40.0	201.6	60	0.00	0.7	1.5	3.3	2.3
Khuzdar	36.4	38.5	181.0	45	4.80	0.5	4.2	0.0	6.7
Kotli	31.0	33.6	161.8	83	150.91	8.0	7.7	0.3	1.3
Lahore	34.5	37.2	182.0	71	6.11	4.0	5.5	1.0	3.3
Larkana	40.3	41.0	199.0	58	0.00	1.3	1.3	4.0	2.3
Lasbella	37.9	39.0	190.3	63	0.00	5.3	0.0	0.3	7.7
Lower Dir	35.6	38.5	174.0	67	65.00	4.2	4.0	0.0	2.0
M.B Din	34.2	37.0	176.7	82	21.01	6.8	6.3	0.7	1.0
Malam Jabba	22.9	27.5	98.5	88	71.00	6.5	7.3	1.0	3.7
Mangla	32.4	35.2	169.8	80	58.01	7.0	6.0	1.7	6.7
Mir Khani	36.7	37.5	167.5	42	0.00	1.5	1.3	1.3	4.3
Moinjodaro	40.1	42.0	197.7	60	0.00	1.0	1.3	4.3	5.0
Multan (PBO)	36.9	38.1	196.0	63	1.20	2.8	3.7	9.3	8.3
Murree	21.3	23.0	99.0	92	121.30	7.0	8.0	1.0	1.3
Muzaffarabad	32.6	37.0	155.6	76	121.00	4.8	5.3	0.0	1.0
Nawabshah	40.4	42.5	200.3	55	0.00	1.7	3.2	8.0	10.7

Nokkundi	43.7	45.0	225.3	13	0.00	0.7	2.0	18.7	16.0
Okara	37.0	39.5	192.8	67	0.00	2.3	2.8	0.7	1.0
Padidan	39.6	42.5	194.5	63	0.00	1.3	2.7	2.0	2.3
Panjgur	39.3	40.5	188.0	31	0.00	1.0	1.7	6.7	9.0
Parachinar	30.3	32.5	136.8	68	66.00	4.8	5.0	2.8	3.8
Pasni	32.4	33.5	171.5	82	0.00	4.3	0.8	2.7	8.0
Pattan	36.7	40.0	182.0	58	9.00	4.8	3.8	0.0	1.0
Peshawar	35.6	37.5	181.7	69	22.51	6.2	5.2	1.3	2.0
Quetta	35.6	37.0	160.0	27	0.00	2.6	4.1	2.8	4.7
Rahim Yar Khan	40.4	42.5	204.5	58	0.01	0.5	0.8	1.7	0.7
Rawalakot	25.0	27.5	116.5	89	33.01	6.2	6.8	0.0	0.3
Rawalpindi	32.5	35.8	164.1	85	254.70	6.4	6.2	1.1	0.8
Rohri	40.4	41.5	204.0	54	0.00	0.0	0.7	0.8	0.3
Sahiwal	37.2	38.8	191.3	66	0.00	1.3	3.0	3.0	2.0
Saidu Sharif	33.9	36.0	160.0	72	11.50	2.7	2.8	0.0	0.0
Sialkot	32.9	35.2	171.3	75	142.40	6.8	4.3	5.3	5.3
Sibbi	40.6	42.0	195.2	55	3.00	2.5	1.3	0.3	2.0
Skardu	33.3	38.6	138.1	46	2.20	2.5	4.7	0.0	5.7
Tandojam	35.7	37.0	174.8	70	0.00	4.3	1.4	4.0	3.4
Usta.M	39.3	41.0	199.4	62	0.00	0.6	0.4	0.0	4.0
Zhob	37.4	40.5	183.0	50	4.00	0.0	2.5	2.5	7.7

*** 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 2012-2014)