

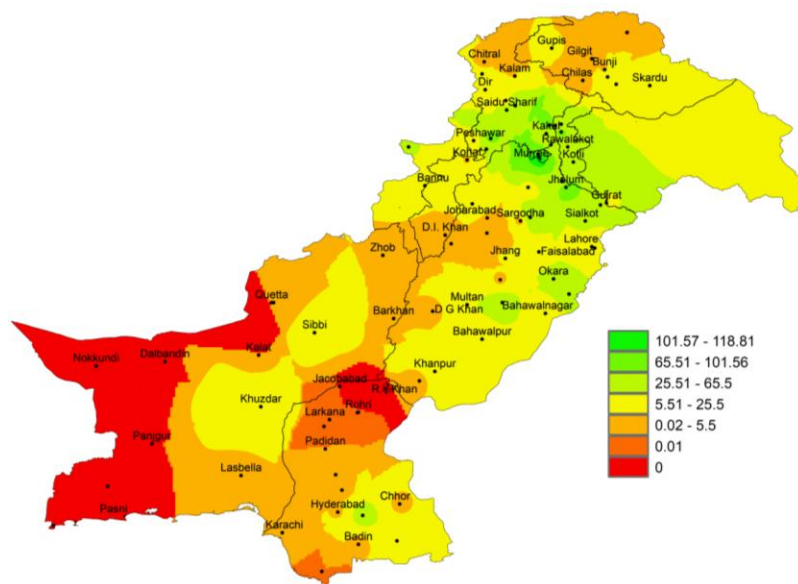
Weekly Weather and Crop Bulletin for Pakistan

**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 (13th August to 19th August, 2018)**



Contents

Highlights of past weather (General)	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Min Temperature maps	5
R.H and GDD	6
Wind speed maps	7
Cloudiness maps	8
Farmers advisory	9
Weather Outlook	10
National data for selected stations	11-13
AgMIP findings	14

Highlights of Past Weather (13th August to 19th August, 2018)

Above normal day temperature was observed in most parts of 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 scattered 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 (13th August to 19th August, 2018)**Punjab**

Moderate to heavy rainfall observed at most places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.9°C & 26.6°C respectively. For the recent week on average 183.7 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 72% and wind speed in the morning/evening recorded as 2.1/2.6 Knots. During the previous week the highest amount of rainfall was recorded as 118.81 mm at Islamabad & highest maximum temperature was recorded as 41.5°C at Bhakkar.

Sindh

Light to moderate rainfall observed at scattered places in Sindh during the week. Weekly maximum and minimum temperatures recorded as 36.8°C & 26.1°C respectively. For the recent week, on average 185.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 4.2/5.3 Knots. During the previous week the highest amount of rainfall was recorded as 37.00 mm at Mirpurkhas & highest maximum temperature was recorded as 42.5°C at Sukkur.

Khyber Pakhtunkhwa

Moderate to heavy rainfall observed at most places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.1°C & 21.9°C respectively. For the recent week on average 157.3 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 0.7/3.4 Knots. During the previous week, the highest amount of

rainfall was recorded as 105.00 mm at Balakot & highest maximum temperature was recorded as 41.0°C at Drosh.

Baluchistan

Light to moderate rainfall observed at scattered places in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 37.0°C & 24.6°C respectively. For the recent week on average 178.9 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 50% and wind speed in the morning/evening recorded as 2.8/5.2 Knots. During the previous week the highest amount of rainfall was recorded as 24.50 mm at Khuzdar & highest maximum temperature was recorded as 47.0°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 32.6°C & 19.7°C respectively. For the recent week on average 139.7 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 1.0/2.1 Knots. During the previous week the highest amount of rainfall was recorded as 80.4 mm at Garhi Doppata Kotli & highest maximum temperature was recorded as 42.5°C at Chilas.

Past Weather for Major Agricultural Plains (13th August to 19th August, 2018)

Rawalpindi (Potohar region)

Rainfall reported as 124.4 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 4.6/4.6 Oktas while, average relative humidity observed as 79%. Mean day time temperature recorded as 33.7°C & for the recent week 163.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 14.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.1/5.0 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 37.1°C & for the recent week 192.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/0.9 Knots.

Tandojam (Lower Sindh)

Rainfall reported as 3.0 mm from Tandojam during the week; however, cloudiness recorded in the morning/evening as 3.7/3.7 Oktas while, average relative humidity observed as 72%. Mean day time temperature recorded as 36.0°C & for the recent week 176.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/3.4 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.1/1.0 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 40.0°C & for the recent week 202.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.4 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.7/2.7 Oktas while, average relative humidity observed as 24%. Mean day time

temperature recorded as 35.4°C & for the recent week 166.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/3.0 Knots.

Past Weather for Sub-Regional Agricultural Plains (13th August to 19th August, 2018)

Multan

Rainfall reported as 25.01 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 4.3/4.0 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 37.1°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 7.3/8.3 Knots.

Lahore

Rainfall reported as 17.51 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 4.7/4.3 Oktas while, average relative humidity observed as 72%. Mean day time temperature recorded as 35.4°C & for the recent week 182.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening 3.3/0.6 Knots.

Zhob

Rainfall reported as 5.00 mm from during the week; however, cloudiness in the morning/evening recorded as 0.7/2.4 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 36.6°C & for the recent week 181.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.5/6.4 Knots.

Murree

Rainfall reported as 31.32 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.3/7.7 Oktas while, average relative humidity observed as 87%. Mean day time temperature recorded as 22.9°C & for the recent week 103.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.7/2.4 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 39.3°C & for the recent week 200.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/3.4 Knots.

Peshawar

Rainfall reported as 7.61 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 5.7/3.8 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded as 34.6°C & for the recent week 168.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/2.7 Knots.

Kalam

Rainfall reported as 5.10 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.8/5.1 Oktas while, average relative humidity observed as 72%. Mean day time temperature recorded as 27.7°C & for the recent week 116.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

Gilgit

Rainfall reported as 0.02 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 4.3/4.7 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 35.6°C & for the recent week 155.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/4.6 Knots.

Skardu

Rainfall reported as 8.60 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.3/5.4 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 30.7°C & for the recent week 125.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

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

Potohar Region (Rawalpindi)

There is presently one crop grown in the fields of RAMC Rawalpindi.

Maize; Good, Emergence stage.

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)

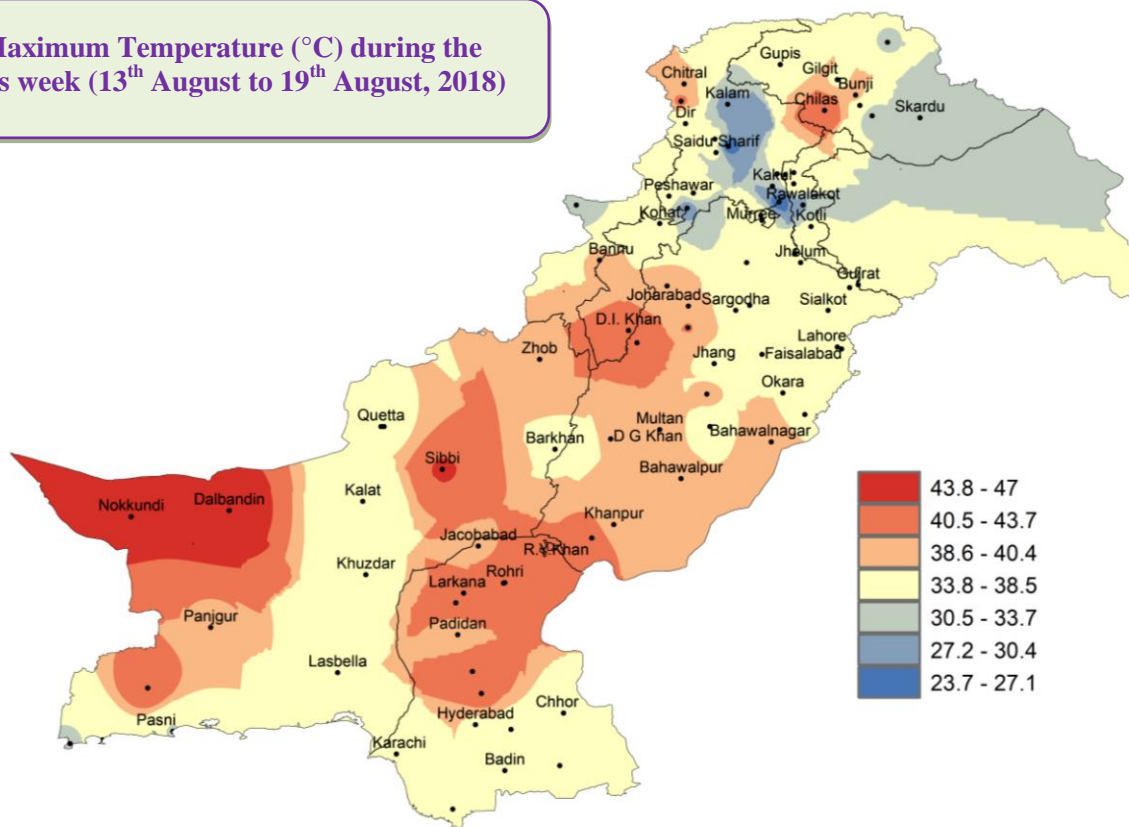
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

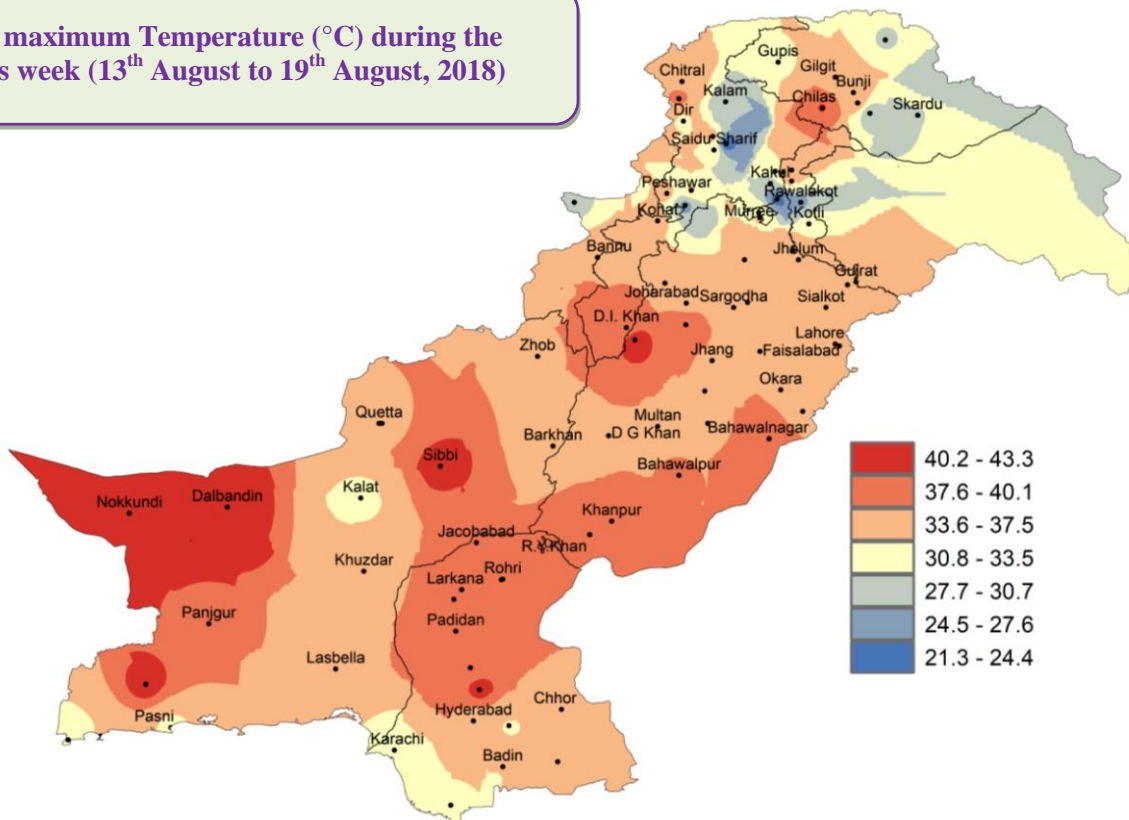
There is presently one crop in the fields of RAMC Usta Muhammad.

Rice; Good, tillering stage.

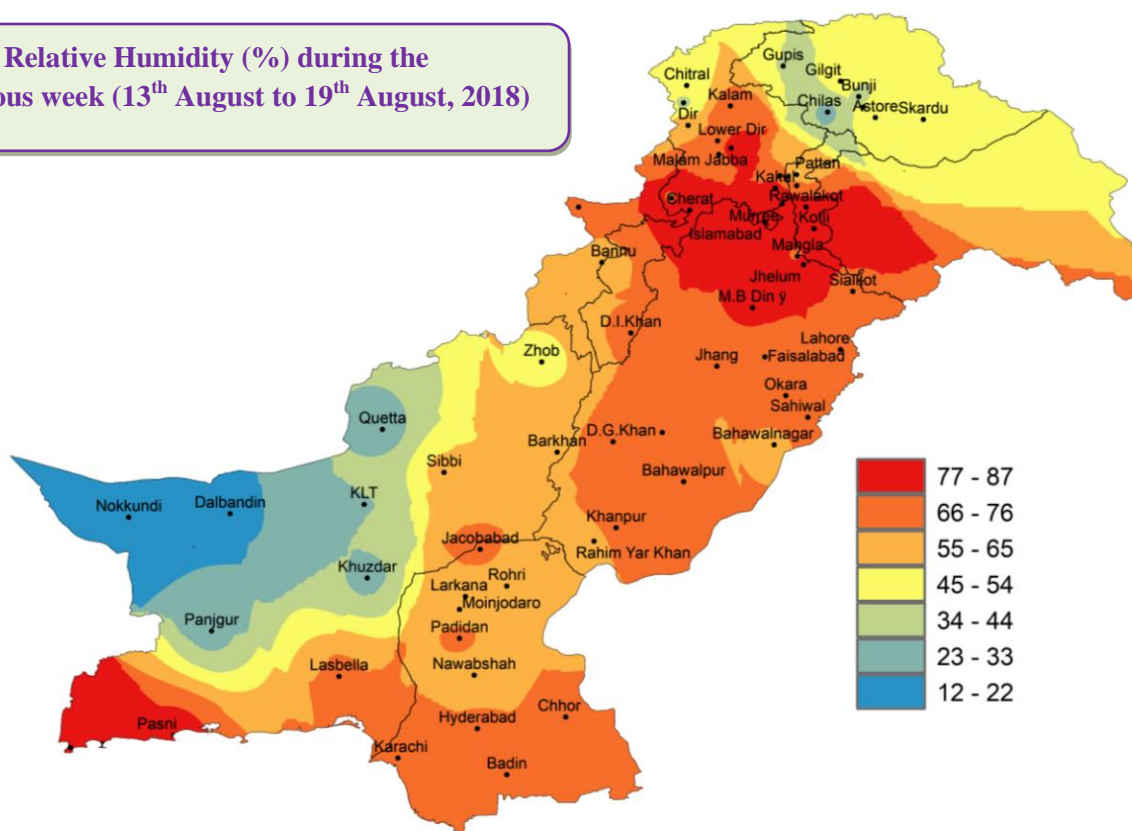
Mean Maximum Temperature (°C) during the Previous week (13th August to 19th August, 2018)



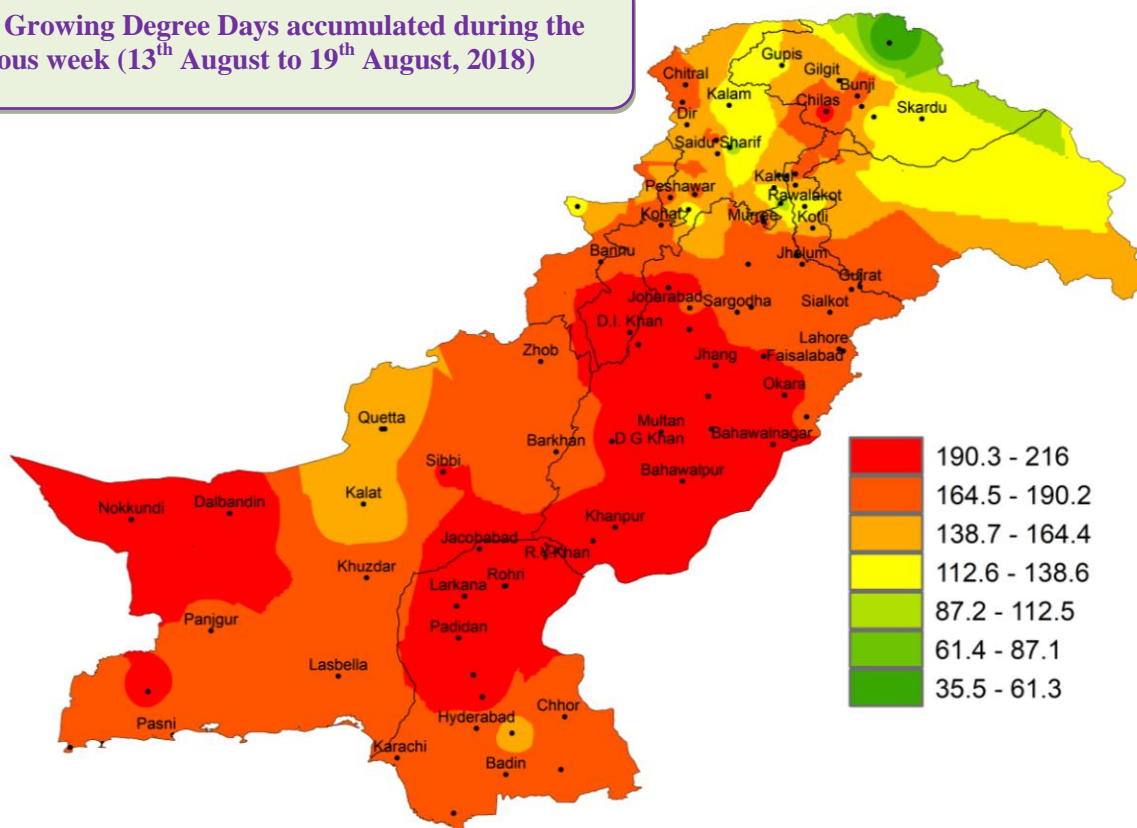
Highest maximum Temperature (°C) during the Previous week (13th August to 19th August, 2018)



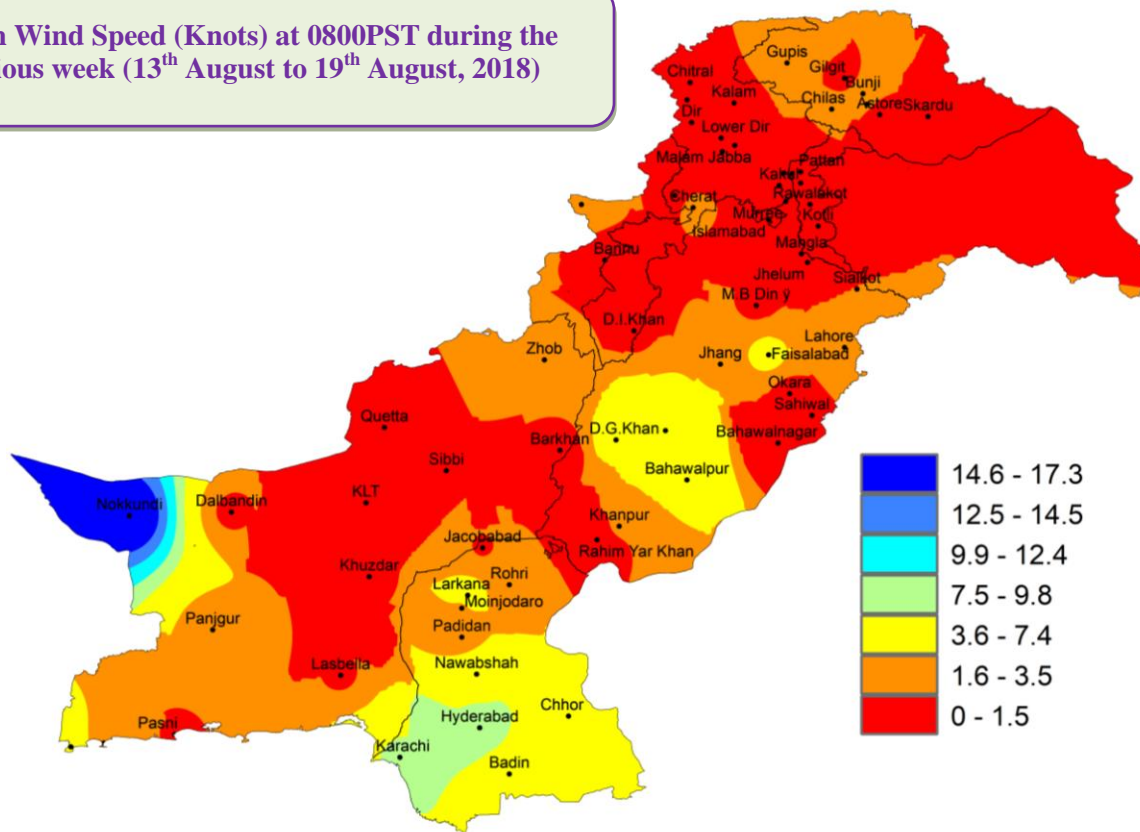
Mean Relative Humidity (%) during the
Previous week (13th August to 19th August, 2018)



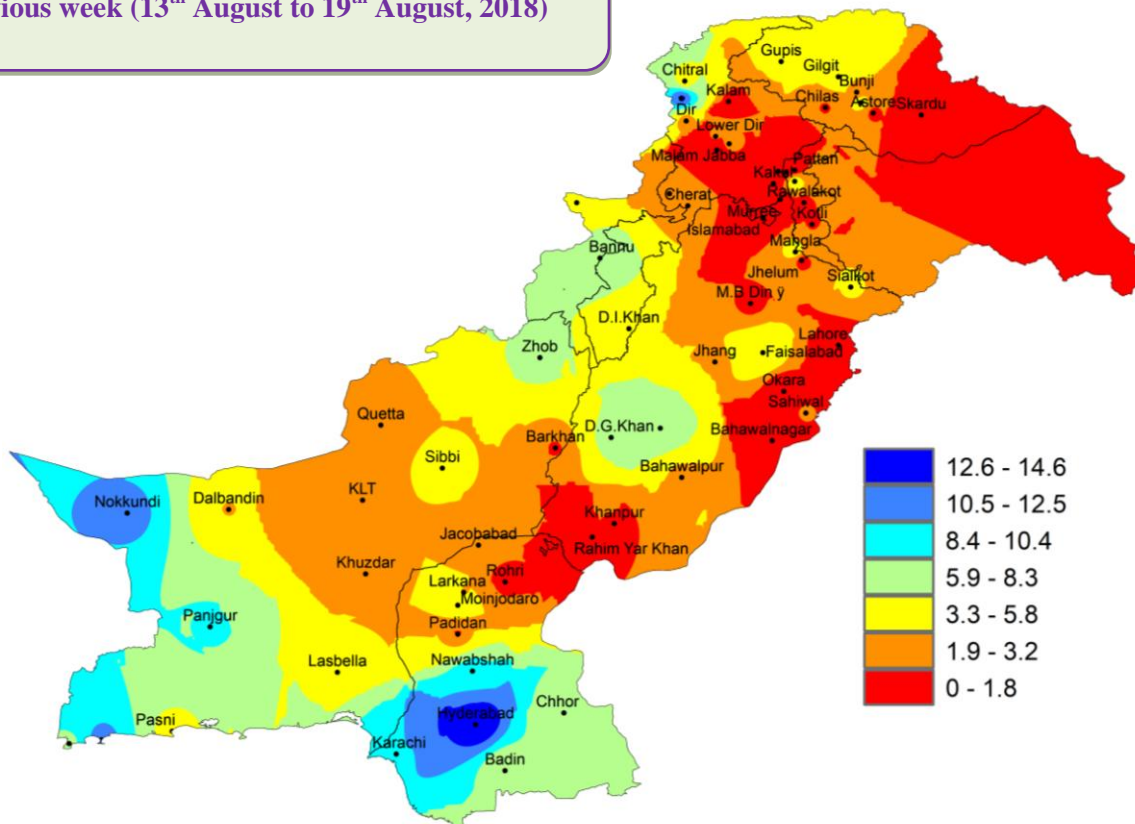
Total Growing Degree Days accumulated during the
Previous week (13th August to 19th August, 2018)



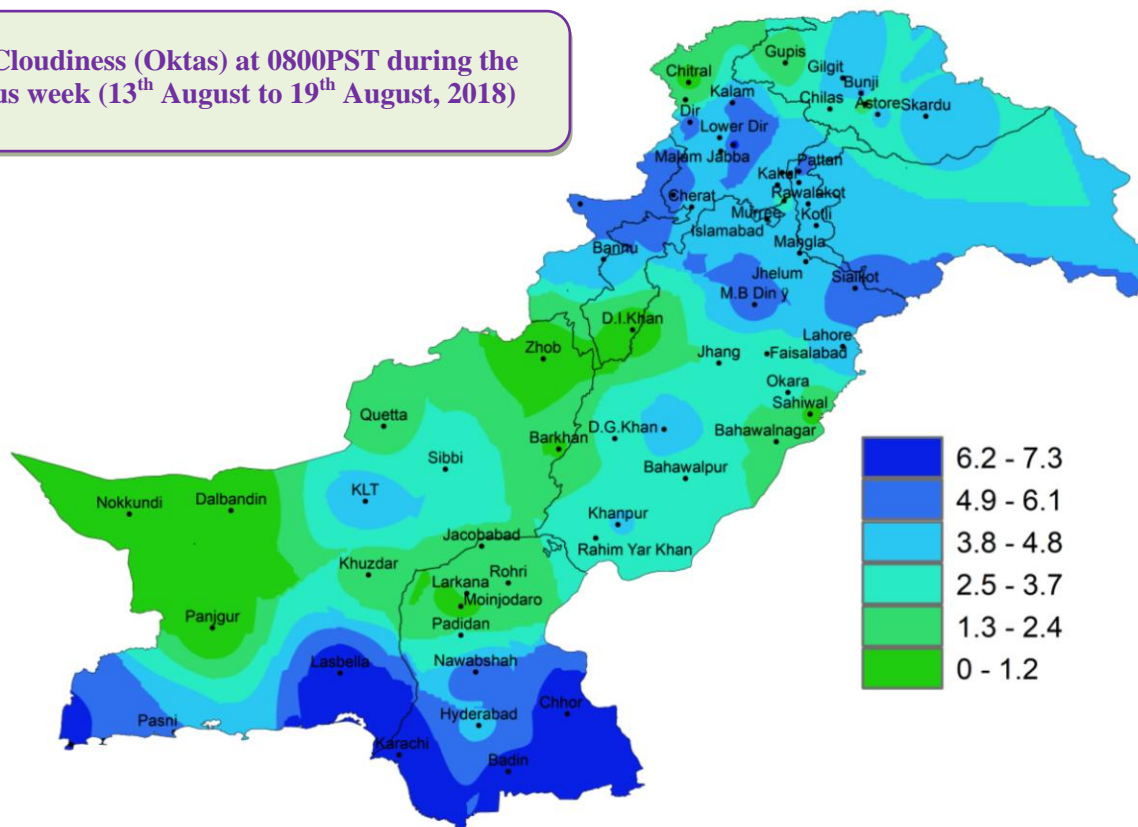
Mean Wind Speed (Knots) at 0800PST during the Previous week (13th August to 19th August, 2018)



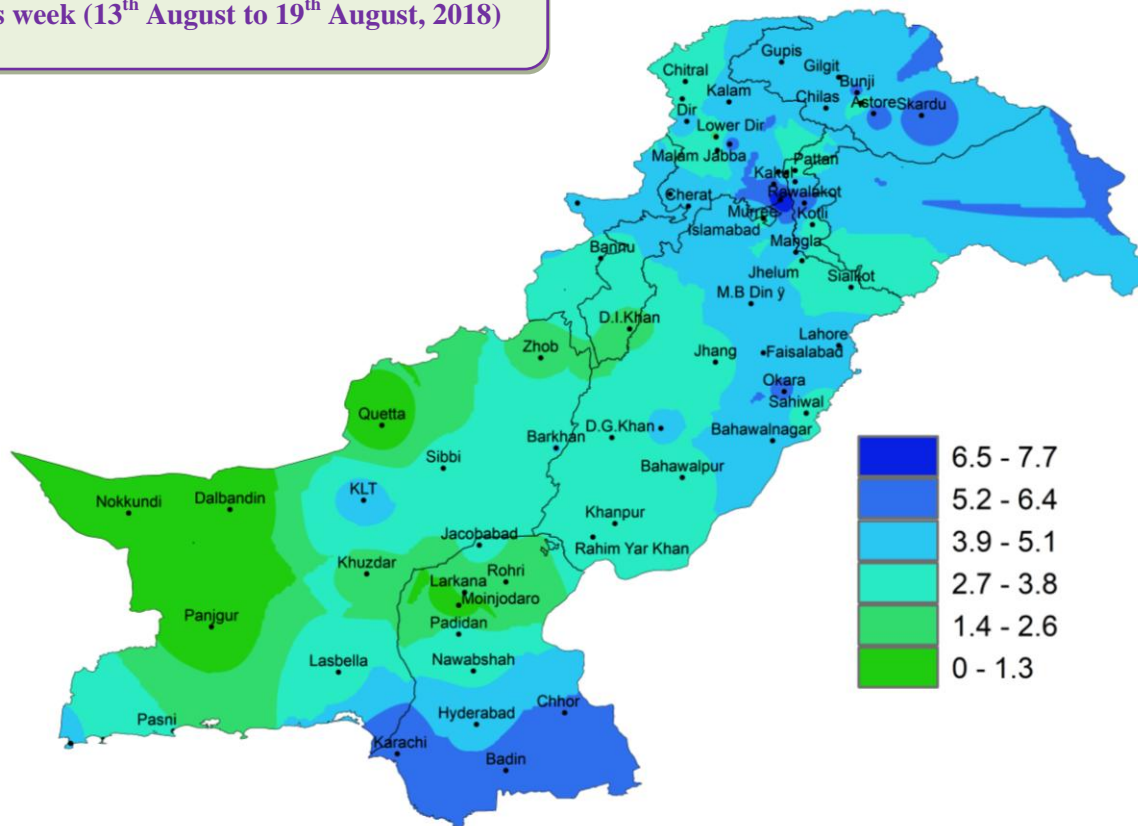
Mean Wind Speed (Knots) at 1700PST during the Previous week (13th August to 19th August, 2018)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (13th August to 19th August, 2018)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (13th August to 19th August, 2018)



Weekly Weather Advisory for Farmers
(20th August to 26th August, 2018)

Seasonal low lies over northeast Balochistan. Monsoon currents are penetrating upper and central parts of the country.

MONDAY**20-08-2018**

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 Hazara, Rawalpindi, Gujranwala, Lahore divisions, Islamabad and Kashmir.

TUESDAY**21-08-2018**

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 Hazara, Rawalpindi, Gujranwala, Lahore, Faisalabad divisions, Islamabad and Kashmir.

WEDNESDAY**22-08-2018**

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

THURSDAY**23-08-2018**

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 Peshawar, Kohat, Bannu, Malakand, Hazara, Rawalpindi, Gujranwala divisions, Islamabad and Kashmir.

FRIDAY**24-08-2018**

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

Peshawar, Kohat, Bannu, Malakand, Hazara, Rawalpindi, Gujranwala, Sargodha divisions, Islamabad, Gilgit Baltistan and Kashmir.

SATURDAY**25-08-2018**

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 Peshawar, Kohat, Bannu, Malakand, Hazara, Rawalpindi, Gujranwala, Sargodha divisions, Islamabad, Gilgit Baltistan and Kashmir.

SUNDAY**26-08-2018**

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 Peshawar, Kohat, Malakand, Hazara, Rawalpindi, Sargodha divisions, Islamabad and Kashmir.

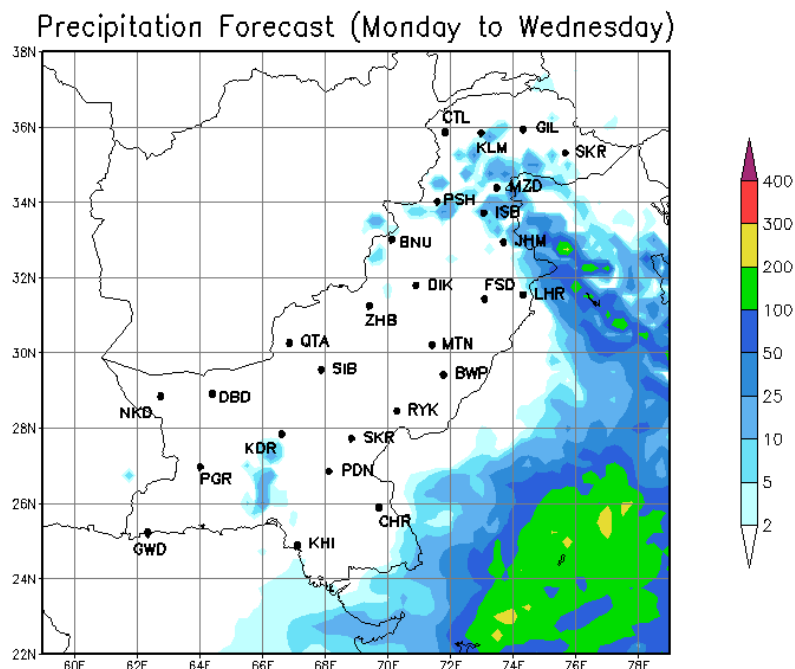
ADVISES FOR FARMERS

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.

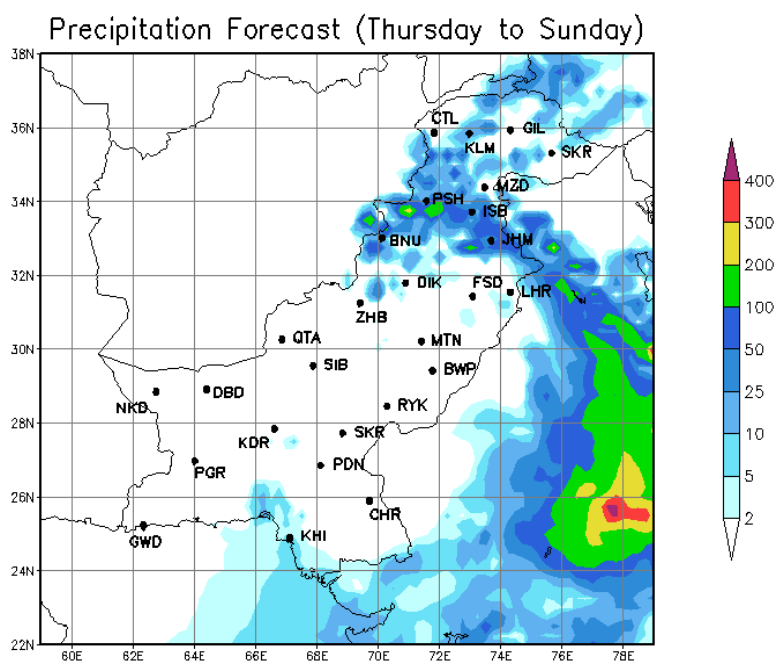
- Use pesticides to avoid the attack from pests on the cotton crop as advised by the agriculture department.
- Farmers of upper regions are advised to complete the cultivation of millet and sorghum in the upper regions because of the moister availability in field.
- Extra water from the fields of Cotton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

Weather Outlook from (20th August to 26th August, 2018)

The outlook from 20th August to 22nd August, 2018 shows that light to moderate rainfall is expected at scattered places in Kashmir, upper Punjab, northeastern KP and in isolated places of southeastern Balochistan. However, dry weather is expected in the rest of the country.



The outlook from 23rd August to 26th August, 2018 shows that light to moderate rainfall is expected in GB, Kashmir, KP, upper Punjab, coastal areas of Sindh and isolated place in northeastern Baluchistan.



National Weather Data of Selected Cities (Weekly Data from 13th August to 19th 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	27.6	30.5	118.0	50	9.90	4.2	6.0	0.3	1.4
Badin	33.5	35.5	174.5	69	0.01	6.5	6.0	6.0	6.0
Bahawalnagar	39.4	40.0	200.6	63	10.00	2.3	4.9	0.0	0.0
Bahawalpur	37.7	39.0	195.0	68	7.40	3.2	3.6	5.0	2.6
Balakot	31.6	34.0	148.4	70	105.00	3.8	5.1	0.0	0.9
Bannu	36.8	39.0	188.7	64	11.00	4.7	3.4	0.0	8.0
Barkhan	35.3	38.0	174.3	64	4.00	1.2	3.9	0.0	1.7
Bunji	35.6	40.0	175.6	42	3.01	5.2	5.9	3.0	2.3
Cherat	26.2	28.0	116.8	84	24.00	4.2	5.0	2.0	2.3
Chhor	35.7	37.5	181.4	67	2.80	6.7	5.1	5.0	6.0
Chilas	40.3	42.5	193.5	31	0.00	3.2	4.6	2.0	1.7
Chitral	36.8	39.0	168.7	50	0.00	0.7	2.7	0.7	4.3
D.G.Khan	37.0	38.5	193.6	68	2.61	2.7	2.9	4.7	6.3
D.I.Khan	39.3	40.5	200.8	67	0.00	0.7	2.4	1.0	3.4
Dalbandin	43.3	47.0	210.3	20	0.00	0.0	0.3	1.0	3.1
Dir	32.8	34.0	151.3	64	25.00	5.3	4.4	0.0	2.0
Drosh	38.3	41.0	172.4	41	11.40	2.0	2.7	0.0	13.1
Faisalabad	37.1	38.5	192.8	68	14.00	1.1	5.0	2.3	0.9
Garidopatta	33.3	36.5	157.7	72	80.40	4.5	4.7	0.7	4.6
Gawadar	33.6	35.0	172.8	81	0.00	6.0	2.9	2.3	11.1
Gilgit	35.6	38.0	155.8	49	0.02	4.3	4.7	0.7	4.6
Gupis	32.3	36.0	137.3	43	7.00	1.8	3.9	3.3	3.7

Hyderabad	35.8	38.0	178.4	67	3.80	4.5	4.6	8.7	14.6
Islamabad	33.1	35.5	166.0	76	96.00	4.3	3.4	0.3	0.0
Jacobabad	37.9	39.5	193.5	67	0.00	2.3	3.0	1.3	2.3
Jhang	37.1	37.5	192.3	67	6.20	2.5	3.1	2.7	2.9
Jhelum	34.9	37.2	179.8	79	94.61	3.7	3.0	0.3	1.1
Jiwani	31.5	33.0	166.3	79	0.00	6.5	4.6	5.3	8.0
Kakul	29.4	30.7	135.7	82	30.01	4.0	5.6	0.0	0.9
Kalam	27.7	29.0	116.1	72	5.10	4.8	5.1	0.0	1.4
Kalat	32.6	34.0	141.5	33	0.00	4.5	4.4	0.3	2.6
Karachi	32.1	34.0	170.4	75	0.02	7.3	6.1	7.7	10.3
Khanpur	38.4	39.5	197.8	71	21.60	3.8	3.3	1.7	1.7
Khuzdar	35.4	36.5	179.0	31	24.50	1.7	2.1	0.7	2.0
Kotli	32.8	35.0	161.4	79	49.40	3.8	3.3	0.7	1.7
Lahore	35.4	36.8	182.7	72	17.51	4.7	4.3	3.3	0.6
Larkana	38.8	41.0	197.3	62	0.01	1.5	1.7	4.3	3.1
Lasbella	36.1	38.0	183.3	67	1.01	7.0	3.6	1.3	4.9
Lower Dir	35.4	36.5	174.0	65	5.00	3.7	2.3	0.7	2.0
M.B Din	35.3	37.0	176.8	80	54.61	5.5	4.4	1.0	1.4
Malam Jabba	21.0	23.5	92.3	85	62.00	6.5	6.0	0.3	2.3
Mangla	34.2	36.3	175.1	75	23.30	4.8	4.9	0.0	4.3
Mir Khani	36.0	37.0	163.7	44	22.00	0.8	1.9	1.7	4.0
Moinjodaro	38.8	40.5	194.2	62	0.00	0.5	0.0	3.3	4.3
Multan (PBO)	37.1	39.5	196.0	65	25.01	4.3	4.0	7.3	8.3
Murree	22.9	24.1	103.2	87	31.32	3.3	7.7	0.0	0.3
Muzaffarabad	33.9	35.5	159.0	67	35.00	4.7	3.0	0.0	0.6
Nawabshah	38.9	40.5	194.8	60	2.70	5.7	3.7	6.7	10.0

Nokkundi	42.9	44.0	216.0	12	0.00	0.0	0.0	17.3	11.1
Okara	37.3	38.5	193.3	70	30.01	3.0	5.4	0.7	0.0
Padidan	38.7	40.0	193.3	67	0.01	2.6	3.6	2.0	1.7
Panjgur	38.8	39.5	187.3	30	0.00	0.3	0.4	2.3	8.6
Parachinar	29.5	31.0	136.4	67	28.00	5.2	5.0		3.4
Pasni	32.7	33.5	172.5	80	0.00	4.8	2.6	1.3	5.1
Pattan	36.4	38.0	172.0	51	31.00	5.0	3.1	0.0	0.9
Peshawar	34.6	36.0	168.9	75	7.61	5.7	3.8	0.7	2.7
Quetta	35.4	36.2	166.1	24	0.00	3.7	2.7	2.3	3.0
Rahim Yar Khan	39.7	41.3	202.7	61	0.00	2.8	2.7	0.7	1.7
Rawalakot	26.5	30.0	118.2	83	23.60	4.2	5.7	0.0	1.4
Rawalpindi	33.7	36.5	163.6	79	124.40	4.6	4.6	0.3	1.4
Rohri	39.6	42.0	197.8	58	0.00	2.2	2.0	2.3	1.4
Sahiwal	36.4	37.5	187.2	72	37.01	1.0	2.7	1.3	2.0
Saidu Sharif	33.5	35.0	156.8	71	32.00	4.2	2.7	0.0	0.0
Sialkot	34.2	35.5	174.4	75	40.81	5.5	3.7	1.5	3.4
Sibbi	41.2	44.0	191.4	58	13.00	3.7	3.0	1.3	3.7
Skardu	30.7	33.7	125.3	53	8.60	4.3	5.4	0.0	0.0
Tandojam	36.0	38.0	176.5	72	3.00	3.7	3.7	2.6	3.4
Usta.M	40.0	41.0	202.8	57	0.00	1.1	1.0	0.0	3.4
Zhob	36.6	40.0	181.3	52	5.00	0.7	2.4	3.5	6.4

*** 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)