

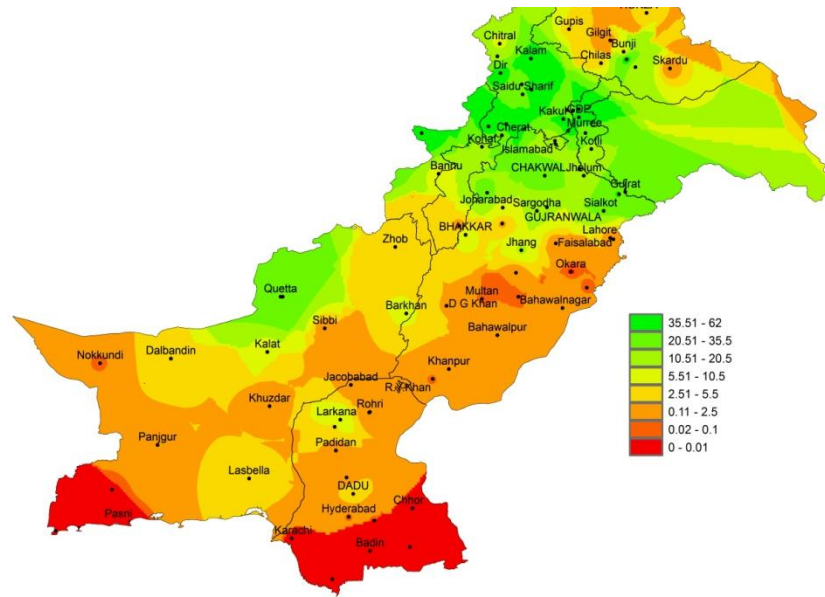
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the
Previous Week (9th April to 15th April, 2018)**



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Highlights of Past Weather (9th April to 15th April, 2018)

Slightly above normal day temperatures reported from most parts of the country.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall observed at most places in Punjab, Gilgit-Baltistan, Azad Jammu & Kashmir and Khyber Pakhtunkhwa during the previous week.
- Light 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 (9th April to 15th April, 2018)

Punjab

Light to moderate rainfall observed at most places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 33.8°C & 19.1°C respectively. For the recent week on average 151.3 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 1.7/2.5 Knots. During the previous week the highest amount of rainfall was recorded as 39.01 mm at Murree & highest maximum temperature was recorded as 42.3°C at Rahim Yar Khan.

Sindh

Light rainfall observed at scattered places in Sindh during the week. Weekly maximum and minimum temperatures recorded as 40.1°C & 23.3°C respectively. For the recent week, on average 188.9 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 44% and wind speed in the morning/evening recorded as 2.4/5.1 Knots. During the previous week the highest amount of rainfall was recorded as 9.02 mm at Larkana & highest maximum temperature was recorded as 45.5°C at Nawabshah.

Khyber Pakhtunkhwa

Light to moderate rainfall observed at most places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 25.8°C & 12.0°C respectively. For the recent week on average 100.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 1.3/3.6 Knots. During the previous week the highest amount of rainfall was recorded as 62.0 mm at Parachinar & highest maximum temperature was recorded as 37.0°C at D.I.Khan.

Balochistan

Light rainfall observed at scattered places in Balochistan during the week. Weekly maximum and minimum temperatures recorded as 32.4°C & 18.9°C respectively. For the recent week on average 144.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 1.8/6.4 Knots. During the previous week the highest amount of rainfall was recorded as 33.8 mm at Quetta & highest maximum temperature was recorded as 42.0°C at Turbat.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed at most places in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 23.2°C & 9.7°C respectively. For the recent week on average 96.8 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 0.8/2.6 Knots. During the previous week the highest amount of rainfall was recorded as 38.0mm at Garhi Dopatta & highest maximum temperature was recorded as 34.4°C at Kotli.

Past Weather for Major Agricultural Plains (9th April to 15th April, 2018)

Rawalpindi (Potohar region)

Rainfall reported as 16.1 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.0/2.4 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 30.6°C & for the recent week 126.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.0 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 1.2 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.6/3.0 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 35.0°C & for the recent week 160.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/2.0 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.2 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 38.6°C & for the recent week 166.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/2.3 Knots.

Usta Muhammad (Eastern Balochistan)

Rainfall reported as Trace (not measureable) from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.3/2.3 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 41.4°C & for the recent week 190.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/4.9 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 26.4 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 4.1/3.6 Oktas while, average relative humidity observed as 35%. Mean day time temperature recorded as 23.5°C & for the recent week 92.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.8/3.0 Knots.

Past Weather for Sub-Regional Agricultural Plains (9th April to 15th April, 2018)

Multan

Rainfall reported as 0.03 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 2.5/4.3 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 35.7°C & for the recent week 166.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.3/4.9 Knots.

Lahore

Rainfall reported as 1.41 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 4.5/3.0 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded as 33.5°C & for the recent week 154.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/2.6 Knots.

Zhob

Rainfall reported as 5.00 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 2.3/5.1 Oktas while, average relative humidity observed as 29%. Mean day time temperature recorded as 27.4°C & for the recent week 119.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.2/4.9 Knots.

Murree

Rainfall reported as 39.01 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.8/4.7 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 18.0°C & for the recent week 56.0 growing degree days accumulated

by the end of last week. Wind speed recorded in the morning/evening as 1.0/0.6 Knots.

D.I. Khan

Rainfall reported as 1.02 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.3/3.6 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 34.4°C & for the recent week 154.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/4.9 Knots.

Peshawar

Rainfall reported as 45.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.0/5.1 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 29.7°C & for the recent week 121.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/4.3 Knots.

Kalam

Rainfall reported as 45.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.8/5.1 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 16.9°C & for the recent week 30.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Gilgit

Rainfall reported as 0.51 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 4.2/6.1 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 24.6°C & for the recent week 83.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/5.1 Knots.

Skardu

Rainfall reported as 0.01 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 5.0/5.3 Oktas while, average relative humidity observed as 33%. Mean day time temperature recorded as 21.1°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/5.6 Knots.

Crop Situation for Major Agricultural Plains **(Based on data from Regional Agromet Centres)**

Potohar Region (Rawalpindi)

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

Central Punjab (Faisalabad)

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

Wheat (*Galaxy*); Very Good, Full Maturity stage in irrigated Conditions.

Lower Sindh (Tandojam)

There is presently no crop in the fields of RAMC Tandojam.

Land is being prepared for new crop.

Northern Baluchistan (Quetta)

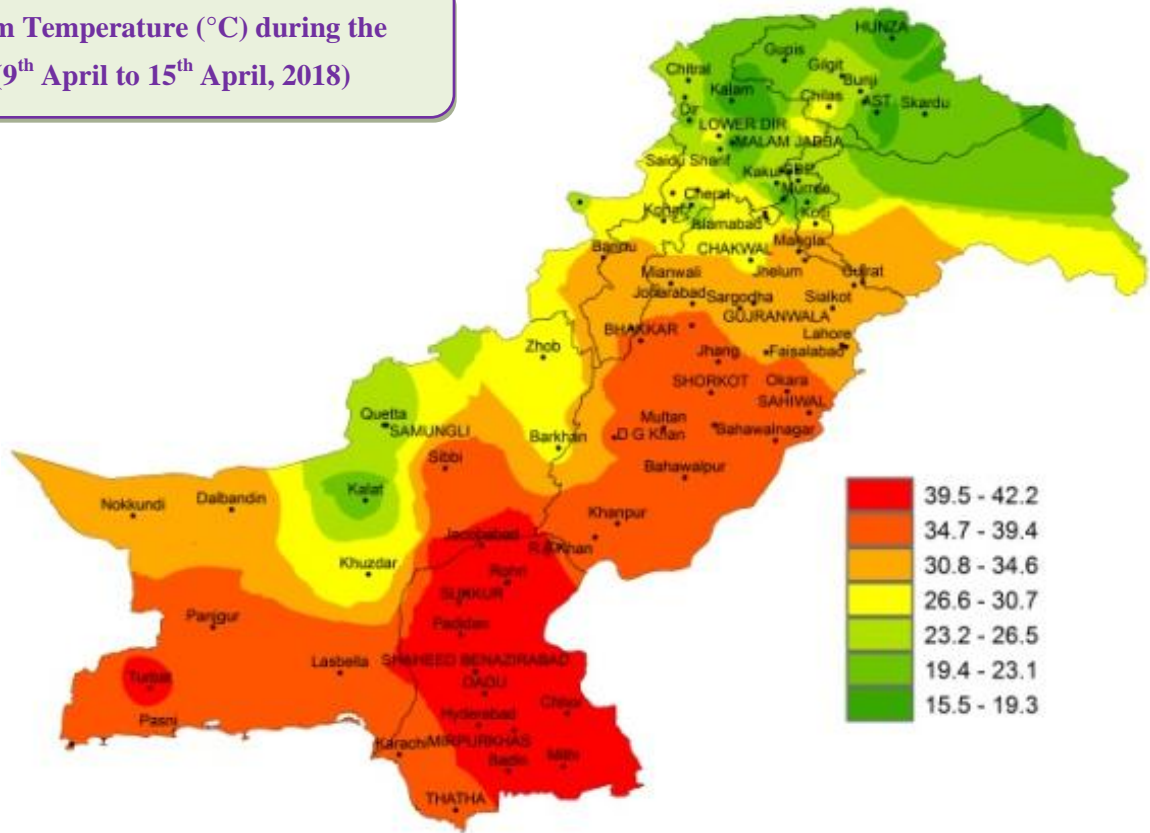
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

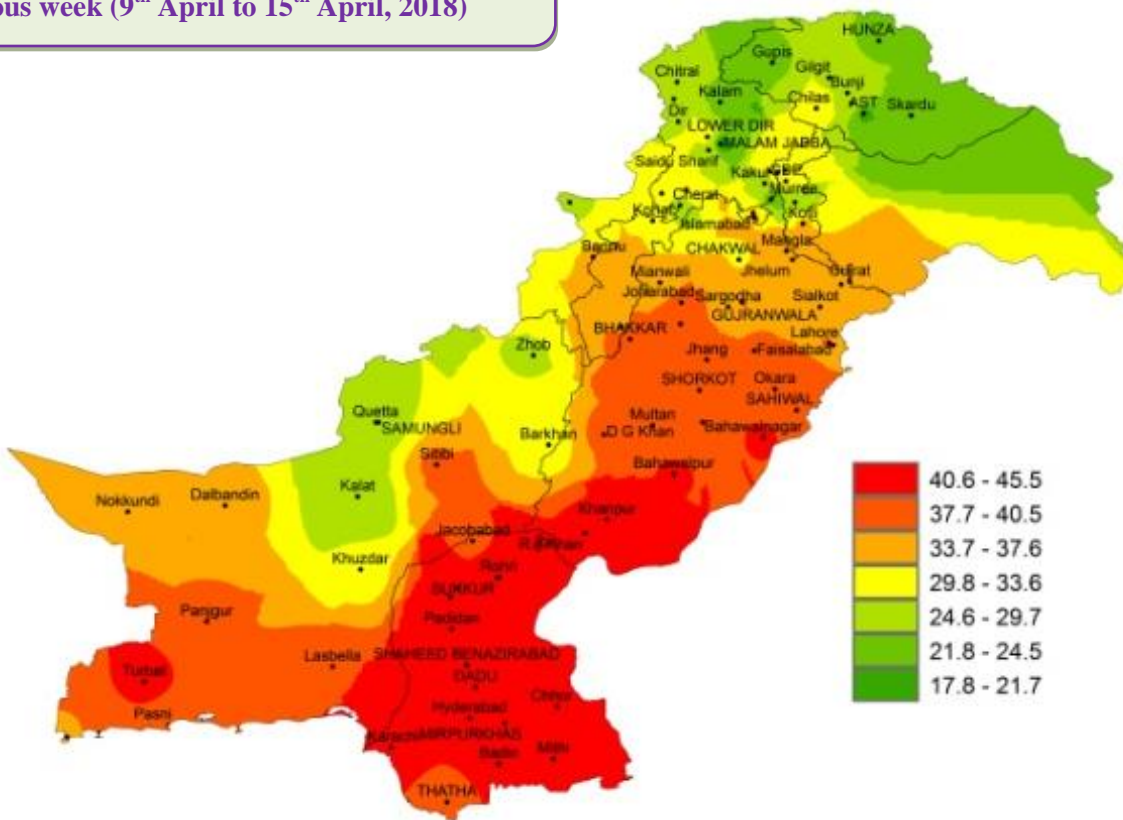
There is presently no crop grown in the fields of RAMC Usta Muhammad.

Wheat (*Galaxy*); Crop has been harvested.

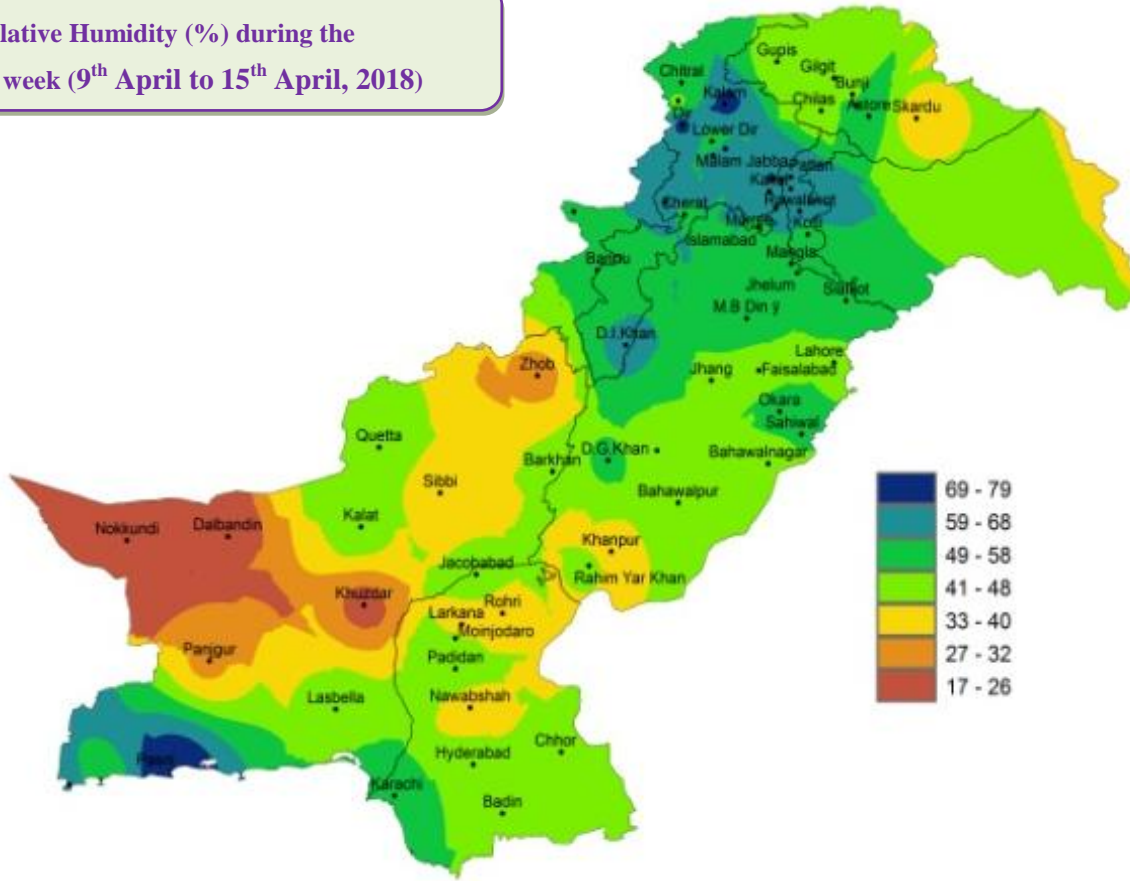
Mean Maximum Temperature (°C) during the Previous week (9th April to 15th April, 2018)



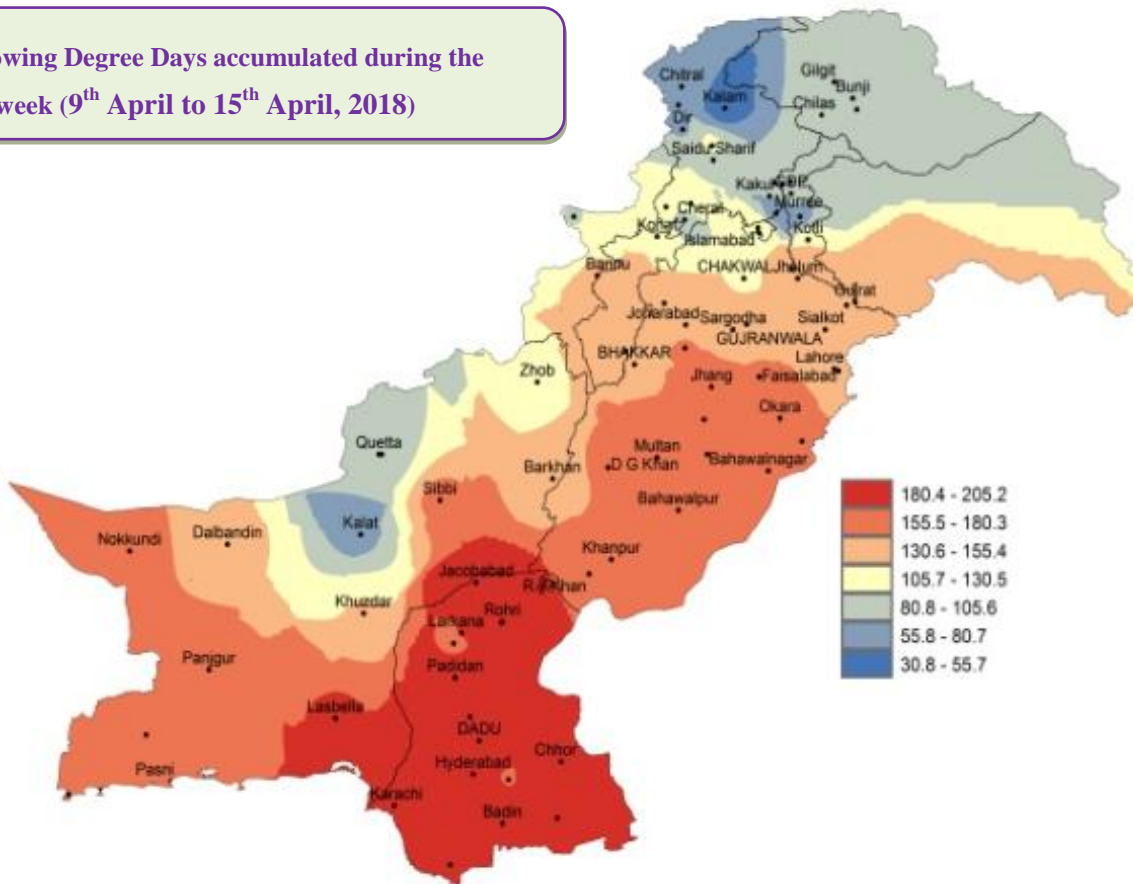
Highest maximum Temperature (°C) during the Previous week (9th April to 15th April, 2018)



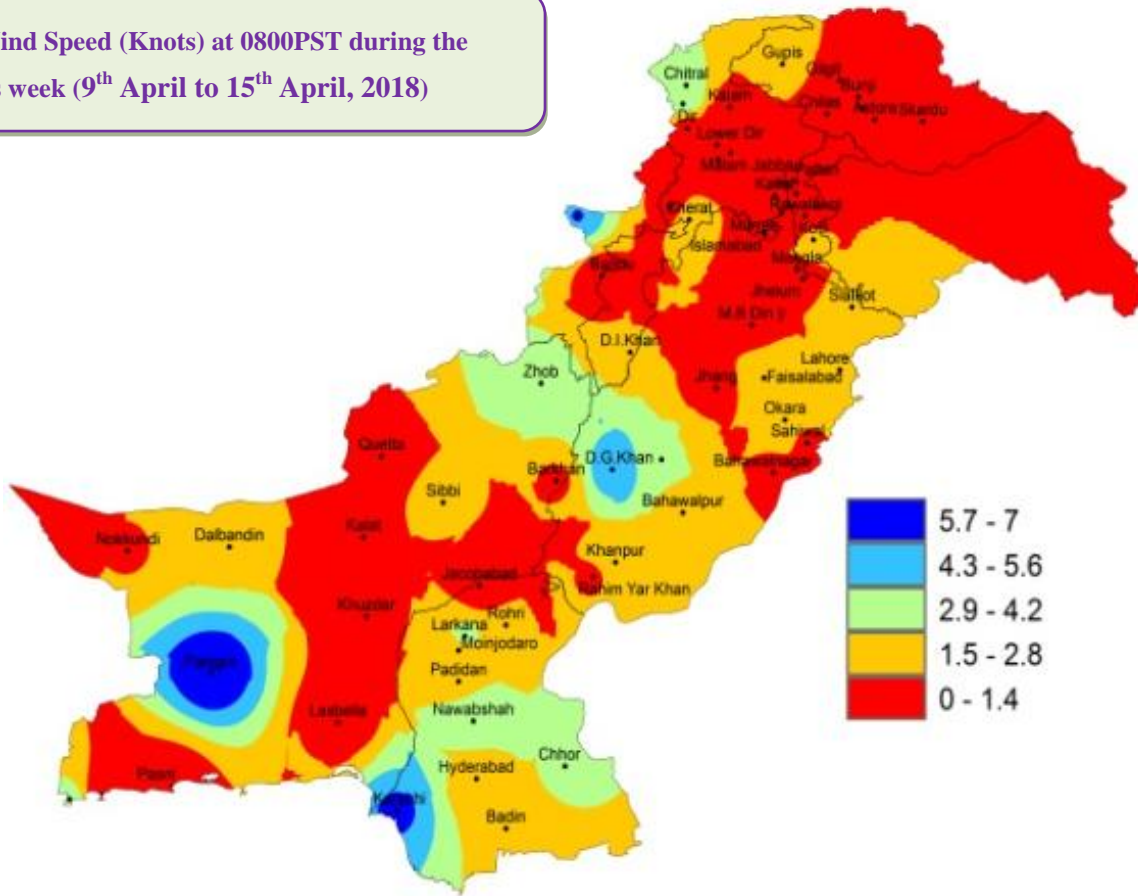
Mean Relative Humidity (%) during the Previous week (9th April to 15th April, 2018)



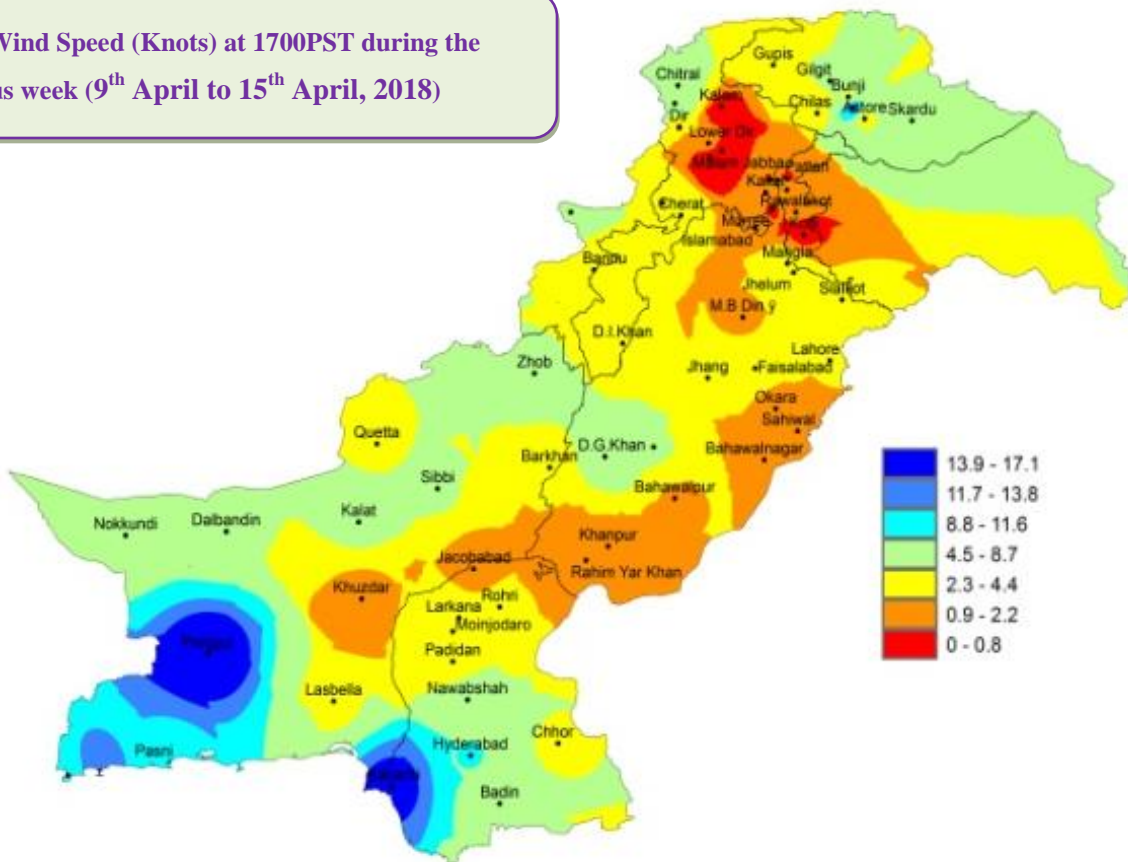
Total Growing Degree Days accumulated during the Previous week (9th April to 15th April, 2018)



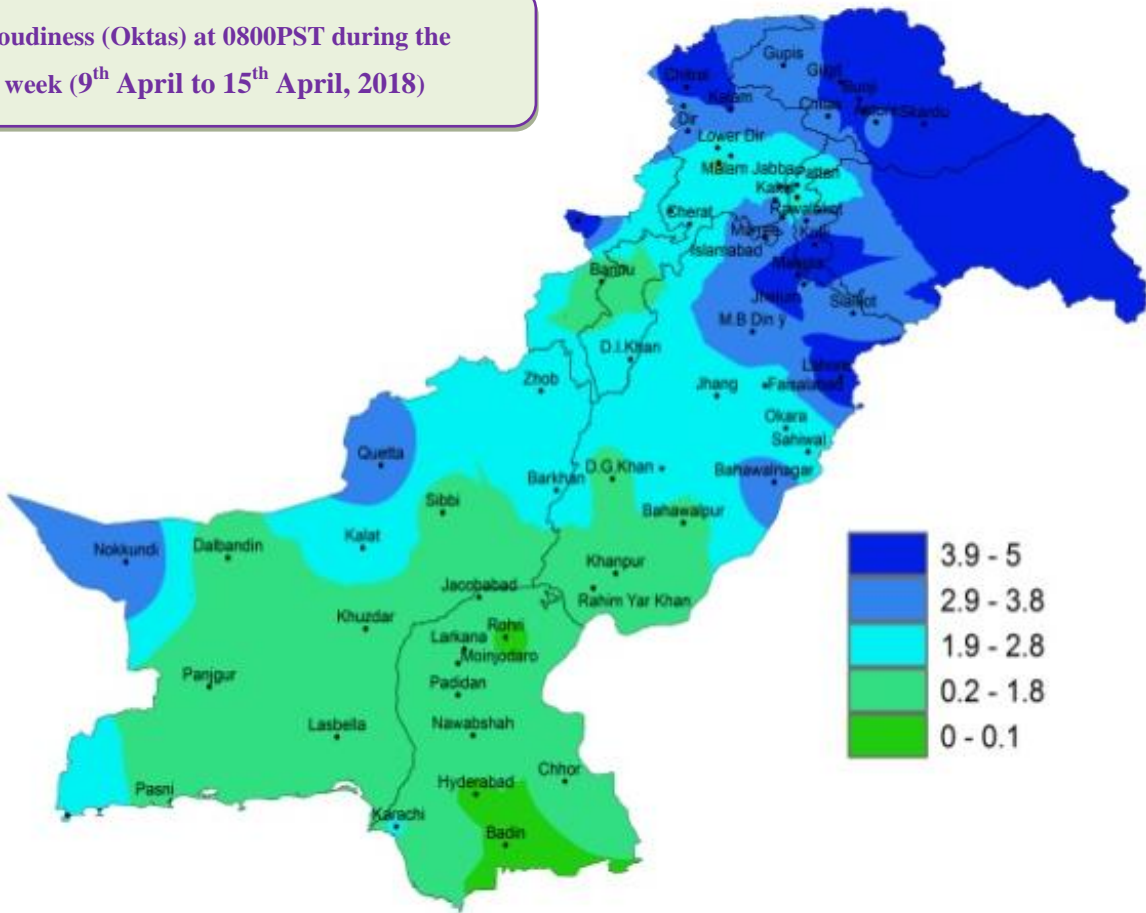
Mean Wind Speed (Knots) at 0800PST during the Previous week (9th April to 15th April, 2018)



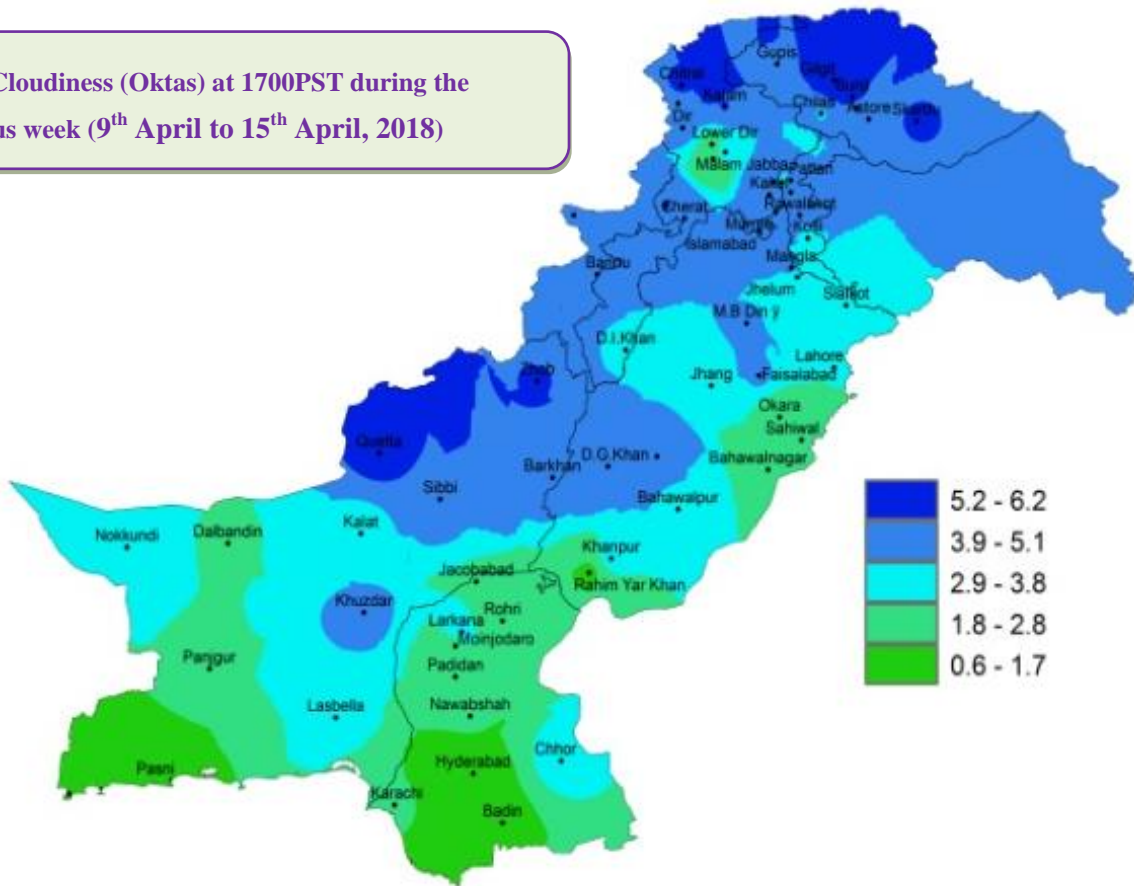
Mean Wind Speed (Knots) at 1700PST during the Previous week (9th April to 15th April, 2018)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (9th April to 15th April, 2018)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (9th April to 15th April, 2018)



Weekly Weather Advisory for Farmers**(16th April to 22nd April, 2018)**

A westerly wave is affecting upper and central parts of the country and likely to persist till Friday.

MONDAY**16-04-2018**

Rain-thundershower with gusty winds is expected at scattered places in Malakand, Hazara, Peshawar, Rawalpindi divisions, Islamabad, FATA, Gilgit-Baltistan and Kashmir, while at isolated places in Bannu, D.I.Khan, Kohat, Quetta, Zhob, Faisalabad, Sargodha, Gujranwala, Lahore divisions. Dry weather is expected elsewhere in the country.

TUESDAY**17-04-2018**

Rain-thundershower with gusty winds is expected at scattered places in Malakand, Hazara, Peshawar, Rawalpindi divisions, Islamabad, upper FATA, Gilgit-Baltistan and Kashmir, while at isolated places in Zhob, Bannu, Kohat, Sargodha, Gujranwala, Lahore, Faisalabad and Sahiwal divisions. Dry weather is expected elsewhere in the country.

WEDNESDAY**18-04-2018**

Rain-thundershower with gusty winds is expected at scattered places in Malakand, Hazara, Peshawar, Rawalpindi divisions, Islamabad, upper FATA, Gilgit-Baltistan and Kashmir, while at isolated places in Zhob, Kohat, Gujranwala, Lahore divisions. Dry weather is expected elsewhere in the country.

THURSDAY**19-04-2018**

Rain-thundershower with gusty winds is expected at isolated places in Malakand, Hazara, Peshawar, Bannu, Kohat, D.I.Khan, Quetta, Zhob, Kalat, D.G. Khan, Bahawalpur, Multan, Sargodha, Rawalpindi, Gujranwala, Lahore divisions, Islamabad, FATA, Gilgit-Baltistan and Kashmir. Dry weather is expected elsewhere in the country.

FRIDAY**20-04-2018**

Rain-thundershower with gusty winds is expected at scattered places in KP, Sargodha, Gujranwala, Rawalpindi divisions, Islamabad, FATA, Gilgit-Baltistan and Kashmir, while at isolated places in Faisalabad, Sargodha, Multan, D.G. Khan, Sahiwal, Lahore divisions. Dry weather is expected elsewhere in the country.

SATURDAY**21-04-2018**

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 Malakand, Hazara divisions, Gilgit-Baltistan and Kashmir.

SUNDAY**22-04-2018**

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

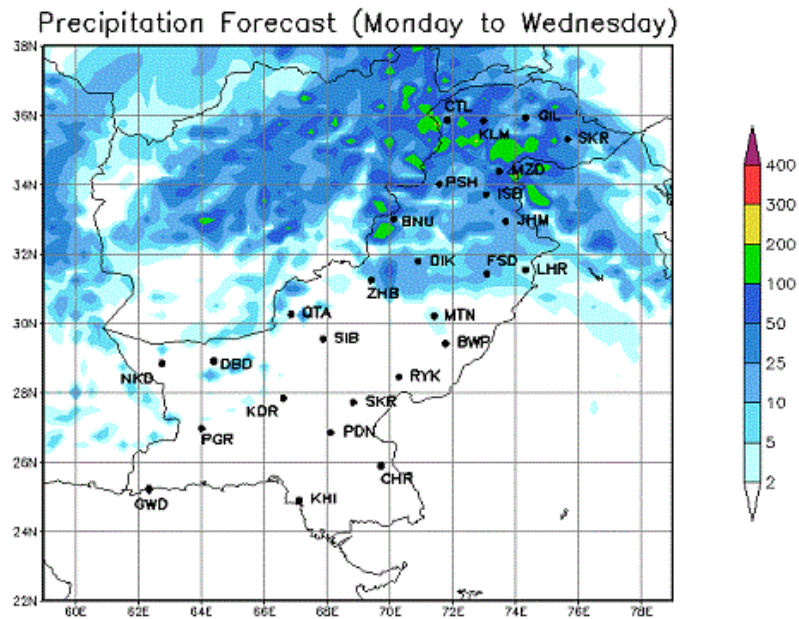
ADVISES FOR FARMERS

During the last week, light to moderate rainfall occurred in upper half of the country while hot and dry weather prevailed in rest parts. This may continue with almost the same pattern in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

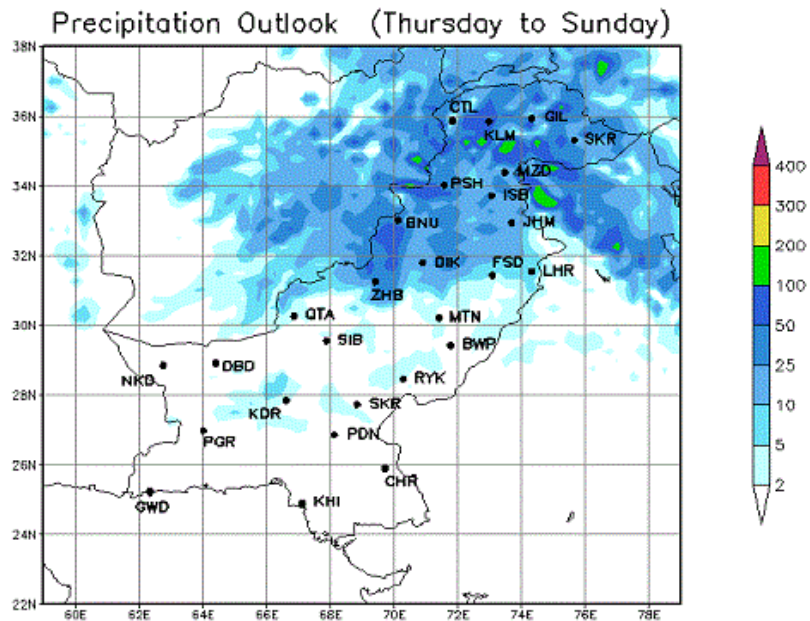
- Dust/sand storm may occur in areas of matured wheat crop, accordingly measures may be taken to preserve the grains and residue after harvesting.
- Farmers of Punjab and southern KP may schedule the harvesting of wheat crop in accordance with the prevailing weather conditions.
- Farmers of irrigated areas may irrigate the rest of crops as per requirement in accordance with the expected weather conditions.

Weather Outlook from 16th April to 22nd April, 2018

The forecast from 16th to 18th April, 2018 shows that light to moderate rainfall is expected in KP, GB, Kashmir and upper Punjab. However, dry weather is expected elsewhere.



The outlook from 19th to 22nd April, 2018 shows that light to moderate rainfall is expected in KP, GB, Kashmir, upper & central Punjab and northern Balochistan. However, dry weather may prevail in rest of the country.



National Weather Data of Selected Cities (Weekly Data from 9th April to 15th April, 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	16.6	20.3	***	50	9.00	3.5	4.4	1.0	2.6
Badin	40.1	41.0	198.8	46	0.00	0.0	1.1	2.0	4.9
Bahawalnagar	37.4	41.0	168.3	42	2.01	3.3	2.3	1.3	2.0
Bahawalpur	36.9	40.9	171.5	47	1.01	1.5	3.4	1.7	1.7
Balakot	25.7	30.0	92.0	70	29.20	2.7	5.3	0.0	0.3
Bannu	31.4	34.0	133.6	49	6.41	1.0	4.1	0.3	2.3
Barkhan	30.1	30.5	132.0	41	6.01	2.3	5.0	1.0	2.9
Bunji	24.8	29.4	97.0	43	1.81	5.0	6.3	0.3	2.6
Cherat	23.1	26.0	87.3	57	27.00	2.3	4.1	2.7	2.6
Chhor	42.2	42.5	205.1	42	0.00	0.2	3.6	3.2	3.7
Chilas	27.0	32.0	106.0	40	4.00	3.5	3.7	0.0	2.6
Chitral	23.9	26.0	76.3	55	7.02	4.2	5.1	3.3	6.9
D.G.Khan	34.9	39.0	163.5	50	2.41	1.5	4.6	5.3	2.6
D.I.Khan	34.4	37.0	154.3	62	1.02	2.3	3.6	1.7	4.9
Dalbandin	34.0	36.5	142.8	24	5.10	1.3	2.7	2.0	6.0
Dir	22.6	29.0	78.8	71	44.00	3.2	4.9	0.0	2.0
Drosh	24.6	28.0	77.7	45	17.30	3.5	5.0	4.0	8.7
Faisalabad	35.0	37.5	160.8	52	1.20	0.6	3.0	0.5	2.0
Garidopatta	26.0	32.0	98.1	67	38.00	1.7	5.0	0.3	2.3
Gawader	35.9	38.0	178.5	51	0.00	2.2	0.9	0.0	12.6
Gilgit	24.6	29.0	83.5	42	0.51	4.2	6.1	0.7	5.1
Gupis	19.6	22.5	***	41	4.00	2.8	5.0	2.7	4.0
Hyderabad	40.0	41.0	187.1	43	0.00	0.0	0.6	1.7	9.1

Islamabad	30.1	33.5	121.2	56	15.02	3.5	4.7	0.0	1.4
Jacobabad	39.5	40.0	186.3	43	0.21	0.5	2.7	0.0	0.9
Jhang	35.4	38.8	161.2	47	11.20	2.2	3.4	0.7	2.3
Jhelum	33.4	37.6	141.7	49	13.21	3.5	3.0	1.0	3.1
Jiwani	34.9	37.0	177.8	61	0.00	2.5	1.4	3.7	10.9
Kakul	23.4	28.0	81.3	68	39.00	2.8	4.3	0.3	1.7
Kalam	16.9	23.0	30.8	71	45.00	3.8	5.1	0.0	0.0
Kalat	22.1	25.0	71.0	46	6.02	2.7	2.9	1.0	5.4
Karachi	37.3	41.0	185.9	54	0.00	1.8	1.9	6.0	15.7
Khanpur	38.6	41.5	179.2	37	1.60	1.5	3.3	1.7	1.4
Khuzdar	28.8	30.5	132.8	24	0.30	0.5	4.1	0.0	0.9
Kotli	30.9	34.4	132.0	51	16.00	4.5	3.7	2.0	0.0
Lahore	33.5	37.8	154.8	46	1.41	4.5	3.0	1.7	2.6
Larkana	39.5	41.0	180.5	38	9.02	0.5	3.2	3.3	3.7
Lasbella	38.9	40.3	184.9	45	5.02	0.7	3.3	0.0	3.1
Lower Dir	29.1	32.5	115.8	56	22.00	2.7	2.4	1.3	2.0
M.B Din	33.0	37.7	143.1	55	10.60	3.5	3.9	0.7	1.7
Malam Jabba	15.2	17.5	***	59	60.00	2.2	3.6	0.0	0.0
Mangla	32.4	36.2	137.9	53	17.50	4.5	4.1	1.3	3.1
Mir Khani	22.6	27.4	81.2	59	47.00	3.8	3.7	0.5	14.6
Moinjodaro	39.7	42.0	178.3	41	5.00	0.3	2.6	2.0	4.0
Multan(PBO)	35.7	38.5	166.9	42	0.03	2.5	4.3	3.3	4.9
Murree	18.0	21.8	56.0	60	39.01	2.8	4.7	1.0	0.6
Muzaffarabad	26.6	31.5	97.9	61	27.00	2.5	2.9	1.3	2.9
Nawabshah	40.0	45.5	184.4	35	1.60	0.8	1.9	4.0	6.3
Nokkundi	34.1	37.0	161.5	17	0.03	3.6	3.4	1.2	6.0

Okara	35.3	38.5	165.4	52	0.00	2.2	1.7	1.7	1.1
Padidan	41.3	44.5	189.5	47	0.02	0.7	2.4	2.3	2.9
Panjgur	35.3	38.0	168.0	30	1.00	1.0	2.6	7.0	17.1
Parachinar	26.2	28.0	104.5	55	62.00	4.5	4.9	5.7	6.4
Pasni	36.0	38.0	178.0	79	0.00	0.8	0.9	0.0	9.3
Pattan	26.1	33.0	104.8	60	50.00	2.2	4.0	0.0	0.0
Peshawar	29.7	33.4	121.9	61	45.00	2.0	5.1	0.3	4.3
Quetta	23.5	25.4	92.9	35	26.40	4.1	3.6	2.8	3.0
Rahim Yar Khan	38.9	42.3	177.4	41	0.00	0.2	1.4	1.3	1.3
Rawalakot	20.9	25.0	63.3	68	30.90	3.0	3.9	0.0	1.1
Rawalpindi	30.6	34.0	126.0	58	16.10	3.0	2.4	0.0	1.0
Rohri	39.6	41.5	185.5	38	2.00	0.0	1.9	1.7	1.4
Sahiwal	34.9	38.4	158.2	49	0.02	2.2	2.1	1.3	0.0
Saidu Sharif	25.9	29.5	90.5	59	23.00	1.5	1.9	0.0	2.9
Sialkot	32.1	34.8	138.5	54	38.00	3.5	3.6	2.3	4.9
Sibbi	38.1	39.0	168.8	32	0.02	1.3	4.9	2.0	5.3
Skardu	21.1	24.2	***	33	0.01	5.0	5.3	0.0	5.6
Tandojam	38.6	40.5	166.3	49	0.00	0.0	0.2	0.8	2.3
Usta.M	41.1	42.5	190.1	48	0.01	0.3	2.3	0.3	4.9
Zhob	27.4	29.0	119.5	29	5.00	2.3	5.1	4.2	4.9

*** 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)